THE SOLYNDRA FAILURE: VIEWS FROM DEPARTMENT OF ENERGY SECRETARY CHU

HEARING

BEFORE THE

SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

OF THE

COMMITTEE ON ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES

ONE HUNDRED TWELFTH CONGRESS

FIRST SESSION

NOVEMBER 17, 2011

Serial No. 112–104

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C O N T E N T S

WITNESS

SUBMITTED MATERIAL

THE SOLYNDRA FAILURE: VIEWS FROM DEPARTMENT OF ENERGY SECRETARY CHU

THURSDAY, NOVEMBER 17, 2011

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:03 a.m., in Room 2123, Rayburn House Office Building, Hon. Cliff Stearns (chairman of the subcommittee) presiding.

Members present: Representatives Stearns, Terry, Myrick, Sullivan, Murphy, Burgess, Blackburn, Bilbray, Gingrey, Scalise, Griffith, Barton, Upton (ex officio), DeGette, Schakowsky, Ross, Markey, Green, Christensen, Dingell, and Waxman (ex officio).

Also present: Representatives Pompeo and Kinzinger.

Staff present: Carl Anderson, Counsel, Oversight; Michael Beckerman, Deputy Staff Director; Allison Busbee, Legislative Clerk; Stacy Cline, Counsel, Oversight; Todd Harrison, Chief Counsel, Oversight and Investigations; Kirby Howard, Legislative Clerk; Alexa Marrero, Communications Director; Carly McWilliams, Legislative Clerk; Andrew Powaleny, Assistant Press Secretary; Krista Rosenthall, Counsel to Chairman Emeritus; Alan Slobodin, Deputy Chief Counsel, Oversight; Sam Spector, Counsel, Oversight; Peter Spencer, Professional Staff Member, Oversight; John Stone, Counsel; James Thomas, Policy Coordinator, Oversight; Kristin Amerling, Minority Chief Counsel and Oversight Staff Director; Alvin Banks, Assistant Clerk; Jeff Baran, Minority Senior Counsel; Phil Barnett, Minority Staff Director; Stacia Cardille, Minority Counsel; Brian Cohen, Minority Investigations Staff Director and Senior Policy Advisor; Karen Lightfoot, Minority Communications Director and Senior Policy Advisor; and Matt Siegler, Minority Counsel.

OPENING STATEMENT OF HON. CLIFF STEARNS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. STEARNS. Good morning, everybody. We will open the subcommittee hearing of Oversight and Investigations on the Solyndra failure and views from the Department of Energy Secretary Chu.

My colleagues, we welcome this hearing of the Subcommittee on Oversight and Investigations to further examine the Department of Energy's review and approval for the $535 million loan guarantee to Solyndra as well as its repeated efforts to keep this company atop President Obama's green-jobs pedestal. While our investigation continues, it is readily apparent that senior officials in the administration put politics before the stewardship of taxpayers' dollars.

My colleagues, we have methodically investigated the circumstances surrounding Solyndra's failure for 9 months now and have followed the facts every step of the way. Our goal is to determine why the Department of Energy and the administration tied themselves so closely to Solyndra and why they were so desperate to repeatedly prop up this company. Why did DOE make these bad decisions? And what can we do to prevent a waste of taxpayer dollars in the future?

But as our investigation has unfolded, many more questions have emerged about the loan guarantee to Solyndra, the subsequent restructuring and subordination of the taxpayers' money, and the extent of the White House involvement. So, today, we are focused on the loss of $535 million of taxpayers' money.

When DOE was reviewing the Solyndra application at the end of the Bush administration, too many issues with the parent company's cash flow and liquidity remained unresolved, leading them to end discussions with Solyndra and remand the application itself.

Later that month, President Obama was inaugurated, and Secretary Chu took over the reins of the Department of Energy. He implemented an acceleration policy for the loan guarantee reviews. And despite the deal posing significant financial problems, Solyndra was labeled a litmus test for the program's ability to fund good projects—quickly, too.

Secretary Chu and Vice President Biden's ribbon-cutting ceremony was scheduled before DOE even presented the final deal to OMB. OMB staff did not feel as though they had sufficient time to conduct adequate due diligence, and their concerns about models showing Solyndra running out of cash in September 2011, prophetically, were apparently ignored.

Only 6 months after the loan closed, Solyndra's financial problems became increasingly severe. Nonetheless, President Obama visited Solyndra in May of 2010 and proclaimed, quote, "The true engine of economic growth will always be companies like Solyndra," end quote.

It is important to understand how Secretary Chu addressed these concerns and the extent of authority he was granted to make sure this company, so closely connected with the fate of President Obama's green-jobs agenda, ultimately succeeded. In the fall of 2010, just 1 year after the loan closed, Solyndra had basically flatlined and started to default on the terms of the loan. Documents show DOE granting the company several waivers, including waivers from Davis-Bacon requirements, and desperately trying to figure out ways to keep it afloat.

In early December, after several lengthy negotiation sessions with Solyndra's primary investors and despite clear language in the statute barring them to from doing so, DOE made a last-minute offer that would subordinate taxpayers with regard to the first $75 million recovered in the event of liquidation. We have since uncovered serious disagreements within the administration about not only the legality of this arrangement but whether it was a good deal for anyone involved but the rich hedge-fund investors.

As I said before, if Solyndra really is a litmus test, we have a much bigger problem on our hands. Two of the first three deals approved under Secretary Chu's acceleration policy have now blown up and filed for bankruptcy. GAO has serious concerns about DOE's ability to monitor the loans. The White House itself now has initiated a review of the portfolio. No one has admitted any fault whatsoever, and the President and our Democrat colleagues just shrug it off and say, "Hey, sometimes things just don't work out," end quote.

The administration is still refusing to allow DOE and OMB witnesses to testify under oath. And OMB refuses to make some important witnesses available to us at all, with no one from the administration taking responsibility.

With that, that concludes my opening statement, and I recognize my distinguished colleague, Ms. DeGette from Colorado.

[The prepared statement of Mr. Stearns follows:]

Opening Statement of the Honorable Cliff Stearns
Chairman, Subcommittee on Oversight and Investigations
"The Solyndra Failure: Views from DOE Secretary Chu"
November 17, 2011
(As Prepared for Delivery)

We convene this hearing of the Subcommittee on Oversight and Investigations to further examine the Department of Energy's review and approval of the $535 million loan guarantee to Solyndra, as well as its repeated efforts to keep this company atop President Obama's green jobs pedestal. While our investigation continues, it is readily apparent that senior officials in the Administration put politics before the stewardship of taxpayer dollars.

We have been methodically investigating the circumstances surrounding Solyndra's failure for nine months now and have followed the facts every step of the way. Our goal is to determine why DOE and the administration tied themselves so closely to Solyndra, and why they were so desperate to repeatedly prop this company up. Why did DOE make these bad decisions, and what can we do to prevent such a waste of taxpayer dollars in the future? But as our investigation has unfolded, many more questions have emerged about the loan guarantee to Solyndra, the subsequent restructuring and subordination of the taxpayer's money, and the extent of the White House's involvement. Today we are focused on the loss of $535 million in taxpayer dollars.

When DOE was reviewing the Solyndra application at the end of the Bush Administration, too many issues with the parent company's cash flow and liquidity remained unresolved, leading them to end discussions with Solyndra and remand the application. Later that month, President Obama was inaugurated and Secretary Chu took over the reins at DOE. He implemented an acceleration policy for the loan guarantee reviews and, despite the deal posing significant financial problems, Solyndra was labeled a litmus test for the program's ability to fund good projects quickly. Secretary Chu and Vice President Biden's ribbon cutting ceremony was scheduled before DOE even presented the final deal to OMB. OMB staff did not feel as though they had sufficient time to conduct adequate due diligence and their concerns about models showing Solyndra running out of cash in September 2011 were apparently ignored. Only six months after the loan closed, Solyndra's financial troubles became increasingly severe. Nonetheless, President Obama visited Solyndra in May 2010 and proclaimed "the true engine of economic growth will always be companies like Solyndra."

It is important to understand how Secretary Chu addressed these concerns and the extent of authority he was granted to make sure this company—so closely connected with the fate of President Obama's green jobs agenda—ultimately succeeded. In the fall of 2010, just one year after the loan closed, Solyndra had basically flat-lined and started to default on the terms of the loan. Documents show DOE granting the company several waivers, including waivers from Davis-Bacon requirements, and desperately trying to figure out ways to keep it afloat. In early December, after several lengthy negotiating sessions with Solyndra's primary investors and, despite clear language in the statute barring them from doing so, DOE made a last minute offer that would subordinate taxpayers with regard to the first $75 million recovered in the event of liquidation. We have since uncovered serious disagreements within the administration about not only the legality of this arrangement but whether it was a good deal for anyone involved but the rich hedge fund investors.

As I've said before, if Solyndra really is the litmus test, we have a much bigger problem on our hands. Two of the first three deals approved under Secretary Chu's acceleration policy have now blown up and filed for bankruptcy. GAO has serious concerns with DOE's ability to monitor the loans, the White House has now initiated a review of the portfolio, no one has admitted any fault whatsoever, and the president and our Democrat colleagues just shrug and say, "Hey, sometimes things don't work out." The Administration is still refusing to allow DOE and OMB witnesses to testify under oath, and OMB refuses to make some important witnesses available at all. Will no one from this Administration take responsibility?

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Ms. DEGETTE. Thank you.

Before I start my opening statement, Mr. Chairman, which witnesses has the White House refused to produce to testify under oath? Please give me their names.

Mr. STEARNS. We will be glad to give you a list, and certainly——

Ms. DEGETTE. If I could have a list before——

Mr. STEARNS. Sure.

Ms. DEGETTE [continuing]. The conclusion of this hearing——

Mr. STEARNS. We will be glad to give it to you.

Ms. DEGETTE [continuing]. We will use our exercise to get those witnesses. Thank——

Mr. STEARNS. Just between you and me, I think you know.

Ms. DEGETTE [continuing]. You very much. No, I would like to know, please. Thank you.

OPENING STATEMENT OF HON. DIANA DEGETTE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF COLORADO

Now, Mr. Secretary, I would like to welcome you and thank you for joining us today. Mr. Waxman and I have been urging the majority for some number of weeks now to have you over to discuss the important and legitimate issues relating to the Solyndra loan guarantee and the broader issue of the efficacy of loan guarantees for solar energy.

This investigation, we all believe, is of critical importance to the American public, both so we can get to the bottom of what happened to over half a billion dollars of taxpayer money in the short term and also to ensure the knowledge we gain from this situation can inform our efforts to drive American clean energy innovation for the long term.

Unfortunately, instead of conducting a serious inquiry into the facts relating to Solyndra and the lessons we can learn from this case, the majority, to date, as evidenced by my colleague's opening statement, has focused on firing partisan broadsides at the Obama administration. For example, 2 weeks ago, the committee created an unnecessary and unprecedented subpoena battle with the White House, despite good-faith efforts on the part of the White House to negotiate an accommodation to produce information regarding key committee concerns in the investigation. And then, last week, when the White House did produce documents, the majority selectively released to the press three emails that presented a distorted account of Mr. Kaiser's activities while withholding documents and communications, as well as statements by Mr. Kaiser in his interview with both Democratic and Republican staff, that directly contradicted the majority's interpretation.

But let me be clear: None of us on my side of the aisle are here to defend or to apologize for the actions of anyone in the administration or in the White House in particular. In my 15 years on this committee, we have had a strong tradition of thorough and meaningful bipartisan investigations. And as ranking member of this distinguished subcommittee, it had been my hope that we could have continued that tradition in order to fulfill our oversight duties to the American people. Unfortunately, this has not been the case.

The point of this inquiry should not be to score partisan victories or to smear individuals who happen to support one political party over the other. What we should be trying to do is figure out what happened with the Solyndra loan guarantee so we can bring accountability to the American people and improve our ability to advance the United States as a leader in the clean energy market.

Toward that end, I hope the Secretary's appearance here can provide relevant information on several key issues that we are allegedly investigating.

First, we need to examine whether appropriate due diligence occurred before DOE's September 2009 approval of the loan guarantee. Committee staff recently conducted interviews of key former and current DOE officials who were involved with the loan guarantee decisions, including Steve Isakowitz, who was appointed by President Bush and served as chief financial officer from July 2007, under the Bush administration, through July 2011, under the Obama administration.

Mr. Isakowitz told the committee staff that he believed the DOE award of a loan guarantee to Solyndra was based on the merits and that Secretary Chu did not ask anyone to cut corners on the decision. Other DOE officials who were interviewed made similar statements. I am looking forward to hearing the Secretary's perspective on the process that led to the Solyndra loan guarantee award.

Second, we need to look at whether DOE exercised good judgment by restructuring the loan guarantee and subordinating part of the government's interest in early 2011 when Solyndra was verging on default. Some members of this committee have alleged that subordination violates the Energy Policy Act. To help the committee assess this issue, we asked a former DOE general counsel to review DOE's legal rationale for subordination.

The former DOE general counsel concluded the analysis was reasonable, stating, quote, "I conclude from the statute, the loan guarantee regulations, and DOE's prior interpretations of Section 1702 that, had it expressly considered the question of its authority to subordinate its guaranteed debt in a post-restructuring before the Solyndra default situation arose, DOE likely would have reached the same conclusion reflected in the opinion and that its conclusion is legally supported," end quote.

Mr. Chairman, I ask unanimous consent that this letter be included in the record today.

Mr. STEARNS. So ordered.

Ms. DEGETTE. Thank you.

[The letter follows:]

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November 10, 2011

The Honorable Henry A. Waxman
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Re: Energy Policy Act of 2005 Section 1702 Interpretation

Dear Congressman Waxman:

The letter responds to the request made by your staff to provide you with my views concerning the interpretation of Section 1702 of the Energy Policy Act of 2005, focusing specifically on the question of whether Section 1702 of the Act gives the Department of Energy ("DOE") the authority to subordinate a guaranteed loan to other debt incurred by a project in a post-default, restructuring situation. In particular, I was asked to comment on whether the February 15, 2011, opinion of Susan Richardson, Chief Counsel of the Loan Programs Office, entitled Solyndra Restructuring (hereafter referred to as the "Opinion") is supported by the statute.

As I explained to your staff in connection with responding to this request, I have no confidential information about the facts of the Solyndra loan guarantee, and I have not had access to the Solyndra loan guarantee documents. My knowledge of the matter comes from what has been publicly reported. In addition, while I have represented several clients in DOE loan and loan guarantee matters, I have not had occasion previously to consider the question of DOE's authority to subordinate a guaranteed loan in a restructuring. Finally, as I also explained to your staff, Susan Richardson is someone whom I know. I have not, however, discussed the Committee's request for my views or the substance of what follows with Ms. Richardson or anyone else at DOE.

I have concluded that the Opinion is supported both by the statute and by DOE's interpretation of Section 1702 as reflected in 10 CFR Part 609, the regulations governing the loan guarantee program, and the associated rulemaking proceedings. (It is noteworthy that the initial rulemaking was concluded during the prior Administration, and I believe that the subsequent amendments were also concluded before the Solyndra loan restructuring issues arose.) The Opinion is also supported by commercial practice with respect to the restructuring of loans that are in default.

Starting with the statute itself, Section 1702(d)(3) states: "The obligation shall be subject to the condition that the obligation is not subordinate to other financing." Had Congress sought to prohibit subordination of a guaranteed obligation at any time, under any circumstances, one might expect the provision to be phrased in more definitive terms, such as: "The obligation shall not be subordinated to other financing." Three aspects of Section 1702(d)(3) suggest that Congress had a more limited intent. First, Section

1703(d)(3) is presented as one of three conditions that must be met prior to the issuance of a loan guarantee. The three conditions are presented as determinations the Secretary must make before issuing the loan guarantee. This is reinforced by the phrasing "the obligation is not subordinate to other financing." The use of the present tense "is" suggests a requirement at a particular point in time, i.e., the point at which the guarantee is issued. Finally, I agree with the Opinion that the use of the term "condition" as it appears in the context of Section 1702(d)(3) is reasonably understood to refer to a "condition precedent," that is a condition that must be met prior to issuance of the guarantee.

I find it significant that DOE plainly understood Section 1702(d)(3) in this light when it undertook the rulemaking to implement the loan guarantee program in 2007. In 10 CFR 609.10(d), DOE set out a long list of requirements that DOE must ensure are satisfied "[p]rior to the execution of a Loan Guarantee Agreement," that is, conditions precedent. Included in that list were the statutory requirements set out Section 1703(d)(1), (d)(2) and – of interest here – (d)(3). Following the structure of the statute, the rule used the present tense "is," describing the required condition as: "Any Guaranteed Obligation is not subordinate to any loan or other debt obligation. . . ." 10 CFR 609.10(d)(13).[1] A requirement that must be satisfied as a condition precedent to the issuance of a loan guarantee is not necessarily a requirement that must prevail regardless of what occurs thereafter, and neither the statute nor the regulations elsewhere state that the non-subordination requirement must be met at all times.

DOE repeated this understanding of the statute as distinguishing between what is required before a loan guarantee is issued and what requirements apply in the event of default in a 2009 rulemaking amending 10 CFR Part 609: "section 1702(d) addresses certain threshold requirements that must be met before the guaranty is made; and section 1702(g) addresses the Secretary's rights in the event of default of the loan." 74 Fed. Reg. 63544, 63545 (2009). DOE went on to note that the structure of the statute "key[ed] its particular provisions to the sequence of stages that are foreseeable in the loan guarantee relationship." Id. It is noteworthy that Section 1702(g), which deals with default, does not contain language prohibiting subordination.

Two other aspects of DOE's loan guarantee rulemaking provide indirect support for the conclusion that the non-subordination requirement, which clearly must be met before a loan guarantee is issued, does not prohibit DOE from agreeing to subordination if the borrower defaults and a loan must be restructured. The regulations provide that, where the loan guarantee agreement or any applicable intercreditor agreement so provides, in the event of default, a lender and the Secretary may agree to a workout strategy and/or a plan of liquidation. 10 CFR 609.15(h). There are no limitations in that provision on what a workout strategy might include. In particular, the rule does not preclude subordination of the guaranteed debt as a component of a workout strategy.

Finally, it is significant in my analysis that, in amending the loan guarantee rules in 2009, DOE eliminated a restriction that would have required it to hold a first lien position on all assets of a project receiving a loan guarantee. In making that change, DOE explained that its "original reading of the statue was in tension with the financing structure of many commercial transactions in the energy sector," involving for example ownership by tenancy-in-common or co-lenders or co-guarantors – commercial structures that some who had planned to apply for loan guarantees needed to employ if their projects were to go forward. DOE concluded that the statute did not strictly require the first lien requirement and that imposing a restriction that was not consistent with commercial practices would have had the effect of

1 As originally adopted in 2007, 10 CFR 609.10(d)(13) also required that DOE have a first lien on all project assets. That requirement was removed in 2009, as discussed below.

limiting the ability of the loan guarantee program to serve its intended purposes. 74 Fed. Reg. at 63545-46.

Likewise here, interpreting the statute to prohibit subordination of the guaranteed debt, even where additional new money is necessary as part of an effort to reduce the losses associated with a default, would not be consistent with commercial practice. A lender providing additional funding to a transaction already in default routinely insists that its debt be superior to earlier incurred debt because such later debt is being incurred at a point at which it has become apparent that the risk associated with a project is higher than anticipated at the time of the original financing and neither the existing lenders nor the equity has elected to provide the additional funds. Given this commercial expectation that, in a default situation, earlier incurred debt would expect to be subordinate to later incurred debt, had DOE reached any other conclusion about its authority under Section 1702, it would have sharply constrained DOE's ability to undertake any meaningful restructuring of guaranteed loans, a result that would likely increase taxpayer risk from projects that run into unexpected financial difficulties. While in the case of Solyndra, even the additional money injected into the project as a result of the restructuring proved to be insufficient to save the project, one would expect that in other cases, an infusion of additional debt could help to rescue a project and thereby protect taxpayer interests.

In short, I conclude from the statute, the loan guarantee regulations, and DOE's prior interpretations of Section 1702 that, had it expressly considered the question of its authority to subordinate its guaranteed debt in a post-default restructuring before the Solyndra default situation arose, DOE likely would have reached the same conclusion reflected in the Opinion, and that its conclusion is legally supported.

I hope the foregoing analysis is helpful to you in your deliberations.

Very truly yours,

Mary Anne Sullivan

Mary Anne Sullivan

Partner
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Ms. DEGETTE. Along those lines, I would like to hear from Secretary Chu about the lessons we can learn from DOE's experience with restructuring the Solyndra loan guarantee.

Third, I would like to hear from the Secretary regarding the status of DOE's efforts to monitor the Solyndra loan guarantee and the extent to which this has evolved over his tenure. I hope the Secretary can give us insight into whether Solyndra made accurate representations to DOE throughout the loan guarantee process.

And, finally, given the majority's heavy emphasis on allegations relating to corruption, we also need to hear from the Secretary whether political fundraising by Mr. Kaiser or anyone else had any bearing on decisions relating to the Solyndra loan guarantee.

More broadly, I hope this three-ring circus leads us to a robust discussion relating to the state of our national energy policy and, in particular, renewable energy. This situation is an excellent opportunity for us to learn how to best develop and implement policies that provide U.S. innovators the support they need to make the United States a clean energy market leader.

Thank you very much, Mr. Chairman.

Mr. STEARNS. I thank my colleague.

I now recognize the full chairman of the Energy and Commerce Committee, the distinguished gentleman from Michigan, Mr. Upton.

OPENING STATEMENT OF HON. FRED UPTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. UPTON. Well, thank you, Mr. Chairman, for holding this hearing on the Department of Energy's role in the approval and subsequent restructuring of the Solyndra loan guarantee.

And welcome, Mr. Secretary.

The central focus of the investigation is to understand why DOE did and what it did and how we find ourselves with this taxpayer-funded debacle. The number of red flags about Solyndra that were raised along the way, many from within DOE, and either ignored or minimized by senior officials is astonishing. Before the loan guarantee was approved, DOE and OMB staff repeatedly questioned the financial health of Solyndra. And based on the rate it was burning through cash and other troubling issues, the truth is, the expert staff were, indeed, concerned that the company was bound to fail.

We have heard from President Obama and even from you, Mr. Secretary, that nobody had a crystal ball and no one could have predicted Solyndra's demise. But the truth is that DOE staff did predict this. One of the models reviewed by DOE staff specifically showed that Solyndra would run out of cash in September of 2011. And in March of 2010, just 6 months after the initial loan agreement was finalized, Solyndra's auditors echoed many of the same issues about working capital and recurring losses and warned that Solyndra was going to have problems staying afloat.

These concerns were not only shared by industry experts, they reached the highest levels of the West Wing. Yet, at DOE, officials were shrugging it off and calling it par for the course. Two months later, the President actually went to Solyndra's headquarters and gave a speech touting the company as an economic success story, in spite of numerous warnings from both supporters and government staffers.

These are just a few examples of the red flags DOE could have acted on to limit taxpayer losses. Instead, at every opportunity, Solyndra and DOE officials, including you, Mr. Secretary, publicly assured the American people that Solyndra was on track and would eventually thrive, right up until the time that Solyndra declared bankruptcy.

They continued telling this story even when they clearly should have known it was not the case. DOE was receiving financial reports showing that Solyndra was bleeding cash and going bankrupt. DOE also failed to mention that, behind the scenes, they were continually taking extraordinary steps to keep Solyndra on financial life support.

So, Mr. Secretary, what did you know about the situation at Solyndra, when did you know it, and how did you act on that information, if at all? These are important questions that all of us will be asking today. Your testimony is an important piece of the overall puzzle, and we will work methodically, following the facts, to get to the bottom of why taxpayers are now on the hook for more than half a billion dollars.

And I yield back the balance of my time to Mr. Barton.

[The prepared statement of Mr. Upton follows:]

Opening Statement of the Honorable Fred Upton
Chairman, Committee on Energy and Commerce
"The Solyndra Failure: Views from DOE Secretary Chu"
November 17, 2011
(As Prepared for Delivery)

Thank you, Mr. Chairman, for holding this hearing on the Department of Energy's role in the approval and subsequent restructuring of the Solyndra loan guarantee. Welcome, Secretary Chu, and thank you for your participation today. A central focus of the investigation is to understand why DOE did what it did and how we find ourselves with this taxpayer-funded debacle.

The number of red flags about Solyndra that were raised along the way—many from within DOE—and either ignored or minimized by senior officials is astonishing.

Before the loan guarantee was approved, DOE and OMB staff repeatedly questioned the financial health of Solyndra and, based on the rate it was burning through cash and other troubling issues; the truth is, the expert staff were concerned that the company was bound to fail.

We have heard from President Obama, and even from you, Secretary Chu, that nobody had a crystal ball and no one could have predicted Solyndra's demise. But the truth is, the DOE staff DID predict this – one of the models reviewed by DOE staff specifically showed that Solyndra would run out of cash in September 2011. In March 2010, just six months after the initial loan agreement was finalized, Solyndra's auditors echoed many of the same issues about working capital and recurring losses, and warned that Solyndra was going to have problems staying afloat. These concerns were not only shared by industry experts, they reached the highest levels of the West Wing. Yet, at DOE, officials were shrugging it off and calling it par for the course. Two months later, President Obama actually went to Solyndra's headquarters and gave a speech, touting the company as an economic success story – in spite of numerous warnings from both supporters and government staffers.

These are just a few examples of the red flags DOE could have acted on to limit taxpayer losses. Instead, at every opportunity, Solyndra and DOE officials, including Secretary Chu, publicly assured the American people that Solyndra was on track and would eventually thrive, right up until the time that Solyndra declared bankruptcy. They continued telling this story even when they clearly should have known it was not the case. DOE was receiving financial reports showing that Solyndra was bleeding cash and going bankrupt. DOE also failed to mention that, behind the scenes, they were continually taking extraordinary steps to keep Solyndra on financial life support.

What did Secretary Chu know about the situation at Solyndra, when did he know it, and how did he act on this information, if at all? These are all important questions we will ask today. As I've said before, Secretary Chu's testimony is an important piece of the overall Solyndra puzzle. We will work methodically, following the facts, to get to the bottom of why taxpayers are now on the hook for a half billion dollars.

Mr. STEARNS. Mr. Barton is recognized for the balance of the time.

OPENING STATEMENT OF HON. JOE BARTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. BARTON. Thank you, Chairman Upton and Chairman Stearns.

And thank you, Mr. Secretary, for being here this morning. We appreciate you agreeing to voluntarily testify about the Solyndra loan guarantee program. I have been on this committee 25 years. Rarely, if ever, have I seen a more—to put it as positively as possible, a more mismanaged program than the Solyndra loan guarantee. We are hopeful that you will be able to answer a number of our questions today. And I know, as a man of integrity, you are going to do your best, because I do sincerely mean that, that you are a man of integrity.

But the first question that I hope you will answer is, why did the Obama Department of Energy reverse the Bush Department of Energy decision that the Solyndra loan guarantee was not ready for prime time? To this day, that puzzles me.

Secondly, I would like to hear your answer as to why apparently you made the decision to violate the clear letter of the law in Title XVII of the Energy Policy Act that plainly states that a loan guarantee financed by the taxpayers cannot be subordinated to private investors. That just absolutely puzzles me.

And, finally, what guarantees do we have on behalf of the taxpayers that changes are going to be made in the existing loans that have been put out on this program, I think to the tune of about $16 billion, that we are not going to have a repeat of this fiasco?

This is an important program. I happen to continue to support a loan guarantee for alternative energy, contrary to what some of my friends on the Democratic side of the aisle state. But I cannot continue to support it if we can't get some assurances that this isn't going to be history that will be repeated.

So thank you, Mr. Secretary, for being here, and I look forward to your answers.

[The prepared statement of Mr. Barton follows:]

Opening Statement of the Honorable Joe Barton
Chairman Emeritus, Committee on Energy & Commerce
Subcommittee on Oversight and Investigations, Hearing
"The Solyndra Failure: Views from DOE Secretary Chu"
November 17, 2011

Thank you Mr. Chairman. This Committee has been investigating the Department of Energy's (DOE) loan guarantee program for over nine months and the Solyndra scandal represents a mismanagement of that program to the highest degree.

The truth is that after reviewing the documents and examining the facts, this Committee has discovered mischievous dealings by Solyndra executives and investors, Department of Energy representatives, personnel at the Office of Management and Budget, and staff at the White House itself. As I have said before, the facts show that Solyndra was a bad bet, a bad deal, and now a failed enterprise financed on the backs of honest taxpayers who will not be repaid. And, now, unfortunately, there is another bankrupt green energy company that received 43 million dollars under this same DOE program.

I would like to welcome Dr. Chu, the Secretary of the Department of Energy, and thank him for his testimony and I hope he is prepared to answer this Committee' s questions. Secretary's Chu's answers today will hopefully fill in the many gaps that remain in the Solyndra story including; did his acceleration policy of the loan program lead to poor decisions and improper due diligence of companies that received the first round of loans, did the Department of Energy ignore multiple warnings and red-flags about the financial viability and market competitiveness of Solyndra, did the Department restructure a bad deal to make it even worse for the taxpayers because they felt they had too much invested in Solyndra or was the Department feeling pressure from a White House that felt it had too much to lose with the collapse of the company they touted as "a green energy success story and the true engine of economic growth", was the Secretary aware that the restructuring of the Solyndra loan, in my opinion, violated Title 17 of the Energy Policy Act, and finally should the taxpayers trust that the Department is issuing, monitoring, and restructuring these loans in a fair, thorough, and responsible way?

18 billion dollars was appropriated under the stimulus for the DOE Loan Guarantee Program. Over 16 billion dollars has been allocated. 4.5 billion went out on the last day authorized under the stimulus alone. We know that nearly $600 million of that has gone to two now bankrupt companies. Mr. Secretary we want to make sure that the Department remembers that these billions of dollars come from hard-working Americans and they want us to make prudent investments in companies that demonstrate they are strong investments based on merit.

Mr. STEARNS. I thank my colleague and recognize the distinguished gentleman from California, the ranking member of the full Energy and Commerce Committee, Mr. Waxman.

OPENING STATEMENT OF HON. HENRY A. WAXMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. WAXMAN. Thank you, Mr. Chairman.

And, Secretary Chu, I want to welcome you to our hearing today.

As I have said from the outset, I believe in this oversight on the Solyndra loan guarantee issue. It is part of our job. We want to know about these taxpayers' dollars that have been lost and how we can learn from this experience not to have it repeated.

But I don't support the way Chairman Stearns and Chairman Upton have been running this investigation. They held an empty-chair hearing. They humiliated witnesses for asserting their constitutional rights. They denied Democratic requests for witnesses. They resisted the release of exculpatory documents and provoked a gratuitous conflict with the White House. And, just last week, they released cherry-picked emails that were contradicted by other documents and unjustly smeared George Kaiser. And, as we learned today in the newspaper, they criticize you for awarding loan guarantees at the same time they were seeking loan guarantees for solar energy projects in their own districts.

That is no way to conduct a responsible investigation. We should be fair and impartial, and our goal should be to find the truth.

We also need to put this investigation into context and ask the most important question: How do we make the transition to the clean energy economy of the future?

Last week, the International Energy Agency released its "World Energy Outlook." While Solyndra stories made news across the country, there was virtually no coverage of the International Energy Agency's findings, yet they are far more important to the future of our country and the business of this committee than whether the Department of Energy asked Solyndra to delay announcing a plant closure.

The International Energy Agency found, and I quote, "We cannot afford to delay further action to tackle climate change if the long-term target of limiting the global average temperature increase to 2 degrees Celsius is to be achieved. If stringent new action is not forthcoming by 2017, the energy-related infrastructure then in place will generate all the CO2 emissions allowed, leaving no room for additional power plants, factories, and other infrastructure unless they are zero-carbon."

What this means is that our future depends on developing clean energy. There will be $38 trillion invested in the new energy infrastructure over the next 20 years. Our economic growth, our national security will be determined by whether we succeed in building these new industries.

Our competitors recognize this. China spent $30 billion to subsidize solar energy in the last year alone, and jobs in manufacturing facilities are booming in China as a result. Our chairman of the subcommittee says the answer is to give up. Last month, Mr.

Stearns said, and I quote, “The United States can’t compete with China to make solar panels and wind turbines.”

Well, I don’t believe in surrender, Mr. Chairman. We can’t outcompete China, but to succeed we have to reject the anti-science, anti-progress policies of the Republicans in Congress and their oil and coal industry allies.

The agenda of congressional Republicans is clear: Do everything possible to maintain our addiction to fossil fuels and cripple clean energy companies that could compete with oil and coal. House Republicans voted against putting a price on carbon pollution, which would have created market opportunities for clean energy. House Republicans voted to slash funding for energy research and development into the clean technologies. And now they are opposing government investments in solar, wind, and other clean energy companies.

We need to move past Solyndra and to begin addressing our pressing energy challenges. The voluminous records before the committee—and we have received over 186,000 pages of documents from the Department of Energy, over 13,000 pages from the Office of Management and Budget, over 1,000 pages from the White House, nearly 200 pages of documents from the Treasury—all of these records show that the decision to award a loan guarantee to Solyndra was based on the merits, not political considerations. As Steve Isakowitz, a Bush appointee, the chief financial officer at DOE, told us, the integrity of the review process was never compromised.

It is time for House Republicans to stop dancing on Solyndra’s grave and start getting serious about energy policy. And it is shameful for members of this committee to deny the science and pretend that we do not need a comprehensive clean energy policy.

Something far more important is at stake today than scoring partisan political points. The future of our economy and the health of our planet will be at risk until we find a way to come together and enact policies that stop weather-changing carbon pollution and make our Nation the world leader in clean energy.

Thank you, Mr. Chairman.

Mr. STEARNS. I thank the gentleman.

Since he—I will take the chairman’s prerogative here, since you mentioned my quote from NPR. It was taken out of context. And without elaborating, I would point out that if we intend to subsidize our industries to compete with China, who is subsidizing their industries, I think that is not a good way to handle it.

With that, now we will welcome our witness, Secretary Chu, and thank him for coming.

You have a book to your left there with tabs with lots of quotes that the committee members will be using, so we will just refer you to that tab.

Before we go any further, we have a member from the full committee, from Kansas, Mr. Pompeo—oh, Mr. Kinzinger from Illinois, rather, is here as a member from the full committee, but he does not want to participate, but he would like to be in the hearing, with unanimous consent. Is that acceptable to the minority?

So ordered. He is welcome.

As you know, Mr. Secretary, the testimony you are about give is subject to Title 18, Section 1001 of the United States Code. When holding an investigative hearing, this committee has a practice of taking testimony under oath. Do you have any objection to testifying under oath?

Mr. CHU. No.

Mr. STEARNS. The chair then advises you that, under the rules of the House and the rules of the committee, you are entitled to be advised by counsel. Do you desire to be advised by counsel during your testimony today?

Mr. CHU. No.

Mr. STEARNS. In that case, if you would please rise and raise your right hand, I will swear you in.

[Witness sworn.]

Mr. STEARNS. Welcome. And, Mr. Secretary Chu, you are welcome to give your opening statement, 5 minutes.

STATEMENT OF STEVEN CHU, SECRETARY, DEPARTMENT OF ENERGY

Mr. CHU. Thank you, Chairman Stearns, and thank you, Ranking Member DeGette and members of the subcommittee, for the opportunity to speak with you today.

Investments in clean energy reached a record $243 billion last year. Solar photovoltaic systems alone represent a global market worth more than $80 billion a year today. In the coming decades, the clean energy sector is expected to grow by hundreds of billions of dollars.

We are in a fierce global race to capture this market. In the past year and a half, the China Development Bank has offered more than $34 billion in credit lines to China's solar companies. China is not alone. To strengthen their countries' competitiveness, governments around the world are providing strong support to their clean energy industries. Germany and Canada operate government-backed clean energy lending programs. And more than 50 countries offer some type of public financing for clean energy projects.

In the United States, Congress established Section 1703 and 1705 loan guarantee programs as well as the Advanced Technology Vehicles Manufacturing program, all of which provide support to cutting-edge clean energy industries that involve technology and market risks. In so doing, Congress appropriated nearly $10 billion to cover potential losses in our total loan portfolio, thereby acknowledging the inherent risks of funding new and innovative technologies and also ensuring that those risks are properly accounted for in the budget.

We appreciate the support that the loan programs received from many Members of Congress, who have urged us to accelerate our efforts and to fund worthy projects in their States. In total, the Department received nearly 500 congressional letters about the loan programs.

Through the loan programs, the Department of Energy is supporting 38 clean energy projects that are expected to employ more than 60,000 Americans, generate enough clean electricity to power 3 million homes, and displace more than 300 million gallons of gasoline annually. These important investments are helping to make America more competitive in a global clean energy economy.

Today, we are here to specifically discuss the Solyndra loan guarantee. The Department takes our obligation to the taxpayers seriously and welcomes the opportunity to discuss this matter. As you know, the Department has consistently cooperated with the committee's investigation, providing more than 186,000 pages of documents, appearing at hearings, and briefing or being interviewed by committee staff eight times.

As this extensive record has made clear, the loan guarantee to Solyndra was subject to proper, rigorous scrutiny and healthy debate during every phase of the process. As the Secretary of Energy, the final decisions on Solyndra were mine, and I made them with the best interests of the taxpayer in mind.

And I want to be clear: Over the course of Solyndra's loan guarantee, I did not make any decision based on political considerations. My decision to guarantee a loan to Solyndra was based on the analysis of experienced professionals and on the strength of the information they had available to them at the time.

Solyndra's potential was widely recognized outside the Department. Highly sophisticated, professional private investors, after conducting their own reviews, had collectively invested nearly a billion dollars in the company, which was named as one of the world's, quote, "50 Most Innovative Companies" by MIT's Technology Review in February of 2010. In March of 2010, the Wall Street Journal included Solyndra in its ranking, "The Next Big Thing: The Top 50 Venture-Backed Companies."

It is common for it to take some time for startup companies, especially manufacturing companies, to turn a profit. And in the 2 years since the Department issued the loan guarantee, Solyndra faced deteriorating market conditions. Solar PV production has expanded at the same time, and the demand has softened due to the global economic downturn and the decline in subsidies in countries including Spain, Italy, and Germany. The result has been an acute drop in the price of solar cells, which has taken a toll among many solar companies in Europe, Asia, and the United States.

Meanwhile, countries like China are playing to win in the solar industry. China has invested aggressively to support its companies, and, in recent years, China's market share in solar cell and solar module production has grown significantly, to roughly half the market today.

While we are disappointed in the outcome of this particular loan, we support Congress' mandate to finance the deployment of innovative technologies and believe that our portfolio of loans does so responsibly. The President asked for a review of the Department's loan portfolio. We support that review, and I look forward to the results.

The Energy Department is committed to continually improving and applying lessons learned in everything we do because the stakes could not be higher for our country. When it comes to the clean energy race, America faces a simple choice: compete or accept defeat. I believe we can and must compete.

I thank you and welcome your questions.

[The prepared statement of Mr. Chu follows:]

Statement of Secretary Steven Chu
U.S. Department of Energy
Before the
Subcommittee on Oversight and Investigations
Committee on Energy and Commerce
U.S. House of Representatives

November 17, 2011

Thank you Chairman Stearns, Ranking Member DeGette, and members of the Subcommittee for the opportunity to speak with you today.

Investments in clean energy reached a record \$243 billion last year. Solar photovoltaic systems alone represent a global market worth more than \$80 billion today. In the coming decades, the clean energy sector is expected to grow by hundreds of billions of dollars. We are in a fierce global race to capture this market.

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Through the loan programs, the Energy Department is supporting 38 clean energy projects that are expected to employ more than 60,000 Americans, generate enough clean electricity to power nearly 3 million homes and displace more than 300 million gallons of gasoline annually. These important investments are helping to make America more competitive in the global clean energy economy.

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As the Secretary of Energy, the final decisions on Solyndra were mine, and I made them with the best interest of the taxpayer in mind. I want to be clear: over the course of Solyndra's loan guarantee, I did not make any decision based on political considerations.

My decision to guarantee a loan to Solyndra was based on the analysis of experienced professionals and on the strength of the information they had available to them at the time.

The Solyndra transaction went through more than two years of rigorous technical, financial and legal due diligence, spanning two Administrations, before a loan guarantee was issued. Based on thorough internal and external analysis of both the market and the technology, and extensive review of information provided by Solyndra and others, the Department concluded that Solyndra was poised to compete in the marketplace and had a good prospect of repaying the government's loan.

Solyndra's potential was widely recognized outside the Department. Highly sophisticated, professional private investors, after conducting their own reviews, had collectively invested nearly a billion dollars in the company, which was named as one of the world's "50 Most Innovative Companies" by MIT's Technology Review in February of 2010.

It is common for it to take some time for start-up companies, especially manufacturing companies, to turn a profit. And in the two years since the Department issued the loan guarantee, Solyndra faced deteriorating market conditions.

Solar PV production has expanded at the same time that demand has softened due to the global economic downturn and a decline in subsidies in countries including Spain, Italy and Germany. The result has been an acute drop in the price of solar cells, which has taken a toll on many solar companies in Europe, Asia and the United States. Meanwhile, countries like China are playing to win in the solar industry. China has invested aggressively to support its companies, and in recent years, China has seen its market share in solar cell and solar module production grow significantly, to roughly half the market today.

Facing a liquidity crisis near the end of 2010, Solyndra informed us that it needed emergency financing from its existing investors to complete scale-up of its operations and reach profitability.

The Department faced a difficult decision: force the company into immediate bankruptcy or restructure the loan guarantee to allow the company to accept emergency financing that would be paid back first if the company was still unable to recover.

Immediate bankruptcy meant a 100 percent certainty of default, with an unfinished plant as collateral. Restructuring improved the chance of recovering taxpayer money by giving the company a fighting chance at success, with a completed plant as collateral. Although both options involved significant uncertainty for the value of the company, our judgment was that restructuring was the better option to recover the maximum amount of the government's loan. It also meant continued employment for the company's approximately 1,000 workers. I approved restructuring of the loan guarantee to give the taxpayers the best chance at recovery. It is worth noting that the nearly $1 billion of original equity investment from Solyndra's investors remains subordinate to the debt owed to the government.

In August of 2011, Solyndra faced another liquidity crisis and the Department again faced a tough choice. We asked some of the smartest financial analysts to look at the health of the company. We reviewed a number of options, and ultimately, we concluded that providing additional support to this company was not in the taxpayer's best interests.

While we are disappointed in the outcome of this particular loan, we support Congress' mandate to finance the deployment of innovative technologies, and believe that our portfolio of loans does so responsibly. The President has asked for a review of the Department's loan portfolio. We support that review, and I look forward to the results. The Energy Department is committed to continually improving and applying lessons learned in everything we do, because the stakes could not be higher for our country.

When it comes to the clean energy race, America faces a simple choice: compete or accept defeat. I believe we can and must compete.

Thank you, and I welcome your questions.

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[i] REN21, "Renewables 2011 Status Report," http://www.ren21.net/Portals/97/documents/GSR/REN21_GSR2011.pdf

Mr. STEARNS. Thank you, Mr. Secretary.

And I will start off with my questions. As I mentioned, we have a book to your left there with different tabs we will be asking you to look at. When my questions are asked, I would like you to answer "yes" or "no," and I phrased my questions in such a way that you could do that.

In that book, on tab 5, there is an interview you had with the Wall Street Journal on February 6th, 2009. And you were simply asked what percentage of the roughly $37 billion that you had to spend at DOE for these loan guarantee programs. You replied you wanted about half to be spent in a year.

So the question is, are you aware that the Department of Energy inspector general testified just this month that the Department had spent, not allocated, had spent only 45 percent of the stimulus funds nearly 3 years later, yes or no?

Mr. CHU. I am aware that we did not——

Mr. STEARNS. OK, just—you are aware, yes.

So the Department of Energy stimulus program failed to meet even your, based upon that interview in the Wall Street Journal, 50 percent performance target you set. Is that correct?

Mr. CHU. That is correct.

Mr. STEARNS. OK.

Now, you have repeatedly stated, in hindsight—you keep mentioning hindsight, 20/20—no one could have predicted about Solyndra going bankrupt. But here is the crux and here is the problem we have: In August 2009—and this is tab 14—before you signed off on the loan guarantee, one of your own Department of Energy staffers actually predicted, prophetically, that Solyndra would go bankrupt. And I will quote: "The issue of working capital remains unresolved. The issue is cash balances, not cost. Solyndra seems to agree that the model runs out of cash in September 2011, even in the base case without any stress."

So the bankruptcy was predicted 2 years ahead of time. Knowing of this assessment, you are the Secretary of Energy, continued to give tranches of money to Solyndra all through the next 2 years, even though your staff had predicted that Solyndra would go bankrupt in September 2011.

When you signed off on the loan guarantees, were you aware of this, of these emails and of these concerns from DOE? And OMB emails also showed that. Were you aware of that, that Solyndra was a bad bet, yes or no?

Mr. CHU. This is not—sir, this is not a yes-or-no question. Let me explain the context of what this——

Mr. STEARNS. Well, I——

Ms. DEGETTE. You know, let's hear him out.

Mr. CHU [continuing]. Email was about.

Mr. STEARNS. OK. OK.

Ms. DEGETTE. Do you want the information?

Mr. STEARNS. I don't want you to take all my time, but can you just give a short answer?

Mr. CHU. Very shortly, this email—the cash flow had to do with the construction of Fab 2 facility. And if you look at the full analysis of that facility and the cash flow of that facility, it was going to go very rapidly into the black. In fact, that Fab 2 facility was completed on time, on budget. And the parent company——

Mr. STEARNS. OK, I understand that. But yes or no, were you aware of these DOE emails that said it would go bankrupt? That is the basic question. Were you aware of them, yes or no?

Mr. CHU. I wasn't aware of this particular email at the time.

Mr. STEARNS. Were you not aware of it?

Mr. CHU. I was—it was an issue of an analysis that was in the——

Mr. STEARNS. No, the question is, were you aware that your own staff that worked for you was predicting bankruptcy in 2011, prophetically, 2 years, yes or no?

Mr. CHU. It wasn't predicting bankruptcy of the company. It was predicting a cash-flow issue that, upon further analysis, did not appear and, in fact, did not appear in reality.

Mr. STEARNS. Were you aware of it at the time?

Mr. CHU. I was not aware of this email at the time.

Mr. STEARNS. OK.

During an interview with committee staff, the DOE chief financial officer admitted that he did not remember the Department validating any assumptions about the Chinese market before approving the application.

Was that, in hindsight, the Department should have known? And wasn't that the failure of DOE?

Mr. CHU. Could you repeat the question, please?

Mr. STEARNS. Sure. Basically, just asking, did you do any research about the Chinese market before you approved this loan, yes or no?

Mr. CHU. I personally did not do it, but I am——

Mr. STEARNS. OK.

Mr. CHU [continuing]. Sure my loan people have done many market surveys.

Mr. STEARNS. OK.

When Solyndra ran into financial problems and you authorized taxpayers' funds to be subordinated to these two hedge funds, were you aware that DOE staff originally told Argonaut and the DOE funds could not be subordinated under the Energy Policy Act of 2005, yes or no?

Mr. CHU. When we discussed the subordination of the loan with my general counsel, it was the decision of the general counsel of the Department of Energy—their considered opinion was that the subordination was proper.

Mr. STEARNS. OK.

The President recently appointed Mr. Allison to look at the DOE's loan, the entire portfolio. Doesn't the fact that the President appointed somebody outside of DOE show that he doesn't think you have the wherewithal, the financial acumen, to step in and actually understand the condition of all these loan guarantees? Doesn't this mean simply—it does to me—that the President has lost confidence in you and your management—your financial-management acumen of this loan guarantee program?

Mr. CHU. We welcome outside eyes, and we welcome Herb Allison and his investigation. I made no bones about it. I should also say, before that happened, we, ourselves, within the loan program, we looked outside the loan——

Mr. STEARNS. So, basically, you don't take it as any affront on your——

Mr. CHU. Pardon? Pardon?

Mr. STEARNS. You don't take it as a personal affront on your integrity to run the DOE that the President has an outside group looking at it?

Mr. CHU. No. I——

Mr. STEARNS. I accept that.

Mr. CHU [continuing]. I—I——

Mr. STEARNS. Let me complete with one last question. Were you aware in early 2011 that, to subordinate this loan, the chief financial officer of the Department of Treasury said, in his 28 years, he has never seen taxpayers subordinated to outside commercial loans? Were you aware that Mr. Burner said that?

Mr. CHU. No, I was not aware he said that.

Mr. STEARNS. Are you aware of it today?

Mr. CHU. Yes.

Mr. STEARNS. And do you think that he is right, or do you disagree with him?

Mr. CHU. I believe that other loan—like OPIC and Ex-Im, have, in some cases, subordinated loans.

Mr. STEARNS. We are talking about taxpayers.

Mr. CHU. Well, OPIC and Ex-Im——

Mr. STEARNS. All right.

Mr. CHU [continuing]. Serve the taxpayers.

Mr. STEARNS. My time has expired, and we recognize the gentlelady from Colorado.

Ms. DEGETTE. Thank you very much, Mr. Chairman.

Secretary Chu, did any Obama campaign donor ever contact you and ask you to take any action relating to the Solyndra loan guarantee or to the restructuring of that loan guarantee?

Mr. CHU. No. No one did. No Obama campaign——

Ms. DEGETTE. You are under oath.

Mr. CHU. Yes.

Ms. DEGETTE. OK.

Now, are you, as Secretary of Energy, aware, personally aware, of any contact by any Obama campaign donor to any employee of the Department of Energy asking them to take any action relating to the loan guarantee or to the restructuring?

Mr. CHU. I am not aware of any such——

Ms. DEGETTE. Have you asked your employees and the folks involved with Solyndra if they——

Mr. CHU. They were having discussions, and no one has said that something like that occurred. No one——

Ms. DEGETTE. OK.

Mr. CHU. They, in fact, said that, to the best of their knowledge, it has not occurred.

Ms. DEGETTE. Did anyone from the White House ever contact you—anyone from the White House ever contact you—to take any action on the Solyndra loan guarantee or restructuring for any reason other than the actual financial analysis?

Mr. CHU. No.

Ms. DEGETTE. Now, are you aware of any contact by someone from the White House to anybody in the DOE? Did anybody bring that to your attention, asking them to take an unusual action relating to the loan guarantee or to the restructuring?

Mr. CHU. No, I am aware of no communication from White House to Department of Energy saying to make the loan or to restructure.

Ms. DEGETTE. Now, in your responses to the chairman's question, you said the decisions were yours based on professionals within the Department. Briefly, can you describe the process for—I mean, originally, the loan was not approved under the Obama administration; it was the Bush administration. But, certainly, the tranches of money were given under the stimulus, and then there was the restructuring.

So the question is, which professionals did you rely on within the Department to make those decisions?

Mr. CHU. So, what happened when I came in as Secretary of Energy is that there was, beginning with the confirmation hearings, tremendous interest in the loan program, getting it going. When I came into the Department, I asked, what are the loans first in line that have been prepared? And I was told by Department of Energy career people that Solyndra was the first loan; this was first in line.

Ms. DEGETTE. These are people who had been there previously. They were career Department of——

Mr. CHU. They were career people who had been there during the previous administration.

Ms. DEGETTE. OK.

Mr. CHU. And they said that this was the first in line. It went before—I think in early January it went before the review committee, the credit review committee. And the credit review committee said there was incomplete information, we needed more information, for example on market surveys, things of that nature. So they gave it back to the loan originators—again, career people—and said, we need more information before we can make a decision yes or no.

And so that is what happened. So, one set of career people told the loan originators, go back and we need this additional information before we can make an up-or-down vote.

Ms. DEGETTE. And then what happened?

Mr. CHU. And then, several months later, after these things were obtained—market surveys, things of that nature—they came back to the credit review committee, and, at that time, the same career folks said, "OK, you have satisfied our questions, and we recommend moving forward with the loan."

Ms. DEGETTE. And so you moved forward with the loan.

Mr. CHU. Right. At that time——

Ms. DEGETTE. Now, then, some months later, the bottom really fell out. Why do you think that happened? Was it improper reviews and data used by the career people in that analysis, in getting that market analysis? Very briefly, because I have about the same amount of time as the chairman.

Mr. CHU. Very briefly, the largest issue of why that happened is, the price of solar panels dropped precipitously. And by "precipitously" I mean in a single year it dropped by 40 percent.

Ms. DEGETTE. And was that primarily because of China's infusion of capital, or were there other market reasons for that as well?

Mr. CHU. There were two factors. First, there was a large production ramping up, namely in China. And, secondly, there was a softening of the market in Europe.

Ms. DEGETTE. OK.

Mr. CHU. A lot of subsidies were being—they were decreasing, and the demand was softening.

Ms. DEGETTE. Now, at some point, there was a decision, then, to restructure the loan, correct?

Mr. CHU. Yes.

Ms. DEGETTE. And why didn't the Department just walk away from the loan? Why was this decision made to restructure?

Mr. CHU. By that time, the Department knew that because of the very competitive nature of solar—I said 40 percent in 1 year; 70 percent over a 3-year period of time, which was unheard of—we had a half-completed factory. And it was a difficult decision. We had two choices: We either had to stop the loan, which would make Solyndra go into immediate bankruptcy, with a half-empty factory—half-completed factory; or we could say, we can continue on the contract of the loan, which was to build this factory. Once the factory was complete, Solyndra would have a fighting chance of continuing or it could offer that factory sale as a whole unit.

Ms. DEGETTE. So there was some hope that you could recoup the taxpayers' money?

Mr. CHU. Yes. And we——

Ms. DEGETTE. Now, one last question. Why was the decision made to subordinate the government's interest to the private investors in the restructuring?

Mr. CHU. At the time, the investors—in the time where we were disbursing the loans, again, it was a contractual arrangement with the Department of Energy, the investors were putting in more equity. And as the rapidly changing market conditions dictated, the investors said, if you want us to put in another—first $75 million, followed by another $75 million, this first $75 million should come ahead of the Department of Energy.

And, again, we faced—after discussing the legality of that—and, again, our general counsel advised me that it was legal—then we faced this difficult decision. Do you stop giving them the money that was agreed upon and force them into bankruptcy, or do you go forward?

And so, this whole—it was a difficult decision, and we were always, always focused on that path that could get as much taxpayer recovery as possible.

Ms. DEGETTE. Thank you, Mr. Chairman.

Mr. STEARNS. I thank my colleague.

I recognize the full chairman, Mr. Upton, the gentleman from Michigan, for 5 minutes.

Mr. UPTON. Thank you, Mr. Chairman.

I am going to follow the Dingell model of asking yes-and-no questions, if I can.

Were you aware, Mr. Secretary, that DOE staff was concerned throughout 2009 that the company did have a liquidity problem?

Mr. CHU. I am aware now—well, yes. I was aware——

Mr. UPTON. Were you aware then?

Mr. CHU [continuing]. There was a liquidity problem in—it wasn't a liquidity—it was a temporarily liquidity problem in the project, which was what we were funding, namely the construction of Fab 2, but it was only a 1-month. And afterwards——

Mr. UPTON. All right.

Mr. CHU [continuing]. It was not an issue.

Mr. UPTON. That goes back to the question that Mr. Stearns asked, but I am looking at a—on October 8th, 2010, Solyndra executives informed DOE that the company's situation—this is a quote now—"situation has changed quote dramatically," end quote. Bill Stover, the CEO, informed DOE that it would not be able to raise capital by the end of the year, as it originally had planned to do so, and, quote, "Without access to FFB loans in October, November, and December for work that has been completed, Solyndra would run out of cash in November," end quote.

So that is there, in addition to the email that was sent in 2009 which said that they would run out of cash by the end of August of 2011, which, of course, was true.

So were you aware of either one of those two emails to DOE?

Mr. CHU. Again, I want to not conflate the issue. The issue of the first instance I believe was——

Mr. UPTON. It shows to me that there was a pattern, that they announced that they were going to run out of cash.

Mr. CHU. There was one instance when, in the construction of the Fab 2 project, where—which is, I believe, the first one you were referring to. And that, as you said—if you then go to the next month, it goes into the black and it was a modeling issue. In fact, history shows that that fab was constructed on time, on budget.

Mr. UPTON. But in the email from nearly a year ago, they indicated, again, that they were going to run—without access to funds, they would run out of cash in November of last year. There was another email—are you aware of that email?

Mr. CHU. I believe those emails are still about the construction of Fab 2.

Mr. UPTON. All right. Were you aware of the company's problem containing costs, that it had a cash burn rate of almost $10 million a week, yes or no?

Mr. CHU. We knew that they had—in fact, their business model—and this is true of many companies, especially manufacturing companies. You have a cash burn rate, you build up your factory, you build up your sales, you begin to sell your product, and there was a business plan that they were going to—which, again, nearly $1 billion of equity investments by savvy people knew of this plan.

Mr. UPTON. Were you aware in 2010 that both OMB and Treasury were concerned that DOE was not monitoring the loan and did not have a grip on Solyndra's financial condition?

Mr. CHU. We were, in fact, monitoring the loan. In fact, about that time—first, we started by monitoring the loan, and then we set up, later, a different entity. So a person that was not part of the loan origination by that time was beginning to monitor the loan. We set up——

Mr. UPTON. Yes.

Mr. CHU. We further set up another organization within the loan program to monitor the loan. And now what we have done is set up organizations outside the loan program but who have expertise——

Mr. UPTON. It is our understanding that you weren't monitoring very closely until after it was restructured.

Do you stand by the restructuring even though the arrangement put Solyndra's interest and investors ahead of the taxpayers?

Mr. CHU. As I said, this was a difficult choice. There was a lengthy discussion——

Mr. UPTON? So you do.

Mr. CHU [continuing]. About that. And it was a difficult choice for us to make. And, at that time, we felt that the first $75 million—the company would not put in—the investors would not put in an additional $75 million in order to continue this project. And so it was a choice of either facing immediate bankruptcy, as I said before——

Mr. UPTON. So, because of that decision, how much money do you think the Federal Government will be able to recover?

Mr. CHU. Well, that remains to be seen, but I——

Mr. UPTON. Well, what is your——

Mr. CHU [continuing]. Am anticipating not very much. But we would not have, had we said no, stopped disbursement of funds, stopped the completion of the factory and have it a half-complete factory. We felt that we weren't going to recover much of anything at all, at that point, as well.

Mr. UPTON. Documents produced to the committee show that negotiations between Solyndra, its investors, and DOE came to a head this last August, August 26th, over whether DOE should advance yet another almost $5.5 million to the company. The decision was made when OMB, DOE, Treasury—the decision was collectively no; it was stopped. And 2 days later, they declared bankruptcy.

What was DOE's position among those three? Were they in favor of this additional money in August?

Mr. CHU. No. In fact, during that time, there were some phone calls. I wanted to—we got another outside, independent—Lazard, another outside firm, to give us their estimate——

Mr. UPTON. So your——

Mr. CHU [continuing]. Of the condition of Solyndra.

Mr. UPTON. So, was it a decision that you were afraid to send more good money after bad?

Mr. CHU. From their analysis and from——

Mr. UPTON. The writing was on the wall?

Mr. CHU. At that time, in August of 2011—or July of 2011?

Mr. UPTON. Last question. I know my time has expired. Based on what you know and what has happened, who is to apologize for the half a billion dollars that is out the door?

Mr. CHU. Well, it is——

Mr. UPTON. DOE?

Mr. CHU. It is extremely unfortunate what has happened to Solyndra. But if you go back and look at the time decisions were being made, was there incompetence? Was there any influence of a political nature? And I would have to say no.

Mr. UPTON. So no apology?

Mr. CHU. Well, it is extremely unfortunate what has happened to Solyndra. And I think you and I both feel the same.

But when the bottom of a market falls out and the price of solar decreases by 70 percent in 2–1/2 years, that was totally unexpected, not only by us, but if you look at the range of predictions that were being made by financial analysts from the last quarter of 2008, 2009, the average—there are some outliers, but the average of those were not expecting these prices to plummet. And so, fundamentally, this company and several others got caught in a very bad tsunami, if you will.

Mr. STEARNS. The gentleman's time has expired.

The gentleman from California, Mr. Waxman, is recognized for 5 minutes.

Mr. WAXMAN. Thank you, Mr. Chairman. I hope you will be as generous to me in the time allotted to me as you have to our other colleagues. I will try to stay within the 5 minutes, but I might go a little bit over it, as the others have as well.

Secretary Chu, you are a scientist, and I want to ask you a science question. Many House Republicans, including many Republicans on this committee, deny that climate change is occurring. Are they right? Is climate change a hoax, or is it real?

Mr. CHU. No, the climate is changing, and there is much compelling evidence to suggest that a large part of it is due to human activity.

Mr. WAXMAN. And that is because most of our world's energy comes from fossil fuels, like coal and oil, that emit quantities of carbon pollution; is that right?

Mr. CHU. That is correct, that it is due to greenhouse gas emissions, carbon dioxide being the biggest.

Mr. WAXMAN. Does our future economic prosperity depend on building new energy industries?

Mr. CHU. Yes.

Mr. WAXMAN. And that is for our economic wellbeing, but it is also for stopping the climate change, if that is possible; isn't that correct?

Mr. CHU. That is absolutely true. I think because of these two factors that we will need clean energy. But there is another very important factor, that if you look at the market and you look at what the price is going to be for solar and wind, the expectation is that wind—wind, right now, according to Bloomberg New Energy Finance, costs, levelized cost, 7 cents a kilowatt hour. This is getting in the range of the cost of any new form of energy.

Mr. WAXMAN. Well, you mentioned in your comments, your opening statement, China and Germany. Are we in a race with China and other countries to make the solar panels and wind turbines that will be the cornerstone of the clean energy economy for the future?

Mr. CHU. Yes, we are.

Mr. WAXMAN. I ask you these questions because they are the lens in which we need to understand Solyndra. Investing in Solyndra involved risk, but it was a risk that you thought was worth taking because of the importance of clean energy to our economic future; is that right?

Mr. CHU. That is correct.

Mr. WAXMAN. Members on this committee say they are shocked—shocked—that you would invest in a company as risky as Solyndra. But, in March 2009, before Solyndra received its conditional commitment, you said publicly that you were going to set aside some loan guarantees for higher-risk projects, which you said were projects that had a default rate as high as 10 to 30 percent.

I want to show you on the monitor what you said. Quote, "We should be making some higher-risk loans. These would be much more innovative, might be more likely to fail, but could create bigger changes in the long run," end quote. You said this in March 2009 before the Energy Department gave Solyndra a loan.

When DOE awarded Solyndra the loan guarantee, were you aware there was a risk that the project could fail?

Mr. CHU. I think, not only was I aware of it, all of Congress, in passing the bill, as they said, they appropriated $10 billion to cover for loan losses. That appropriation is very valuable; it could have been appropriated for other worthy causes. And so Congress knew of the risks.

Mr. WAXMAN. Secretary Chu, your reputation for integrity is unimpeachable. You have just told us that you gave Solyndra a loan guarantee that you knew was risky because we are in a race with China and other nations to develop a clean energy economy for the future. Republicans on this committee paint a very different picture. They say you gave Solyndra a loan guarantee as a political favor to a campaign contributor to President Obama.

Can you tell us unequivocally that the decision to give Solyndra a loan guarantee was made on the merits?

Mr. CHU. Absolutely, it was made only on the merits.

Mr. WAXMAN. And can you tell us unequivocally that campaign contributions played no role in that decision?

Mr. CHU. Yes. They played no role.

Mr. WAXMAN. It's pretty obvious what's going on in this hearing room. House Republicans and their coal and oil industry allies are manufacturing a scandal, trying to discredit you, President Obama, the clean energy companies. That's a great deal if you're an oil company or a coal executive, but it's unfair to you and a disservice to the American people. This was a decision made on the merits because of the urgent need to build a clean energy economy. There is no evidence in the voluminous records before the committee to support the allegations of political favoritism.

The Republicans on this committee have said over and over again, they haven't been able to get the information they've requested. Your Department has already turned over to this committee 186,000 pages of documents. Is there anything you are holding back?

Mr. CHU. No. In fact, we—I've instructed my staff to be as cooperative as possible with this committee.

Mr. WAXMAN. And there have been 13,000 pages of documents from the Office of Management and Budget, and over a thousand pages of documents from the White House, which the White House was willing to give this committee, but the committee rushed to a subpoena to force it, and there are nearly 200 pages of documents from the Treasury.

With all of these documents in before this committee, I don't think the Republicans have been able to sustain the accusations that they've tried to make, mainly on innuendo, that this was a loan guarantee that should not have been made or that should not have been continued when the loan was restructured. I thank you for your cooperation in today's hearing.

Mr. STEARNS. The gentleman's time has expired.

Recognize the gentleman from Texas, Mr. Barton, for 5 minutes.

Mr. BARTON. Thank you, and Mr. Secretary, I, too, will stipulate that I think you're a man of integrity, so I do share that sentiment with Chairman Waxman.

He and Ms. DeGette have just made a big deal of asking you about political influence, and you have stated under oath that there was no political influence and that you are not aware of any, and I believe that you believe that.

Having said that, who at the White House or the Department of Energy, since there was no political influence, asked Solyndra to delay the announcement of plant closures and layoffs until after the election in November of 2010, since there was no political influence on this? Who made that request?

Mr. CHU. Sir, I don't know. I just learned about that. I think——

Mr. BARTON. You do know that it was made, though, don't you?

Mr. CHU. I just learned about it very recently.

Mr. BARTON. So you all don't operate in a total vacuum. I mean, you know, you know who George Kaiser is, I'm sure?

Mr. CHU. Yes, I know now.

Mr. BARTON. You knew that he was a major investor in a venture capital firm that had a major stake in Solyndra; you knew that?

Mr. CHU. Not at the time of the evaluation of the loan, not at the time of the restructuring. I know now what his connection—what his role has been. He was one of the equity investors.

Mr. BARTON. I believe that you're being truthful when you state that he never asked you about this particular loan program. I absolutely believe that, but it's the elephant in the room. Everybody and their dog at DOE knew who he was and knew what he was involved in, and we have on the record that he was in and around the White House at least 16 times in the time period that the Solyndra loan program was being reviewed after the Bush administration has said that it wasn't ready.

I'm going to ask you a series of questions here, and I hope that you can answer them with a yes or no answer.

Could we put up on the screen the Energy Policy Act, Section 1702?

Mr. Secretary, I'm sure that you've read Section 1702 of the Energy Policy Act, conditions, part D, subsection 3, regarding subordination, and it reads, item No. 3, the obligation shall be subject to the condition that the obligation is not subordinate to any other financing. You've read that, right?

Mr. CHU. Yes.

Mr. BARTON. OK. Do you understand what the word "shall" means?

Mr. CHU. Yes.

Mr. BARTON. OK. I believe that the Solyndra loan restructuring program was in violation of this law because—and your department did not follow the plain language of the law—because the obligation shall not be subordinate to other financing. In fact, since you made the opposite decision, who did you consult with before you made that decision?

Mr. CHU. The general counsel of the Department of Energy.

Mr. BARTON. The general counsel.

Mr. CHU. And I believe that that was about the origination of the loan, and under the conditions of the origination of the loan, we shall not subordinate to any other——

Mr. BARTON. So the general counsel would be Susan Richardson?

Mr. CHU. No, this would be Scott Harris.

Mr. BARTON. Who is Susan Richardson?

Mr. CHU. She works—she's a counsel who works in the loan program, and she——

Mr. BARTON. She works, OK. I understand that she is the chief counsel of the loan program. Is that your understanding also?

Mr. CHU. That is my understanding.

Mr. BARTON. OK. Did she consult directly with you about the language of the law that we've just read?

Mr. CHU. She consulted extensively with the General Counsel's Office, with Scott Harris and others. There was an extensive discussion about that issue, and it was again when it was finally brought to me by the general counsel, Scott Harris, it was their opinion that this did not violate the terms of the law.

Mr. BARTON. When did Mr. Harris bring that to you?

Mr. CHU. This was in a discussion as we were discussing whether we should subordinate or not, and it had to do with restructuring, and so before we could even think of restructuring in a subordination, we had to make sure that it was legal.

Mr. BARTON. What date was that?

Mr. CHU. I can't——

Mr. BARTON. Well, my—the reason——

Mr. CHU. I don't remember the exact date, but it was——

Mr. BARTON. I don't want to cut you off, Mr. Secretary, but the reason the dates is important is that my understanding is the decision was made to subordinate before the memo accepting subordination was prepared. So there was a decision, and then after the decision made—at least I'm told this—the decision was made to subordinate, but the action memo which authorized it wasn't signed until after the decision had been implemented. Is that true to your knowledge?

Mr. CHU. No, I don't—I would not know that, but it certainly would not be the way we do things in business, the way we do things in the Department of Energy. One has to first decide whether what are the legal bounds——

Mr. BARTON. My time is just about to expire. Does the name the law firm Morrison & Foerster mean anything to you?

Mr. CHU. Yes.

Mr. BARTON. What are they?

Mr. CHU. They're a law firm in California in the Bay Area.

Mr. BARTON. All right. And they're also a consultant for your Department of Energy. Are you aware that they prepared a memo saying that this subordination was illegal and shouldn't be allowed? Are you aware of that?

Mr. CHU. No, I'm not aware of that.

Mr. BARTON. Even though you said you welcome outside ears and eyes, and they were asked to prepare a draft memo, but once they prepared it and your general counsel saw what was in the draft memo, they basically said, we don't want to hear that. Are you aware of that?

Mr. CHU. I'm not aware of that. I'm aware of the fact that there was a lot of discussion with Morrison & Foerster with our General Counsel's Office.

Mr. BARTON. OK, my time has expired, Mr. Chairman, but we're going to do more than one round; is that not correct?

Mr. STEARNS. That's correct.

Mr. BARTON. Thank you, Mr. Secretary.

Mr. STEARNS. Recognize the distinguished gentleman from Michigan, Mr. Dingell, for 5 minutes.

Mr. DINGELL. Mr. Chairman, thank you.

Mr. Secretary, these questions are yes or no. Did DOE hire experienced people in loan programs to do the analysis on loan applications?

Mr. CHU. Yes, we did.

Mr. DINGELL. Did DOE hire experienced outside consultants to help in analyzing industries, markets, and other areas of concern to the Loan Programs Office?

Mr. CHU. Yes.

Mr. DINGELL. Did the Loan Programs Office share information with OMB and Treasury during due diligence process?

Mr. CHU. Yes.

Mr. DINGELL. Was that process open and transparent?

Mr. CHU. We shared a lot of information with OMB and Treasury.

Mr. DINGELL. So it was open?

Mr. CHU. I mean, I don't know what you mean——

Mr. DINGELL. Yes or no.

Mr. CHU. It was open between OMB and Treasury and us.

Mr. DINGELL. Thank you.

Now, you mentioned in your opening statement that Members of Congress submitted letters for projects in their districts. I happen to know I did. As a matter of fact, I did with my good friend Mr. Upton, we submitted it together for a project in Michigan, which, curiously enough, happens to be in trouble because of a similar market collapse.

Now, did DOE or the Loan Programs Office take these letters into account when examining loan applications?

Mr. CHU. Yes.

Mr. DINGELL. So it's correct that DOE or the Loan Programs Office only examined the merits of loan applications and did not consider any influence from the Congress or the White House, yes or no?

Mr. CHU. We did not consider any influence.

Mr. DINGELL. All right.

Now, let me look at this. We've heard all these complaints about the fact that the Federal guarantee was subordinated to private loans. It was superior to earlier private loans, was it not?

Mr. CHU. Yes.

Mr. DINGELL. OK.

Mr. CHU. Well——

Mr. DINGELL. It was not superior to and it was subordinated to subsequent private loans; is that right?

Mr. CHU. Yes. The first $75 million of the initial funds.

Mr. DINGELL. Now let me keep going.

Without that step, you would not have been able to get any private money to assist the Federal guarantee in saving Solyndra; is that right?

Mr. CHU. That is correct.

Mr. DINGELL. OK.

Now, I'm sure you're aware this committee has issued subpoenas for documents to OMB and to the White House, and we have not done so for DOE, your agency, and for your department because you've provided us over 186—pieces of documents related to this issue. Are you aware of any of the 186,000 documents included in communications between the DOE and the White House?

Mr. CHU. Are you asking am I aware of all 186,000 pages?

Mr. DINGELL. Well, the question is, are you aware of any of these documents that were communications between DOE and the White House?

Mr. CHU. I'm not sure what communications there were between DOE and the White House, but certainly we did not communicate with the White House on whether we should approve a loan and especially the Solyndra loan. That was our responsibility.

Mr. DINGELL. OK. So did you have any personal communications with President Obama, with the Vice President, or campaign donors or others who had financial interests in Solyndra?

Mr. CHU. No, I did not.

Mr. DINGELL. Now, based on the information you have received and have reviewed regarding the due diligence done by DOE during the Bush and Obama administrations, do you believe that the Solyndra loan was awarded based on the merits of the application? Yes or no.

Mr. CHU. Yes, I believe it was awarded on the merits of the application.

Mr. DINGELL. So here—do you agree with this statement: I believe that, first of all, you had a law which said that you should make these guarantees.

Second of all, you have got a situation where the Chinese are eating our lunch. They're producing batteries and solar panels and all kinds of things because, as you have observed, their government, through the China Development Bank, has offered more than $34 billion in credit lines to China solar companies alone. Other countries are doing the same thing, Japan, Korea, and probably other South Asian countries.

Now, having said this—and of course, Germany and Canada are doing exactly the same thing. So you found yourself in a position where you had a law that says you've got to do something. You had a depression on your hands. And you were trying to produce jobs.

And you had an industry that you were trying to develop in the United States so that we're going to be able to compete instead of the Chinese dominating the market, as they seem now to be proceeding to do. Is that a fair statement?

Mr. CHU. They certainly want to dominate the market, and we were executing the laws as passed by Congress on the loan program.

Mr. DINGELL. This is one of the things that motivated you to try to get Solyndra into the business, isn't that so?

Mr. CHU. That is true. I mean, this is a worldwide competition, as I said before.

Mr. DINGELL. Now, what caused the big problem as near as I can gather is that the market collapsed; is that right?

Mr. CHU. Well, the price of solar modules plummeted, that is correct.

Mr. DINGELL. That's what I'm saying. I yield back the balance of my time.

Thank you, Mr. Secretary.

Mr. STEARNS. Thank the gentleman.

The gentleman from Nebraska, Mr. Terry, is recognized for 5 minutes.

Mr. TERRY. Thank you.

And, you know, the ultimate question before this subcommittee is really, was it a meritorious loan? Is it something that should not have been finalized and spent? That's why you're here, so we can ask the questions and get the feelings.

So, first of all, the Solyndra loan was finalized in September 2009, is that your understanding?

Mr. CHU. That's my understanding.

Mr. TERRY. All right. So you were one of the—I mean, you have a premier resum, one of the most respected people in the Cabinet, and you were sworn in. You were confirmed easily. And what was the first day you took office?

Mr. CHU. I think it was January 22nd.

Mr. TERRY. And when were you first briefed by DOE staff on the Solyndra application?

Mr. CHU. Actually, I don't know about the Solyndra application, quite candidly. Certainly early on, once I became Secretary, there was—I was focused on trying to get the loan program going. As I said before, in my confirmation hearings, that was a central theme among many Members of Congress.

Mr. TERRY. So you don't—you can't identify when you were first briefed on this loan?

Mr. CHU. On Solyndra? No, I—I think early on, it was——

Mr. TERRY. Certainly you knew about it before September 2009?

Mr. CHU. Yes.

Mr. TERRY. OK. Then you testified earlier that you were aware of the January 9th credit committee voted against offering a conditional commitment to Solyndra, noting, quote, number of issues unresolved makes a recommendation for approval premature at this time.

Were you aware of that January 9th decision——

Mr. CHU. I'm aware——

Mr. TERRY. [continuing]. Prior to the loan being finalized in September of 2009?

Mr. CHU. I'm aware of it now, but was I aware of it when the loan was being finalized? I think it's safe to say that it was just remanded back for additional information, and so, quite often, when the loan program tells me about the loan, what it is, whether we should be funding it——

Mr. TERRY. All right. So you didn't know that there was a decision that it was premature at the time, direct quote, until later on?

Mr. CHU. There are many instances, sir, when——

Mr. TERRY. Let me ask you——

Mr. CHU [continuing]. Applications are incomplete or there is not enough——

Mr. TERRY. I appreciate that.

Did you know that the credit committee also noted that it had, quote, questions regarding the nature and strength of the parent guarantee for the completion of the project and Solyndra's ability to scale up the production, also stated in that January 9th document? Were you aware of that before the loan was finalized January—I'm sorry, September 2009?

Mr. CHU. I was aware, as it was briefed to me at the time, this was before March, and the conditional commitment at that time——

Mr. TERRY. So you received a briefing in March?

Mr. CHU. I received a briefing.

I'm not exactly sure when I received the first briefing, but certainly since Solyndra was at the head of the line, based on the work of—during the previous administration, then it was the one that——

Mr. TERRY. Did you——

Mr. CHU [continuing]. Came up.

Mr. TERRY. February 12, 2009, DOE stimulus adviser stated, quote, litmus test for the loan guarantee program's ability to fund good projects—that Solyndra, I'm sorry. That Solyndra is the, quote, litmus test for the loan guarantee program ability to fund good projects quickly. Were you aware of his quote?

Mr. CHU. I'm aware of it now.

Mr. TERRY. Before September?

Mr. CHU. But I think what we were—this was Matt Rogers, and both Matt Rogers and I felt very focused to make the loan program, and from time of application of a complete application to the time of approval, something akin to about a year of due diligence.

Mr. TERRY. All right, but he stated that on February 12, 2009.

Mr. CHU. Right.

Mr. TERRY. Did you have a discussion in around February 12, 2009, that Solyndra is the litmus test?

Mr. CHU. I believe by "litmus test," what he meant was that this was going to——

Mr. TERRY. No, I'm sorry, I didn't ask you for your interpretation of his statement.

Mr. CHU. Right.

Mr. TERRY. But he said Solyndra is a litmus test. Were you aware of that statement?

Mr. CHU. You know, I don't recall that, but if he went and said that, I'm sure we——

Mr. TERRY. All right. And you had a conversation with Matt—what was his last name?——

Mr. CHU. Rogers.

Mr. TERRY [continuing]. Rogers around middle of February of 2009 about this Solyndra application?

Mr. CHU. Right, because Solyndra was first on the line——

Mr. TERRY. Did you hire Matt Rogers?

Mr. CHU. I did.

Mr. TERRY. Pardon me?

Mr. CHU. I did.

Mr. TERRY. You hired him, OK. Was he recommended by the White House?

Mr. CHU. No.

Mr. TERRY. You just out of the blue said I need a stimulus adviser?

Mr. CHU. Actually, yes. What I wanted, because the—at the time, the U.S. economy was in free fall; we were losing hundreds of thousands of jobs a year, and I wanted someone that could manage this huge portfolio to spend the money wisely but also to spend it quickly to put Americans back to work.

Mr. TERRY. All right, thank you.

Mr. CHU. Mr. Chairman, could I——

Ms. DEGETTE. The witness would like to add something.

Mr. CHU. Yes. Mr. Chairman, could I——

Mr. STEARNS. Yes, go ahead.

Mr. CHU. Could I just interrupt just briefly. I just wanted to correct the record. My staff told me Morrison & Foerster, the legal firm in the Bay Area, had specifically reviewed the Susan Richardson memo and approved her analysis, at least that's what my staff tell me. They approved it.

Mr. STEARNS. Your counsel approved the memo?

Mr. CHU. The outside counsel Morrison & Foerster.

Mr. STEARNS. Outside counsel, OK. Do we have a copy of that?

Mr. CHU. We'll be glad to give it to you.

Mr. STEARNS. If not, I think we would like a copy. That would be good.

Dr. Christensen is what we show on our records.

Dr. Christensen, you're recognized for 5 minutes.

Mrs. CHRISTENSEN. Thank you, Mr. Chairman.

And welcome, Secretary Chu. We really thank you for your willingness to come and help us to better understand what's happening.

I think everyone agrees that we need to understand what went wrong with the Solyndra loan guarantee and how the loan guarantee programs can be improved going forward. We all also should be supporting innovative technologies, while, of course, as we have been doing, watching out for the taxpayer, but we also need to understand the big picture.

The loan guarantee program doesn't just support solar, wind, and other renewable energy projects. A substantial portion of the incentives are also available for nuclear projects. In fact, Congress has authorized $18.5 billion in loan guarantees for nuclear plant construction costs. An additional $4 billion in loan guarantees is available for uranium enrichment facilities. The Vogtle nuclear plant project has already received a conditional commitment. The loan guarantee would be worth over $8 billion. That's 16 times the size of the Solyndra loan. A $2 billion conditional commitment has also been provided to Areva for a uranium enrichment facility in Idaho.

So my first question, Secretary Chu, I think it's important to have a balanced program. If we're going to provide billions of dollars in loan guarantees for new nuclear power plants, we should also support innovative solar, wind, and geothermal energy projects. What do you think?

Mr. CHU. I agree.

Mrs. CHRISTENSEN. You agree.

Unlike the nuclear industry, the renewable energy industry is still in the early stages of development. Some of the technologies supported by the loan guarantee program have never before been built at utility scale. So Secretary Chu, what role do you think the loan guarantee program should play in encouraging the development of emerging technologies?

Mr. CHU. Well, according to the bill passed by Congress, and I agree with their sentiment, precisely that we should be investing in innovative technologies. We should be investing in first-of-a-kind or first large-scale deployment of some of these innovative technologies, and by doing so, we create a marketplace within the United States. And also we, as we invest in innovative manufacturing technologies, we are in the race of a high technology race that is in a sweet spot of the United States.

The United States invented the modern solar photovoltaic technologies, not only silicon but also the thin film technologies, and I believe we can compete and compete successfully in those technologies for what will be a hundreds-of-billion-dollars-a-year market.

Mrs. CHRISTENSEN. I agree. And we just can't afford to sit on the sidelines and allow other countries like China to dominate the market. We need those jobs and investments.

When we try to help U.S. companies compete against heavily subsidized Chinese competitors, not every project is going to succeed, but we cannot just let Solyndra's failure be an excuse to throw up our hands and give up on this huge market.

Secretary Chu, can you share your thoughts about why we need to compete for this clean energy market, whether American—well, I guess you've really answered that we need to compete. American companies can be successful. As you said, we invented the photovoltaic solar machinery.

Mr. CHU. Right. Well, let me add again——

Mrs. CHRISTENSEN. But also what policies should we put in place to help make this happen beyond what we've already done?

Mr. CHU. Well, first, let me tell you about the size of the market. As I said in my opening remarks, it's something of a $235 billion renewable energy market. According to some recent analysis by Bloomberg New Energy Finance, by 2020, that's expected to be close to $400 billion a year. By 2030, that's expected to be roughly $460 billion a year renewable energy, most of it, 80 percent of it roughly, in wind and solar technologies. By 2030—2020 or even less than 2020, wind is expected to reach parity with any form, new form of energy. Solar, there's a debate whether it becomes as inexpensive as, let's say, gas, by 2020 or 2030 or 2025, but there's a heavy expectation in the business world that these technologies will become competitive without subsidy in a short period, relatively short period of time.

And so the whole issue, and this is why it's so important to the United States, is that in this hundreds-of-billion-dollars-a-year market, do we want to be buyers or sellers? And we have the intellectual capacity to be the sellers.

Mrs. CHRISTENSEN. And with all of that investment comes jobs, correct?

Mr. CHU. Yes.

Mrs. CHRISTENSEN. Lots of jobs?

Mr. CHU. Lots of jobs, lots of wealth creation in the United States.

Mrs. CHRISTENSEN. Thank you.

Mr. CHU. And there's a world market out there.

Mrs. CHRISTENSEN. Thank you.

Mr. STEARNS. Ms. Myrick is recognized for 5 minutes.

Mrs. MYRICK. Thank you, Mr. Chairman.

Mr. Secretary, were you aware that Solyndra sent the committee a letter on July 13th of 2011, describing the financial condition of the company?

Mr. CHU. I can't say to the exact date, but around that time, the company was in trouble.

Mrs. MYRICK. Well, Mr. Harris wrote the committee at that time with the purpose of providing us with the most accurate and up-to-date information regarding Solyndra and our performance in the market, and that's a quote. And he also wrote the following fact, and I quote, Solyndra's revenues grew from $6 million in 2008 to $100 million in 2009 to $140 million in 2010, and for 2011, revenues are projected to nearly double again. PriceWaterhouseCoopers audited the financial statements that were completed on June 30th in 2010, and they substantially agreed with that, but there were several points that they didn't mention, and I would like to state those.

They didn't mention that the 2010 revenue amount was exactly half of the $284 million they had originally projected in their loan application. And they did not mention that audited cost of revenue was $162 million in 2009 and $284 million in 2010 for a gross loss of 61 percent and 100 percent of revenue respectively. Additionally, audited operating expenses showed a loss from operations, and Solyndra did not mention that audited net loss was a staggering $172 million in 2009 and another $329 million in 2010. They didn't mention that cash flows from operations showed a massive outflow of net cash used of $170 million in 2009 and $194 million in 2010. This, to me, is a large red flag as cash flow from operations is usually a source of cash, not a use, and cash flow showed cash depleting at a rapid rate, from $82 million in 2008, $52 million in 2009 to $32 million in 2010. So when did you become aware of this what I think is misleading information that Solyndra submitted to Congress? And, you know, if you did, when you became aware of it, what did you do, if anything?

Mr. CHU. Well, certainly, I became aware that the company was in financial stress at the time of restructuring, as we were discussing what to do, and as time progressed, became increasingly aware that the projections of the company were not being met, and so certainly by 2011, by the spring of 2011, I knew that this company was in deep trouble.

Mrs. MYRICK. Well, Mr. Silver, when he testified at the committee in September, said he's doing the best job we know how to do and the company was meeting projections.

Also, were you made aware of the fact that based on this data, the auditors issued a going concern qualification in March of 2010 that raised substantial doubt about the company's ability to continue in business?

Mr. CHU. I'm aware of it now. I believe that was the PriceWaterhouseCoopers audit.

Mrs. MYRICK. Correct.

Mr. CHU. And I think in that instance that they were asked to assist and give an audit as to whether Solyndra could have an initial public offering, and due to the circumstances of Solyndra and due to the market in a terrible recession, they said no, this was not the time to have an IPO.

Mrs. MYRICK. Did anyone in DOE review that financial information then and raise the concerns?

Mr. CHU. I'm sure they did, but I don't know personal knowledge of to what extent they reviewed the PriceWaterhouseCoopers analysis.

Mrs. MYRICK. Did Solyndra say how the sales were going to cover its selling and general administrative costs?

Mr. CHU. I believe that Solyndra had expectations of sales that, as you pointed out, did not come to pass.

Mrs. MYRICK. And also they, their manufacturing cost was up to twice sales revenue for a gross loss, that was part of it as well?

Mr. CHU. I certainly knew they had—that they were—their sales were not up, that they had to be selling at a discount because, again, all companies had to sell their product at a discount. Solar panels, although very high tech, are a commodity, and when prices go down by 70 percent in 2.5 years, you're knuckling down. All the companies are knuckling down; they're trying to ride out this storm.

Mrs. MYRICK. Did that auditors' growing concern question—raise concern within the department? Was that expressed and talked about at all?

Mr. CHU. Certainly, first, the growing concern, that is kind of a standard language. In a start-up company, there is a question as to whether, as you start this company, as you start up the manufacturing, the business plans, are you going to have negative cash flows, and at sometime those cash flows turn positive. The investors, the very savvy investors who invested nearly a billion dollars, the part of their business plan was that it would be sometime in 2011 before they would actually go in the black, and that turned out to be incorrect, and then more recent projections pushed that back several quarters.

Mrs. MYRICK. Thank you.

Mr. STEARNS. The gentlelady's time has expired.

The gentleman from Massachusetts, Mr. Markey, is recognized for 5 minutes.

Mr. MARKEY. Today Americans are focused on the oversized influence of the oil companies and others through the Occupy Wall Street movement, yet Republicans are pushing their own pre-occupy movement in the hopes that Americans will be too preoccupied with this one loan to a clean energy company that they won't see the tens of billions of dollars in government subsidies given to the oil, coal, and nuclear industries, the Republican favorites. The result, we're getting a distorted picture of the real market conditions that threaten our economic future.

Who we should really be talking about are not the bureaucrats at DOE, but the bureaucrats in China, who have made a strategic decision to drive foreign competitors out of the solar market. They did it with the rare earth minerals industry in the 1990s, and they are doing it right now with the solar industry.

Secretary Chu, many of my colleagues on this committee think renewable energy is the stuff of the Jetsons. They think solar panels are just like flying cars or life-sized robots that do housework, maybe some day way in the future. They're completely oblivious to the revolution that is going on.

Mr. Secretary, last year globally 194,000 megawatts of new electrical generating capacity was installed on the planet. What percentage of that new electrical generation power came from renewable sources? One-half of it in 2010. Half. And solar is by far the fastest growing energy industry in the world. Over the last 5 years global solar installments have increased 1,000 percent to 17,400 megawatts in 2010. For every new nuclear power plant globally that went online last year, four times as much new solar capacity was deployed. In the U.S., there are now 85,000 employees in the coal industry; 85,000 employees in the wind industry; and 100,000 employees in the solar industry. That's the story here. Solar has big coal and big nuclear and the established energy sector scared stiff, and they've enlisted the Republican party to do something about it. That's the real story here.

The Republicans have now essentially eliminated loan guarantees for renewable energy this year, and they have left $30 billion for nuclear and coal as loan guarantees. They passed legislation to cut the solar research budget for next year by 64 percent, but they've increased the budget for nuclear and fossil energy. In their budget, they promised to cut clean energy investments by 90 percent over the next 3 years.

Historically, just as there has been a Moore's law for computer chips, there also has been a Moore's law for solar. For every doubling of solar deployments worldwide, the price declines by 18 percent. At least that was the case until this year. Through the first 8 months of this year, the price of solar panels has fallen 42 percent, a 42 percent drop in just 8 months. So the irony here is that the Republicans attack renewable energy because they claim it's too expensive, but Solyndra failed because solar is getting too cheap. The price of solar and wind and other clean energy is dropping while coal and oil prices have risen. And the Republicans and the fossil fuel industry can't let clean energy win.

And why has this happened? Why has there been a 42 percent drop? I will tell you why. Our country is in a race right now. There's a global race to become the leading maker of solar technology, and we have some fierce competitors. Last year alone, China gave five solar companies $31 billion in financing assistance. That's on top of free land, extensive tax breaks. That's on top of a domestic currency that is substantially undervalued and allegations of dumping by Chinese state-sponsored solar companies into the U.S. market by our solar industry.

Secretary Chu, do you agree that this massive intervention into the market by China has fundamentally altered the market for solar panels and in fact made it very difficult for solar, for Evergreen, for Energy Conversion Devices in Michigan to survive, that the prices have plummeted and just like pets.com and the dot-com bubble, there are individual companies that are going to fail inside of a larger success story for solar and renewables?

Mr. CHU. Yes, I agree with that. Certainly, as I've indicated before, China has targeted all renewable energies as on their critical path for their future prosperity, not only for their domestic use, and they're going to be the leading user of renewable energies, but also they see a huge export market.

Mr. MARKEY. So when the price of silicon dropped dramatically, 90 percent, that hurt the technology of Solyndra because it was something that they were depending upon to have a much higher price point.

Mr. CHU. Right.

Mr. MARKEY. And that price point collapsed for them?

Mr. CHU. That is correct. Silicon and solar modules in general dropped, you said 42 percent in 8 or 9 months and 70 percent in a couple years. That's unheard of. It was violating the learning curve, the Moore's law that you spoke about, it was——

Mr. MARKEY. That's what happened with cell phone prices because of action in this, is that the price dropped 90 percent for cell phones after we passed three bills out of this committee. We don't mourn the old brick size of phones. We all decided to put those phones at under 10 cents a minute in our pocket. That's what's happening in the solar market.

Mr. STEARNS. The gentleman's time has expired, and recognize Mr. Sullivan for 5 minutes.

Mr. SULLIVAN. Thank you, Mr. Chairman.

Thank you, Secretary, for being here today, and I hear my good friend from Massachusetts talking about all these jobs that have been created, and you've talked about all these jobs that have been created in renewable energy and solar and wind, and looking at your Web site, it says you've created 60,000 American jobs. Is that true?

Mr. CHU. I believe that to be correct.

Mr. SULLIVAN. And, you know, these jobs seem pretty expensive to me, you know. You talk about the low cost, you know. At least in the coal and gas and oil industry, we're not paying for these jobs. These are private sector jobs that aren't helped by the government. And on your Web site, we took the 60,000 in Section 1703, you obligated $10,647,000,000 for those jobs. Sir, that's $1,625,000 per job. On Section 1705, 05, you obligated $16,128,500,000 for those jobs. That cost $963,585 per job. The ATV program you obligated $9,129,000,000, that's a cost of $221,557 per job. I mean, that's a lot. How do you justify paying that much? I mean, sir, I want to have jobs; 14 million people out of work and unemployment at 9 percent, I want jobs, but I think paying for them like this is a really bad idea. What do you have to say about that?

Mr. CHU. Well, let's start with, for example, the nuclear loan. I believe that was something like an $8 billion loan. The Federal funds, the company, the applicant that applied for the loan had to pay the credit subsidy for that loan. I think it was 3 or 4 percent; I'm not exactly sure how much. So the amount of government taxpayer dollars that went into that $8 billion or $9 billion loan was essentially zero, and so because the company itself paid for that.

Mr. SULLIVAN. Do you stand by paying this much for these jobs?

Mr. CHU. I'm trying to explain, sir, that when you have a 1703 program where the company, the applicant pays for the credit subsidy, they are actually—that's not taxpayer dollars. That's coming from the company.

Mr. SULLIVAN. Back to the Solyndra loan, would you do that loan again, knowing what you know today?

Mr. CHU. Would I do Solyndra knowing——

Mr. SULLIVAN. Knowing what you know today, would you approve that loan?

Mr. CHU. Certainly knowing what I know now, we would say no, but you don't make decisions, you fast forward 2 years in the future and then go back. I wish I could do that.

Mr. SULLIVAN. How closely were you involved in the loan process there?

Mr. CHU. In the loan process, I was—I have to approve all the loans, and I have to be briefed on all the loans, and I ask questions about the loans as they come up.

Mr. SULLIVAN. But, Mr. Secretary, with respect to the Solyndra loan application, were you aware that Solyndra reported zero sales in 2005 and 2007? You talked about that model being acceptable earlier.

Mr. CHU. 2005, I'm not even sure they actually had a fab plant up in that time, in the early days, when it was first formed as a company. You first have to build a factory, you have to build product, and then you sell.

Mr. SULLIVAN. Well, in 2010, you were Secretary at that time; is that correct?

Mr. CHU. Yes.

Mr. SULLIVAN. And Solyndra at that time, did you notice—you said earlier you noticed they were having some difficulty, and they expressed that to you, right?

Mr. CHU. Certainly by the end—certainly by 2011, we knew that there were—Solyndra was in trouble.

Mr. SULLIVAN. Did you know that from then, in 2010, did they discuss with you that they potentially would have to lay people off and do some downsizing?

Mr. CHU. They did not discuss that with me.

Mr. SULLIVAN. They never discussed anything like that with you?

Mr. CHU. They might——

Mr. SULLIVAN. Did they discuss it with anyone at the Department of Energy?

Mr. CHU. They may have discussed it with people in the loan program.

Mr. SULLIVAN. OK. So they discussed it with people in the loan program, so they were aware that Solyndra was having some difficulty in 2010. Would you say that, yes or no, is that correct, that that was expressed to someone in the loan department?

Mr. CHU. I would say that people in the loan department would know about it.

Mr. SULLIVAN. Why—who put the pressure on you or them to delay divulging that knowledge until after the elections?

Mr. CHU. There was no pressure. I was not part of that decision, and I certainly would not have been in favor of that decision.

Mr. SULLIVAN. And I believe you to be truthful in that statement, but someone put pressure on them to not—delay that divulging of that information on Solyndra until after the elections in 2010, and that's very political. I think it was done for political reasons. Do you think that's a proper way to do business?

Mr. CHU. No, I don't think it's a proper way to do business.

Mr. SULLIVAN. Thank you.

Now, who at the White House put pressure on you to get these loans done so quickly without doing the proper due diligence?

Mr. CHU. First, no one in the White House. We never cut corners in doing the proper due diligence. As I said before, if you look at the average time of due diligence from the time of formal application of the loans, it's something like 300——

Mr. SULLIVAN. Would you say proper due diligence by you would be no information on projected sales, general administrative expenses or estimated net profits, is that proper due diligence, and then get the loan out before getting that kind of information?

Mr. CHU. The business plan of Solyndra and of any start-up company is that as you're building the factory and building sales, you expect to be taking losses. The business plan was they actually expected to be in the red until sometime around 2011, and with that business plan, remember, there's a lot of savvy investors who spent nearly, invested nearly a billion dollars before the U.S. Government looked at them.

Mr. SULLIVAN. Thank you, Mr. Secretary.

Mr. STEARNS. The gentleman's time has expired.

Recognize the gentleman from Texas, Mr. Green, for 5 minutes.

Mr. GREEN. Thank you, Mr. Chairman.

Thank you, Secretary Chu, for appearing before the subcommittee. The events surrounding Solyndra are of great concern to me because—and a number of us were on this committee in 2005 when we put the loan program into effect and authorized it. It was a program that championed by both Democrats and Republicans in 2005, first passed by a Republican House and then signed by President Bush.

When I voted for the 2005 energy bill, I never intended that taxpayer money would be made a lesser priority for repayment than other outside investors, and I know we saw the section of 1701(d)(3) on the board a few minutes ago, and I've read the opinion from an outside counsel that went into the decision of saying that that's really not true, but, you know, the black letter law typically is the one that we all look at. I understand that the taxpayer money was subordinated for those outside investments as part of the restructuring and not the original loan.

Can you explain how the department came to that conclusion that you would be living up to your fiduciary relationship as Secretary of Energy, just like we have a fiduciary relationship to the taxpayers, and responsibility for that subordination? And like I said, I did read the section and the opinion. I obviously disagree with the opinion of the outside counsel that, all of a sudden, you could subordinate that loan. Was it based on that outside counsel opinion to the Department of Energy?

Mr. CHU. As I said, we went through a very rigorous process, starting with Susan Richardson and the General Counsel's Office in the Department of Energy, also outside counsel, as pointed out in the opening statements of Congresswoman DeGette. The previous general counsel, a previous general counsel of the Department of Energy also concurs that that was a decision that was within the bounds of the law. So this was a decision that was heavily vetted through our system. And I'm not a lawyer, but in discussing with them, the first one was in the instance of the loan, would it be subordinated? No, that was very clear. But as the record stands for itself on the decision both by the memo that was communicated to me through Scott Harris and also outside counsel and also, finally, a previous general counsel of the Department of Energy had no bone to pick in no way one way or the other, so we have a number of people saying that this is commensurate with the law.

Mr. GREEN. OK. Well, has the Department of Energy or, if you know of, any Federal agency ever subordinated a Federal loan to an outside investor?

Mr. CHU. In the case of when a loan is in trouble and in the case of a restructuring, I do know, as I said, I've been told that, you know, in very rare instances to be sure that Ex-Im or OPEC, I forget which one, has done this. Usually what happens in a restructuring is either the government takes an equity position or a subordination, and so when you do do a restructuring, if there's not additional money, what we were facing was the imminent bankruptcy of a company, and we looked at both cases, of whether it goes bankrupt now or it goes bankrupt later, or when you have a complete factor, if it goes bankrupt, what would be the chance of recovery?

Mr. GREEN. Well, I guess I have some concern about it because, except for OPEC—and I would appreciate any information on that because we tried to receive that from the Department of Energy—and we couldn't, I cannot, couldn't find any example of where we subordinated the United States interest to someone else, but I appreciate if you could get that to us.

And I understand if you went with lawyers and outside lawyers, previous counsel. But, as you know, sometimes like 10 economists, you'll get 11 different opinions. If you hire 10 lawyers, you may get 11 different opinions on it, but those of us who are on the committee and actually helped draft that law and support that program didn't ever intend that, and hopefully, for the record, that in the future, that will be the case, and if we have to, we'll change the language to what this outside opinion says, but the language is pretty clear, that subordination shall be subject to a condition that the obligation is not subordinate to other financing. I don't know how else you can read that except, you know, maybe getting around it saying, this is a second, we're trying to refinance the loan, but it seems like the refinancing should have been under the same rules as the original loan application because I couldn't find any time in history—I know all of us, if we have, if we owe the Federal Government and I owe Bank of America or Chase, believe me, the Federal Government gets our payment first, and so that's why I think it's unusual. But you may have had—counsel may have not been correct. Did you talk with the Department of Justice at all? I know you talked with in-house counsel at the Department of Energy. Was there ever any effort to talk with the Department of Justice for an interpretation on that?

Mr. CHU. No. We talked—I talked with our in-house counsel, and as I noted, the Department of Energy people also sought opinion of Morrison & Foerster.

Mr. GREEN. You know, it seemed like subordination is not the common practice. Was there any concern at all except for getting opinions of, like you said, previous counsel to the Department of Energy or outside counsel, that you were making precedent here or breaking precedent?

Mr. CHU. There was a discussion, and you're quite right, in the time of origination of the loan, we could not subordinate to any other equity partners or things of that nature, and so there is another clause in that act that said above all, we have to look out after the taxpayer interests and maximize recovery, and that also is part of that act.

Mr. GREEN. Was it ever offered that we would take, the taxpayers would take an equity portion of Solyndra in exchange for our secondary——

Mr. CHU. There's a discussion about equity position. Again, this is a new loan program, and I'm not even sure whether this loan program can actually—I was just referring to a practice of Ex-Im and OPEC.

Mr. STEARNS. The gentleman's time has expired.

Mr. GREEN. Well, Mr. Chairman, I would like to make sure, though, if we need to change the law because I don't think our committee made that——

Mr. STEARNS. I think you made that clear. In fact, you were on the conference committee when you made that law.

Mr. GREEN. Well, I wasn't on the conference committee; I was on this committee. But having supported that loan guarantee program, because I support both the solar, the wind, the nuclear, you name it. In fact, I've been disappointed we weren't able to do a more aggressive program in alternative energy, but we need to change that law because I don't think we ever ought to let the taxpayers be subordinate to a new investor even under a——

Mr. STEARNS. Well, I understand that.

Mr. GREEN [continuing]. Restructuring.

Mr. STEARNS. But I think you made a very excellent point that that's—how Mr. Chu used the law was not how it was intended, and I think you made a good point on that.

Ms. DEGETTE. Well, now, wait a minute.

Mr. STEARNS. I mean, that's my interpretation as the chairman.

Mr. WAXMAN. Well, Mr. Chairman, that's your interpretation, but the lawyers said otherwise——

Mr. STEARNS. Well, I appreciate that.

Mr. WAXMAN [continuing]. And that has to weigh on the Secretary far more than your opinion or Mr. Green's opinion.

Mr. STEARNS. Well, I certainly think——

Mr. WAXMAN. The rest of us are not willing to go along in changing the law.

Mr. STEARNS. Well, Mr. Green's opinion is what I'm agreeing with, not yours.

Let me recognize the gentleman from Pennsylvania, Mr. Murphy.

Mr. MURPHY. Thank you, Mr. Chairman.

Secretary Chu, at the Solyndra ground breaking on September 4, 2009, you said your agency, "moved aggressively to get stimulus money out the door." Were you aware that 4 days earlier, August 31st, the staff of OMB wrote to your agency and said, quote, I would prefer that this announcement be postponed, this is the first loan guarantee, and we should have full review with all hands on deck to make sure we get it right. Were you aware of that?

Mr. CHU. I'm aware of it now.

Mr. MURPHY. All right and not before that. Were you aware that the following day, on September 1st, 2009, OMB downgraded Solyndra's credit rating because of the, quote, weakening world market prices for solar generally?

Mr. CHU. What—another way of saying that, yes, is that the——

Mr. MURPHY. OK.

Mr. CHU [continuing]. Credit subsidy score went up slightly.

Mr. MURPHY. There's also an email—I appreciate that. I'm just trying to move, sir. There's an email between Steven Mitchell, managing director at Kaiser's venture capital firm, Argonaut Private Equity, and George Kaiser on March 5th, 2010, where Mitchell writes that, "Chu is apparently staying involved in Solyndra's application and continues to talk up the company as a success story." That's on tab 23. Now, is that a fair characterization, to say that you were personally interested and personally involved in Solyndra's effort to get Federal financing? Is that a yes or no?

Mr. CHU. As I said, Solyndra was the first company, the head of the line by the loan program, and so what we were doing is in order to get the loans out, we said, all right, who are at the head of the lines, who are the most promising, what are the most promising loans? Again——

Mr. MURPHY. The most promising, you said, sir?

Mr. CHU. The most promising in the opinion——

Mr. MURPHY. Let's hang on to that word. Let me just—because I have to ask you some questions because most promising is important. So were you aware then on March 16, 2010, in Solyndra's IPO filing with the SEC, PriceWaterhouseCoopers said it had, "substantial doubt about Solyndra's ability to continue as a growing concern"? Were you aware of that?

Mr. CHU. I am aware of it now.

Mr. MURPHY. That doesn't sound most promising. Were you aware that in the following month, OMB staff began expressing concern about your agency's monitoring of the loan?

Mr. CHU. Sorry, say that again?

Mr. MURPHY. Were you aware that in the following month, that's April of 2010, that OMB staff began expressing concern about your agency's monitoring of the loan?

Let me help you with that. What they said in April was that when evaluating the riskiness of Solyndra, they said, "DOE seems to separate the parent from the project, but I think the deal is structured in a way that does not support that view." So at that time were you worried that your agency's calculation of the project's risk was completely different from the OMB model?

Mr. CHU. I think there's lots of robust conversations that go on between OMB and Department of Energy, and in the end, I think OMB did not object to——

Mr. MURPHY. Can you just—I've got to——

Mr. CHU [continuing]. The restructuring.

Mr. MURPHY. So were you aware then, in May of 2010, 2 days before the President's visit to Solyndra, the White House Adviser, Valerie Jarrett, and Vice President Biden's chief of staff, Ron Klain, contacted your chief of staff to express their worries about the "growing concern" letter from Price Waterhouse, were you aware of that conversation?

Mr. CHU. No.

Mr. MURPHY. At any point in the spring of 2010, did you discuss with the White House the, quote, growing concern letter or the disagreements between OMB and DOE on Solyndra's financial strength?

Mr. CHU. As time progressed, there was certainly——

Mr. MURPHY. At that point?

Mr. CHU. I can't say exactly at that point.

Mr. MURPHY. OK.

Mr. CHU. But certainly as time progressed.

Mr. MURPHY. So were you aware—let me just try and get these in. Were you aware that in June, after Solyndra cancelled its IPO, an Office of Management and Budget staffer have suggested this would be a good moment to, quote, insist that DOE ramp up its monitoring function immediately? I mean was your agency monitoring or not monitoring up to that point?

Mr. CHU. I was told that by that time, we were monitoring the loans, but we had—I'm not really sure of the exact timing, but we had one—Solyndra was our first loan, and we then established a loan monitoring program, which has consistently been made more robust as time progressed.

Mr. MURPHY. So the following, month you had a meeting with OMB director Peter Orszag about policy issues; is that correct? Do you recall that meeting?

Mr. CHU. Yes.

Mr. MURPHY. OK. Now, the day before the meeting, OMB and Treasury both sent your agency a list of information needed about Solyndra's finances. Did you discuss Solyndra with Mr. Orszag?

Mr. CHU. No, we were discussing much higher policy issues than a particular loan, I believe, at that time.

Mr. MURPHY. So he didn't ask you for any critical information about Solyndra's finances, including financial statements, actual performance information, market price reduction?

Mr. CHU. Well, my recollection at the time was that we were discussing loans, for example, about whether if you took the loan plus 1603 plus production factors, other things, State subsidies, that some of the loans might be getting, there's a policy issue about——

Mr. MURPHY. Well, let me ask you this, then: Were you aware that prior to your meeting with Mr. Orszag, OMB staffers said on June 22nd, quote, if DOE does not stay on top of the project, it risks becoming embarrassing, given the high profile S1 POTUS and VPOTUS events over the past year. So I have to ask, you said it was promising, we have lots of other agencies saying and PriceWaterhouseCoopers and OMB and Treasury people saying this was not going to work out. So my question is, will you admit that there were problems in monitoring this loan and getting you the information or you having the information reviewed to draw a conclusion that this was promising?

Mr. CHU. By the word "promising," what I mean is that that loan was the head of the line; it was the people in the loan program that were from the previous, who were there in the previous administration.

Mr. MURPHY. Well, I didn't ask you where they were in the line, I asked if you there were problems you were aware of that you were monitoring or not in spite of it being promising——

Mr. CHU. Well, at the time of the origination of the loan after OMB's assigned credit subsidy score was something like 7.8 percent. What that means effectively is that there is a very low probability at the time in the OMB estimation that one would enter into default.

Mr. MURPHY. And that was when?

Mr. CHU. This was at the time of the—when the loan——

Mr. MURPHY. But it was restructured later on, sir.

Mr. CHU. No, after restructuring, certainly, then you reevaluate, and our loan program does this all the time.

Mr. MURPHY. Well, can you just tell me then finally, were you aware or not of the problems of monitoring this loan?

Mr. STEARNS. The gentleman's time has expired.

Mr. CHU. We are making the loan monitoring more robust. We have a separate office, and we continue to make it more robust.

Mr. MURPHY. I'm asking you, were you aware, do you admit there were problems with monitoring this loan by your agency?

Mr. CHU. At the beginning, when we had one loan, we began to set up a loan monitoring office. It was roughly at about the same time when OMB said we want you to set up a monitoring office, we did set it up, and so within certainly weeks——

Mr. STEARNS. The gentleman's time has expired.

Mr. MURPHY. Thank you.

Mr. STEARNS. Ms. Schakowsky is recognized for 5 minutes, the gentlelady.

Ms. SCHAKOWSKY. Thank you.

Secretary Chu, as you can see, the Solyndra bankruptcy has generated a political controversy, as you might expect when taxpayers take this big a hit. And the debate is not a bad thing if we use it to learn lessons about the most effective means of government support for clean energy, the amount of risk we are willing to accept to create jobs and help our country lead the energy industries of the future.

Unfortunately, I don't feel like that is the direction the majority has taken in this investigation. In fact, what we have seen are misstatements of fact and the use of selective documents out of context.

I want to ask you some questions to see if we can get the record straight regarding the history of the Solyndra loan guarantees. Solyndra applied for a DOE loan during the Bush administration; is that correct?

Mr. CHU. That is correct.

Ms. SCHAKOWSKY. When you received early briefings on the loan program's project pipeline, was Solyndra presented as an ongoing application that had undergone due diligence and was nearly ready to proceed, or was it presented as an application that had been rejected by the previous administration?

Mr. CHU. It was presented as an application that the various processes recommended that we go forward with this loan.

Ms. SCHAKOWSKY. I would like to address one specific refrain from our Republican colleagues, the assertion that the Bush administration rejected—that is a quote—Solyndra's application, only to have it revived by the Obama administration.

There is a document, tab 73 in your binder, that was sent to the director of the Loan Programs Office during the final months of the Bush administration. It lists Solyndra as one of the three highest priorities through January 15th—it says 2008, but given the time of the email, it is obvious that means 2009, because the email was December of 2008.

Mr. Chairman, I would like to have this document made part of the record.

Mr. TERRY [presiding]. Not hearing an objection, so ordered.

[The information appears at the conclusion of the hearing.]

Ms. SCHAKOWSKY. In early January 2009, Solyndra's application was reviewed by the credit committee at DOE. They raised some specific questions about the loan and remanded it for further consideration, quote, "without prejudice." The committee staff interviewed David Frantz, who has served as the director of the Loan Programs Office since 2007. The committee also interviewed Steve Isa—Isakow——

Mr. CHU. Isakowitz.

Ms. SCHAKOWSKY. Thank you—Isakowitz, who was appointed by President Bush to serve as CFO of the Department. Mr. Isakow—Isakowitz—I don't know——

Mr. CHU. Isakowitz.

Ms. SCHAKOWSKY. Yes. I should talk, "Schakowsky." Anyway—who was appointed by President—he continued to serve as CFO until July of 2011 and was Mr. Frantz's supervisor as Solyndra's application was reviewed.

Do you have any reason to doubt the credibility of these individuals?

Mr. CHU. No.

Ms. SCHAKOWSKY. Both “Mr. I.” and Mr. Frantz made it clear that Solyndra’s application was not in any way rejected by the Bush administration. They stated that the career DOE team in the Loan Programs Office continue to gather more information and negotiate a better equity split for the taxpayers after the first credit committee.

Both of these officials confirmed that consideration of the Solyndra application went on unabated as the Bush administration left office and the Obama administration came into office. Is that your understanding, as well?

Mr. CHU. That is my understanding.

Ms. SCHAKOWSKY. Was it ever your understanding that the Solyndra application had been rejected during the previous administration or that the application was somehow on the shelf, only to be, quote, “revived by the Obama administration”?

Mr. CHU. No, not—quite the contrary. The career folk in the Department of Energy in both administrations felt that this loan was at the head of the line of the ones that we should be looking at. And it was progressing according to the procedures.

Ms. SCHAKOWSKY. Well, I thank you, Mr. Secretary, because I think it is very important to clarify the record regarding the history of the loan guarantee and to put to rest some of the statements that were made that contradict that record.

And I am happy that we have the email and the documents that I think clearly show that this was something that was proceeding forward and was recommended to proceed forward when the Bush administration left and handed this over, with these career people that—Dr. Frantz was still there, as I understand it.

Mr. CHU. Yes.

Ms. SCHAKOWSKY. And I yield back my time. Thank you.

Mr. TERRY. All right. The gentleman from Texas, Mr. Burgess, you are recognized for 5 minutes.

Mr. BURGESS. I thank the chairman for the recognition.

Secretary, thank you for being here today, and thank you for your generous time that you are spending with the committee.

I just want to say at the outset, I think solar energy has a place in the future of this Nation’s armamentarium of energy sources. But I must say, what has happened with Solyndra—and the hearing we are having today kind of underscores it—I think it has set back the prospect for perhaps some time.

Let me ask you a question. You said earlier it is regrettable what happened and that some of these were going to fail. And, in fact, the first two out of three, between Solyndra and Beacon, the first two out of the three projects that you approved have failed. The President has said it could be as high as a 50 percent failure rate.

So what is an acceptable failure risk for this type of project?

Mr. CHU. I would say that, given the credit—the total credit subsidy that was appropriated and set aside, the $10 billion, which included $2.4 billion for the 1705 program, certainly if we approached something on that number, that would be very bad. I, personally, don’t think we are going to get anywhere close.

And if you take the loan program in its total, not only 1705 but the ATVM Loan Program, it would——

Mr. BURGESS. Yes, let me stop you there for a second, because my time is going to be very limited. They won't let me go over like others. You watch.

Mr. TERRY. Thank you for recognizing that.

Mr. BURGESS. But here is the deal. I mean, the confluence of the loan guarantees, coupled with the rapid injection of dollars from the stimulus bill, has really led, in my opinion, to some touchy decisions being made. And it has led you, as the Secretary of the Department of Energy, to behave like a venture capitalist.

But you are the Secretary of Energy. You hold the Nation's nuclear secrets. You maintain the Nation's nuclear arsenal. You are not supposed to be a venture capitalist who takes risk. Is that correct?

Mr. CHU. First, the loan program is not a venture capital—it is actually for something beyond the initial stages of investment. And the loan program, as set up by Congress, said, here is the money, here is appropriate funds to cover for losses, but we need——

Mr. BURGESS. Yes, but the bottom line is, with all due respect, you are—I mean, look, I was in private business. I understand what it is like to take a risk. I understand what it is like to fail. But you are the Secretary of Energy. You earn almost $200,000 a year. If you approve a program that fails, at the end of the day you go home and you are still earning $200,000 a year. None of your assets are attached, nothing of yours personally is put at risk, because these are taxpayer dollars that were put on the line.

Do you understand how people are uncomfortable with this concept of the Department of Energy behaving as a venture capitalist?

Mr. CHU. Well, as I said before, this loan program was set up by Congress, and Congress appropriated in the 1705 program $2.4 billion to account for the losses.

Mr. BURGESS. As someone who was sitting in this committee in 2005 when the loan guarantee program was approved, I don't think any of us could have foreseen what was around the corner with, again, the rapid injection of cash from the stimulus bill. Most of us on this side of the dais oppose that.

Let me ask you some questions about subordination, because my colleague from Texas, Mr. Green, asked some. You said it was a difficult choice to make, about the subordination, correct?

Mr. CHU. It was difficult because, by that time, we knew that the company was in trouble, and we, again, were trying to maximize taxpayer recovery. And so, all our actions were focused on maximizing taxpayer recovery.

Mr. BURGESS. Yes. And, you know, this almost seems like a tortured legal opinion that have we come to. But do you see how some people could look at this and say, this was a violation of the law, 1702, that has been much talked about this morning, where taxpayer obligations were not allowed to be subordinated? And I realize there was, again, what I would describe as a tortured legal opinion. But do you understand that the average person looking at this says, that is not right, that shouldn't have happened?

Mr. CHU. Again, we had—I had the opinion of general counsel I trusted, I had the opinion of many others, it went through a rigorous review process within the Department of Energy——

Mr. BURGESS. Correct, and I don't dispute that. I will stipulate to that. But, with all due respect, do you see how regular people would look at this and say, I don't think that is right?

Now, I will be the first to admit that in the Energy Policy Act of 2005—perhaps just an oversight, certainly could be regarded as a mistake—there is no penalty, civil or criminal, no penalty for violation of that.

But do you feel—and, again, at the end of the day, you are still earning your salary whether things work out or not. But do you feel that you owe people an apology for having subordinated the taxpayer dollar to what now turns out to be a very risky venture?

Mr. CHU. I think, certainly, it was very regrettable what happened to Solyndra. But I go back and say that when the market was falling out, the prices were falling out, we were focused on trying to recover as much of the taxpayer dollars as possible under those conditions.

Mr. BURGESS. One last thing. Again, in my mind, this was technically a violation of the law, although there is no penalty. Have you discussed with your boss whether or not you should continue in your position, having violated the spirit of the Energy Policy Act of 2005?

Mr. CHU. Have I discussed with my boss that? No.

Mr. BURGESS. Is he comfortable, do you think, with you continuing your position——

Mr. CHU. I believe so.

Mr. BURGESS. [continuing]. When there was a violation of law, even though there is no penalty?

Mr. CHU. We believe there was no violation of the law.

Mr. BURGESS. Again, that is a fairly tortured legal explanation that has been provided to this committee. I think the language is straightforward. Mr. Green, a Democrat, was very uncomfortable about the subordination aspect. I remain very uncomfortable. And I have to tell you, I haven't seen a poll done on this, but I think, broadly, across the country, people understand that this was not right.

Mr. TERRY. Let the record show we let you go 1 minute over like everybody else.

The gentleman from Arkansas is recognized for 5 minutes.

Mr. ROSS. Thank you, Mr. Chairman.

And, Mr. Secretary, I believe it is important to Members on both sides of the aisle to understand exactly why Solyndra went bankrupt and to make sure the Department of Energy is doing enough to protect the taxpayers. There has been a lot of partisan and political rhetoric associated with this investigation. I want to try to take it beyond that and remove the partisan and the political nature of it and try to get to the facts.

And, as I understand it, the Department of Energy was not the only entity that believed in Solyndra. Private equity investors made significant investments. In March of 2010, the Wall Street Journal ranked Solyndra number 5 in a list of the top 50 venture-backed companies. In that same year, MIT's Technology Review named Solyndra one of the world's 50 most innovative companies.

Mr. Chairman, hindsight is 20/20, and predicting the future of innovative technologies is particularly difficult. In the case of

Solyndra, none of us like the end result, just as any banker does not like to make a loan that ends up defaulting. But it is clear that the Department of Energy wasn't the only entity convinced that the company had a good shot at success. Smart investors, smart market analysts, smart technology experts from Wall Street to MIT, and other outside observers also got this one wrong.

So how do we learn from this, and how do we move forward while continuing to advance alternative and renewable forms of energy, something I feel very strongly about? We are shipping about $300 billion a year overseas to buy energy. That is a $300 billion annual payroll we could have right here at home in America if we could learn how to grow and make more of our own energy.

So I want to ask you some questions until I run out of time on the type of due diligence done on the Solyndra application. Given your scientific background, I would also like to get your views on why the Department of Energy and major private investors decided to bet on the company's technology.

In 2007, the Department of Energy submitted Solyndra's application to the National Renewable Energy Lab in Golden, Colorado, for review, and the National Renewable Energy Lab gave Solyndra the highest technical merit score of any application DOE has ever received. And I might add, that was in the previous administration when all that happened.

So, Secretary Chu, you are a Nobel Prize-winning physicist, and, during your academic career, you ran a national laboratory that did work on renewable energy. So what can you tell us about the National Renewable Energy Lab process that really helped us to get to where we are today?

Mr. CHU. Well, the NREL, National Renewable Energy Lab, is one of our national laboratories. They have great expertise in solar technologies. And, in fact, I should say that out of the NREL grew another thin-film technology called cad telluride that is—that patent has now been licensed to General Electric. And General Electric today is investing in—$400 million investment in cad telluride that grew out of NREL. And this is—I just spoke with Jeff Immelt, the CEO of GE, and he said, no, we think that this is going to be a very competitive technology; we think we can compete head-to-head with the Chinese.

And, going back, this is work that came out of Department of Energy laboratories, but in addition to dropping new technologies, they are also experts in assessing technologies.

Mr. ROSS. After the Department of Energy's own technological review, Solyndra was invited to submit a full application to the Department of Energy. And during this process, it underwent multiple third-party reviews. The consultant CH2M HILL submitted a technology and manufacturing review for Solyndra. Solyndra's business plan relied on studies by PHOTON Consulting, Navigant Consulting, and New Energy Finance. DOE relied on outside marketing reviews of Solyndra by a host of experts on energy markets, creditworthiness, and engineering, including Dun & Bradstreet, R.W. Beck, Black & Veatch, Fitch, and Navigant Consulting.

So, Secretary Chu, given all of this internal and external analysis, dating back to 2007, as it relates to Solyndra, do you feel confident that the DOE did its due diligence on the Solyndra loan?

And, if not, what could we have done differently to ensure that we wouldn't be here today?

Mr. CHU. As you recounted, I mean, there is extraordinary due diligence not only in the Solyndra loan but every loan. And that is why it took, on a rough scale, even with the processes, a year or 2 years to actually do the due diligence on these loans.

And so, it was this combination of events, the most striking being the rapid drop in prices that affected and is stressing companies all around the world, not only in the United States but in Asia, as well as in Europe.

Mr. ROSS. Mr. Secretary, I would encourage you to try to figure out what went wrong, keep this from ever happening again, while continuing to advance alternative renewable American-made energies here at home.

Mr. CHU. We, in fact, have—if the chairman will allow me—we, in fact, based on the Solyndra experience, not only have now a separate team within our loan office to monitor the loans and the disbursements, but we are also bringing in others. For example, in the Department of Energy, Renewable Energy, there is a group that is expert in solar; it is called our SunShot team. It is headed by someone we recruited, a member of the National Academy of Engineering, understands the business very well. And they provide yet another set of independent eyes to monitor the loans and disbursements.

So what we are doing, as these loans go forward, is we are going to be watching like a hawk, especially given the rapid changing market conditions.

Mr. TERRY. The gentlelady from Tennessee is recognized for 5 minutes.

Mrs. BLACKBURN. Thank you, Mr. Chairman.

And, Mr. Secretary, thank you for being with us today.

I feel almost the need to sit here and remind all of us in this room, this hearing today is not about solar power. The hearing today is about the possible abuse of Executive power and of the taxpayers' money. And we desperately want to get, and we are being diligent in trying to get, to exactly what happened with this process and where it ran so far afield.

Now, we have been through a series of red flags that existed and seem to have been transparent prior to the loan being approved, but I want to pick up right there. After that loan closed in September 2009, at that point did DOE require Solyndra to provide DOE with financial information or other additional data? After that loan was approved, did you go back to them and say, we need to find some additional data?

Mr. CHU. After a loan is approved and as we go through disbursements, we are in constant communication with the company. Otherwise—because these disbursements—we have a contractual agreement, and as they build the fab plant, they have to be building it as they said they would build it, and then we disburse the funds after they have spent it to build it. So we are in constant communication the whole——

Mrs. BLACKBURN. You are in constant contact. But the question is really a yes-or-no: Did you or did you not require additional financial information from Solyndra?

Mr. CHU. Yes.

Mrs. BLACKBURN. Yes. OK.

Were you aware that DOE staff repeatedly raised the issue of Solyndra's parents' financial health and the lack of working capital as a cause for concern?

Mr. CHU. Now, there are two parts of this. One part was the working capital in order to complete the project. And, as I said, there was a model which—that there would be an interruption of cash flow, but in actual fact, upon re-examining this, it was not an issue, and in actual fact the plant was built on budget, on time.

Mrs. BLACKBURN. OK. So, given that you were aware there was a possibility of an interruption of cash flow, why wouldn't you have gotten additional financial information on their cash flow and on the cash burn rate?

Mr. CHU. I believe during this time there was communication with the company on this cash-flow issue. And, again, it was relayed to me that this was a particular model that said this. In 1 month, it would come to a point, but then the following months that they would be just fine in the building out of that plant.

Mrs. BLACKBURN. Looking at lessons learned, does the DOE now require financial information about the parent companies of its project financial deals?

Mr. CHU. Well, we always do. And, as I said before on lessons learned, when there is a rapidly changing situation, rapidly changing market, we have additional sets of eyes, not only within the loan program but also outside the loan program.

Mrs. BLACKBURN. OK. And the Loan Programs Office has engaged in the kind of enhanced monitoring that you are saying you have put on Solyndra in these type situations. Are you doing these with the other companies, the 28 other——

Mr. CHU. We are now monitoring——

Mrs. BLACKBURN [continuing]. Companies that are in the loan program?

Mr. CHU. Of course. We are monitoring all the loans on a minimum of a monthly basis because——

Mrs. BLACKBURN. What about weekly cash flows?

Mr. CHU. Actually, in some instances, weekly, absolutely.

Mrs. BLACKBURN. What about a board observer seat?

Mr. CHU. As you know, we did have a board observer seat in Solyndra after the restructuring. And in that board observer seat, as with the equity investors, again, it was a rapidly changing dynamic, and the equity investors were as surprised as we were.

Mrs. BLACKBURN. OK. Let's go back to the cash burn rate issues because you have talked about the savvy investors that were there for Solyndra. They had a billion dollars in cash. But we keep hearing about that cash burn rate.

In your opinion, was DOE and were you aware of those cash burn rate issues before or after that loan was closed in September 2009?

Mr. CHU. I believe that they were aware of what would be happening, the business plan. And with any manufacturing plant, a new manufacturing plant, as you manufacture, as you build up the——

Mrs. BLACKBURN. Were you personally aware, or was——

Mr. CHU. I was aware——

Mrs. BLACKBURN [continuing]. It just the analysts?

Mr. CHU. In general, as I said, I certainly have enough experience with looking at startup companies to know that that is very——

Mrs. BLACKBURN. Did anyone brief you specifically on Solyndra's cash burn rate issues?

Mr. CHU. As the loan progressed, yes, they did.

Mrs. BLACKBURN. But not before the loan closed?

Mr. CHU. Not before the loan closed, not that I recall. But I can't be sure.

Mrs. BLACKBURN. What did you know about the financial health of Solyndra before you approved that deal?

Mr. CHU. It was believed to be a healthy company at the time of closing. I think the bond rating was something like a B-plus at the time of closing——

Mrs. BLACKBURN. OK.

Mr. CHU [continuing]. As dictated by, actually, the OMB.

Mrs. BLACKBURN. Let me ask you this. Why did you allow that company to continue to pull down millions of taxpayer dollars after you discovered the financial problems in that company?

Mr. CHU. OK. That is an excellent question.

So, as we began to know that the company had—the parent company had cash-flow problems, not the project, we faced a decision. You are building—the loan was to build a factory. The factory was half-built, roughly speaking, or two-thirds built. And if we had pulled the plug then, we were certain that Solyndra would go into bankruptcy.

And then we did two analyses. If you completed the factory and sold the factory and give them a fighting chance to survive as an ongoing company, what was the probability. So we faced this difficult choice. And we felt, in the taxpayers' interest, the highest probability of recovering as much as possible of taxpayer dollars was to disburse the funds.

Mrs. BLACKBURN. Was it in the taxpayer interest or in the desire for green energy jobs that you made that decision?

Mr. CHU. When we make a loan, we have a very green eye-shaded approach to this loan. It is a business transaction. And so, when we make this loan, we said—we have to, by statute of the law, say that there is a reasonable prospect of this loan being paid back.

Now, having said that, we have also been mandated to make innovative loans. And, again, the loan loss reserve was designed and appropriated by Congress in order to take care of unfortunate instances such as the one in Solyndra.

Mrs. BLACKBURN. I yield back.

Mr. STEARNS. [presiding.] The gentlelady's time has expired.

And the gentleman from California, Mr. Bilbray, is recognized for 5 minutes.

Mr. BILBRAY. Thank you very much for being here today, Mr. Secretary.

Mr. Secretary, I had the pleasure of listening to your testimony back on March 3rd of 2010. And, at that time, you stated quite distinctly that you believe that nuclear energy remains a safe and secure and economical source of clean energy. Do you still believe that today?

Mr. CHU. Well, if you are asking—yes, I believe nuclear energy can be safe and secure. We——

Mr. BILBRAY. That is all I needed to know. I just wanted to make sure that——

Mr. CHU. All right.

Mr. BILBRAY. You are a high energy physicist. You are somebody who knows that. Probably of anybody who has ever been sitting in your chair, you probably understand the realities of that technology better than most, if not all, of your predecessors.

You are also well versed in not just nuclear technology, but you have been on a steep learning curve when it comes to photovoltaic technology, too, right?

Mr. CHU. Well, the learning curve started perhaps 10 years ago.

Mr. BILBRAY. OK. My question is this. You distinctly understand the difference, the advantages and disadvantages, of poly, mono, and amorphous or thin-film technologies, right?

Mr. CHU. I do know the advantages and disadvantages, yes.

Mr. BILBRAY. Now, do you personally own a solar array, a photovoltaic of any configuration?

Mr. CHU. No. Oh, well, little flashlights, solar ones, but not on my roof.

Mr. BILBRAY. Yes, a little flashlight solar would be thin film.

Mr. CHU. Yes.

Mr. BILBRAY. With what you know today and if you were buying something today you were going to put on your roof and you had the choice of the three different divisions, which technology would you choose?

Mr. CHU. It would really depend on the price, the guarantee, the warranty, how long the panels would last. So it would be an economic decision.

Mr. BILBRAY. Knowing what you know with those three categories, with the same square-footage array, same price, wouldn't you agree that a reasonable consumer at this time would be choosing either mono or poly crystal if you were going to use it on your own residence at this time?

Mr. CHU. No, I—it is not clear, because the thin-film technology is actually a very, very good technology, and this is why U.S. companies are investing, in part, in thin-film technology.

Mr. BILBRAY. Are you saying the production of thin film is equal to the other two technologies?

Mr. CHU. Well, there are companies like General Electric placing big bets, saying that it is going to be superior.

Mr. BILBRAY. Big bets for the future.

Mr. CHU. Well, they are investing today.

Mr. BILBRAY. And the existing technology today doesn't reflect that.

Mr. CHU. No, sir. I would disagree with that. I think——

Mr. BILBRAY. OK. I appreciate that. And I am very surprised that you are disagreeing with that. But when we make reference to China and China's investment, are you aware that the overwhelming majority of China's investment is in poly and mono and not in amorphous technology?

Mr. CHU. I am aware of that.

Mr. BILBRAY. OK. Was that, the fact that the Chinese were betting on the traditional, proven technology, was that in your understanding or was that sold as being a reason to move into a new, pretty radical concept of how to produce solar panels using the amorphous technology, was there a conscious effort that you were going to be able to then sort of jump over and beat the Chinese at the game by using a new type of approach that they were not willing to invest in?

Mr. CHU. Well, what the Chinese do, typically, is they take an existing technology and they bring it to a very, very large scale and they get economy of scale. And that is, in fact——

Mr. BILBRAY. But was that a decision, that you knew that the Chinese weren't really placing bets on amorphous and, thus, there was a market—there could be a market opportunity to move and beat them to it?

Mr. CHU. Well, the Chinese actually—this is thin film. The Chinese actually were investing in amorphous silicon, but that turned out to be a bad bet for the Chinese. What was happening——

Mr. BILBRAY. Mr. Secretary, I must interrupt you. It seems like it was a bad bet for us, too, on this one, too. So I am just saying, and I think you will reflect, that the false starts in photovoltaics—the worst problem we have had with the failed projects have been in amorphous, that the Chinese have run into?

Mr. CHU. Well, I think you mean thin film.

Mr. BILBRAY. Thin film.

Mr. CHU. No, I think—first of all, this is not at Department of Energy. We have loan applicants—there are other companies investing in thin film.

The reason they are investing in thin-film technology is because, first of all, since we invented both the silicon technology, the cad telluride, the CIGS technology, there is more technological headroom in thin film. It is much cheaper to manufacture. The quantum efficiency—efficiency of the thin film is coming up much more rapidly. And so, this is why——

Mr. BILBRAY. But, historically, it has also had a much bigger problem—historically, it has had a problem with durability and production, except for in very low-light applications.

Mr. CHU. No, I think——

Mr. BILBRAY. You think the durability of thin film traditionally has been equal?

Mr. CHU. You again may be mixing up, conflating amorphous silicon with cad telluride.

Mr. BILBRAY. OK. Cad telluride is hopefully the new breakthrough that we will see coming in the future?

Mr. CHU. Well, this cad telluride, again, it was developed in a national laboratory, licensed to other companies. And it is very competitive with——

Mr. BILBRAY. Was Solyndra proposing to use that?

Mr. CHU. No. Solyndra was using another technology called CIGS. This is——

Mr. BILBRAY. Which does not have the same capabilities as cad telluride.

Mr. CHU. No, it has the same capabilities as cad telluride in terms of the overall theoretical efficiency. At the time, they were in the same place in terms of the production efficiency, and they were making improvements.

Mr. BILBRAY. Thank you, Mr. Chairman. I think the big issue was——

Mr. STEARNS. The gentleman's time has expired.

Mr. BILBRAY [continuing]. "Theoretical" was the big word there. Thank you.

Mr. STEARNS. The gentleman from Georgia is recognized for 5 minutes.

Mr. GINGREY. Mr. Chairman, I thank you.

Dr. Chu, I hate to start off with a sports analogy, but in regard to the restructuring of the Solyndra loan, I think I will give you a little sports analogy.

This Sunday, the Atlanta Falcons were playing the world-champion New Orleans Saints in Atlanta, and they went to overtime tied. And the Falcons coach made a decision deep in his own territory, 4th and 1, to go for the first down, knowing that if he punted the ball back to the New Orleans Saints and their great quarterback Drew Brees that they would be unlikely to stop them. So he goes for a first down, and he misses it. And two plays later, the New Orleans Saints have a chip-shot field goal, and they win the game.

So he takes a chance, makes, I think, a ridiculous decision, but it wasn't against the law. It was not against the law.

Now, in this situation of restructuring the Solyndra loan, I think what was done by the Department of Energy, despite what the counsel has said, is breaking the law under the Energy Policy Act.

And I would just like to know from you, Mr. Secretary, when the folks at Treasury, the people that actually made the loan—because this wasn't a $535 million loan guarantee; it was a loan coming straight out of the Federal Financing Bank. And they said in a letter or an email to your folks at the Department of Energy, "Before you do this restructuring, I think you better get an opinion from the Justice Department." Now, the Department of Energy ignored that and went ahead and got their own letter from in-house counsel and came up with some, in my opinion cockamamie, idea of why it was OK to do this. And the law was broken.

You have explained to us here today that, you know, your feeling about all of that was, well, if you didn't do it, the taxpayer was very likely almost immediately to see a bankruptcy of the company and a total loss of the loan, the $535 million, and that if you restructured and allowed them to come in with $75 million more of private equity, that that that might save the day.

And so, it was a tough decision, and you approved and went ahead with this restructuring of the loan—clearly breaking the law. I mean, the language—and you have seen the slide earlier—the language is pretty clear. And the result, of course, was the same, not unlike what happened in Atlanta this past Sunday when Coach Smith made that fateful decision. My colleague here from Louisiana says it was a good decision. But everybody says that this decision that you made was a bad decision.

And I just don't understand why you didn't go ahead and submit this to the Justice Department and ask one of their high-powered lawyers, assistant attorney generals or whatnot, to give you a legal opinion on that. Why not?

Mr. CHU. It is my understanding that one goes to Justice if there is a change in the conditions of the loan, if you, for example, decrease the amount that would be paid back or a decrease in the interest rate—things of that issue. And, again, it was not only the opinion of the counsel within the Department of Energy, with Susan Richardson, in a very vigorous review process——

Mr. GINGREY. Well, Mr. Secretary, I apologize for interrupting you, but I don't think the folks within the Department of Energy in that loan program were the experts in this case. The bankers of the Federal Financing Bank in the Treasury Department, clearly, they are the experts, who—all of a sudden, they are worried about the loan.

Let me move on to another subject, and I want to ask you if you are familiar with a recent Washington Post article—I believe this is November 15th, so just a couple of days ago—by Carol Leonnig and Joe Stephens. And the title of this, Mr. Secretary, "Solyndra: Energy Department Pushed Firm to Keep Layoffs Quiet Until After Midterm Elections."

Now, this article—and, Mr. Chairman, I would like to ask unanimous consent to submit this for the record.

Mr. STEARNS. So ordered.

[The article follows:]

The Washington Post

Back to previous page

Solyndra: Energy Dept. pushed firm to keep layoffs quiet until after midterms

By Carol D. Leonnig and Joe Stephens,
Published: November 15, 2011

The Obama administration, which gave the solar company Solyndra a half-billion-dollar loan to help create jobs, asked the company to delay announcing it would lay off workers until after the hotly contested November 2010 midterm elections that imperiled Democratic control of Congress, newly released e-mails show.

The announcement could have been politically damaging because President Obama and others in the administration had held up Solyndra as a poster child of its clean-energy initiative, saying the company's new factory, built with the help of stimulus money, could create 1,000 jobs. Six months before the midterm elections, Obama visited Solyndra's California plant to praise its success, even though outside auditors had questioned whether the operation might collapse in debt.

As the contentious 2010 elections approached, Solyndra found itself foundering, and it warned the Energy Department that it would need an emergency cash infusion. A Solyndra investment adviser wrote in an Oct. 30, 2010, e-mail — without explaining the reason — that Energy Department officials were pushing "very hard" to delay making the layoffs public until the day after the elections.

The announcement ultimately was made on Nov. 3, 2010 — immediately following the Nov. 2 vote.

E-mails describing the events were released Tuesday as part of a House Energy and Commerce Committee memo, provided in advance of Energy Secretary Steven Chu's scheduled testimony before the committee's investigative panel on Thursday. As a result of the 2010 elections, that committee is now controlled by Republicans, whose aggressive nine-month investigation into Solyndra has focused partly on whether politics played a role in the company's selection to receive a federal loan.

Amid the fallout from the company's shutdown in August, the White House has said tough scrutiny of the department's oversight efforts is warranted and it has begun its own independent review of the loan program. Although the president has publicly supported Chu, senior White House officials in February circulated an outside adviser's recommendation that Chu be replaced because of anticipated political controversy over the energy loans.

On Tuesday, Energy Department spokesman Damien LaVera declined to confirm events described in the e-mails or to identify who at the department may have urged the delay in the layoff announcement. He stressed, however, that "decisions about this loan were made on the merits." In an interview aired Tuesday on NPR, Chu said that politics did not enter into any decisions he or his staff made regarding Solyndra and that there was no way to foresee the company's demise.

The White House declined to comment Tuesday on whether senior White House officials attempted to influence the timing of the layoff announcement. "These e-mails, again cherry-picked by House Republicans, reflect nothing more than the White House being given a heads-up about an upcoming press release from Solyndra," White House spokesman Eric Schultz said.

The e-mail release came on the heels of more bad news for Chu. Energy Department Inspector General Gregory Friedman released a report Tuesday calling for a far-reaching review of the agency's operations. He wrote that the department spent $10 billion last year on its core laboratory operations, but more than a third went toward overhead and program support.

In late 2009, Chu attended a groundbreaking for the factory Solyndra built with its $535 million federal loan, and Vice President Biden spoke at the event by satellite.

But Solyndra chief executive Brian Harrison warned the agency in an Oct. 25, 2010, e-mail that he intended to announce layoffs in three days. He wrote that journalists and investors were asking about rumored layoffs and the possible closure of one of its two factories.

Five days later, an adviser to Solyndra's primary investor, Argonaut Equity, explained in an internal e-mail that the Energy Department had strongly urged the company to delay the layoff announcement.

The Energy Department "continues to be cooperative" and committed to a November drawdown on the loan, the Solyndra adviser wrote. "They did push very hard for us to hold our announcement of the consolidation to employees and vendors to Nov. 3rd — oddly they didn't give a reason for that date."

Solyndra has become a rallying cry for Republicans who believe Obama used his clean-energy initiative to steer loans to campaign donors. Argonaut is a private equity firm for the family funds of George Kaiser, a Tulsa billionaire and Obama fundraising bundler. Kaiser has said he played no part in helping Solyndra win the loan. Even so, previously released e-mails have shown Kaiser strategized with his business associates about the best way to approach the White House to help Solyndra deal with its financial problems.

In the fall of 2010, Solyndra executives and investors warned the Energy Department that they needed emergency financing to keep the company operating past December.

In the Oct. 25 e-mail, Harrison warned the Energy Department's loan staff that the story of Solyndra's financial problems "is starting to leak outside Solyndra."

He said he would "like to go forward with the internal communication [to employees regarding layoffs] on Thursday, October 28."

Harrison's e-mail was forwarded to the Energy Department's loan program director, Jonathan Silver. Silver forwarded the e-mail to Chu's chief of staff, who then alerted White House climate change czar Carol Browner and Ron Klain, Biden's point person on stimulus efforts. Browner reportedly asked for more information, and Chu's chief of staff explained that he had left a voice-mail message on her cellphone.

Browner's spokesman, David DiMartino, said Tuesday that Browner doesn't recall the voice-mail and did not advise the Energy Department on how to handle the timing of Solyndra's layoff announcement.

On Nov. 3, 2010, Solyndra publicly announced that it would lay off 40 workers and 150 contractors and shut down its original factory. The department agreed to continue giving Solyndra loan installments despite its failure to meet key terms of the loan. In February, the agency restructured its loan to give Argonaut and other investors a chance to recover $75 million in new money they put into the company before taxpayers would be repaid.

Silver resigned from the agency last month.

[redacted]

[redacted]

[redacted]

Mr. GINGREY. In this article, basically, they are saying the Solyndra people were trying to make sure that the bank, the Federal Financing Bank, would continue to advance them loan proceeds, maybe even a little in advance of when they were due. And, basically, the Department of Energy, according to this article, said, "Well, look, we know you all are going to have some layoffs coming up. It has been leaked to the press. And we would prefer that you not make those layoffs, at least the announcement of it, until November 3rd, 1 day after the midterm elections." And then, of course, they got their advancement of the loan. A little bit suspicious.

Do you have any comments on that at all, the timing of that?

Mr. CHU. Yes. First, I was not aware of any communications with our loan office with the Solyndra people until that article came out. It is not the way that I do business. We don't—I am looking at the loan, the process of repayment, looking after the taxpayer interest, and those factors are not part of our consideration. Something like that was not discussed with me, and I would have not approved it——

Mr. GINGREY. Mr. Secretary, I believe you. I believe you. But this looks highly political.

Mr. Chairman, I yield back.

Mr. STEARNS. I thank the gentleman.

And the gentleman from Louisiana, Mr. Scalise, is recognized for 5 minutes.

Mr. SCALISE. Thank you, Mr Chairman. I appreciate you having this hearing.

Mr. Secretary, thank you for coming before our committee.

I want to express similar sentiments as Dr. Burgess and others expressed. I strongly support an all-of-the-above energy policy. I think, frankly, in our country, we are sadly lacking a real energy policy that allows us to utilize the natural resources we have in this country. We have to use all the things we have, including wind and solar. But, clearly, as we can see, those technologies still haven't advanced to the level that they need to.

And what is at heart here is this question of this Solyndra loan, the $535 million of taxpayer money that have been lost, and how did we get to this point.

I think one of the big issues that I have struggled with, and others, is when we get to this question of subordination, as the loan was restructured, you know, we go back and we look at the law—this is the law of the United States—and it seems clear to those of us who have looked at the law that you cannot subrogate the taxpayer, meaning you can't put the taxpayer in the back of the line when you come to this decision of whether or not you are going restructure.

And so, this is—first, this is the document, this is the actual restructuring that we got from your agency. This is the document that initiated the restructuring of the loan, including the subordination of the taxpayer. And I notice that on the last page, is this your signature on this page? Did you sign off on this document? This is noted as tab 59.

Mr. CHU. Fifty-nine?

Mr. SCALISE. Department of Energy—and this actually deals with the restructuring of the loan guarantee to Solyndra, including the restructuring. Did you sign off on this? I think you have said——

Mr. CHU. Yes, I did.

Mr. SCALISE [continuing]. In some public statements I have seen. I just want to verify——

Mr. CHU. Yes, I did.

Mr. SCALISE [continuing]. This is your signature on this document?

Mr. CHU. That is my signature.

Mr. SCALISE. And so, clearly, when you go back and look at the law—and I would hope—did you look at the law, yourself, before you signed off on this document?

Mr. CHU. Yes.

Mr. SCALISE. And this is not a long law. It is not 50 pages. It is not even a paragraph.

Mr. CHU. That is right. In——

Mr. SCALISE. You looked at this law, you looked at this one paragraph, and you said, even though it says, "The obligation shall be subject to the condition that the obligation is not subordinate to other financing," you can tell me you read this and you can still determine that it is OK for you to subordinate the taxpayer even though the law says it is not?

Mr. CHU. We did not subordinate the taxpayer under the terms of the original loan, and we followed the law.

Mr. SCALISE. Does the taxpayer have first dibs on the $535 million——

Mr. CHU. At the time of the——

Mr. SCALISE. [continuing]. When the first dollar comes in from Solyndra, if one even does?

Mr. CHU. At the time of the original——

Mr. SCALISE. That is a yes-or-no question.

Mr. CHU. Right now, after the——

Mr. SCALISE. Yes or no, Mr. Secretary? Does the taxpayer have first dibs, or is some other company going to get first dibs on the first dollar that comes in or the first $75 million?

Mr. CHU. After restructuring——

Mr. SCALISE. Yes or no——

Mr. CHU [continuing]. No.

Mr. SCALISE [continuing]. The American taxpayer?

Mr. CHU. No.

Mr. SCALISE. What was your answer?

Mr. CHU. After restructuring, no.

Mr. SCALISE. No. OK, so, you did that.

Now, let's go back to your legal counsel. Your legal counsel did look at this. Not only did your legal counsel look at this and their determination—and I will go to page 5 of the legal opinion; that is tab 67. Their legal opinion says that "this reading of the provision is reinforced by the use of the word 'is.'" So here we go again with it is going to come down to the definition of the word "is," if that is really how you are going to hang your hat.

But let's go beyond your department's attorneys. We have an email—and we discussed this in a previous hearing in our committee. I would hope you have seen this. Gary Burner over at the Treasury said, "The statute rests with the Department of Justice the authority to accept the compromise of a claim to the U.S. Government in those instances."

They recommended that you all go to the Department of Justice. Did you do that?

Mr. CHU. We did not because we——

Mr. SCALISE. Why would you not go to the Department of Justice? If you are getting—this isn't within, this isn't somebody on our side. This is the Obama administration, the Treasury Department, saying, you ought to go to the Department of Justice because we don't think it is legal to put the taxpayer in the back of the line on a $535 million loan.

Why didn't you at least do that due diligence?

Mr. CHU. Because when you—within the covenant of the loan and within the boundaries of the original loan, if you are acting within those original agreements, you need not go to the Justice Department. My understanding——

Mr. SCALISE. Then I guess that is your opinion. I think it is wrong, and I think it is going to come out that you did violate the law in that regard. And it is a shame for the taxpayer.

I want to know who all the people were in the decision-making process. Was anyone at the White House involved in the decision to restructure the loan, not just to subordinate the taxpayer but to restructure? Did you get any pressure?

Because we have emails showing there was pressure coming from the White House. That is one of the reasons why we are still trying to get documents from the White House. We haven't been able to get that. We had to subpoena it, and we still haven't gotten it all.

Who in the White House was talking to you about restructuring the loan?

Mr. CHU. To the best of my knowledge, I have no knowledge of anyone saying, "You need to restructure this loan." This was something that they repeatedly——

Mr. SCALISE. And if you get any information on that, we are still going to try to get the facts here. We are trying to get to the bottom of the loss of $535 million.

I have heard a lot of talk about politics. I have seen a lot of emails from within the administration about politics. As we have seen, The Washington Post had the front-page story talking about emails from within your department, Department of Energy, pressing Solyndra. They are not concerned about the layoffs; they are not concerned that people are going to lose their jobs. They are just concerned about the timing, the politics. "Wait until after the election." This is disgusting.

And I would hope that you are going to go, in your department—it happened under your nose. You testified here, under oath, you knew nothing about it. It happened in your agency. I hope you will go back in your agency and have some heads roll. People need to be held accountable. Because political decisions were being made in your department. They were being made in the White House above you; they were being made below you. And, hopefully, maybe you weren't making any of those. But it sure is strange that they are being made all around you.

And I hope that somebody is going to be held accountable, because we are going to fight to hold people accountable because $535 million in taxpayer money was lost. I don't see any chain of emails looking out for the taxpayer money. I see a whole lot of emails in the administration that are concerned about the politics. That is what stinks the most about this.

And so, I know we are going have another round. I look forward——

Mr. STEARNS. The gentleman's time has expired.

Mr. SCALISE. I yield back.

Mr. STEARNS. Just to follow up, you still don't know who at the White House, and you have no interest in finding out, based upon this Washington——

Mr. CHU. We——

Mr. STEARNS. Excuse me—in your department, you don't have any—you don't know who in your department was involved with this and you——

Mr. CHU. We——

Mr. STEARNS [continuing]. Have no interest in finding out?

Mr. CHU. No, we do have interest in finding out. And we——

Mr. STEARNS. When are you going to do it?

Mr. CHU. Well, certainly, our general counsel's office will look at who was doing these things.

Mr. STEARNS. The gentleman from Virginia is recognized for 5 minutes.

Mr. GRIFFITH. Thank you, Mr. Chairman.

Take a deep breath. It has been a long day.

I am going in a slightly different direction. 1702(d)(3) is the subordination section, and I will be getting back to that. But, first, I would draw your attention to 1702(g)(4)(A). It is a slightly different—it is the same question with a slightly different legal basis for it. And that would be—the language of that is, "If the borrower defaults on an obligation, the Secretary shall notify the Attorney General of the default."

I point out to you a December 13, 2010, letter to Solyndra from Mr. Silver, Jonathan Silver, who is the head of the program, and that is not in your book.

Mr. Chairman, may that document be admitted to the record, by unanimous consent?

Mr. STEARNS. So ordered.

Mr. GRIFFITH. And if we could get a copy to——

Ms. DEGETTE. Reserving the right to object.

Mr. GRIFFITH. Here are a couple copies.

It is a letter from Mr. Silver, who testified previously, the executive director of loan programs, to Solyndra Fab 2 and to Solyndra, Inc. In that letter, he notices them that they are in default. This is December 13, 2010.

Mr. STEARNS. The gentleman will suspend.

Without objection, the document is part of the record.

[The letter follows:]

Department of Energy
Washington, DC 20585

December 13, 2010

Solyndra Fab 2 LLC
47488 Kato Road
Fremont, CA 94538

Solyndra, Inc.
47700 Kato Road
Fremont, CA 94538

Ladies and Gentlemen:

Reference is hereby made to (i) the Common Agreement (the "Common Agreement") dated as of September 2, 2009, by and among Solyndra Fab 2 LLC ("Borrower"), the U.S. Department of Energy (the "DOE") as guarantor of the DOE-Guaranteed Loan and as Loan Servicer, and U.S. Bank National Association (the "Collateral Agent"); and (ii) the Equity Funding Agreement dated as of September 2, 2009, by and among Borrower, DOE and Collateral Agent. Capitalized terms used and not defined herein shall have the respective meanings set forth in the Common Agreement.

You are hereby advised that as a consequence of the following (collectively, the "Identified Events of Default"): (a) the Sponsor's failure to deposit $5,000,000 into the Equity Funding Account on December 1, 2010, an Event of Default has occurred pursuant to Section 8.1(g) of the Common Agreement and Section 2.2.2 of the Equity Funding Agreement, and (b) the Borrower's failure comply with Section 6.30 of the Common Agreement (compliance with Davis Bacon Act regulatory requirements applicable to the Project) as more particularly described in the Borrower's letter to DOE dated November 23, 2010 as supplemented by that letter dated December 13, 2010.

While any discussions with us continue and until such Identified Events of Default are addressed, there are certain implications under the Common Agreement and the other Loan Documents resulting from such Identified Events of Default. These include, without limitation, the right of the DOE to exercise its rights and remedies under Section 8.2 of the Common Agreement and under the other Loan Documents. We advise you that any failure on the part of the DOE to exercise, or any delay in exercising, any of its rights under the Common Agreement and the other Loan Documents as a result of the Identified Events of Default described above or otherwise shall not be construed or operate as a waiver, estoppel, acceptance of course of conduct or forbearance by the DOE or preclude the exercise of any rights or remedies under the Common Agreement or the other Loan Documents, as the case may be. The DOE hereby expressly reserves all of its rights, remedies and claims as provided for in the Common Agreement, the Loan Documents and/or by applicable law in connection with such Identified Events of Default and otherwise. The DOE may exercise any of its rights or remedies without further notice or demand except as may be required pursuant to applicable law and the Loan Documents. If any such actions are taken, the DOE will hold Borrower responsible for all additional costs and expenses, including attorney's fees and court costs, incurred in connection therewith.

Notwithstanding the foregoing, with respect to the Borrower's failure to comply with Section 6.30 of the Common Agreement, DOE hereby notifies the Borrower that it will forbear from exercising its remedies pursuant to the Common Agreement and the other Loan Documents until January 10, 2011, provided that during that time the Borrower is using its best efforts to obtain and deliver to DOE a written certification that (1) it has obtained a certification from each site contractor to the Project to the effect that, and has otherwise determined that, all Davis-Bacon Act ("DBA") covered contractors and subcontractors on the Project have complied with Section 6.30 of the Common Agreement, and (2) it is as of the date of such certification in full compliance with the requirements of Sections 5.39 and 6.30 of the Common Agreement, including the requirement of collection and review of all certified payrolls and the reimbursement to employees of any underpayments of wages, and it has independently reviewed and determined that all wages are DBA-compliant.

This letter shall not be construed to limit, modify, withdraw, amend or vary the terms of the Common Agreement or the other Loan Documents. Nothing herein or in any previous or subsequent discussions with the Borrower, shall prejudice or impair the right of the DOE to demand performance by the Borrower of its obligation under the Common Agreement or the other Loan Documents, as the case may be.

Very truly yours,

U.S. DEPARTMENT OF ENERGY

By: ______________________
Name: Jonathan Silver
Title: Executive Director, Loan Programs Office

Mr. STEARNS. Thank you.

Mr. GRIFFITH. Thank you.

In that document, he notices the Solyndra folks that they are in default and then goes through the reasonings why that is in default and says that the Department is not going to waive any—if it doesn't take action immediately, it is not waiving any of its rights under the contract.

Further, I would point you to what is document 67, which is the memorandum from Susan Richardson authorizing the subordination. And in that, she indicates in paragraph 3, first sentence, "A default relating to a financial requirement has occurred under the loan agreement. When that default occurred on December 1st, 2010, $95 million of the guaranteed loan commitment remains to be advanced."

And, further, in an email from—tab 59—in February, Silver further acknowledges that there was a default in December by Solyndra.

That being said, Mr. Secretary, did your office, in compliance with the code 1702(g)(4)(A), the section that requires if a borrower defaults the Secretary shall notify the Attorney General of the default, did you do that?

Mr. CHU. First, I have to look back at this code of the Justice Department.

Now, this particular letter is about——

Mr. GRIFFITH. I am just asking you if you notified the—when there was a default, in December, did you notify the Attorney General, as required by the code? I am not asking for your interpretation of the letters. I have laid those out; everybody can look at those later. I only have a certain amount of time. I want to know if you notified the Attorney General, in accordance with the law.

Mr. CHU. That, I will get back to you on that. But this was a deposit in an——

Mr. GRIFFITH. So you don't recall—I understand. But you don't—the bottom line is your people said it was a default and it looks like a default. And on a default, you are supposed to notify the Attorney General. I am just asking you, did you do it? Do you have any recollection of doing it?

Mr. CHU. I don't have—I can get back to you on that.

Mr. GRIFFITH. Thank you. I appreciate that.

Let me ask you this. Do you know what the value of the patents and other IP, intellectual properties, of Solyndra are? Do you know what those values are?

Mr. CHU. No.

Mr. GRIFFITH. Do you believe that they have value?

Mr. CHU. They should have some value, yes.

Mr. GRIFFITH. And do you believe it will be greater than or less than $75 million?

Mr. CHU. The IP? I couldn't have any way of assigning that.

Mr. GRIFFITH. OK.

And I would draw your attention to tab 68 in your book. We are now talking about that it appears from that particular tab—do you have that in front of you?

Mr. CHU. Sixty-eight? Yes, I do.

Mr. GRIFFITH. OK. It appears that there is something going on— it is during the time period that they were beginning to discuss the subordination, and a lot of it is redacted. Do you have any idea who that was from and who it was to? It looks like it might have been from Susan Richardson.

Mr. CHU. No, I don't.

Mr. GRIFFITH. And do you know why all of that information was redacted?

Mr. CHU. No, I don't.

Mr. GRIFFITH. Can you find out for me as to what the purpose— I mean, I understand there may be some reason, but can you find out why all that information was redacted?

Mr. CHU. We can get that back to you.

Mr. GRIFFITH. And were you aware that there were numerous discussions about Solyndra's default and the problems they were having and subordination came up fairly early in December of 2010? Were you aware of that?

Mr. CHU. I am now, that they were thinking of subordination. But, again, one can't move forward until one understands the law.

Mr. GRIFFITH. But do you understand that Solyndra was looking at bankruptcy at that point, and without some understanding that there would be a new $75 million they would have had to file bankruptcy pretty quickly?

Mr. CHU. That is my understanding. About that time scale, they had this cash flow issue, and they needed funds to continue. And that is why one restructures.

Mr. GRIFFITH. I understand that, but don't the records reflect that there was already an understanding within the Department of Energy with Francis Nwachuku that there was going to be a subordination, even before the lawyers had had an opportunity to determine whether or not they could?

Mr. CHU. We do not do anything until—I mean, is it OK to look at things in parallel? Yes. But before our lawyers——

Mr. GRIFFITH. OK.

Mr. CHU [continuing]. Determined whether it was legal or not——

Mr. GRIFFITH. I understand you couldn't do anything.

Mr. CHU [continuing]. We could not move forward.

Mr. GRIFFITH. But do you understand that, based on the documents that have been provided, it is pretty clear from the record that Solyndra would have had to have filed bankruptcy, that the investors were not willing to put the $75 million in, unless DOE subordinated? And, therefore, when writing the legal memorandum, everybody in your department knew that, unless they could figure out a way to subordinate, Solyndra was going down.

Mr. CHU. Sir——

Mr. GRIFFITH. Isn't that true?

Mr. CHU. No. I—no. That is not correct. Our counsel's office, general counsel's office, and Susan Richardson's responsibility, as lawyers, to protect the Department of Energy, to make sure we act under the law, that always comes first.

Mr. GRIFFITH. You know, it is interesting, I just questioned why you didn't—and I go back to some of the other questions—why you didn't get opinions, when you had OMB and Treasury saying that they didn't think it was legal, why you didn't go to Justice. Were you afraid of getting an answer that you didn't like?

Mr. CHU. First——

Mr. STEARNS. The gentleman's time has expired.

Mr. GRIFFITH. I yield back.

Ms. DEGETTE. I think you should let him answer.

Mr. STEARNS. Oh, no, I want to let you answer. Go ahead.

Mr. CHU. OK, certainly.

We are required to go to Justice because if there was a—in a revision of the loan that meant we were not going to get paid back as much, things of that nature, we went to Justice. We did, as you know, go to outside counsel and sought other opinions. And, as noted earlier, there was a previous general counsel of the Department of Energy, upon looking at the decision, who also concurred with that decision.

Mr. STEARNS. The gentleman's time had expired.

The gentleman from Kansas is recognized for 5 minutes.

Mr. GRIFFITH. Mr. Chairman, if I might?

Mr. STEARNS. Sure.

Mr. GRIFFITH. Because I haven't seen it, I have only seen the draft that flags that you can't do the subordination, if we could get that outside counsel's opinion, I would greatly appreciate it.

Mr. STEARNS. Mr. Secretary, can we get that opinion?

Mr. CHU. Yes.

Mr. STEARNS. Is that possible to get it today? Do you have access to that?

Mr. CHU. I don't know about today. But we have an opinion of the previous general counsel of the Department of Energy.

Mr. STEARNS. But I think the gentleman is asking——

Mr. GRIFFITH. I am asking for what you had at the time the decision was made, not a Monday-morning-quarterbacking coverup.

Mr. CHU. We could certainly make those records available.

Mr. STEARNS. We need the final, is what the gentleman is asking for.

Mr. GRIFFITH. That is correct.

Mr. STEARNS. OK. Correct.

The gentleman from Kansas is recognized for 5 minutes.

Mr. POMPEO. Great. Thank you, Mr. Chairman.

Thank you, Secretary Chu, for being with us this morning.

You know, you have been asked a couple times if there is anybody who ought to apologize. So far, as far as we have been able to get you is to say "unfortunate" and "regrettable." I have a different view. I would use "reckless" and "grossly mismanaged" as a program.

And you have talked about some of the changes you have made to try and strengthen that oversight, and I appreciate that. I want to test that just a little bit.

When the loan was originally applied for, it was applied for under Section 1703; is that correct?

Mr. CHU. The Solyndra loan? Yes.

Mr. POMPEO. And then it became—then when Section 1705 Obama stimulus money became available, it changed to a Section 1705 program; is that correct?

Mr. CHU. That is correct.

Mr. POMPEO. Did you approve the decision to change it from a 1703 loan to a 1705 loan?

Mr. CHU. Did I approve? I think this is an action of the company and the loan program.

Mr. POMPEO. Got it. So you weren't involved in that process, the decision to allow it to be moved from 1703 to 1705?

Mr. CHU. No.

Mr. POMPEO. Great.

And, you know, the difference in those two programs is that in 1703 the company has skin in the game and has an incentive to make their company successful and make the loan less risky, but in Section 1705 it is very different. Is that correct, Mr. Chu?

Mr. CHU. No, that is not correct. As I said, the company had a billion dollars' skin in the game.

Mr. POMPEO. Right. But in Section 1705, this credit subsidy that you have referred to several times doesn't get paid by the company. Under Section 1705, the American taxpayer provides the credit subsidy.

Mr. CHU. Yes, the American taxpayer provides the credit subsidy, but, in addition to that, going forward, there is a minimum of 20 percent additional that the equity people would have to put in.

Mr. POMPEO. Right. But that is very different. You would agree. I mean, this legislation that has the credit subsidy, the Federal Credit Reform Act, had a reason that they wanted these credit subsidies paid for by the company, correct? Because it caused the company to have a greater interest in success. There was a reason that the private entities were designed to be the ones that paid the credit subsidy. So it is a change in risk, would you agree?

Mr. CHU. There was a—the 1705 bill that was passed by Congress was passed because they acknowledged that many of the renewable companies would not be able to afford the credit subsidy. And, therefore, they said that tax dollars would be used to pay for that credit.

Mr. POMPEO. So these were such bad investments that the company couldn't even afford that minimal amount to pay of that credit subsidy.

Mr. CHU. No. I was going back to the way that bill was designed by Congress.

Mr. POMPEO. Let me ask a question. The credit subsidy that was calculated, do you know what it was under the Section 1775 program? Do you know what the calculation said?

Mr. CHU. I believe it was something like 7.8 percent.

Mr. POMPEO. Right. So on a $535 million loan, we are talking about $40 million, $50 million, right? Ten percent of 535 is 53. You are talking $40 million, $50 million that the company couldn't afford to pay.

Mr. CHU. The credit subsidy score, again, it is something—and the credit subsidy as appropriated by Congress was there for a reason.

Mr. POMPEO. Right. The company couldn't afford to pay it, so the government stepped in to take care of that little incremental 40 million bucks. Is that correct? That is what happened.

Mr. CHU. Well——

Mr. POMPEO. Yes or no? That is what happened, correct?

Mr. CHU. That is what happened.

Mr. POMPEO. Great.

I want to ask you something. In light of the bankruptcy, has the DOE changed that credit subsidy score, the calculation?

Mr. CHU. Of course.

Mr. POMPEO. What is it now for the Section 1705 program?

Mr. CHU. It is presumably quite high, because we—when we constantly re-evaluate loans, as the marketplace changes, as the health of the company changes, we are constantly updating what the risk is. That is reflected, in part, by the credit subsidy score.

Mr. POMPEO. So how does that—what is the change? It went from, you said, roughly 7 percent to——?

Mr. CHU. I would guess it would probably be—just sort of a raw guess—probably in the 80s.

Mr. POMPEO. Wow.

Mr. BARTON. Would the gentlemen yield?

Mr. CHU. That is because when you change it, you know that the company is now in deep financial trouble, and that reflects the risk to the taxpayer.

Mr. POMPEO. Have you changed the credit subsidy scores for the other loans in the portfolio, as well, to reflect this increased risk?

Mr. CHU. We—well, in some instances, the credit subsidy decreases, as, for example, our loan, a $5.9 billion loan, to Ford Motor Company. That credit subsidy score is greatly decreased because we feel that Ford is an ongoing, stable company, and that loan did what it was supposed to do.

Mr. BARTON. Would the gentlemen yield briefly?

Mr. POMPEO. Yes.

Mr. BARTON. Just to point out on this point, since the Secretary put this $10 billion on the table, nowhere in the law, nowhere in the definitions does it say that that program is to subsidize the loss of principle.

Mr. POMPEO. Thank you. Appreciate that.

Mr. BARTON. The gentleman from Kansas was absolutely correct that it is designed for subsidized interest rates, longer maturities, deferral of interest, but it is not designed to cover the loss of principle. So your opening statement, Mr. Secretary, is incorrect in asserting that it is.

And I yield back.

Mr. POMPEO. Thank you, Mr. Barton.

I would agree. I want to talk about that $10 billion number, as well. That is for the entire program, not just for Section 1705. That $10 billion that was appropriated was for the entire portfolio of loans, correct?

Mr. CHU. Pardon?

Mr. POMPEO. I am trying to make sure—in your opening statement, you said there was $10 billion to cover potential losses, which I think Mr. Barton and I both agree is not what that $10 billion was designed for. It wasn't designed to cover losses; it was designed to cover interest rates and subsidies. But even the $10 billion overstates what was appropriated for the Section 1705 program.

Mr. CHU. It was designed to cover losses in the loans if the company could not—my understanding of what a credit subsidy—what the credit subsidy and what the appropriated funds were for was for in the event that, as we invest in innovative companies, that some of those companies might have difficulty paying back their loans.

Mr. POMPEO. We have a different view of that. Section 1705 number was $2.5 billion; that's the amount of money appropriated for the Section 1705 loans.

Mr. CHU. That's right, the $10 billion, as I said before, was 1705 plus a little bit of 1703 and ATVM.

Mr. POMPEO. I have one more question. You talked about all the other cross subsidies. We have production tax credits. We have mandates in States. When you provide your credit subsidy score, what is the assumption about the continuation of those other subsidies; that is, when you're calculating the risk, do you assume that these programs, these other enormous subsidies will be renewed or do you assume that they will expire as the law directs that they will expire?

Mr. CHU. The major part that goes into the credit subsidy is the financial health of the company, the assets of the company, and most of the loans are on projects, whether it's a new fabrication plant or a project that installs solar, wind or something like that. And the credit subsidy score goes to the fact that in the event of a problem with the company or the parent company or the project, how much can the U.S. Government get repaid back? And it reflects that uncertainty and the evaluation of ultimately the OMB as to whether, what's the probability of default on the loan?

Mr. POMPEO. Well, I yield back my time.

Mr. CHU. In rough——

Mr. STEARNS. The gentleman's time has expired.

Mr. POMPEO. I yield back my time. I did not get an answer to that question.

Mr. STEARNS. Mr. Secretary, we're going to do a second round, and it appears mostly Republicans, I don't know how many are going to do a second round, but I would, out of deference, would you like a break of about 15 minutes for any reason, or would you like us to continue on?

Mr. CHU. I'll take a break.

Mr. STEARNS. OK, all right.

So, Mr. Secretary, we're going to reconvene here at 1:15.

Mr. CHU. All right, thank you.

Mr. STEARNS. Yes, thank you.

[Recess.]

Mr. STEARNS. The subcommittee will reconvene. The ranking member is on her way, and I will open with a second round of questions.

And my questions will start, you know, obviously with Solyndra going bankrupt, you go back and look what the President said in his press conference about Solyndra, he said it was the true engine of economic growth and there will always be companies like Solyndra to make it possible for this growth.

Then when Beacon Power went bankrupt, we were also concerned about that, and of course, we found out that a quote from the administration on that company that went bankrupt was 100 percent—100 Recovery Act projects that are changing America, Beacon Power being one of them.

And so the question is, when you have two of the first three loans out of the 1705 program go bankrupt, the question for you is, how many loan guarantees that you are involved with and covering and monitoring are going to fail, in your opinion?

Mr. CHU. Well, it's very hard to predict, but if I look at the portfolio——

Mr. STEARNS. You've indicated that these kinds of things go bankrupt, and it is sort of an anomaly, and it's what happens in life. Are you also saying there is going to be more bankruptcies in the loan guarantee? Yes or no.

Mr. CHU. I could not say one way or the other, but I could say that the majority of our loans were not—they were loans, for example, to establish wind farms or solar farms where there were power——

Mr. STEARNS. OK. Are any of your loans in trouble today? Can you categorically say that none of your loans are in trouble today or are they in trouble?

Mr. CHU. Like I was—as I was saying, that if you look at the portfolio of loans, many of the loans, the majority of the loans are loans where you establish a wind farm, a solar farm, something of that ilk, and there is a power——

Mr. STEARNS. Wasn't Beacon Power similar to your definition of what you're talking about?

Mr. CHU. No, not——

Mr. STEARNS. Was Solyndra similar to what you're talking about?

Mr. CHU. No, these——

Mr. STEARNS. So the question is, are any of these loans guarantee in financial trouble, yes or no?

Mr. CHU. As I said, it's very hard to predict what will happen.

Mr. STEARNS. Just say no.

Mr. CHU. But I would say——

Mr. STEARNS. Well, let me ask you this, let's help you out a bit. Are any of them in high risk?

Mr. CHU. There are different varies——

Mr. STEARNS. You're not answering the question, Mr. Secretary.

Mr. CHU. There are high risk——

Mr. STEARNS. I mean, you know, this Mr. Ellison is going to come back and tell us which ones are in high risk and which ones possibly could go under. You're the Secretary of Energy. Tell me today are any of these loans going to go bankrupt, yes or no, your opinion? This is all your opinion.

Mr. CHU. Sir, this is like saying do I believe that the nuclear reactors in the United States are safe.

Mr. STEARNS. Well, OK, let's back up then. Are any of them in financial trouble? You certainly should be able to tell that as Secretary of the Energy. You're monitoring this. You're trying to convince us that you're on top of the situation.

Mr. CHU. Right, right.

Mr. STEARNS. Are any of them in financial risk, yes or no?

Mr. CHU. There are always risks, and then——

Mr. STEARNS. So all of them are in financial risk?

Mr. CHU. No, there are always risks regarding the loan, and that's when we are tasked to invest in——

Mr. STEARNS. It doesn't sound like you're answering the question. I'm just asking you, yes or no, are any of them in financial risk?

Mr. CHU. There are varying degrees of risk.

Mr. STEARNS. So some of them are?

Mr. CHU. Well, whenever you invest in high risk, innovative companies——

Mr. STEARNS. I'll accept your statement, yes, some of them are in financial risk. I want to go back to what a lot of people are saying, that who could predict these problems with the Chinese market. During an interview with committee staff, your committee staff, the former Department of Energy chief financial officer, Isokowitz, said that the department should have validated assumptions about the Chinese market before they went ahead with these loans. Were you aware of his remarks on this?

Mr. CHU. No, I'm not aware of those remarks, but certainly we were validating what the Chinese were doing. That's why we had extensive, both inside and outside, and what the market——

Mr. STEARNS. He distinctly said your office did not validate any of the market's assumptions about the Chinese market. That's what he said. He's the Department of Energy chief financial officer. That's his opinion. Do you disagree with what he's saying?

Mr. CHU. Well, I would have to look at what his statement was in the full context, and so I can't really comment.

Mr. STEARNS. Well, in full context, he basically said that you guys did not, your office did not look and validate any assumptions about the Chinese market.

Mr. CHU. He could have been talking, for example, about the ability to sell in China. I don't really know. Again, I would have to look at the full context of that——

Mr. STEARNS. OK.

Mr. CHU [continuing]. That remark.

Mr. STEARNS. He also cautioned that, he went on to caution that he felt when you deal with a commodity, you should have—that should have sent up red flags immediately because commodity prices have a tendency to fluctuate, which you would agree. For example, the Department of Energy had a terrible experience in 1980s with the Synthetic Fuels Corporation, which was undercut by a flawed assumption about the continued rise in oil prices. Given the concerns cited by this CFO and the Department of Energy's experience with the Synthetic Fuels Corporation, didn't the department err in failing to validate assumptions about the conditions of the Chinese market before it approved this Solyndra?

Mr. CHU. If you look back at the history of how solar prices were developing and fluctuating, there was a constant decrease in the price over——

Mr. STEARNS. No, I understand what your opinion is, but the point I'm making is, I don't see the Department of Energy doing what Mr. Isokowitz said, and he validates you did not do it, so that's my—now let me just close here before my time runs out.

You've been here this morning and this afternoon; lots of times you've said you were unaware or you were aware, but sort of anytime anything came up, you had sort of an ambivalent statement. We talked about the August 2009 email predicting Solyndra would go, be out of cash in September 2011; you knew about that, but you didn't seem to know about that. The PriceWaterhouseCoopers concerns about Solyndra, you didn't seem to be real concerned or weren't aware of it. The White House emailing your chief of staff regarding their concerns with the PriceWaterhouseCoopers report, you didn't seem to know too much about your chief of staff's awareness of that. Request to hold off announcement of the DOE loan and request by your agency to Solyndra to hold off announcing layoffs until after the midterm election, you don't have any recollection of this.

So what I'm saying is throughout all of this, you seem to have an unawareness, which goes to what I think my last question is, we have an email from February 2010 from Dan Carol, who is a former chief energy adviser to the President in his campaign. Are you aware of his email?

Mr. CHU. I became aware of it.

Mr. STEARNS. So you weren't—you became aware of it when it hit the press. He stated you should be replaced because of incompetence. He felt, based upon what I just told you, you didn't seem to have an awareness of any of these very major issues here which we're bringing up, and that's why Dan Carol said you should be replaced, so I guess my comment is, what would you say to Dan Carol today?

Mr. CHU. First, let me go back to your previous statements. I tried to explain to you, I'll try to explain again, about the cash flow issue and the building up of the Fab 2 plant. I was aware of it, and what was happening is that there was 1 month in a particular model, there would be an issue, but subsequent months, it would go into the black, and as I stated previously, experience has borne out that in fact there was no issue in building the Fab 2 plant, and so I never said I was unaware in terms of what that issue was because it was being sometimes conflated with the cash flow problems later on with the parent company.

Mr. STEARNS. My time has expired.

The gentlelady from Colorado.

Ms. DEGETTE. Thank you, Mr. Chairman.

Now, obviously, Mr. Secretary, we're all concerned about the failure of this Solyndra situation because the taxpayers are out almost half a billion dollars, and I heard what you had said about the initial loan. I mean, it sounds to me like the DOE was trying to administer this correctly in that originally the loan application was made under the Bush administration, the committee came back and said they needed more market data. That data was obtained, the guarantee was made. Then, because of market conditions, the company was about to go into bankruptcy before the factory was built, and a decision was made to restructure the loan and to subordinate the government's interests. That's pretty much of a summary, correct?

Mr. CHU. That's correct.

Ms. DEGETTE. And a lot of us are very unhappy with the idea that the taxpayers were subordinated to the private investors. In your opinion, was there anything else that could have been done, or did the department explore any alternatives to subordinating that interest to the private investors' interest?

Mr. CHU. Yes. It was the opinion of our loan specialist that certainly the private investors were not willing to put in added equity unless they had certain conditions met, and so it was, as described to me and during our discussions in making this decision, it was clear if we said, all right, if we don't allow this, then the company would go bankrupt, and again, the discussion after clearing the legal hurdle and being told by my general counsel that it was permissible and legal, then the discussion focused on what would be in the best taxpayer interests to get the most recovery from——

Ms. DEGETTE. Right, so I got that. So you were involved in those conversations——

Mr. CHU. Yes.

Ms. DEGETTE [continuing]. About should the taxpayers take a secondary position or not, right?

Mr. CHU. I was certainly——

Ms. DEGETTE. And you were pretty well convinced that if you didn't make that concession, then Solyndra would go into bankruptcy and the chances of recovering that money would be greatly lessened or zero, right?

Mr. CHU. That's right.

Ms. DEGETTE. OK. Now, so, I mean, we can argue about whether we agree or disagree with that decision, but that was the rationale. It seemed like it was a prudent rationale at the time, correct?

Mr. CHU. Correct.

Ms. DEGETTE. So here's my question. The DOE has the Loan Programs Office, you're administering three different loan programs, and we've been talking about them, the Section 1703, the 1705, and then the technology vehicles manufacturing program.

So my question is, it follows a little bit on what the chairman was saying, are any of the loans that are currently out there in those three programs in a situation where it looks like they are about to fail and someone's coming in and asking for restructuring right now?

Mr. CHU. Right now, no.

Ms. DEGETTE. OK. Do you expect that——

Mr. CHU. I mean, there's Solyndra, and there's the flywheel.

Ms. DEGETTE. Right, right, yes, and those are the two. And that's out of how many loans?

Mr. CHU. Something like 38 loans.

Ms. DEGETTE. Thirty-eight loans. And of those 38—so of the 36——

Mr. CHU. And 28, yes—It's 1705, 28; ATVM, 5; and 5 in 1703.

Ms. DEGETTE. OK, about 38 loans.

Mr. CHU. 33 loans——

Ms. DEGETTE. So, of the rest of the loans besides, those two, the Solyndra and the other, do you foresee market—and I should say, does your staff who report to you foresee market conditions changing so those loans are going to go into a default type of a situation?

Mr. CHU. Well, again, the majority of our loans were loans where you install something like a wind farm or a solar farm; you have a power purchase agreement. That means the utility company has a contract, we will buy your power at a certain price.

Ms. DEGETTE. OK.

Mr. CHU. And those loans, we feel, are going to be very safe.

Ms. DEGETTE. Solid, those are solid.

Mr. CHU. Those are solid loans.

Ms. DEGETTE. Now of those loans, how many jobs have been created by those companies?

Mr. CHU. Well, so far there is something like 44,000 jobs created by our loans, and we expect—and these are direct jobs, these are construction jobs; they're manufacturing jobs, and discounting some of the supply chain, so 44,000. We expect it to go over 60,000.

Ms. DEGETTE. And, you know, you've had a lot of time now over the last recent months after the failure of Solyndra to reflect on this as Secretary of Energy, and this is something we're trying to reflect on, on this committee, and even my friend from Texas I see down at the end has said he supports solar energy, and he supports supporting solar energy. What can we do and what can you do to improve the administration and the approval of these loans to maximize our stewardship of the taxpayer money while at the same time promoting the idea of development of alternative energy?

Mr. CHU. Well, actually, there are several people, not only Mr. Barton, but several people on both sides of the aisle view the support of the solar industry in the United States as important and the renewable industry as important, and so I——

Ms. DEGETTE. So what can we do to better our stewardship——

Mr. CHU. Right, right.

Ms. DEGETTE [continuing]. Of the taxpayers' money while furthering——

Mr. CHU. Well, certainly we have done many of these things, and we're going to go into a heightened part. Of the loans we have now given out but where they have not been disbursed, we will have to watch very closely change in market conditions and the conditions of the company, and so we have already begun to undertake that.

Again, it's very important that decisions going forward on how to disburse the loans be made not only by the people who originated the loans but by people independent of them because it's a very natural thing if you give birth to a loan, you might have predisposed to want it to succeed, and so we have already done that. We've set up an independent office within the loan program to monitor. We have experts as we—experts in the Department of Energy outside the loan program, but experts in a particular field, whether it be solar or wind, to actually assist in understanding the market conditions and what—where this company's business plan sits within the competitive fields.

Ms. DEGETTE. Mr. Chairman—Mr. Secretary, I would ask if you would supplement your testimony today within 30 days and provide this committee with a summary of the changes——

Mr. CHU. I would be delighted.

Ms. DEGETTE [continuing]. That you've done internally to improve your oversight and administration.

Mr. CHU. I would be delighted.

Ms. DEGETTE. Thank you very much.

Mr. STEARNS. Thank you. The gentlelady's time has expired.

The gentleman from Nebraska, Mr. Terry, is recognized for——

Mr. TERRY. Mr. Barton.

Mr. STEARNS. Oh, I'm sorry, Mr. Barton. I'm sorry.

Mr. Barton is recognized for 5 minutes.

Mr. BARTON. Thank you, and thank you, Secretary Chu, for again agreeing to testify voluntarily. That's not something you absolutely had to do.

I want to state before I ask my questions, I've been asked half a dozen times today whether I think you should resign, and I said every time that I don't think you should resign. I do think you're a man of integrity. I think you're trying to do your job as the best that you can.

I also happen to believe that it's possible you're being set up to be the fall guy. There's some memos and some emails that have been leaked that you may have to go, and I'm sure you're aware of that.

I do think, though, that you're culpable for the subordination decision, and I want to focus on that in this round.

I have a timeline that's been prepared by majority staff, and we will share it with the minority, and we'll put it in the record. I'm going to go through this very quickly. If there's anything on this timeline that you fundamentally think is wrong, I wish you would flag it for me. This deals with the issue of subordination. The reason subordination is key is because, one, we have the law that says you can't subordinate. If you don't subordinate this loan guarantee and Solyndra goes bankrupt, the taxpayers are first in line to be repaid if there's anything that they can be repaid with, and Solyndra is in bankruptcy, but they do have assets.

Mr. STEARNS. Will the gentleman suspend for one thing? Would you like to see a chronology of what he's talking about?

Mr. CHU. Sure.

Mr. STEARNS. Is that possible, Mr. Barton?

Mr. BARTON. Yes, if we can make a copy. Do you have a copy, and can we get a copy?

Could we suspend the clock while we're doing this? I don't want my time to be——

Mr. STEARNS. We've suspended it, Mr. Barton.

Mr. BARTON. All right.

Mr. STEARNS. Make a copy and then give it to the ranking member and myself so we'll be able to follow this as closely as possible.

Mr. BARTON. OK. So I won't say anything while we're in suspense here.

Mr. STEARNS. Well, just so everybody's on the same page here.

Ms. DEGETTE. It's OK, I won't——

Mr. BARTON. I don't want to play unfairly.

Mr. STEARNS. Well, does the ranking member want us to continue to go on?

Mr. BARTON. This won't take but 2 or 3 minutes.

Mr. STEARNS. Continue, we'll put you back on the clock.

Mr. BARTON. All right. Well, the subordination is important because if there is no subordination and a company goes bankrupt, which Solyndra did, then the taxpayers get repaid first, and there is some value in Solyndra, even though it's in bankruptcy.

If you subordinate the loan guarantee, then the taxpayers go to the end of the line, and it's very unlikely once you pay the private sector creditors, that there's going to be money left to pay Solyndra.

On December the 6th and December the 7th, and this is the memo that we just prepared, that we presented you with, DOE and Solyndra negotiated a restructuring agreement. On December the 7th, and this is 2010, the subordination of the loan is put on the table. On December the 8th, there is an email from Susan Richardson, the chief counsel of the loan program at DOE, requesting a meeting as soon as possible to brief Scott Harris, who is the DOE general counsel, on a serious problem with Solyndra. This is about the subordination which DOE has now offered to do.

On December the 10th, the DOE lead negotiator circulates a DOE summary to the DOE staff that includes subordination, OK? That's in December. December the 22nd, OMB asks for DOE's written analysis of subordination.

On January the 3rd, OMB again asks for a written legal analysis of subordination. On January the 3rd, the outside counsel for Department of Energy, Morrison & Foerster, sends two draft documents to DOE on the legal analysis of subordination in which they say, state that it cannot be done. On January the 6th, OMB again asks for DOE's written legal analysis of subordination. On January the 13th, Susan Richardson, the chief counsel of the Loan Programs Office, begins to draft her own legal memo on subordination, which she ultimately gives to you. On January the 20th, Susan Richardson sends a copy of her draft legal memo to OMB.

On February the 10th, the Treasury Department emails Susan Richardson at DOE to discuss subordination, and the Treasury Department is of the—it doesn't say this here, but the Treasury Department is of the opinion that you cannot subordinate the loan. And finally, Mr. Secretary, on February the 22nd, you signed the action memo modifying restructuring the loan that does allow for subordination.

So, instead of you making a decision and then they negotiate subordination, your staff at DOE agrees to subordination, and then draft a convoluted legal opinion that they get you to sign that basically covers their rear.

Now, do you have any disagreement with anything in this timeline?

Mr. CHU. Well, sir, your characterization—let me make a few statements. First, we were not going—the first $75 million of new money invested by the equity holders was ahead of us, but then after that, we were sharing in the pay back of the loan, so we were not, quote, going to the back of the line.

The OMB, when it saw what was being prepared and the legal opinions within the Department of Energy, did not object to this position, and believe me, the OMB is not shy to objecting if they disagree with anything we or any other agency does.

Finally, Treasury was not offering a legal opinion. They were suggesting that we could check with Department of Justice, but under the guise of the—under the statute, you check with the Department of Justice if the terms of the loan change, especially if they are decreased, and the taxpayers—the terms of the agreement are changed. And so our general counsel and the counsel of the loan program said that this was within the confines of the original agreement. Therefore, we need not go to the Department of Justice.

Mr. BARTON. Well, my time has expired, but last question. Knowing what you know now, if you were presented a document to subordinate the Solyndra loan, would you still agree to subordinate?

Mr. CHU. Well, I think what we would need to do—let's take a step back, and if——

Mr. STEARNS. Mr. Secretary, I think that's a yes or no question.

Mr. BARTON. I'll let him answer it however he wants, but it's a straight-up Texas question.

Mr. CHU. Well, we stand by—I think we still agree from the General Counsel's Office and the loan program office that it was within the bounds of this. This would be a last ditch thing. Again, if should there be a loan that goes in trouble in the future, one wants to recover as much of the taxpayer money as possible. If you do pull the plug and if should there be a distress situation and you do pull the plug, then you have to make the decision: If you go into bankruptcy, what assets can be recovered; if you go forward what—with new capital in order to weather the storm, should there be a situation like that.

Mr. BARTON. But the law clearly states you can't subordinate?

Mr. STEARNS. Well, I think that's what Mr. Barton is saying.

Mr. CHU. I think the law——

Mr. BARTON. Yes. I want to put into the record officially the timeline that I just gave the Secretary.

Mr. STEARNS. OK. So ordered. Is that—if there's no objection?

Ms. DEGETTE. No.

[The information follows:]

Solyndra Chronology

08/2006	DOE issues first solicitation for loan guarantee applications
12/2006	Solyndra files initial application for DOE loan guarantee
08/1/2007	DOE Loan Programs Office hired its first federal employee
10/2007	DOE invites 16 of the 143 loan guarantee applicants to file a full application; Solyndra is one of the 16.
05/2008	Solyndra submits full application to DOE, due diligence begins
08/2008	DOE deems Solyndra's application complete
11/2008	DOE contracts with independent consultants to do formal due diligence of Solyndra deal
12/2008	DOE staff raises questions about how financial health of Solyndra parent company will affect DOE project
01/05/2009	First draft of the independent engineer's report analyzing Solyndra's technology is submitted
01/09/2009	The Credit Committee votes against offering a conditional commitment to Solyndra, noting that the "number of issues unresolved makes a recommendation for approval premature at this time," and remanded the project to the Loan Programs Office for "further development of information." Credit Committee also notes "questions regarding the nature and strength of the parent guarantee for the completion of the project," and concerns about Solyndra's ability to scale-up production.
01/13/2009	A member of that the Credit Committee sends an email stating that "[a]fter canvassing the committee, it was the unanimous decision not to engage in further discussions with Solyndra at this time."[1]
01/20/2009	President Obama is inaugurated
01/26/2009	A DOE staff member sent an email stating that "we are approaching the beginning of the approval process for Solyndra again," and goes on to list the credit questions that remain unresolved in the deal.
02/09/2009	The DOE stimulus advisor states that Solyndra is the "litmus test for the loan guarantee program's ability to fund good projects quickly."
02/17/2009	The American Recovery and Reinvestment Act of 2009 becomes law.

[1] January 13, 2009, email between DOE staff regarding "Solyndra Meeting."

Solyndra Chronology

02/26/2009	DOE staff identifies eight issues to address in independent engineer's report.
03/05/2009	The first draft of the independent market report on Solyndra is submitted to DOE.
03/05/2009	DOE staff discusses Solyndra event, and notes "I need to send to [Secretary Chu's Chief of Staff] the significance of the event so he can send to the WH."
03/06/2009	DOE officials schedule the Credit Committee and Credit Review Board meetings for March 12 and March 17, 2009, to approve a conditional commitment to Solyndra.
03/07/2009	Recovery Act updates distributed at OMB mention possibility of President Obama announcing loan guarantee to Solyndra on March 19, 2009 (this ultimately did not happen).
03/07/2009	Ronald Klain, then/Chief of Staff to Vice President Joe Biden, sends an email to OMB staff and asked "[c]an we chat on Monday about the DOE flag in here on Solyndra . . . . If you guys think this is a bad idea, I need to unwind the WW QUICKLY."
03/10/2009	The DOE Secretary's Chief of Staff and DOE CFO discuss "great interest" on part of White House in potential Solyndra announcement.
03/12/2009	Second Solyndra Credit Committee meets and approves the offer of a conditional commitment to Solyndra.
03/17/2009	The DOE Credit Review Board approves conditional commitment to Solyndra.
03/20/2009	DOE announces Solyndra loan guarantee.
08/11/2009	A special assistant to White House Chief of Staff Rahm Emanuel emails OMB and DOE staff and asked "[a]s the closing of the Solyndra deal nears, we want to think about the potential announcement value in this. We know that the conditional agreement was already announced in March. That said, the VP will be in California in early September, and want to see if it's worth doing something here."
08/19/2009	DOE staff notes "major outstanding issue . . . . The issue of working capital. " The DOE staff member notes that the financial model shows the project would run out of cash in September 2011.
08/20/2009	Email from DOE staff member stating that the "issue of working capital remains unresolved. . . . This is a liquidity issue." The DOE staff member asks "how we can advance a

Solyndra Chronology

	project that hasn't funded working capital requirements and that generates a working capital shortfall of $50 [million] when working capital assumptions are entered into the model?"
08/25/2009	• DOE provides a briefing to OMB about the Solyndra loan guarantee. OMB begins asking questions about the deal and reviewing the credit subsidy score for the deal. • The special assistant to the White House Chief of Staff emails DOE to inform them that "we would want the VP [to] satellite into the event on 9/4. It's the same day the unemployment numbers come out, and we'd want to use this as an example where the Recovery Act is helping create new high tech jobs."
08/27/2009	• DOE staff emails OMB staff to to "confirm whether there are any issues regarding a closing on Sept. 3 for a Sept. 4 VP event on Solyndra? This implies we will need to wrap up our review/approval by Sept. 1 . . . ." • An OMB staff member notes that "[g]iven the time pressure we are under to sign-off on Solyndra, we don't have time to change the [financial] model."[2] The senior staff member replied that "[a]s long as we make it crystal clear to DOE that this is only in the interest of time, and that there's no precedent set, then I'm okay with it. But we also need to make sure they don't jam us on later deals so there isn't time to negotiate those, too." • A White House spokesperson reaches out to number of DOE and White House staff about the OMB timeline, and asks for a "quick rundown of what final step this is that OMB would be clearing? We just want to make sure we can be as helpful as possible in ensuring this gets done for you on timeline."
08/28/2009	A DOE staff member tells White House staff that "OMB is fully aware of the [September 4] timeline.
08/31/2009	DOE staff notes that Solyndra announcement was originally scheduled for September 8 with an appearance by President Obama, but now scheduled for September 4 with satellite appearance by Vice President Biden. • Special Assistant to White House Chief of Staff asks whether "there is anything we can help speed along on OMB side."[3] • OMB asks for Solyndra announcement to be postponed,

[2] August 27, 2009, email between OMB staff regarding "Final Solyndra Credit Subsidy Cost."
[3] August 31, 2009, email between DOE and OMB

Solyndra Chronology

noting that OMB "should have full review with all hands on deck to make sure we get it right."

- OMB staff emails White House staff and states that OMB has had to do "rushed approvals on a couple of occasions (and we are worried about Solyndra at the end of the week). We would prefer to have sufficient time to do our due diligence reviews and have the approval set the date for the announcement rather than the other way around."

09/01/2009	OMB notches down the Solyndra credit rating, to reflect greater risk fo guarantee due to lack of firm performance data on the Solyndra panels and "the weakening world market prices for solar generally."
09/04/2009	Solyndra loan guarantee finalized and announced. Secretary Chu attends groundbreaking event in California; Vice President Biden makes speech via satellite.
03/2010	Solyndra auditor, PricewaterhouseCoopers, states in the company's S-1 amended that the "Company had suffered recurring losses from operations, negative cash flows since inception and has a net stockholder's deficit that, among other concerns, raise substantial doubt about its ability to continue as a going concern."
05/26/2010	President Obama visited Solyndra's manufacturing facilities and proclaimed that "the true engine of economic growth will always be companies like Solyndra."
06/2010	Solyndra cancelled a $300 million Initial public Offering (IPO). Instead, to raise capital, the company issues $175 million of convertible promissory notes to various investors.
07/2010	The Government Accountability Office found that "DOE's implantation of the program has favored some applicants and disadvantaged others in a number of ways." With regard to due diligence, GAO found that "in at least five of the ten cases in which DOE made conditional commitments, it did so before obtaining all of the final reports from external reviewers, allowing those applicants to receive conditional commitments before incurring expenses that other applicants were required to pay." GAO, *Department of Energy: Further Actions are Needed to Improve DOE's Ability to Evaluate and Implement the Loan Guarantee Program,* GAO-10-627 (Washington, DC: July 2010)
11/03/2010	Solyndra announced that it was shutting down one manufacturing facility and laying off 135 temporary employees and approximately 40 full-time employees.

Solyndra Chronology

12/2010-02/2010	DOE, Solyndra, and two of its investors, Argonaut Venture Capital and Madrone Capitol Partners, negotiated the terms and conditions of an agreement to restructure the Solyndra loan guarantee. Throughout this process, DOE consulted with OMB about the proposed terms and conditions of this arrangement.
01/02/2011	OMB staff questions whether immediate liquidation would result in better recoveries to the government than restructuring the deal.
01/04/2011	An email between OMB Staff regarding "RE: Solyndra memo: COMMENTS BY 1:00 PLEASE" noted that "[w]hile the company *may* avoid default with a restructuring, there is also a good chance it will not. . . . At that point, additional funds would have been put at risk, recoveries *may* be lower, and questions will be asked . . . ."
02/23/2011	DOE finalizes loan restructuring with Solyndra and lead investor, Argonaut
07/18/2011	During meetings the week of July 18, 2011, Solyndra CEO Brian Harrison and other representatives of Solyndra claimed that Solyndra's financial condition was improving, and that Solyndra's revenues were growing.
Late 07/2011	Solyndra tells DOE that it will restate projected earnings; investors tell DOE they will not inject additional $75 million in capital under current terms and conditions of restructuring agreement.
08/30/2011	DOE informed Solyndra that a second restructuring was not feasible. The Solyndra board met shortly after, and voted to announce its bankruptcy.
08/31/2011	Solyndra announces bankruptcy.
09/06/2011	Solyndra, Inc. files for bankruptcy.
09/08/2011	Federal Bureau of Investigation (FBI) agents, acting together with agents from the DOE Office of Inspector General (OIG), executed search warrants on Solyndra's headquarters in Fremont, California.

Mr. CHU. But the law clearly states that we cannot subordinate at the time of origination of the loan.

Mr. STEARNS. The time of the gentleman has expired, but out of courtesy to the gentleman, you've indicated that the Secretary is culpable, do you think, in your opinion, that the law is broken?

Mr. BARTON. If you're asking me the question, yes, sir, I think he broke the law.

Mr. STEARNS. OK. I think that's what I want to make clear that with your line of questioning, I think that's what you're saying, the law is broken, and it's an illegal act is what you're saying.

Mr. BARTON. That's what I'm—that's my opinion.

Mr. STEARNS. Well, that's what I want to hear.

All right, the gentleman from Nebraska, you're recognized for 5 minutes.

Mr. TERRY. Thank you, and I understand that the—sorry, I'm—can we break for a second?

Ms. DEGETTE. I want to see what this says.

Mr. STEARNS. We'll put you back to 5.

Mr. TERRY. I was distracted.

Mr. STEARNS. Mr. Terry, I have the capability of giving you another 5 seconds.

Mr. TERRY. What's that?

Mr. STEARNS. I have the capability of giving you another 5 seconds.

Mr. TERRY. Oh, 5 seconds. Well, I felt like I was stammering a lot longer.

Dr. Chu, on January 13, 2009, before you were confirmed and sworn in or undertook your duties, there was a memo that from the credit committee—well, it wasn't a memo. It was an email stating, quote, after canvassing the committee, it was the unanimous decision not to engage further discussions with Solyndra at that time. Are you aware of that email?

Mr. CHU. Yes, I am aware of it now.

Mr. TERRY. A couple things that I want to clear up just from my—because I'm confused.

Mr. CHU. Sir, could I interrupt just a second? The decision not to engage with Solyndra, that there was no more information they could give us, and we were doing—so we disengaged in order to do further due diligence further to understand what the market was and get independent eyes on the program and what the loan was about.

Mr. TERRY. OK. Well, then we can go—you're diverting me from where I'm going, but I'll just state for the record, then, on January 26th, that DOE staff sent another email saying that we're approaching the beginning of the approval process for Solyndra. It seems interesting that in 13 days, you've got the credit committee saying we're shutting this file down with a not to engage in further discussions, and then 13 days later, it seems like it's full steam ahead.

But I'm concerned about the Dow Jones news wires on December 11, 2009. You were quoted, we've been told that it's imminent that they're—Solyndra—going to announce this, and that the loan is theirs as long as they get the additional capital that's required by statute. Then following, or on that date, a DOE employee from the loan program emailed, quote, no idea where Dr. Chu's info on the equity raise is coming from, but the conclusion that, quote, the loan is theirs, end quote, doesn't help our negotiation.

So the question here is, where did you get the information that the equity loan or the equity is imminent and that the loan is theirs? Those are two separate questions.

Mr. CHU. First, I would—I was being informed about the progress of the loan through Matt Rogers, who was a special assistant reported to me on the Recovery Act. The issue there, I believe, was that the career employee—what the Department of Energy tries to do is to get as favorable a bargain or an agreement that protects the assets of the——

Mr. TERRY. Where did you get the information, that was what the employee——

Mr. CHU. From Matt Rogers.

Mr. TERRY. From Matt Rogers. Does Matt Rogers report and communicate to the White House during this time period?

Mr. CHU. No, he reports to me.

Mr. TERRY. So where would Matt Rogers get the information that the equity is forthcoming and that they will get the loan?

Mr. CHU. My understanding, since he was in charge of assisting in the Recovery Act in the Department of Energy, that was his role in the Department of Energy, as a special assistant to me, he was certainly in communication with the loan people.

Mr. TERRY. So his understanding that the loan, that they will get the loan, came from you?

Mr. CHU. No, no.

Mr. TERRY. To Matt Rogers.

Mr. CHU. It goes the opposite.

Mr. TERRY. This seems to be a little circular. He's the one supposed to be telling you, but I can't figure out who's telling Matt Rogers——

Mr. CHU. Exactly.

Mr. TERRY [continuing]. That they're going to get the loan and that they have the equity?

Mr. CHU. No, no, excuse me. Matt Rogers is overseeing the Recovery Act, which included the loan program. I was not communicating directly with the people in the loan program. I communicated with Matt Rogers, who then talks to people in the loan program.

Mr. TERRY. So that it was the people in the loan program that told Matt Rogers that the equity is coming and they will get the loan?

Mr. CHU. Well, I'm not—it's the people in the loan program—I think my—again, what is happening is this person in the loan, who is—the career folk in the loan program are always trying to get the best position possible for the Federal Government.

Mr. TERRY. I'm not sure that answers the question, but my time is up.

Mr. STEARNS. The gentleman's time has expired.

The gentleman from Pennsylvania, Mr. Murphy, is recognized for 5 minutes.

Mr. MURPHY. Thank you, Mr. Chairman.

Mr. Secretary, on June 27th of this year, you were briefed in advance of your meeting with President Obama by advisers on Solyndra. Were you specifically briefed about the company's financial health and were you told the company was on a path to bankruptcy at that time?

Mr. CHU. When was the date again?

Mr. MURPHY. June 27, 2001, before you met with——

Mr. CHU. 2011?

Mr. MURPHY. Of 2011, yes, before you met with the President, sir, were you briefed about the financial problems of the company on a path to bankruptcy?

Mr. CHU. I certain—by around that time, I was certainly aware of the fact that——

Mr. MURPHY. They were going to go bankrupt?

Mr. CHU. That they were—well, that they were in deep trouble.

Mr. MURPHY. Did you speak with the President about that time about the status of Solyndra's financial problems.

Mr. CHU. No, I didn't. When you meet with the President, it's not about a particular transaction. It was actually a much higher level discussion about——

Mr. MURPHY. I appreciate that. Let me ask a little bit more, then.

Mr. Secretary, when Solyndra came to DOE in the fall of 2010 and explained it was running out of cash, did DOE consider at anytime just letting the company go bankrupt?

Mr. CHU. I think this is always something that we consider if it looks that——

Mr. MURPHY. So that was an option? That was an option?

Mr. CHU. It is—every time we're disbursing funds, if a company, if any company looks like it has a high probability of going into bankruptcy, you—one goes into another mode where you say, what will be the best pay for——

Mr. MURPHY. Right. As the law said, the original 2005 bill said that you shouldn't be giving loans to companies that appear they can't pay back the principal and interest, you're aware of that, that part?

Mr. CHU. Absolutely.

Mr. MURPHY. OK. Now, yet you made a decision, even though you're aware that's an option, just let them go bankrupt, you made a decision to move forward anyway?

Mr. CHU. Sorry——

Mr. MURPHY. Was there a specific wording in any law that says you don't have to follow the law that says you can't give the money if they can't make it?

Mr. CHU. If you're talking about in the original loan, we made a decision to fund Solyndra. The credit subsidy score would reflect the probability of the loan.

Mr. MURPHY. I understand, but you can't give the money if they're not going to pay it back.

Mr. CHU. Pardon?

Mr. MURPHY. Yes, but the law says you can't give them money if they're not going to pay it back, and I'm asking is there some law you're citing that gave you permission to override the law that says you don't have to——

Mr. CHU. We're not—we weren't going against the law. The law said——

Mr. MURPHY. Well, I hope—sir, I'm asking if you can cite something for me and get back to us to show us where in the law it says you don't have to pay attention to the law? That's what I want to know. Sir, let me ask you this.

Mr. CHU. We paid very close attention to the law. The law says that we can only make a loan where there's a likelihood of being paid back.

Mr. MURPHY. I understand, but it sounds like you're saying a subjective decision was here——

Mr. CHU. No.

Mr. MURPHY. Based upon things you're citing about China and solar power, et cetera. But let me ask about this.

So you testified, quote, I approved restructuring of the loan guaranteed to give taxpayers the best chance of recovery; you just made a decision here. Did you weigh in with Jonathan Silver and tell him to restructure the loan?

Mr. CHU. No.

Mr. MURPHY. Now, on September 14th, I asked Mr. Silver during our hearing about the decision to restructure. I said, and I quote, did the Secretary of Energy have anything to do with this decision? And he said, not to my knowledge. So my question is, Silver says you were not, you say you were involved with the decision, who's telling the truth here?

Mr. CHU. Sorry, the decision to restructure was something the loan program developed and brought to me for approval, and so that's the precise nature of what was going on.

Going back to making a loan and thinking that there is a high chance of recovery or a reasonable prospect of recovery, which is what the law states, I have to say that given the credit subsidy risk, the loan loss reserve for this particular loan was 7.8 percent. That's roughly speaking, it gives us 7.8 percent probability that the loan will get into trouble.

Mr. MURPHY. 7.8 percent.

Mr. CHU. 7.8 percent, so that's a high likelihood——

Mr. MURPHY. We have Treasury, OMB, people from Solyndra, and people from the White House who said the government is a crappy venture capitalist, so that sounds like a number of people are sending information on to you, but we have established in my previous question of you, I'm not sure that even your chief of staff has told you about meetings that were taking place.

Now, sir, you're a scientist and I'm also trained in science, and one of the things that we are trained in is do not avoid, in fact seek out information which may contradict your paradigms and your premises, that's important, that's how science moves forward in this. But here you're aware now the Treasury Department suggests that DOE get a legal opinion on the restructuring of this loan, and you're aware that other Federal agencies are recommending this, but now what puzzles me, sir, is it sounds like you've acknowledged that this is a subjective decision for other reasons, even though the law says you can't give money if they can't pay it back, and with this subjective decision and with your background in science, and even though staff around you knew this, you're saying that you didn't have this information or you didn't seek out this information to make that decision? I don't understand what goes into subjective decision then.

Mr. CHU. First let me go back to the determination if the OMB, which is very independent of us, makes a credit subsidy determination and comes up with 7.8 percent, that's effectively saying——

Mr. MURPHY. But I'm saying the Treasury said you should have consulted——

Mr. CHU. Oh, you're——

Mr. MURPHY. Get a legal opinion on the subordination.

Mr. CHU [continuing]. Citing two issues, one is when we make the loan in the first place, and we would not make a loan if there was not a reasonable chance of being paid back.

Mr. MURPHY. Sir, but other people are telling you that there's a strong chance you won't get paid back, even a memo that says this company is going to go bankrupt, the liquidity is gone by September 2011, and that's when they did. That's more than a 7.8 percent chance. My concern is that with this, you had a lot of information coming at you. Even though the law says you cannot give money if they're not going to pay it back, but you made a subjective decision which I think runs against the law.

I yield back.

Mr. STEARNS. The gentleman's time has expired. Just caution all members, I think votes are coming up. I would like to get through the second round, and so I'm going to have to hold all of you to your 5 minutes.

Mr. Waxman.

OK, I'll take the next one. Mr. Waxman will take it later.

Dr. Burgess is recognized for 5 minutes.

Mr. BURGESS. I thank the chairman.

Mr. Secretary, again, thank you for your indulgence today. I'm going to ask you a series of questions that pertain to tabs 32, 34, and 35 in your binder, those are a series of emails, and I'm just telling you that for reference. I'll give you the background information.

First off, there was the inability to proceed with the IPO from Solyndra, and Chris Gronet, former CEO of Solyndra, suggested that they go to the Bank of Washington. I guess that means the Federal Government.

Mr. CHU. Excuse me, I've lost my train of thought because I was looking for tabs 32, 34, and 35. I don't seem to have them.

Mr. BURGESS. We'll get them to you. The tabs themselves—I'll give you the information. But so Bob Peck was contacted by Secretary Silver, Bob Peck being the commissioner of public buildings of the GSA, connecting him with the CEO, former CEO of Solyndra, Chris Gronet, asking him to meet with Solyndra, Silver, Secretary Silver said he would personally appreciate it. Now, did you approve of that exchange?

Ms. DEGETTE. Mr. Chairman, I would ask that the Secretary be given these documents——

Mr. BURGESS. The Secretary has the documents.

Ms. DEGETTE [continuing]. Before he's expected to answer.

Mr. STEARNS. The tab was pointed out to the Secretary, the staff has shown it, so——

Mr. CHU. OK.

Mr. STEARNS. Continue Dr. Burgess.

Mr. CHU. It turns out to be tab A, so let me catch up. And it was not 32, 34, and 35.

Mr. STEARNS. All right, I understand.

Mr. CHU. So now, sir, can you continue with the question?

Mr. BURGESS. Here's the deal. Secretary Silver connected Chris Gronet from former CEO of Solyndra with Bob Peck, the commissioner of public buildings of the General Services Administration. They've lost the ability to do the IPO. They want to come to the Bank of Washington. So was it appropriate for Secretary Silver to connect those two entities, the CEO of Solyndra and the head of the General Services Administration public buildings?

Mr. CHU. Well, this is the first time I've been made aware of this—I've seen this email, and so——

Mr. BURGESS. Well, I was going to ask you, did you speak with anyone at General Services Administration or Department of Defense——

Mr. CHU. No.

Mr. BURGESS [continuing]. About purchasing Solyndra panels.

Mr. CHU. Did I? No.

Mr. BURGESS. And did you speak to anyone at the White House about this?

Mr. CHU. No.

Mr. BURGESS. OK. Then, following, on August 10th, Tom Baruch, the former member of one of the venture capitalists and an investor in Solyndra, emailed one of his colleagues, quote, getting business from Uncle Sam is a principal element of Solyndra's energy strategy. When President Obama visited Solyndra, Chris Gronet spoke very openly to the President about the need for installation of Solyndra's rooftop solar on U.S. Government buildings. I heard the President actually promise Chris that he would look into it when he returned to Washington.

Do you know about these conversations and do you know of any follow-up conversation that was then contained within that?

Mr. CHU. No, I didn't know about that conversation, and certainly the President——

Mr. BURGESS. Can you see why the committee would be interested in the follow—if that conversation occurred and the follow-up?

Mr. CHU. Well, certainly, first, the President didn't talk to me about Solyndra regarding government installations, things of that nature, and I was not aware of the then CEO of the company Solyndra talking to the President regarding he felt the need to have government buildings install his panels. I was not aware of that.

Mr. BURGESS. OK, so there was—you were aware, then, that the——

Mr. CHU. I was not aware of that conversation.

Mr. BURGESS. But you were aware that there was at least a business model to pursue the funding from the Bank of Washington and getting a government purchase of these panels?

Mr. CHU. No. These details of these 38 loan transactions are—I am not aware of. What I view my job is to do is to set in the Department of Energy those measures that guarantee that we make the best judgments possible when we decide that we make a loan and that it has a probability of being paid back.

Mr. BURGESS. I appreciate that. I'll stipulate that you had the best of intentions. I just want to follow up on what Mr. Barton ended his questioning. I mean, it was his opinion that the part of the Energy Policy Act that prevented subordination was, in fact, violated, and that is my opinion as well, and I rather suspect that's a fairly broadly held opinion across from sea to shining sea today. So given that fact, do you feel you owe it to your boss a discussion with him in light of the fact that it appears I may have broken the law?

Mr. CHU. No, I——

Mr. BURGESS. That you should not continue in your employment?

Mr. CHU. Respectfully, our legal staff, our General Counsel's Office, Susan Richardson, others, the OMB looked at what our decision, our pending decision would be, did not object to it, and so I would say I would rather take the opposite opinion, that when you have independent people looking at this loan outside the Department of Energy as well as a very thorough discussion within the Department of Energy, it is not——

Mr. BURGESS. But if you had the opportunity to make the same decision again today, say, with Beacon, you wouldn't make it, would you?

Mr. CHU. Well, what—let me step back and say that, again, should——

Mr. STEARNS. The gentleman's time has expired, but you can complete your answer.

Mr. CHU. OK, thank you. The issue is, should there be a stress in a loan going forward. We—I would love to work with this committee and with Congress in how to guarantee that we can recover as much as possible.

Mr. STEARNS. OK.

The gentleman from California, Mr. Waxman, is recognized for 5 minutes.

Mr. WAXMAN. Thank you, Mr. Chairman.

Well, on that last point, if you don't have the flexibility to deal with a loan that you want repaid, you're just going to pull the rug out, and then the money's lost for sure. So sometimes allowing the subordination will hopefully save the situation. There ought to be that flexibility.

Mr. CHU. You need some flexibility once a loan has become stressed, and I agree absolutely with you, and this happens all the time in the private sector, and to protect the taxpayer interests, you need some flexibility to guarantee as much pay back as possible.

Mr. WAXMAN. Well, the Republicans have accused you of acting illegally in subordinating the loan, but I just don't think that's a case they can sustain. Your general counsel signed off on the subordination, and when we asked a former general counsel of her opinion, general counsel at the Department of Energy, her opinion, she agreed it was lawful.

One of my colleagues earlier said, well we ought to change the law, that's what we thought we were doing. That's a good lesson for Members of Congress to take heart. If you think you know what you're doing, you better be sure you've done it because that isn't what the law provides.

The Republicans accused you of granting the Solyndra loan to benefit a campaign donor, George Kaiser, but the record before this committee shows you acted on the merits. Steve Iskowitz, a Bush appointee, who was your chief financial officer, said the process was never compromised. David Frantz, who was a career official, who was also the director of the loan office, told us he did not even know who Mr. Kaiser was. Matt Rogers, who was your senior adviser on these loans, told us he had no idea Mr. Kaiser had given any political contributions and his name never came up. You told us today that you also did not know Mr. Kaiser had contributed to President Obama until you read about it in the newspapers after the fact.

So that should put to rest that allegation, that you were influenced by political considerations.

The only other allegation that remains is that someone may have asked Solyndra to delay announcing a plant closure for a few days until after the 2010 election. Now, I don't condone this action if it's true, but let's keep this in perspective: Asking Solyndra to delay its announcement did not put any taxpayer dollars at risk. It didn't change Solyndra's business decisions. It had nothing to do with any of the loan guarantee decisions. It's all that our committee has found after reviewing hundreds of thousands of pages of documents and interviewing countless witnesses, and it's really small potatoes.

Now, you've been here this whole day, and you've been very forthright in answering a lot of questions, and there's been a lot of posturing by the Republicans who think this is a scandal. We have lost the money, it's unfortunate, but there's no scandal there, there's nothing there.

I want to put this in perspective, Dr. Chu. You've been trying to move our Nation to a clean energy economy, and that's essential to protect American families from fires and droughts and floods and other extreme weather that climate change will bring, and it's essential to our future economic growth. As you've repeatedly said, we want to be selling the clean energy technologies of the future, not buying them from the Chinese.

Now, on the other side, my Republican colleagues on this committee have been trying to block these efforts every step of the way. Republicans in Congress and their allies in the coal and oil industry oppose efforts to put a price on carbon pollution. They oppose funding research into new clean energy technologies. They oppose investments in clean energy companies, which, like Solyndra, would produce new power, but we hope, unlike Solyndra, will be successful.

You're on the right side of this debate, and I think you are on the right side of history. The Republicans are on the wrong side, and I think what they're doing is leading us astray. But my message to my colleagues is to stop dancing on Solyndra's grave. You're trying to—they're trying to manufacture a scandal where there is none. This is a distraction from the work that we should be doing.

What Congress ought to be spending its time doing is trying to get Americans jobs and back to work and get the economy moving again. What Congress should be doing in energy policy is to encourage development of new energy sources so that we don't have to rely on oil and coal and nuclear so we can have a more diversified portfolio, we can be more independent as a Nation, we can produce greater economic benefit, and we can stop the terrible consequences of global warming.

So I thank you for all that you've done. I do not see that you've done anything wrong. If anything, you're trying to do exactly the right thing, and I commend you for it.

Mr. STEARNS. Thank you.

The gentleman's time has expired.

Mr. WAXMAN. Did you want to respond?

Mr. STEARNS. Sure, yes, go ahead.

Mr. CHU. Can I make a comment?

Mr. STEARNS. Sure, absolutely. Go ahead.

Mr. CHU. First, let me just say, thank you for those comments. Many, many years ago, it seems forever now, I had left Stanford University to head the directorship of Lawrence Berkeley Lab because I felt that we were running—if we continued—we in the United States and the world, if we continued on this path, we would, there will be serious risks in climate change, and then as I got into this and began to encourage the folks at Lawrence Berkeley Lab to look at renewable energy, I began to also see an incredible economic opportunity that is in the direct sweet spot of the best that America has to offer, our research and development and our entrepreneurial system and the ability to manufacture things like high tech——

Mr. STEARNS. Mr. Secretary, I need you to wrap up. We've got a vote, and we also want to get a couple members in.

Mr. CHU. So I would agree with you, this has a lot to do with America's economic prosperity and future as well as the legacy we leave to our children.

Mr. WAXMAN. Thank you.

Mr. STEARNS. The gentlelady from Tennessee is recognized for 5 minutes.

Mrs. BLACKBURN. Thank you, Mr. Chairman.

And I have to tell you, Mr. Secretary, it's really troublesome to me the number of times I've heard you say today that this is the first time you've been made aware of something or that you know something now, you didn't know it then, so it leads me to believe that maybe you had some staff that was kind of keeping you out of the loop on some decisions.

Let me ask you this: Did anyone from DOE talk to anyone from the White House about restructuring or subordination? Was there any communication between DOE and the White House about the restructuring and the subordination of that loan?

Mr. CHU. Certainly at the time that we were discussing this, I was aware of no communication whatsoever with the White House.

Mrs. BLACKBURN. Are you aware of any communication now?

Mr. CHU. I was made aware of it as of yesterday.

Mrs. BLACKBURN. That there was communication between DOE and the White House on the restructuring and the subordination?

Mr. CHU. Well, there are some communications, again, about the restructuring. This is something which is the responsibility of the

Department of Energy, and again, we were looking out for the taxpayers.

Mrs. BLACKBURN. Would you like to provide us with the information of who that communication was between?

Mr. CHU. Yes, I will.

Mrs. BLACKBURN. Thank you.

Did the White House approve of or sign off on in any way, did they approve of or sign off on the restructuring and the subordination of this loan?

Mr. CHU. Again, my understanding is that this was within the responsibility of the Department of Energy, it was our responsibility within the interpretation——

Mrs. BLACKBURN. Mr. Secretary, let me ask it another way. If you all had communication and the White House was made aware that you were going to subordinate this loan, then——

Mr. CHU. Oh, absolutely——

Mrs. BLACKBURN. Then did they sign off on this?

Mr. CHU. Well, as I said before, the OMB looked, knew what we were doing, and they went ahead and said, they said—they did not say, no, you cannot do this.

Mrs. BLACKBURN. Anybody in the White House other than OMB?

Mr. CHU. Other than OMB concerning what?

Mrs. BLACKBURN. The subordination or the restructuring.

Mr. CHU. There may have been other opinions, and we can get that information back to you, but I'm saying——

Mrs. BLACKBURN. I would like to know the names of anyone in the White House that was involved in that process.

Mr. CHU. Right.

Mrs. BLACKBURN. Let's go back to the board observer. Did you approve the board observer, or did anyone from the White House or the Vice President's Office, did anyone else have input into who that board observer would be?

Mr. CHU. I didn't approve of the choice of the board observer.

Mrs. BLACKBURN. Who approved the choice?

Mr. CHU. I would imagine it was part of the loan program and Jonathan Silver.

Mrs. BLACKBURN. OK. Could you provide that information to me?

Mr. CHU. Sure.

Mrs. BLACKBURN. OK. Did that board observer report to you on the interactions and the conversations and the contents of the meetings?

Mr. CHU. No, that board observer was there. It's an observer so that we could have a closer eye on the events that were happening in Solyndra.

Mrs. BLACKBURN. Correct, OK.

Mr. CHU. As part of our due diligence in moving forward with the loan.

Mrs. BLACKBURN. Sir, you did not appoint them until after you had restructured that loan, that was my understanding.

Mr. CHU. That was part of the condition of restructuring, that we needed——

Mrs. BLACKBURN. OK. Now who did they report to of their interactions?

Mr. CHU. I would say that the board observer would be reporting to the loan program.

Mrs. BLACKBURN. To the loan program, to Mr. Silver?

Mr. CHU. Well, I can get back to you on exactly, but——

Mrs. BLACKBURN. OK. That would be great. Did the board observer inform you or anyone at DOE of the impending bankruptcy filing?

Mrs. BLACKBURN. The—well, as I said, the board observer doesn't report to me; he reports to someone in the loan program. And certainly as the events rapidly changed, both the board observer and the board of Solyndra were notified of a rapidly changing condition by the management of Solyndra and——

Mrs. BLACKBURN. Did anyone from DOE report to either the loan program, Treasury, OMB, the White House or DOJ that there would be an impending bankruptcy filing from Solyndra?

Mr. CHU. I think by that time, this is very late in the game, when, especially when Solyndra the company in a board call meeting said that they're making different projections of when they would go into the black.

Mrs. BLACKBURN. OK. Well, I find it—and I think you need to realize our frustration with having people from DOE or from Solyndra come up here as late as July and saying things were fine and then to know that there was a board observer that had been approved by DOE that was sitting in on those meetings that may know, may have known that things were not going well, and yet we were being given different information. I see a certain amount of—well, let me just say that is very troublesome to me, and I would hope that it is very troublesome to you.

Mr. CHU. Well, my—as I've been made aware of this, both, as I said before, the board observer with the board were equally surprised, and the fact that we have a board observer and the board itself being surprised that very suddenly the projections of the company Solyndra to the board——

Mrs. BLACKBURN. Then who was choosing to keep us all in the dark?

Mr. CHU. Well, look, I'm not going to speculate on that. I'm only just saying that both the board and the board observer learned about these events together.

Mr. WAXMAN. Point of order, Mr. Chairman.

Mr. STEARNS. Yes, point of order.

Mr. WAXMAN. Mr. Chairman, the Secretary has been here for over 4 hours——

Mr. STEARNS. I think you have got a good point there.

Mr. WAXMAN. We have a vote on the House floor that is going to take us 45 minutes.

Mr. STEARNS. I agree. All right, the gentlelady's time——

Mr. WAXMAN. Just a minute, Mr. Chairman.

Mr. STEARNS. Sure.

Mr. WAXMAN. The Secretary has been here. I think it's abusive to have the Secretary, any Cabinet-level Secretary here and then make him wait another 45 minutes to have members ask a second round. There's no entitlement to a second round of questioning.

Mr. STEARNS. All right.

Mr. WAXMAN. And I think we ought to let the witness go about his job.

Mr. STEARNS. All right.

Mr. WAXMAN. And adjourn this meeting.

Mr. STEARNS. All right, I appreciate your opinion.

The gentlelady's time has expired, and I think you finished answering her question.

We want to complete the second round for those members that are interested, so, Mr. Secretary, we are going to take a half-hour break, come back at 2:45.

Mr. WAXMAN. Mr. Chairman, I move the committee do now adjourn.

Mr. STEARNS. The gentleman has a motion on the floor that the committee adjourn.

Is there objection?

Mr. SCALISE. Objection.

Mrs. BLACKBURN. Objection.

Mr. STEARNS. Objection. So we'll call the roll. Is that correct? While we're waiting for the clerk, Mr. Secretary, can we, if we adjourn for 2:45 and come back, could you——

Mr. WAXMAN. I guess the question to the Secretary, it's up to you, but it seems to me you've done more than you could possibly do to answer every question. The questions are getting to be quite repetitive, and I don't think it's fair to the Secretary.

Mr. STEARNS. OK, that's your opinion.

Mr. Secretary, we have a few members who want to come back right after, it would be less than a half hour. Can you stay for that?

Ms. DEGETTE. No, it won't be.

Mr. Chairman, it's going to be 45 minutes.

Mr. STEARNS. Are you willing to come back or stay for a second round?

Mr. WAXMAN. Mr. Chairman, is the Secretary willing to respond in writing to those members that have additional questions?

Mr. STEARNS. No, I think we have a hearing here, we want to continue.

Are you receptive to 30 minutes?

Mr. CHU. Mr. Chairman, certainly, you know, I really have nothing to hide, but I think Mr. Waxman is correct; these questions are going over and over and over again of old territory.

Mr. STEARNS. Oh, I understand.

Mr. CHU. If they want to continue that——

Mr. STEARNS. Well, I think we have about——

Mr. SCALISE. Mr. Chairman, I have some questions that haven't been asked, unlike some who had the opportunity to have a second round, I haven't. I would appreciate that opportunity.

Mr. STEARNS. Normally in an oversight committee, we have at least two rounds, so I'm asking you to consider——

Ms. DEGETTE. No.

Mr. STEARNS [continuing]. To come back or just to delay for another less than 30 minutes, we'll be back and we have three or four members that will finish up and then we'll wrap up. So with your indulgence, would that be OK? Could you accept that? Good, we'll do that.

Mr. WAXMAN. Well, Mr. Chairman, I don't—you are again being abusive of the witness.

Mr. STEARNS. We have a motion on the floor, but as I understand it——

Mr. WAXMAN. Is this the only thing you have to do today, Mr. Secretary?

Mr. CHU. No, I have other, I have other business, of course.

Ms. DEGETTE. Mr. Chairman——

Mr. WAXMAN. So you've been asked about all these issues.

Ms. DEGETTE. As a compromise, I would like to suggest a compromise.

Mr. STEARNS. OK.

Ms. DEGETTE. The compromise I would like to suggest is that we release the Secretary no later than 3:30 this afternoon. So we can go vote, we can come back.

Mr. STEARNS. I think that's reasonable.

Ms. DEGETTE. Thank you, let's do that.

Mr. STEARNS. Let's do that. We'll do that.

And as I understand this motion to adjourn, and we object to it, I think is——

Mr. WAXMAN. Mr. Chairman, I'll withdraw the motion.

Mr. STEARNS. OK. So we're going to adjourn—it's temporary adjourn, and—recess, we're going to temporarily recess, and we'll be back here in less than 30 minutes at 2:45, and we'll try to get you out of here at 3:30.

[Recess.]

Mr. STEARNS. The subcommittee will come to order, and we will resume our second round of questioning.

And the gentleman from California is recognized for 5 minutes.

Mr. Secretary, are you ready?

Mr. CHU. Yes, I am.

Mr. STEARNS. Thank you for coming back and offering us the opportunity.

Mr. Bilbray, you are recognized for 5 minutes.

Mr. BILBRAY. Thank you.

For the record, Mr. Secretary, I supported you when you were appointed, and I support you now. I think you have the greatest potential to fulfill the promise of the Energy Department that has been so lacking for so long, and because I feel that you have a basis in science, not in politics. So I just wanted to say that for the record.

I do have a concern, though, as I say that, that foot for foot, square foot by square foot, you think that the three basic divisions of photovoltaics are created equal. Because there must be some information out there that is not available to the general public. You know, there are distinct advantages, historically, with poly and mono over thin film, not just in its initial performance but in its longevity.

And that is a big reason why I was very suspect when I saw Solyndra propose a 20-year warranty on a technology that has only been able to really deliver a 4- or 5-year guarantee. And you may not agree, but I think you would understand why I would have those concerns.

Mr. CHU. Well, if you would allow me to explain, if you look at the thin-film technologies, there are two thin-film technologies—cad telluride, what we refer to as CIGS—and how does it stack up against both single crystal silicon and polycrystalline silicon.

Mr. BILBRAY. Well, let me just stop and say, you still say that you think the three are equal and that there is not—the thin film was not a more risky venture as opposed to the other two?

Mr. CHU. I think that thin film has great promise. And this is the reason why General Electric today is investing in a solar——

Mr. BILBRAY. OK. I understand General Electric. We also keep referring to China, and you know exactly where they have laid their bets.

My biggest thing is that I worry that the way this moved was moved not by criminal intent but through naivete or wishful thinking that all solar energy was created equally and that anything green must be good. And I think we have seen the mistake of that with the application 15 years ago of ethanol, and now we have seen the problems that that has created, both environmentally and economically. And my concern was this naive, almost religious approach that if it is green, it must be good and it is going to work out.

But that aside, you know, my concern is that when we approach the technologies, was the concept that because the Chinese weren't going at this that we could have a quantum leap in technology that is so far ahead of where we have been before, that the Chinese would be left behind because of our research, and this breakthrough would make a technology that they had basically left behind themselves, weren't willing to invest in, that we could jump ahead of the Chinese at that time?

Mr. CHU. If you would allow me to finish, what I am trying to say here is that in the thin-film technology, like cad telluride, there are certain results of efficiency in the laboratory of companies and then there are certain production efficiencies. When they started in production, they were getting roughly 11 percent efficiency. Silicon was higher; silicon was roughly 14 or 15 percent efficiency. They both have—so what you had in silicon is, you had less, what I would call, headroom to improve the technology.

Now, since we have started in cad telluride, as an example, companies are now achieving results and beginning to go into production where they are expecting something on the scale of 14 percent efficiency. That is a huge improvement——

Mr. BILBRAY. I am sorry to interrupt. But, historically, the advantage of thin film was a lower cost even though it was, like, 15 to 20 percent less efficient initially and had a higher degrading level in the first year of application.

Mr. CHU. Well, what is happening is, it is certainly much lower cost, and in the instance of cad telluride it is actually beginning to rapidly approach the efficiency of silicon. And so this is a good thing. This——

Mr. BILBRAY. When you say "rapidly approaching," wait a minute, you know, we are looking at 20 percent historically. We have closed that to 10 percent, 5 percent?

Mr. CHU. The dominant silicon being sold today is what is called poly silicon, and——

Mr. BILBRAY. Right.

Mr. CHU [continuing]. That is roughly about 15 percent efficiency. And, as I said, cad telluride started at 11 percent, and they are making great advances in the efficiency. And so——

Mr. BILBRAY. OK. Getting back to the—you were thinking, though, that this would be a bet to be able to have a quantum leap so we could jump over where the Chinese were going?

Mr. CHU. They—sorry. We weren't making bets. There were companies that were investing in this and applied for a loan. And we think, going forward, that cad telluride, some of these thin-film technologies, can be very competitive.

Mr. BILBRAY. OK. I just need to interrupt because of my time. Because my concern is this issue, that we can jump so far ahead that we will be able to—production, when we are paying twice the price for electricity as China, when they can get the permits, when they have the access. You know, we talk about wind energy. They have 98 percent of the rare earth, and we haven't opened up our public lands for rare earth so we could produce it domestically, so we would have to buy the rare earth because of the permanent magnet technology. All of these things are tied together.

And I would like to see the Energy Department be able to talk to our colleagues; that if they want to see wind generation, then they have to change regulations to allow access to rare earth. If they want to talk about these technologies being made available, they have to be able to make it legal for us to produce it competitively.

My only problem is, if we make this quantum leap, we spend all the taxpayers' money to develop the technology, the Chinese will take that technology and outproduce us because of our government regulation obstructionism.

I yield back.

Mr. STEARNS. The gentleman's time has expired.

And I recognize the gentleman from Georgia for 5 minutes.

Mr. GINGREY. Dr. Chu, Mr. Secretary, I want to associate myself with the initial remarks my colleague from California just made in regard to you being in the right position at the right time.

You know, I do question, though, your judgment in regard to the restructuring of the loan. I feel that that essentially was throwing good money after bad. I think the decision should have been made to cut our losses, advance no further loan proceeds to the company, and try to recover as much of the $530 million under a structured bankruptcy sale of assets for the taxpayer.

You know, in fact, the investors that were coming behind with the $75 million, I am sure many of those were involved in the original billion-dollar investment to start the company up, and so they were in the same kind of position.

But be that as it may, I just think that maybe the advice from the Justice Department over the question of whether or not it was legal to restructure and put the taxpayer in a secondary position, you would have gotten the right answer, and that would have avoided that trap.

The ranking member of the overall committee said earlier before we broke that, you know, it is time quit dancing on the grave of Solyndra, and, you know, we are talking about small potatoes, it is a non-issue. In fact, the President, himself, was quoted as saying, well, hey, you win some, you lose some. I made a football analogy in my first round of questions, and you win some, you lose some in football. But in a situation like this, you know, you don't lose $535 million and maybe win a $15 million investment. The balance is just not there. And, quite honestly, half a billion dollars, to most of us, is not small potatoes.

Let me just ask you a few questions in the remaining time that I have left. And this is about the issue of the second loan guarantee application, so-called Fab 3. I am not sure many of us even realized until here lately that there was the possibility of Solyndra getting yet another loan.

When were you first made aware of Solyndra's pursuit of a second loan guarantee?

Mr. CHU. Recently. But, just for the record, when we have an announcement of application for loans, companies apply for a loan. That doesn't mean the company was going to get a loan. And, in fact——

Mr. GINGREY. Well, Mr. Secretary, I understand that. Of course, in January of 2010, executives from Solyndra appear to have met with DOE officials, including Mr. Jonathan Silver, gone now, and Matt Rogers, on several occasions to discuss the idea. And you were aware of those meetings—were you aware of those meetings?

Mr. CHU. I believe I was aware of an application for a third fab plant, but that really, as you know, progressed nowhere.

Mr. GINGREY. Right. Right. So is it safe to say that you did have conversations with Jonathan Silver and/or Matt Rogers before or after these meetings regarding the second loan?

Mr. CHU. No. In an—I am not informed of applications for all loans. There are many, many applications. When I am brought in is when it comes time to approve the loan, because that is my responsibility. Many applications go into the Department and then the loan people determine that they are not going get a loan.

Mr. GINGREY. Yes. Well, here again, some of the other folks, the band of brothers that you fell in with, inadvertently I guess we could say.

According to one Solyndra executive, on February 9th, another meeting with Solyndra executives, Jonathan Silver appeared to acknowledge that they would, quote, "likely move to the due diligence stage when he directly engaged in a discussion of the potential political challenges that a second Solyndra loan guarantee would present." And that is the end of his quote.

He then asked for Solyndra's assistance in crafting answers to four questions that he anticipated receiving about this second loan guarantee. One of these questions was why DOE should give additional loan guarantees to a company that had not yet achieved significant milestones of success with the first loan.

Did Jonathan Silver ever present to you reasons why he thinks Solyndra should get a second loan guarantee, when there are, as you point out, a lot of other companies desperate wanting—renewable energy companies, with good plans, wanting to have a first bite at the apple, and here he was sort of pushing for Solyndra to get a second bite of the apple? What did he say to you?

Mr. CHU. Well, I am not sure he was pushing to get a second bite of the apple. What I do know is that this did not come before me to the point where there was serious consideration to give Solyndra the second loan.

Mr. GINGREY. And they subsequently did not get that second loan.

Mr. CHU. We did not.

Mr. GINGREY. Right. Thank you, Mr. Secretary.

And, Mr. Chairman, I will yield back.

Mr. STEARNS. The gentleman's time has expired.

The gentleman from Louisiana, Mr. Scalise, is recognized for 5 minutes.

Mr. SCALISE. Thank you, Mr. Chairman. I appreciate you letting us have a second round of questions.

And I disagree with the comment you made earlier, that a lot of these are redundant questions that are being asked. Because, frankly, I think there a lot of questions that have been asked that we haven't been able to get answers to.

In fact, when the chairman, Mr. Stearns, at the beginning of the second round, asked you some very specific questions about other loans out there, what other loans are in trouble, I am surprised that you can't give an answer to that question.

Can you get us, this committee, an answer to that question of what other loans are in trouble right now?

Mr. CHU. As I said before, we watch all the loans. We, in learning from the experience of Solyndra, we are now watching the loans at a minimum of every month and sometimes weekly. But——

Mr. SCALISE. So can you tell, if you are watching them weekly, how many are in trouble? Obviously you are watching them weekly. There are a lot more out there.How many are in trouble right now?

If you are watching them, you have to know. It is either none or some number in between none and the total number that are still out there.

Mr. CHU. I——

Mr. SCALISE. What is that answer?

Mr. CHU. What, that——

Mr. SCALISE. I don't think that is an unreasonable question, Mr. Secretary. How many loans that you are watching—you are watching them weekly—how many loans are in trouble that are still outstanding?

Mr. CHU. Again, we watch——

Mr. SCALISE. A number. I am asking you for a number.

Mr. CHU. All right. We have two loans that are in trouble, Solyndra and Beacon.

Mr. SCALISE. Well, they went bankrupt. Those aren't—what other ones are in trouble besides those two? Is it just those two?

Mr. CHU. No, I—we would be glad to look at and tell you our procedures and give you, not in this forum—but we would be glad to work with you and——

Mr. SCALISE. Well, a public forum. I mean, it ought to be—there has to be transparency in what is going on here. We are trying to get to the facts, and we have been having a hard time getting those answers. So I would appreciate if you would get the committee that information on what loans are in trouble, starting with Solyndra and Beacon, if there are any others.

When we talk about the subordination—and I know it is going to come back to this a few times because I still don't think this issue is resolved. And, frankly, you know, I disagree with you, and, obviously, a lot of us on this committee disagree with your interpretation. I more share the concerns of another part of the Obama administration, in Treasury, where they said the Justice Department ought to be involved. You chose not to get involved with the Justice Department.

I am asking for the Justice Department to get involved. And, frankly, what I would like to see is for the Justice Department to challenge, right now, to challenge the subordination of the taxpayer. Because, frankly, it is the only way that we have a shot at getting that first $75 million of taxpayer money back.

Mr. STEARNS. Would the gentleman yield just for a second?

Mr. SCALISE. I would yield.

Mr. STEARNS. I think he is asking a very legitimate question. He is asking you not the company names; he is just asking the number.

And staff has advised me we sent a letter some time ago asking for a list of all the companies, and we have not got a reply yet. So I think the gentleman's question of "what is the number" is a legitimate question.

If you are looking at it weekly, can you tell——

Mr. CHU. We believe that most of the loans are in good shape. We would be glad to talk about this with you and tell you what process we have in place. We have given you a lot of company confidential information. You have respected that confidentiality; we appreciate that. We would be willing to continue do that.

Mr. STEARNS. We are not asking for the names.

Ms. DEGETTE. Would the gentleman yield?

Mr. STEARNS. All he is asking for—as I understand, Mr. Scalise, you are asking for just the number.

Mr. SCALISE. A number is all I ask for right now. And, obviously, we would like to follow up once we see a number. But, you know, maybe the number is just two; maybe it is just Solyndra and Beacon. But if it is more than Solyndra and Beacon, then clearly we would want to look more into that.

Ms. DEGETTE. Will the gentleman from Louisiana yield?

Mr. SCALISE. I would be happy to.

Ms. DEGETTE. Thank you.

Mr. Secretary, is part of your reticence in saying how many companies you think might be in trouble or which ones they are in this public forum this concern about proprietary information?

Mr. CHU. There is always concern that we would have, as you would understand. But in terms—because we will tell you what we know of the companies and how we found out about it in detail, but not in a public forum.

Ms. DEGETTE. So——

Mr. CHU. But we believe—I will say that we believe the majority of the portfolio seems to be in good shape.

Ms. DEGETTE. So, Mr.——

Mr. CHU. In fact, a large majority.

Ms. DEGETTE. So I would suggest—I think that is a legitimate concern. You don't want to—we have already been contacted, for example, by a company that is actually in Mr. Gardener's district, and they are concerned, because of the adverse publicity around the Solyndra loan, that it is hurting their ability to get capital and financing, and they are an ongoing company.

So perhaps we could get—we could get a number—we could try to get a number, but then any additional——

Mr. SCALISE. Right. And that was the gist. Reclaiming my time, I never asked for any specific names, but, clearly, I would like the numbers.

But then the next question I have regards going back to the restructuring. You know, I want to see the Justice Department go back and challenge the legality of the restructuring, whether or not the taxpayer should have been subordinated. Because that gives us the best chance to protect taxpayer money.

Would you agree that the Department of Justice should go and challenge that?

Mr. CHU. As I said, we have gone through this in great detail with our lawyers within the Department of Energy. This went to——

Mr. SCALISE. And ignored other legal opinions that contradicted it.

Mr. CHU. No.

Mr. SCALISE. Including the Treasury.

Mr. CHU. The Treasury, as I said before, did not offer a legal opinion. They did not say that——

Mr. SCALISE. This is a letter from Treasury. I would imagine you have seen it. It said that you all should go to the Department of Justice before you do this. I mean, I don't know if you want to call that a legal opinion. You have attorneys telling you, go to the Department of Justice before you do this, and you didn't do that. Now, whether it is a legal opinion or just a personal opinion, it was sent on their stationery, it was sent in their email form, on a government email, so I would imagine it is in their official capacity.

But let's just say, right now—and, you know, I don't want names—are there any loans that you are currently considering restructuring that are in your portfolio right now?

Mr. CHU. I think I have answered that before. But we are—before us, no loans that we are considering——

Mr. SCALISE. I would hope, if any did come before you, you would absolutely not subordinate the taxpayer. That is a whole other issue.

But when we go back to some of the other things that were going on around you—and you gave testimony that you weren't aware of those, some of the things that were very political in nature: you know, in your department, encouraging people to—encouraging Solyndra to delay firing people. Again, they weren't concerned, in anything I have seen, that 1,100 people were going to lose their job; they just wanted to make sure it happened after the election. And it did happen after the election, so, obviously, the folks in your agency were listened to.

Are you going to do the due diligence to go and find out who did that and hold them accountable? And what kind of things would you do to hold them accountable?

Mr. CHU. Well, we certainly will, as I said before, investigate actually the facts in this matter and take appropriate actions as we find out what actually happened.

Mr. SCALISE. And I would hope you would share that with our committee. Would you be willing to do that?

Mr. CHU. Yes.

Mr. SCALISE. Now, a final question, because I see I am running out of time.

The President, himself, has described this—when we talked about the loan program early off, he was asked and he said, basically, he said, we place bets. Now, would you view this as betting? Because, I mean, clearly, there are a lot of other loans out there. There are $4.7 billion of loans that went out on the last day of this loan program. Just on that last day $4.7 billion went out.

Knowing all of the problems now that happened with Solyndra—and that was the very first one that went bust—have you changed any processes? When you, on that last day—I would imagine you approved all of those. So how many loans were approved on that last day, accumulating to $4.7 billion? And did you use a different methodology, a different formula to assess whether or not those were bets, as the President said, that were good for the taxpayer or not, or did you use the same process that failed for Solyndra?

Mr. CHU. Well, let me step back and tell you about the last several months of the loan program, the 1705 loan program.

There were, I think in May or June, roughly May of this year, we told many of the loan applicants there was no time to complete due diligence and that we are sorry, even though some of these applications were being considered and before us for a year or more. And so, at that time, we said, we cannot have the time to do due diligence.

On the last of the loans, there were many of the loans where we also felt on those last days we could not make the deadline and do the due diligence. And so what we were deciding was which ones can we complete the due diligence. Under no circumstances was anyone ever in the loan program trying to rush it by cutting corners, not doing the due diligence.

And so what happened is, you used the maximum time possible. There were another set of loans that we were working with companies that we did not—we were not able to complete our due diligence, and those loans were not made.

Mr. SCALISE. But the specific question I asked you was——

Mr. STEARNS. The gentleman's time has expired.

Mr. SCALISE [continuing]. How many loans were approved on the last day, and did you use the same process that you used under Solyndra for that $4.7 billion package?

Mr. CHU. As you know, we have a very rigorous process in our——

Mr. SCALISE. How many? And yes or no?

Mr. STEARNS. The gentleman's time has expired.

Mr. CHU. Well, I believe I agree with you that there were four, and there were a number of loans that were not—and the last day, we said, we are sorry, to those companies, we cannot complete these loans. So under no circumstances were we rushing.

Mr. STEARNS. All right. Thank you, Mr. Scalise.

Mr. SCALISE. And did you use the same process?

Mr. STEARNS. And the gentleman from Virginia——

Mr. SCALISE. He won't answer that question. I am just asking if he can answer that question.

Mr. STEARNS. The gentleman from Virginia is recognized.

Mr. SCALISE. Did you use the same process as under Solyndra for those last $4.7 billion of loans?

Mr. CHU. Well, actually, I would imagine, as time goes on, our processes were being strengthened. As we get better at doing these things, we were actually improving the processes, just as we will continually improve the process in looking at how the loans are going forward in the disbursements. This is a process where we would hope to have continuous improvement, and——

Mr. STEARNS. All right. The gentleman from Virginia is recognized for 5 minutes.

Mr. GRIFFITH. Thank you, Mr. Chairman.

Secretary Chu, can you tell me, do you know what the value of the building that Solyndra owns, the one that was built, do you know what the value of that is, as far as the bankruptcy court is concerned, or what the sales price might be?

Mr. CHU. No, I don't.

Mr. GRIFFITH. All right. And here is my concern. Eight to 11 months ago, when you were making the decision to subordinate, you said that you thought it was better, instead of calling it quits in December and not giving them the additional $95 million, and instead of subordinating—or, you all made the decision you were going to subordinate because you thought it would put the taxpayers in a better position.

The problem is, you told me earlier you didn't know the value of the intellectual property and the patents that the company might own. You don't know the value of the building. If you don't know those things in a fire sale or in a situation like this, how can you make a determination just 8 to 11 months ago that it was in the taxpayers' best interest to subordinate? I think it is a rhetorical question because I don't know that you can answer that.

And let me move on to the next question that I have, because we also talked earlier—Mr. Barton brought it up first, and then I brought it up—this legal analysis by Morrison & Foerster. And all we have is the draft. And I don't think that you have intentionally misled the committee, but I think that there may never have been a legal opinion from Morrison & Foerster on this, a written legal opinion.

Do you know if there was actually a written legal opinion made?

Mr. CHU. I do know that there was an email, a determination by Morrison & Foerster of what—and they concurred with us in an email, in a final email, saying that this was a reasonable interpretation of the law, and they concurred with it.

Mr. GRIFFITH. Because I don't believe we have seen that. And so, if you could provide that email for us, I would greatly appreciate it, because we just haven't seen it. And so, you know, we have a draft that says—it has a whole section entitled "You Can't Subordinate," basically. It says subordination is not allowed. So that is of great concern.

And if all there was was an email and there originally was going to be a full legal memo, can you find out why there was not a full legal memorandum done from Morrison & Foerster in regard to the subordination issue? Can you do that for us?

Mr. CHU. Yes. Well——

Mr. GRIFFITH. And let me say that the reason that I question this is that you have referred to it a number of times today, but it appears that you, you know, relied on maybe some casual communication with them but never got the formal opinion, even though one was started. And it appears you relied significantly and exclusively on your own folks.

But a lot of times, you know, when you are trying to make an important decision, just as when you are making an important decision for your children, you consult other people before you decide, OK, are they too young to have a new car or what about that cell phone. And, in this case, you have acknowledged that you were making a very significant decision on the subordination of this loan, and yet you didn't consult with Justice, you didn't pay attention to other folks, OMB and Treasury.

And it appears—I mean, if my kids did that to me and that is what they were saying, "Well, we didn't check"—it appears that the Department of Energy adopted the policy of, well, it is better to ask for forgiveness than to make sure we get the answer right in the first place because we are afraid they will come back and say we can't do it.

And it is true that without that subordination you knew that this company would go bankrupt last December. Isn't that true?

Mr. CHU. Well, let me first step back and tell you what I know of the interactions with Morrison & Foerster.

There was an initial email that said, we have to step back and look at this. And then there was a final determination by Morrison & Foerster in an email that was sent to us that said, the determination made by the counsel's office in the——

Mr. GRIFFITH. Did you not see their full draft, which was pages long, in which one section said—it highlighted and flagged that subordination was not allowed? You didn't see that? All you saw were a couple little brief emails?

Mr. CHU. No. What I said is that certainly the subordination of the initial loan was not allowed, and they made that very clear. But in the end, the final email——

Mr. GRIFFITH. Let's get to that point, then. I understand what you are saying. And if there is something more than that, we would like to have it. And if I could have that email.

Here is my problem with that. At the beginning, you know, the initiation of the loan, if you read the memorandum—did you read the Susan Richardson memorandum?

Mr. CHU. Yes.

Mr. GRIFFITH. OK. If you read that and you read it closely, including the footnote, I believe it is the second footnote in that memorandum, you will see that the conclusion was that we can do it—we don't have to have an excuse of default; we can do it at any time subsequent to the original closing of the loan.

And so I ask you—because you are a very bright man, much brighter than I am; you know, I know you didn't leave your brain at the door—I ask you if it makes sense to you that Congress would pass a bill that says at 10 o'clock in the morning you can't subordinate the loan to anybody else, but after eating lunch and reflecting on it, at 2 o'clock in the afternoon of that very same day, you legally could subordinate the loan. Because that is the opinion that Susan Richardson puts forward, if you take it to its natural conclusion, and particularly when you look at that footnote.

Does that make sense to you, as a thinking, intelligent man?

Mr. CHU. As a thinking, intelligent man, it was very clear that, at the time of the origination of the loan, we could not subordinate—we did not subordinate.

Mr. GRIFFITH. But 2 hours later, based on the opinion that you are relying on today and that you have relied on this whole time, you could have. Do you really think that makes sense, that that would have been Congress' intent?

Mr. CHU. Well, if you mean by "2 hours later" you mean——

Mr. GRIFFITH. I mean 4 hours later, but 2 hours later is the same. I am just giving you an example, that you ate lunch and you reflected on it and you had a new opinion.

Mr. CHU. Well, then when the loan became stressed and in trouble——

Mr. GRIFFITH. But there was nothing in the Richardson opinion, am I not correct—I am correct, but I will just tell you—there is nothing in there that says it had to be stressed. In fact, they talked about that and said it didn't have to be stressed, that you could do it at any time that you wanted to once the original loan had taken place, which means you could circumvent the entire law based on the reading of the law that your department decided to take.

And I submit to you that, as a thinking, intelligent man, if you weren't sitting here on the hot seat today, you would have to admit that that does not make sense and, clearly, what you all did violated the intent of Congress and, I believe, the letter of the law, as well.

Thank you. I yield back my time.

Mr. STEARNS. The gentleman yields back his time.

We offer the gentleman from Illinois 5 minutes.

Mr. BARTON. Mr. Chairman, before you—could I ask unanimous consent to speak out of order just for 1 minute to read this email, which apparently is the email that they are——

Mr. STEARNS. By unanimous consent, so ordered.

Ms. DEGETTE. Which email is it?

Mr. BARTON. It is the email that Secretary Chu is referring to, where he alleges that Morrison——

Ms. DEGETTE. What is the date on it?

Mr. BARTON. It is dated January the 13th, 2011. It is from Panagiotis Bayz to Frederick Jenney.

May I read that?

Mr. STEARNS. Sure. How long is it going to take?

Mr. BARTON. Thirty seconds.

Mr. STEARNS. OK, go ahead.

Mr. BARTON. It is very quick.

It says, "Rick, red line to the prior version of the memo attached. The only substantive comment"—this is relating to the memo that the Department of Energy has sent for their comments—"is that 19(c)(4) discussion. This reads a bit tortured, so I added a note for Ken to consider deleting." Here is the key phrase: "Otherwise, I think it makes the best case possible based on a reasonable interpretation, supported by the restructuring policy arguments."

That does not say that it is legal. It says it makes the best case possible based on a reasonable interpretation. And, apparently, that is what the Secretary is relying on to say that the internal Department of Energy memo is OK.

Mr. STEARNS. Thank you.

And the gentleman from Illinois for 5 minutes. Go ahead.

Mr. Secretary, you wanted to say—well, go ahead, Mr. Secretary. By unanimous consent, go ahead.

Mr. CHU. I think the email from Morrison & Foerster said that it was a reasonable interpretation. Is that not correct?

Ms. DEGETTE. Yes.

Mr. Chairman, I ask unanimous consent to put that email in the record so it is clear.

And it does, in fact, say that, Mr. Secretary.

Mr. STEARNS. But just because it is reasonable does not mean it is the correct interpretation. You would agree with that?

Mr. CHU. It was a reasonable interpretation of the law——

Ms. DEGETTE. It says "reasonable interpretation."

Mr. STEARNS. Well, the long and short of it, we have had this discussion, and it appears that you have your opinion, and of course we have ours.

Ms. DEGETTE. Mr. Chairman, I renew my request to put this document in the record.

Mr. STEARNS. Sure. By unanimous consent.

Mr. BARTON. Yes. I want it in the record.

Mr. STEARNS. Mr. Barton is asking for unanimous consent to put it in the record. And it will be put in the record.

Mr. BARTON. I concur with Ms. DeGette.

[The email follows:]

168

[redacted]

From:	[redacted]
Sent:	Tuesday, January 04, 2011 7:14 PM
To:	Colyer, Kelly T.; Saad, Fouad P.
Cc:	[redacted]
Subject:	OMB's role in determining workout/modification
Attachments:	OMB's role under FCRA.docx

I'm getting ready to circulate this (attached and below) to the broader group. Anything Solyndra specific you want to add?

Following yesterday's discussion on DOE's proposed restructuring, credit crew pulled together some examples of OMB involvement in restructurings or work-outs contemplated by agencies. We typically do not tell agencies how to restructure outstanding loans or guarantees, but rather determine the budgetary treatment and how much it will cost.

> FCRA established OMB authorities and responsibility for implementation, including oversight over subsidy cost estimates. Sec. 50[illegible] of FCRA [illegible] authority and responsibility for determining the terms and conditions of eligibility for, and the amount of assistance provided by a direct loan or a loan guarantee rests with the implementing Federal agency. For loan-by-loan programs where such actions are not assumed in the baseline cost estimates, OMB reviews proposed restructurings for consistency with statutory and regulatory requirements, credit policies, and administration policies.
>
> Under the FCRA, OMB determines whether the restructuring constitutes a modification or a work-out. There are two major differences between modifications and work-outs. First, the primary purpose of a work-out is cost avoidance on troubled loans —not the provision of additional subsidy to the borrower. Second, the effects of work-outs can be estimated as part of the subsidy cost and included in the baseline, and therefore these effects are required to be included in the expected cash flows. Any differences between the estimated work-out and the actual work-out are captured in a reestimate and covered with permanent indefinite authority under FCRA. Modifications, in contrast require budget authority up front for any increase in costs due to Government action. There is some grey area with the second distinction. If an action is not assumed in the baseline cost estimate, depending on the specific circumstances, it could still be classified as a workout if the action reduces the expected cost to Government of resolving the troubled loan.
>
> If OMB determines the change is a modification, OMB must review, approve, and apportion budget authority for the change in cost before an agency can amend terms. So, while OMB does not become involved with negotiating terms with individual borrowers, outcomes of the OMB review can influence the agency's decisions and the terms offered. For example, if an agency does not have sufficient statutory or budget authority to modify a loan, then it cannot amend terms until such authority is provided. In such cases, an agency may propose legislation or may seek alternatives that fit within existing law.
>
> Below are some examples of similar transactions involving restructuring:
>
> **Hurricane Katrina:** Several Federal credit programs had significant exposure to areas affected by Hurricane Katrina. Across Government, agencies were looking to existing authorities to determine what actions could be taken to help the affected borrowers, including deferring payments, partial forgiveness, and other term changes. In some cases, it was determined that sufficient authority existed and agencies moved forward with work-outs already captured in baseline cost estimates, or modifications for those programs that did not assume such actions. In other cases, the Administration requested new authority to fund the costs of easing terms for Katrina-affected borrowers.

Troubled Asset Relief Program: TARP has made several changes in terms both through legislation and administrative actions, such as changes that allowed TARP recipients to pre-pay equity investments, amended eligibility requirements, relaxed requirements to benefit troubled borrowers, or allowing recipients to refinance into another Treasury program. Because these terms affected the cost, OMB worked closely with Treasury to review in each circumstance and make a determination whether a given action constituted a modification or a work-out, and that the changes were appropriately captured in the cost estimates.

Air Transportation Stabilization Board Loan Guarantees: This program was established shortly after 2001, to provide assistance to the airline industry. Over the course of this program, OMB and the Air Transportation Stabilization Board worked closely to determine the nature of certain actions including restructuring, re-amortizations, and refinancing (whether modifications or work-outs), and estimate the costs associated with these changes.

USDA Rural Utilities Service Loan Extensions: A statutory change modified the program, by allowing eligible borrowers to extend their loan terms provided that the borrower paid a fee to cover any change in cost associated with extending the loan. OMB and USDA worked closely to develop the model used to determine the cost, and borrower fees for modified loans where the re-amortization would result in a cost. A borrower may determine that its own benefits do not outweigh the required fee.

Department of Commerce, Emergency Steel Loan Guarantee Program: The Department of Commerce approved several amendments, or modifications to a loan guarantee agreement over a few years, including reduced interest rates and relaxed terms. In one instance, Commerce and OMB worked together on the costs.

Department of Veterans Affairs, Native American Direct Loan Program: When it became apparent that a failure in VA's process led to seriously inadequate housing for one borrower, VA counsel determined that it fell within the authorization for VA to fund critical improvements to the property through the financing account. Because this action fell outside of the baseline cashflows and resulted in a cost to the Government, OMB determined it constituted a modification and should be treated accordingly.

[redacted]
Budget Review Division
Policy Analyst, Federal Credit Programs
Office of Management and Budget
[redacted]

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If OMB determines the change is a modification, OMB must review, approve, and apportion budget authority for the change in cost before an agency can amend terms. So, while OMB does not become involved with negotiating terms with individual borrowers, outcomes of the OMB review can influence the agency's decisions and the terms offered. For example, if an agency does not have sufficient statutory or budget authority to modify a loan, then it cannot amend terms until such authority is provided. In such cases, an agency may propose legislation or may seek alternatives that fit within existing law.

Below are some examples of similar transactions involving restructuring:

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Mr. STEARNS. And, Mr. Illinois, you are on.

Mr. KINZINGER. “Mr. Illinois.” Thank you.

Thank you, Mr. Secretary. Obviously, when we deal with this amount of money, it is important to get all these questions out. And we appreciate you being here. We appreciate your service. And thank you for coming before us today.

Let me ask you—and I know you have addressed it already, to an extent, but I want to ask you, did the stimulus deadlines accelerate the review of Solyndra’s case, specifically? The deadlines put in by the stimulus, did it accelerate the review of the case?

Mr. CHU. No, it did not. You know, from the time of the completed application to the time we closed on the loan, it was about 980 days. I would not consider that——

Mr. KINZINGER. OK. Because in congressional testimony dated March 19th, 2009, DOE stimulus advisor Matt Rogers stated that you “directed us to accelerate the process significantly and deliver the first loans in a matter of months, while maintaining the appropriate oversight and due diligence.”

Did you direct the loan programs officer to speed up the process?

Mr. CHU. Yes. We wanted very much—so that the loans would not all be taking 980 days. That is correct.

Mr. KINZINGER. But you didn’t—so you wanted it sped up after the acceleration of the—or, after the Solyndra loan, is what you are saying.

Mr. CHU. No. As I said, when I was before Congress in the confirmation hearing, there was on both sides of aisle much concern that the loan program was not getting the loans out. Again, the economy was in free-fall. Hundreds of thousands of jobs were being lost each month. And it was considered by both sides of the aisle that this loan program was an effective way of getting capital and helping that capital be invested in energy projects, renewable energy and those things.

And so, it was the concern—and, as said, nearly 500 letters from Members of Congress on both sides of the aisle, saying——

Mr. KINZINGER. OK. Thank you.

And, in January of 2009, DOE documents show that the Loan Programs Office credit policy group listed 14 outstanding issues that needed to be resolved on the Solyndra deal, including analyzing the parents’ working capital needs and evaluating the parents’ funding requirements and financial health. A market report for Solyndra had yet to be submitted. One staff member reviewing the engineering reports listed eight different questions about its findings, including about Solyndra’s plans to scale up production.

Yet, on March 17th, DOE offered a conditional commitment to Solyndra, just a few weeks later. So you are telling me that DOE was able to resolve, in that short amount of time, all 14 credit policy issues?

Mr. CHU. I think if you are talking about these issues in the beginning of January versus March—and we resolved many of those issues when we offered our conditional commitment, then these—before the loan disbursements start, that the company will have to resolve all issues. And that is what a conditional commitment means: There will be additional conditions before we actually disburse any funds.

Mr. KINZINGER. Let me ask you also, too, being as how this is all, you know, stimulus-related, stimulus-financed, how would you define the concept of shovel-ready projects? And do you think we realized those goals?

Mr. CHU. I think what we were looking for, what Congress was looking for, what the administration was looking for, were those projects that could put Americans back to work in a very, very desperate time. And I think many of the loans—for example, if you consider the Ford loan——

Mr. KINZINGER. Right.

Mr. CHU [continuing]. Which we think is a big success, saving some 30,000-plus jobs and——

Mr. KINZINGER. So "shovel-ready" is, even at the cost of million of dollars a job, putting people back to work?

Mr. CHU. No. As very clearly stated in the law and clearly state in what we do, we wanted to make sure that there is a reasonable chance of payback. And in all our loans going forward, that is——

Mr. KINZINGER. Thank you.

Mr. CHU. And that probability of being paid back is reflected in credit subsidy scores.

Mr. KINZINGER. OK. Thank you.

And with my time left, I would like to yield my remaining time to Dr. Burgess from Texas.

Mr. BURGESS. And I thank Mr. Illinois for yielding.

Secretary, again, your indulgence today is commendable. Like other members of the committee, we all stipulate that you are probably the smartest man in town, and that is why some of this is so baffling to us.

One of the things that grabbed a lot of headlines a few weeks ago was the amount of money spent on legal bills by Solyndra and, by implication, the fact that there were big loans going to this company that was money that we were paying for Solyndra's legal bills. And I think the figure given was $2.4 million spent in the 2–1/2 years of Solyndra's tortured existence.

You are following the loans very carefully now, you are looking at things weekly, you are looking at balance sheets and expenditures and burn rates. Is this number of dollars for legal fees that Solyndra went through, is that unusual in this portfolio?

Mr. CHU. I can't actually speak to that. But, certainly, one doesn't want—you know, I can't actually address why Solyndra was spending those amounts of funds on legal matters and legal bills.

Mr. BURGESS. There was a man on your staff whose wife worked for the law firm——

Mr. CHU. Right.

Mr. BURGESS. [continuing]. That was representing Solyndra. That, obviously, gets some attention.

You know, I mean, here is the thing. At the end of this day, you are the Secretary of Energy. You are the holder of the Nation's nuclear secrets. You are the civilian manager of the Nation's nuclear arsenal. And many of these decisions that were made in this loan guarantee program seem to be almost the kind of decisions you would expect a riverboat gambler to make.

I really ask, again, that you talk to your employer——

Ms. DEGETTE. Mr. Chairman? The gentleman's time has expired, and he is badgering the witness. I would ask that you suspend this hearing.

Mr. BURGESS [continuing]. You talk to the President, and you need to have that honest conversation with him.

Mr. STEARNS. The gentleman's time has expired.

Mr. Secretary, we are done. And, as we agreed upon in the committee, we have 3:30 in mind to end.

I want to ask the ranking gentlelady from Colorado if she has any concluding comments, and then I have just a very short concluding comment.

Ms. DEGETTE. Mr. Chairman, I just want to thank the Secretary for coming.

As I said in my opening statement, I have been on this subcommittee for 15 years. I don't believe that I have ever seen a Secretary, a Cabinet Secretary, of either party in any of the three administrations I have served under patiently give us so much time.

And so I just want to thank you. It helps us begin to understand the basis for this loan program, what we can do. And I hope that we can work with you to improve this program in the future so that we can support solar energy.

Thank you.

Mr. STEARNS. I thank the gentlelady.

And, by unanimous consent, I would put the document binder in our record.

So ordered.

[The information follows:]

Committee on Energy and Commerce
Subcommittee on Oversight and Investigations
The Solyndra Failure: Views from DOE Secretary Chu

Exhibits Index

Document	DESCRIPTION	DATE
1	Xconomy Article, *The Solar Hype Cycle: Don't Let The Sun Go Down On Me*, Mark Modzelewski,	08/04/08
2	Internal DOE Staff Email: Subject: Fw: USA Today Article on Rooftop Solar Systems	01/13/09 4:36 PM
3	Internal DOE Staff Email: RE: Solyndra Analysis	01/26/09 5:15 PM
4	Meeting Memorandum to Secretary Chu, Location: Secretary's Office 10:15am-10:45am	01/30/09
5	Wall Street Journal Article, *'We've Got to Do This' Energy Secretary Chu Plans Rapid, Careful Spending*	02/06/09
6	Internal DOE Staff Email: Subject: Fw: ACTIONS: Loan Program	02/12/09 8:11 AM
7	Internal DOE Staff Email: Subject: FW: RW Beck/Solyndra Report	02/27/09 11:36 AM
8	Internal DOE Staff Email: Re: Update: Solyndra	03/10/09 9:06 AM
9	Internal DOE Staff Email: Subject: RE: Loan announcement?	03/10/09 9:15 AM
10	CREDIT COMMITTEE PAPER: REQUEST FOR LOAN GUARANTEE APPROVAL, Project: Solyndra Fab 2, LLC, Loan Number 1013 (FY06 Solicitation)	03/11/09
11	Energy.gov Article, *Obama Administration Offers $535 Million Loan Guarantee to Solyndra, Inc.*	03/20/09 12:00 AM
12	Energy.gov Article, *Obama Administration Offers $59 Million in Conditional Loan Guarantees to Beacon Power and Nordic Windpower, Inc.*	07/02/09 12:00 AM
13	Internal DOE Staff Email: Subject: RE Solyndra	08/20/09 12:30 AM
14	Internal DOE Staff Email: Subject: FW: Solyndra: Responses to Credit Analysis Questions	08/20/09 3:27 PM
15	Internal DOE Staff Email: Subject: RE: Solyndra Update	08/27/09 4:39 PM
16	Argonaut/Solyndra Email From: Chris Gronet To: Steve Mitchell Email: Subject: Fab 3 and NYTimes.com: Solar Panel tariff May Further Strain U.S.-China Trade AVI-HCEC-0008975	10/01/09 11:31 PM
17	Energy.gov Article, *Energy Department Announces New Private Sector Partnership to Accelerate Renewable Energy Projects*	10/07/09 12:00 AM
18	Independent Market Consultant's Report: Solyndra Fab 2 Manufacturing Facility, RW Beck,	04/27/09
19	Argonaut/Solyndra Email: From Chris Gronet To: Ken Levit Subject: Fw: DOE meeting AVI-HCEC-0056297	01/18/10 3:02 AM

20	Argonaut Email: From Steve Mitchell To: George Kaiser Subject: Fw: Successful meeting with Jonathan Silver Attachments: 2010-02-09 Jonathan Silver-Solyndra Update.pdf AVI-HCEC-0056202-04	02/11/10 2:10 AM
21	Argonaut Internal Email: To: Ken Levit Subject: Re: KPMG AVI-HCEC-0056166	02/27/10 2:00 PM
22	Internal DOE Staff Email: From: Jonathan Silver, To: Steve Spinner, Matt Rogers, Rod OConnor Subject RE: loans we're taking credit for tomorrow	03/04/10 1:56 PM
23	Argonaut Email: From George Kaiser to Steve Mitchell Cc: Ken Levit, Subject: RE: AVI-HCEC-0055570-1	03/06/10 12:39 AM
24	Internal OMB Staff Email: Subject: RE: Solyndra	04/19/10 5:37 PM
25	Internal Argonaut Email: Subject: Solyndra Update-More Important to Read than AVI-HCEC-0056462-67	05/08/10 2:02 AM
26	DOE & White House Email: To Ronald Klain: Subject: FW: Wanted to share some concerns about the President's visit to Solyndra: Please keep confidential-will you send to ron	05/24/10 10:05AM
27	Internal Argonaut Email: From Chris Gronet: To Steve Mitchell Subject: RE:RE next steps AVI-HCEC-0030070-72	06/17/10 6:52 PM
28	Argonaut Email: Subject: RE:RE: next steps AVI-HCEC-0030022-24	06/22/10 5:33 PM
29	Argonaut Email: AVI-HCEC-0030025	06/22/10 5:58 PM
30	Internal Argonaut Email: Subject: Re:Re: Solyndra.jpg	06/25/10 9:25 PM
31	Internal Argonaut Email: To: Steve Mitchell From: Ken Levit Subject Re: Re: Solyndra.jpg AVI-HCEC-0030002-03	06/25/10 9:29 PM
32/A	Internal Argonaut Email: From: Steve Mitchell, Subject: FW: Meetings for the week of July 19 Attachments: image001.jpg AVI-HCEC-0024859-61	07/17/10 1:35 AM
33/B	National Review Article, Planet Gore: The hot blog. *Time to Investigate the DOE and Solyndra*, Greg Pollowitz	08/03/10 10:15 AM
34/C	Argonaut & Solyndra Email: Cc: Brian Harrison; Steve Mitchell Subject: Re: Re: NCPV Hotline – August 10, 2010 AVI-HCEC-0033153	8/10/10 7:46 PM
35/D	Argonaut Email: To: Steve Mitchell: Subject: FW: FW White House Meeting	9/18/10 8:48 PM
36/E	DOE Staff & Solyndra Email: Subject: Re:	10/13/10 10:31 AM
37/F	Memorandum for the President, From: Carol Browner, Ron Klain, Larry Summers, Subject: Renewable Energy Loan Guarantees and Grants	10/25/10
38/G	DOE Email to Carol M. Browner Subject: RE: Internal announcement	10/26/10 5:32 PM
39/H	Internal Argonaut Email: Subject: Solyndra Conference Call AVI-HCEC-0024488	10/27/10 7:26 AM
40/I	Internal Argonaut Email, From: Steve Mitchell, To: Ken Levit; George Kaiser Subject: One more DoD contact idea AVI-HCEC-0017729	10/30/10 2:40 AM
41/J	Internal Argonaut Email, To Ken Levit Subject: Re: did they do layoffs? AVI-HCEC-0024099-0055665	10/30/10 4:26 AM

42/K	Argonaut Email, From: Ken Levit, Subject: RE: GKFF Portfolio Update 10/29/10, AVI-HCEC-0055663-65	10/30/10 8:58 PM
43/L	Argonaut Email, From: George Kaiser, To: Steve Mitchell, cc Ken Levit, Subject: RE:RE; National Review blog, AVE-HCEC-0028000-01	11/07/10 5:37 PM
44/M	Argonaut Email, From: George Kaiser, To: Steve Mitchell, Cc: Ken Levit Subject: RE: Solyndra Update AVI-HCEC-0056720-23	11/24/10 2:56 PM
45/Mc	Argonaut Email, From Steve Mitchell, To: George Kaiser Cc: Ken Levit Subject: Re: Solyndra Update AVI-HCEC-0024446-0024450	11/24/10 8:00 PM
46/N	Argonaut Email, From Steve Mitchell, To: George Kaiser, Cc: Ken Levit Subject: FW: Department of Energy Meeting Monday, December 6, Attachments: DOE Mtg Dec 6.pdf AVI-HCEC-0056660-68	12/03/10 10:07 PM
47/O	Argonaut email, From David Prend To Steve Mitchell, Subject: Re: Re: Solyndra Proposal AVI-HCEC 0028653-55	12/06/10 5:57 PM
48/P	Internal OMB Staff Email: Subject: Fw: Solyndra liquidity crisis	12/08/10 4:42 PM
49/Q	Argonaut Email, To: George Kaiser Subject: RE: DOE negotiations regarding Solyndra AVI-HCEC-002482-89	12/08/10 8:46 PM
50/R	Internal DOE Staff Email, Subject: Summary of Key Business Terms, Attachments: Summary of Solyndra key Business Terms and Conditions.docx	12/10/10 4:02 PM
51/S	DOE/Solyndra Project: Materials for Restructuring Analysis	1/3/11
52/T	DOE/Solyndra Project: Contractual and Legal Analysis	1/3/11
53/U	DOE - OMB Staff Email: Subject: Re: Solyndra Follow Up	1/4/11 10:22 AM
54/V	Internal OMB Staff Email: Subject: Re: Solyndra Memo: COMMENTS BY 1:00 PLEASE	1/4/11 2:20 PM
55/W	Internal OMB Staff Email: Subject: Re: Solyndra	1/11/11 3:43 PM
56/XYZ	Internal OMB Staff Email: Re: Solyndra	1/11/11 4:44 PM
57	Internal OMB Staff Email: Subject: Re: Solyndra optics	1/31/11 1:39 PM
58	Internal OMB Staff Email: Subject: Re: Solyndra ntoe for Jeff [sic]	2/3/11 7:01 PM
59	DOE Memorandum for the Secretary: Silver, J to Secretary	2/18/11
60	Internal DOE Staff Email: Subject: Re: Solyndra	2/22/11 4:59 PM
61	Internal DOE Staff Email: To: Jonathan Silver Re: Solyndra	2/22/11 8:20 PM
62	Internal DOE Staff Email: To: Jonathan Silver Re: Solyndra	2/22/11 8:45PM
63	Internal DOE Staff Email: Re: Treatment of Solyndra Restructuring	2/23/11 3:33 AM
64	Internal DOE Staff Email: Re: Briefing S-1 at 9:30	6/27/11 8:21AM
65	USATODAY: "Opposing view: 'Perfect storm' sank Solyndra" by Daniel Poneman	9/13/11

66	Energy.gov Article, *Flashback: Congressional pressure to Accelerate Loan Program*	
67	Memorandum for the General Counsel From: Susan S. Richardson, Chief Counsel, Loan Programs Office Subject: Solyndra Restructuring	02/15/11
68	Internal DOE Staff Email: Subject: Meeting with XXXX Solyndra	12/08/2010 3:24 PM
69	Internal OMB Staff Email: Subject: FW: Solyndra Update	08/31/09 4:50 PM
70	Solyndra (March 16, 2010) S-1 (Amended)	03/16/10
71	Internal OMB Staff Email: Subject: Re: DOE Loan Guarantees status update	06/23/10 9:32 AM
72	DOE – Treasury Staff Email: Subject: Solyndra	02/10/11 2:05 PM
73	Internal DOE Staff Email: Subject: CRB Presentation Attachments: Three Highest Priorities 12.16.08.doc Importance: High	12/15/08 11:19 AM
74	Internal DOE Staff Email: Subject: RE: Solyndra: Responses to Credit Analysis Questions	08/20/09 4:35 PM
75	DOE –OMB staff email, Subject: RE: Treatment of Solyndra restructuring	02/23/11 3:33 PM
76	DOE Loan Programs Office Power Point	January 2011
77	Letter From Mary Ann Sullivan, Hogan Lovells To: Henry A. Waxman Re: Energy Policy Act of 2005 Section 1702 Interpretation	11/10/11
78	Internal OMB Staff Email Subject: RE: Solyndra	09/02/08 2:54 PM

Document 1

ENERGY, SOLAR, PHOTOVOLTAICS

The Solar Hype Cycle: Don't Let The Sun Go Down On Me

Mark Modzelewski 8/4/08

The other day the *Boston Globe* had a piece on solar technology coming of age in which Caltech chemistry professor Nathan Lewis stated: "We're not in a hype cycle…If you go to Silicon Valley and around Route 128, everyone and their brother who used to make computer chips are now trying to make thin-film solar cells."

Dr. Lewis seems to ignore that he gleefully gave a textbook definition of a hype cycle. And an out-of-control hype cycle is literally what we're in when it comes to solar energy.

There are dozens of separate subsectors of research, development and production that fall under the solar energy banner. I am going to skip passive solar, solar water heaters and solar thermal (which I actually like) and cut right to the solar energy sector most encumbered with hype, technical issues, mad money, and conflicts with reality—photovoltaics.

Photovoltaics (PVs) convert sunlight directly into electricity. Basically, they are those ugly glass boxes you see over at the Porter Square Plaza in Cambridge. Production of photovoltaic cells has been doubling every two years, since 2002, making it the fastest-growing energy technology sector in the world.

PVs break down for the most part into crystalline silicon PV, inorganic thin film, multi-junction PV, and organic and Gratzel PV systems. In a nutshell, you have the old, thick, expensive ones and newer, thinner, cheaper, often flexible ones. The issues making them problematic as an energy solution are that PVs cost too much to make, install, and maintain—oh, and they also only work when the sun is out.

To the cost issue of PVs, you hear a lot about companies working toward "price parity" and "grid parity"—i.e. a cost per megawatt on a par with electricity from fossil fuels—but nearly any number you see in print is half baked. Over and over again, companies have failed to translate the efficiencies achieved in lab experiments into durable solar panels that can be mass-produced cost effectively. Miasolé, for instance, has been getting 8 to 10 percent efficiency in the lab but only 4 percent or so in a mass-production form. Once you account for installation, maintenance, and repair costs for homes and business—which often add more than 50 percent to the base cost of PV panels—it's clear that PV solar is never going to be cost-effective as a replacement baseload power source.

So if you were to go the Al Gore route of building a national, grid-replacing, mega solar farm in Nevada, we'd all go broke and die. It's an inconvenient truth (ouch!) that besides destroying 5 million acres of land (about seven times the size of Rhode Island; wait until the environmentalist hear about that!) and another 7.5 million acres of adjoining land to support the system, it would cost around $21 trillion dollars to build a solar farm large enough to meet U.S. power needs—and we'd still have to keep the current energy grid up and running and ready to go for the two-thirds of the time when the sun isn't doing its job.

In addition, though solar has this reputation of being a green technology, the reality is that PVs are full of gross pollutants, gnarly residues and nasty chemicals. Making PVs requires toxic heavy metals such as lead, mercury and cadmium—and throw in silicon tetrachloride to boot. Then there's the mining operations needed to get many of the materials. And for good measure, don't forget that PVs are made in factories. The plant at Suntech, one of the world's biggest PV makers, is powered by a coal plant. Oh, the delicious irony.

On top of all of this, the PV industry is truly dependent on subsidies. The government now pays 30 percent of the cost to businesses to invest in solar to meet their energy needs. For consumers, there's a Federal tax credit of $2000 for your renewable energy system (solar or wind) after rebates. States throw in a hearty helping of additional incentives, as in the case of California, which offers a subsidy for residential solar of as much as $2.50 per installed watt, depending on a system's expected performance.

Even with all those subsidies, and even with oil at $140 a barrel, and even when you add in the federal and state taxes on oil production, solar still doesn't reach break-even with fossil fuels, except in some start-up's PowerPoint presentation.

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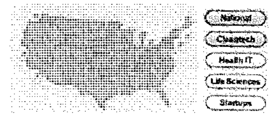
- Intel Spins Off $50M Solar Company: SpectraWatt To Open Facility in Oregon
- MIT and Italy's Eni Sign $50 Million Energy Research Agreement



Worst of all, this hype is bad for the environment. Focusing so much on PVs means that we're moving investment dollars away from other clean energy technologies that have much more potential. I often hear folks at clean energy forums state that the United States needs to emulate Germany by creating more incentives to build PV farms. What's not mentioned is that it takes six years for a German PV plant to generate the amount of power used to make the PV cell.

So PV solar costs too much, isn't exactly green, isn't as good as claimed, and depends on government support. What else can be wrong with it? Investors—and their bad habit of creating impossible expectations, stoking the fires of hype, and inflating a huge bubble that could pop at any time.

Let's start with thin film PV maker First Solar, which is up something like 900% since its IPO. The company is sporting a $20 billion market cap after $196.9 million in revenues for the first three months of the year. Think about that for a second. We aren't talking an online or software play. We are talking a company producing a physical good. This little bit of valuation lunacy has triggered a VC feeding frenzy on similar solar plays with NanoSolar and Miasolé already having valuations of well over $1 billion before selling much of anything.

All told last year, VC investments in solar power (and almost all of it in PVs) reached around $1.36 billion, up from $400 million in 2005. The bulk of those investments went into backing various thin-film technologies—55 in 2007 alone. More than 100 thin-film companies are vying for a slice of the market, according to a recent Lux Research report, which forecast that thin-film solar will occupy 28 percent of the solar market by 2012. As the report noted, "This exceptional rate of growth demonstrates that VC firms believe solar is far from its peak." Gaia help us. (Disclosure: I am a co-founder of Lux Research and a shareholder. However, I no longer have any operational or oversight role with the company.)

And with all the investment focus going to solar power, an interesting situation has developed—overcapacity. In a classic "who'd a thunk," we are entering a prolonged period in which PV supply is outpacing demand. Lower barriers to entry will contribute to lower production prices and lower margins. This turn of events won't likely last forever, but do you really want to be investing in one of the 100-plus new entrants in a market that is already producing more than the market can handle?

This is a good time to note that no VC-backed companies even IPOed in the second quarter. Furthermore, the average size of the solar IPOs that have occurred has been dropping since 2005. Solar equipment maker GT Solar, a pretty solid company that makes equipment for manufacturing PV cells, went public last week and fell 11.6 percent in its first day of trading and continued to fall over 20 percent more.

And here is the potential really bad news for investors. Some big players in private equity and on the research side have hypothesized that the price of PV solar cells is about to plummet so quickly that manufacturers will enter a netherworld where they are making enough to keep the lights on but not enough to make a formidable profit. That's going to make shareholders and potential shareholders really happy. It's also going to give birth to a whole new foreign energy "boogieman" as China becomes *the* dominant solar player in a way that dwarfs OPEC's role in oil. With its centralized manufacturing base, the Chinese can wait out any market downturns and work with small margins in a way public U.S. companies can't. They will gradually gain control of the PV market in much the same way that the Japanese took over the small battery sector a couple decades ago.

So as you can tell, PVs as an investment area really bum me out. I don't find the technology all that thrilling either. PVs will certainly be a piece of the global energy puzzle, but will have nothing like the role of coal, oil, hydroelectric, nuclear, and even other green technologies. If you're looking for a sure winner in this crowded mess of a field...good luck. One spin of the roulette wheel seems like a safer bet for cleantech investors these days.

Next up: I continue my snarky remarks on several other green energy technologies, and eventually get around to saying which ones I like.

Mark just helped found a Somerville-based stealth cleantech start-up which recently spun out of Harvard. He is a veteran technology entrepreneur and the former managing director and co-founder of Bang Ventures, an investment firm based in New York with offices which focused on early stage technology investments.

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Document 2

#7

[redacted]

From: [redacted]
Sent: Tuesday, January 13, 2009 4:36 PM
To: [redacted]
Subject: Fw: USA Today Article on Rooftop Solar Systems

----- Original Message -----
From: [redacted]
To: [redacted]
Sent: Tue Jan 13 14:10:33 2009
Subject: RE: USA Today Article on Rooftop Solar Systems

[redacted], Thanks. It serves serves to bolster our argument for a market analysis at this time.

[redacted]

-----Original Message-----
From: [redacted]
Sent: Tuesday, January 13, 2009 1:16 PM
To: [redacted]
Cc: [redacted]
Subject: RE: USA Today Article on Rooftop Solar Systems

To All-There is an article on page 1B of today's USA Today news paper on the "Glut of roof top solar systems."

-----Original Message-----
From: [redacted]
Sent: Tuesday, January 13, 2009 12:30 PM
To: [redacted]
Cc: [redacted]
Subject: Solyndra Meeting

After canvassing the committee it was the unanimous decision not to engage in further discussions with Solyndra at this time.

[redacted]

Document 3

[redacted] #8

From: [redacted]
Sent: Monday, January 26, 2009 5:15 PM
To: [redacted]
Cc:
Subject: RE: Solyndra Analysis

[redacted]

As we are approaching the beginning of the approval process for Solyndra again, I wanted to highlight the questions below that remain outstanding. In order to move forward with the credit review of this project, I will need the responses to the questions below. Please let me know when the responses are ready. Delay in getting these responses will delay our ability to review the project and to meet the target deadline we have set.

As an additional note, I want to ensure that these concerns are addressed in the negotiations occuring Friday with Solyndra. As a practical matter, it would be ackward to finalize negotiations with the applicant and then to go back to them with additional requests for information. I want to ensure that the specific concerns Credit Policy and Credit Committee have indicated are reflected in the negotiated terms.

Please send your responses to the questions below at your earliest convenience.

Thanks.

From: [redacted]
Sent: Wednesday, January 07, 2009 5:12 PM
To: [redacted]
Subject: Solyndra Analysis
Importance: High

All,

Below is a status of information requests Credit Policy has made regarding Solyndra. Each of these three emails was intended to provide constructive feedback to move this process forward. To-date, I have not received a response to most of these requests.

Also attached is Credit Policy's presentation for OMB. This analysis was run based on information received as of January 4 and does not reflect any subsequent submissions.

We have not run the credit subsidy range pending receipt of information requested below. At this point, I believe we have two options:

1) Provide the initial estimate provided to the applicant 12/9 stating that it has not been updated to reflect the LGPO's due diligence and underwriting assumptions.
2) Run the calculation based on the amortization we received today and Credit Policy's ratings with the caveat that this is subject to change based on new/additional information as well as the new Term Sheet proposal.

I suggest we discuss as soon as possible. I have not released any information to OMB as was originally scheduled for today. I am scheduled to brief OMB tomorrow.

Thanks.

December 15, 2008 Email

The credit analysis of the Solyndra project may benefit from the following considerations. These are grouped into several categories based on how they fit within the Program's underwriting approval and disbursement procedures.

- Credit Analysis Considerations: The credit analysis of Solyndra may benefit from the following considerations:

Evaluation of Parent Financial Health: The interdependency of the proposed project with its corporate parent, Solyndra Inc., presents challenges in the credit analysis. In one sense, Solyndra Inc. is a key counterparty to the project. However, the multiple relationships with the project make the parent and the project affiliate entities within a single business enterprise. Therefore, the financial health of the parent corporation should be evaluated over the life of the project. It may be worthwhile to simply model project and the parent as a combined integrated enterprise. This would allow for the LGPO's consideration of working capital (inventory, accounts receivable, accounts payable, etc.) requirements, SG&A expenses, ongoing capital improvements, and outstanding and planned debt issuances. This presentation could complement the project-oriented model, which provides a good indication of the contribution of the project to the parent's overall financial health. However, analyzing the project model alone would provide an incomplete picture of the overall creditworthiness of the guaranteed obligation. In short, a financial disruption at the parent level could directly affect the project's receipt of revenues on a timely basis and the ability of the project to maintain uninterrupted operations.

STATUS:

— **Discussed but not addressed.**

Calculation of Debt Service Coverage: The calculation of debt service coverage should include working capital movements and cash taxes. The specific calculation is consistent with LGPO Policy.

EBITDA

Plus/minus Changes in working capital
Plus/minus Cash taxes paid
Minus Non-discretionary capital expenditures

Divided by Debt Service

STATUS:

— **Addressed in 1/7/09 financial metrics**

Presentation of Project Plan of Finance: The current model calculates draw requirements based on EBITDA, capital expenditures and working capital movements. In this calculation, Eligible Project Costs are comingled with ineligible project costs (e.g., R&D). It would be helpful to obtain a detailed sources and uses of funds statement that sets forth the eligible project costs and corresponding sources of debt and equity.

STATUS:

— **Not received, but similar issue raised by DOE OGC**

Interest Capitalization Period: The specific terms of the guaranteed obligation need to be defined. Specifically, whether or not the applicant will utilize a 36-month interest capitalization period (versus 24) should be identified. The LGPO's analysis and credit subsidy estimate will be based on the maximum term afforded under the Loan Guarantee Agreement.

STATUS:

— **Similar issue raised by DOE OGC. Credit Policy is assuming a 30 month construction period with interest paid current based on latest amortization schedule. However, clarification is needed from the Term Sheet. Credit Policy will use the maximum term afforded under the Guarantee for it's final analysis.**

Construction Completion Commitment: The construction completion commitment from the parent organization needs to be defined.

STATUS:

— **Not clarified, but issue discussed in LGPO meeting. Impact on Credit Rating, if any, should be determined.**

Applicant Mitigation Strategies: The engineering report identifies some contingency plans that the applicant has in mind for the CIGS process. This mitigation strategy as well as others should be articulated by the applicant and the associated costs should be identified. Additionally, the results of the FAB 1 facility should be documented at this time and reviewed by the LGPO's independent engineer. The results of this facility represent an important piece of information for the LGPO and credit rating agencies to consider as they move forward in their analysis.

STATUS:

— **Not addressed.**

December 31, 2008 Email

• Project Sponsor Risk: Your risk rating indicates that the company has recently closed on a $350 million convertible issuance. Have we received an updated balance sheet that reflects the company's current cash balances? What is our expectation of cash balances as of financial close? Can you share the results of your Lexis-Nexis research with Credit Policy?

Status:

— Received updated balance sheet
— Received Lexis-Nexis research conducted to date
— Information related to timing of FAB 2 equity raise received on 1/7/09. Additional information is needed regarding parent funding requirements through completion of FAB 2 project.

• Technology Risk: Has the Applicant provided a schedule of milestones related to the FAB-1 facility? The "standby financial resources" attribute indicates that concern over completion support adequacy may be addressed through recourse to equity holder. Is this related to the completion support facility? What is the LGPO's position on this?
The concern over the CIGS scale-up has been identified as the most significant risk to the project ramp. Both the Applicant engineer's report and the existing draft of the IE's report suggest that the Applicant has a contingency plan for providing additional CIGS deposition output capability if needed. Do we have an idea of the cost associated with this plan?

Status:

— **Fab 1 status report received on 1/7/09. Specific FAB 1 milestones not received**
— **Specific documentation regarding the availability or adequacy of the standby resources not received.**
— **CIGS disposition contingency plan articulated in IE's report. Cost associated with the additional CIGS tool not received. Cost estimate should include potential delay effects.**

• Capital Structure: What is the Applicant's plan for raising the required equity investment in the project? Will the Applicant have sufficient cash on hand to fund the required project equity investment as well as funding other cash needs related to ineligible project costs and ongoing working capital needs of the parent corporation?
Status:
— **Specifics on sizing and timing of equity raise not received.**
— **Information/analysis regarding working capital needs of parent not received.**

Market Risk: The Risk Rating references a Navigant Consulting study published in April 2008. Has this study been made available to the LGPO? If so, is it in Edocs? Could you share the diligence findings of product off-takers?
Status:

— **Response regarding April 2008 Navigant study not received**
— **Off-taker diligence findings not received**

• Project Completion Risk: Have the basic terms of the Equipment Supply Agreement been defined? How does the Applicant propose to address issues related to delivery of tools and equipment?
Status:

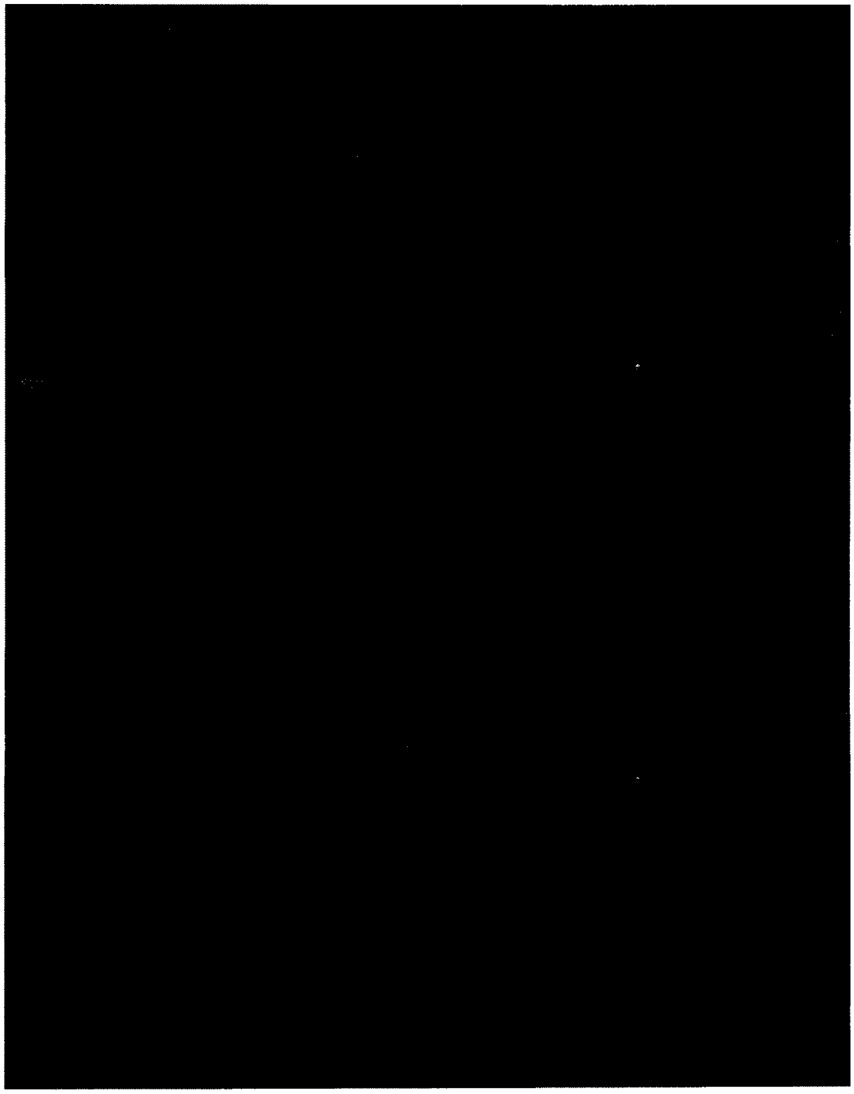
Document 4

MEETING MEMORANDUM

To:	**Secretary Chu**
From:	[redacted]
Meeting with:	[redacted]
Location:	Secretary's Office
Meeting Date:	January 30, 2009 **Time:** 10:15 am – 10:45 am
Open to Press:	[ ] Yes [X] No

[redacted]

[redacted]



2

Document 5

THE WALL STREET JOURNAL.
WSJ.com

POLITICS | FEBRUARY 6, 2009

'We've Got to Do This'

Energy Secretary Chu Plans Rapid, Careful Spending

The nation's new energy secretary, Steven Chu, talked Friday with The Wall Street Journal's Stephen Power, about what he's doing to make sure the billions of dollars headed his department's way for energy efficiency and renewable power projects don't get wasted or tied up in red tape, a common problem at the Department of Energy in recent years. Below, see edited excerpts.

STEVEN CHU

The Wall Street Journal: It looks like your agency is about to get somewhere in the area of $35 billion to $40 billion under the stimulus bill making its way through Congress. Right now you're the only person at the Department of Energy in a Senate -confirmed position. How well equipped is your agency right now to wisely and quickly spend all the money it's about to get?

Steven Chu: I'm the only confirmed position but there's a chief of staff, there are advisers to me personally that are not Senate-confirmed positions that are coming on board as soon as the internal vetting process is done. So I think a number of key advisers that report directly to me are the only real way I see of getting this going in a rapid way. Just one person can't do it...

WSJ: But this is a huge amount of money -- it's bigger than your annual budget and it's for all these new areas and new programs. And we know DOE in the past has had trouble moving quickly, like with loan guarantees.

Mr. Chu: There's one key adviser we're trying to get as quickly as possible specifically on the economic recovery package. I've been speaking with the Department of Agriculture. [Secretary of Agriculture] Tom Vilsack has been very, very helpful. He's come over here. He's had some loans that have gotten out, including actually investments in bio-fuels energy companies. They seem to have at least at first blush a better track record of getting it out quickly. We're trying to find out what they did, how they did it ... We're going to be exploring the idea of detailing some of his people to come over here and put them next to our people and say, "This is the pace we expect, not three years, but five months."

We've got to do this and we've got to do it in a way that has not been done at the Department of Energy...

We're looking at what are asserted to be general counsel concerns that could slow things up. We're looking everywhere -- very, very deeply.

Essentially, a third of my attention is focused on how to get it done in months and not in years. ... If someone in the Department of Energy tells me, "Oh, you have to do this, you have to do that, there are legal impediments and things like that," you go to another agency and find they've done it more quickly. It's a matter of getting the money out quickly and making sure you do due diligence. ...

I think this is solvable. And not only solvable -- we've got to do it. Otherwise it's just going to be a bust. If we take two years to get the loans out, that's not what the country needs. We've got to get it out much more quickly than that.

WSJ: What's your metric? What percentage of money has to get out in what time frame?

Mr. Chu: To really stimulate the economy and help the U.S. recover from this dire situation we're in, my feeling is, a substantial fraction, a majority of it ... you're starting to cut checks within half a year to a year.

WSJ: So you'd like to be cutting checks within a year to half a year ... with most of the money?

Mr. Chu: Yes. Now, there are things in the pipeline now. And so we're trying to get those things out in a month. We're essentially going back to the people who have been doing this ... They gave us a scenario for an accelerated ... it's been in the pipeline literally for over a year ... These are loans to energy companies. They gave us an accelerated scenario, maybe five months. We're saying, "Tell us what you need to do in order to get them out in four weeks." Because it's in the pipeline. These are loans from the 2005 [Energy Policy Act]. Appropriated in 2006, and still no money is out the door. And here we are at the beginning of 2009.

WSJ: What are some of the bureaucratic obstacles or procedural obstacles that have slowed the department from getting those loans out?

Mr. Chu: One thing is we have a very conservative legal department. They feel that in order to be quote fair to all applicants, you have to wait and give a period of time where all applications come in and then you begin to vet the applications ... Many agencies including competitively bid science agencies ... you take these rolling applications and you have a baseline of the quality you know so if a loan guarantee program has been going on for several years ... you have a good feel for the quality. So you don't have to wait for all of them to come in before you start triaging them. "These are the ones we are look at seriously, these are the ones that are non starters... ."

I'm not convinced that the level of documentation that's been asked for is required ... It might be too much. So we're going to have to look at that. We look at best business practices in the private sector. If there's a huge difference btw practices in the private sector, you don't want to be issuing bad loans ... you figure out how is it that commercial entities can do this and import those best business practices ... .

It means you have to go into gory detail: "What is it your requiring, why do you think you need this?" ...

I have my advisers actually going down rolling up their sleeves and asking, "OK, what is it that you're requiring? Is this really necessary?"

WSJ: Is there an example of something you've discovered in your reviews of something [the] DOE was requiring that you think is excessive?

Mr. Chu: No. We've had in this office about three or four meetings. But you don't actually find out things in this office. So I now have my advisers actually going down, rolling up their sleeves and saying, "OK, let's look at every detail. ... What is it that you're requiring? Is this necessary?"

There's another thing -- helping companies really talk with a potential applicant. And what we can do that, I believe, is completely fair is that [with] every single applicant, we just say, "We are here to help you put forward the best application possible" ... instead of saying, "We can't help anybody." There are two ways to be fair: You help everybody or you help no one. So I'm looking at how we can give advice.

Let's say you're a company, and you want to come to the Department of Energy. Well, you may not know what is really required. So you might submit something, and we can look at it and say, "Nope, go back, this is not what we need. We need much more than this." Or maybe in the uncertainty, you might be generating more than we really need. I'd think we'd get a Web site up to help people. So it's all publicly disclosed. Everything. Sort of a help line, if you will. We're going to look at whether that is possible. I believe it is ...

WSJ: How many people are you going to have to hire to administer this law?

Mr. Chu: Administer the law?

WSJ: To help you just implement it to get it done. The accountants, the risk analysis people, tracking the money. How many people are we talking about that this agency is going to have to hire?

Mr. Chu: Well, we're going to probably have to get them detailed from other agencies . . . We will look for talent across all the agencies . . . Because, quite frankly, we can't hire the people fast enough because of [human resources] rules. So we need detailees. Either detailees, or we hire people from the outside. Again, detailees, consultants. But there's no way we can get money out the door by going through normal hiring processes.

WSJ: So how many people are you looking to bring into the agency?

Mr. Chu: I can't say now. Again, we're only ...

WSJ: Thousands?

Mr. Chu: No. We don't need thousands. Come on ... I don't think you need thousands. A lot of these loans, some of the loan applications I've seen are in big hunks of money. The nuclear, this is in the $5 billion range. Eighteen point five billion, and people are talking about three loans. The synopsis of the loans I've seen in innovative green energy -- they're in the hundred-million dollar range. They're in big hunks of money. Now, if we were doling them out in less than million-dollar pieces, that would require a lot more people.

WSJ: What are the areas of the bill and DOE where you're looking and thinking, "OK, that's where I've really got to zero in on"?

Mr. Chu: Loan guarantees and getting money to the states. These are green energy projects within states. I've met with a group of them, 15 or 20 of them a couple of days ago. We're trying to figure out, "OK, which ones, if we get the money to you, how can you get it out the door?" Are there [National Environmental Policy Act] requirements that will slow things up? What's shovel ready? What's good to go? We're putting the word out: Bring us back what you can personally guarantee to us is really going to be ready. We cut you a check, you cut them a check. These are things like weatherization, things of that nature...

WSJ: What percentage of the roughly $37 billion dollars do you want [to be] spent by [the] DOE within a certain amount of time?

Mr. Chu: I would say I would like, you know, round numbers, about half of it to be spent. This would be an ambitious goal, half of it to be spent in a year. That would be a good target, I think.

WSJ: And that means being spent by [the] DOE. But does that mean getting to the people who actually are going to need it?

Mr. Chu: That's why we're putting the states on notice. 'Hey, guys, tell us ... so there's no delay.'

WSJ: And what are they telling you they need you to do to do it?

Mr. Chu: They haven't gotten back to us ...

WSJ: Is there any risk that in setting such aggressive goals for spending money in a certain period of time that you're going to wind up wasting money in some areas?

Mr. Chu: There's always a risk. But the protection against that is not to require more documentation. The protection is to get really good people to ask the right questions, to do a real evaluation. There are two ways of doing this: You can ask the right questions, and you can get people who are good at this sort of economic project management, who are experienced in "how do you smell something that doesn't look like it's going to fly?" or the financial business plan or basis of the company.

WSJ: Good questions, not necessarily more questions.

Mr. Chu: Exactly.

WSJ: But where are you getting those people?

Mr. Chu: Private sector ... There are a lot of people out there who realize the condition we're in the United States, both with the energy issues and the economic stimulus issues. You can get really good people to come in for half a year or two years, and say this is your service to your country.

WSJ: Any interesting places you're recruiting from?

Mr. Chu: We're going to have announcements.

WSJ: I know you say you have advisers, but if you're the only Senate-confirmed appointee, that means that you're the only person who can testify for your agency before Congress?

Mr. Chu: That's right.

WSJ: So isn't that a bit of a challenge?

Mr. Chu: Yes and no. What happens is, there are a core of people I think at the Department of Energy who want to be led, who really want to do the right thing. There's another core who's used to the old way of doing things. But remember, there's -- well, like Rod O'Connor, my chief of staff. He has the exact same feelings I do. So those are not Senate-confirmed people. But they report directly to me. These are people I'm going to be seeing for a couple of hours every day. That's the only way we can get this thing going. It's going to take a couple of months to get through Senate confirmation. So we have to rewrite the rules.

WSJ: Sens. Feinstein and Snowe have asked you to establish a timeline for issuing loans under the Advanced Technology Vehicles Manufacturing Incentive Program. Are you prepared to do so?

Mr. Chu: We're working on it ...

WSJ: So are you ready to give a timeline?

Mr. Chu: We can probably get a timeline out in a week or two. I mean, we're trying to understand, why the heck did it take so long before? Are there examples of it taking far less? We're working very hard to find out where in the commercial sector, where else in government, can you get responsible loans, responsible investments quickly.

WSJ: The senators have also complained that [the] DOE's interim, final rule for this program erroneously defined the "base year" of this program as 2005, instead of the year a retooled factory re-opens. They say [the] DOE's "error could allow automakers to receive subsidized loans for mere compliance with [the Corporate Average Fuel Economy] regulations, which would violate Congress's intent and squander government resources." Is their concern valid, and if so, how do you plan to address it?

Mr. Chu: I can't speak to that at the moment. That's a technicality

WSJ: Do you have any concern that all these responsibilities you're about to be tasked with are going to distract [the] DOE from its focus on cutting-edge science and maintaining nuclear weapons and cleaning up former weapons facilities?

Mr. Chu: No, I'm not concerned. I have a high bandwidth ... Actually, I like it because it's a good reason to get into the heads of the folks who work in this building ... that we're going to go into a new era where you can get a level of dedication. We can bring in new people that have this real sense of urgency. It's a good thing ... It can be the example of a new DOE.

Document 6

#9

From: [redacted]
To:
Cc:
Subject: Fw: ACTIONS: Loan Program
Date: Thursday, February 12, 2009 8:11:50 AM

Fyi

From: [redacted]
To: [redacted]
Cc: [redacted]
Sent: Thu Feb 12 08:07:20 2009
Subject: RE: ACTIONS: Loan Program

thank you for these notes. the nepa disclosure issue looks resolved. in the solyndra conversation, it is very important that the parties be able to close today on the matters at hand and move to the next stage. so, having someone in the room who can commit the department in real time is quite important to ensure the cycle time for decision-making can be short and they do not have to carry any issues over night. The team would like to be able to metaphorically lock the door and not come out until there is an agreement. This loan represents a litmus test for the loan guarantee program's ability to fund good projects quickly. Thank you for your prompt and timely support on this matter. Regards, [redacted]

[redacted]

[redacted]

02/11/2009 03:07 PM

[redacted]

Subject RE: ACTIONS: Loan Program

[redacted]

NEPA: This afternoon this office concluded that divulging the amount of loan guarantee being sought was not required in NEPA documents. This conclusion is consistent with the views expressed by the LGPO.

SOLYNDRA: (1) I understand that there will be GC participation in tomorrow's meeting with the sponsor. I will be pleased to be available on an immediate basis to this office's representative should that be necessary to address any open issues.

(2) I do not know anything about the "IP language." Perhaps [redacted] or [redacted] can enlighten me.

Thanks,

[redacted]

From: [redacted]
Sent: Wednesday, February 11, 2009 3:37 PM
To: [redacted]
Cc: [redacted]
Subject: ACTIONS: Loan Program

[redacted]

To followup my earlier email today, below are three items needing immediate GC attention for Title XVII. I might add that we invited [redacted] to todays meeting to discuss these items and no one from GC attended. It is important that if we are going to deal with these matters expeditiously, that GC is present and prepared to handle these issues. I appreciate your attention to this priority effort.

Thanks,
[redacted]

NEPA

1. GC needs to decide whether language divulging the amount of loan guarantee being requested by applicants should be included in NEPA documents. (This issue is currently delaying NEPA processing of the Solyndra, [redacted] and [redacted] projects.) LGPO is against the idea as we see this as business confidential information. Attached is LGPO memo providing our arguments which was given to GC in early December. We understand that a meeting is being held among all the GC parties today to resolve the matter.

Solyndra

1. GC must be represented at the upcoming conference call with the sponsor. A critical meeting is tomorrow (Thursday) afternoon. Whoever attends for GC must have the authority to close on issues or have immediate access to someone who can. Anything less will significantly delay negotiations.

2. GC still needs to opine on IP language.

+==+

Document 7

From: [redacted]
To: [redacted]
Subject: FW: [redacted]/Solyndra Report
Date: Friday, February 27, 2009 11:36:50 AM

[redacted]

[redacted] wants you to handle this from [redacted] by forwarding it (minus numbers 1 and 8) to [redacted] and requesting their response. Say that these were questions raised by LGPO's engineer.

Thanks.

[redacted]

From: [redacted]
Sent: Thursday, February 26, 2009 11:02 AM
To: [redacted]
Cc: [redacted]
Subject: [redacted]/Solyndra Report

[redacted]-

Some points to consider after reviewing the [redacted] "Independent Engineer's Report: Solyndra FAB 2 Manufacturing Facility Final Draft" (February 2, 2009).

1. Concur that construction contracts should include recommendation of the "Geotechnical Report". Solyndra should demonstrate how the CH2M Hill PDR and Geotechnical Report recommendations are resolved or addressed. A crosswalk would be helpful.

2. A discussion of the raw material supply chain availability is desired. For example, Solyndra's propriety and unique processes to vapor deposit the copper/indium/gallium, diselenide (CIGS) may be depend on availability of materials just recently applied to PVs. CIGS is also proposed for flexible PV cells. Is Solyndra in competition for CIGS and other feed stock materials?

3. Solyndra refers to "bare glass" tubes. Are these commonly available glass or specialized glass products. How are these warranted against damage? Long-term life cycle test results from IDS production would be desirable.

4. No quality control industrial standards such as ISO 9000 are cited. Details regarding quality control as applied to the proprietary front end processes would increase confidence in meeting manufacturing goals. A robust quality control program would support warranty or life-cycle claims for PV tubes manufactured by Solyndra.

5. Of key concerns are approaches to **scale up from the IDS production rates to Fab 2 facility production rates.** Molybdenum back content and CIGS application scale up are proposed by reducing thickness. For these critical photovoltaic items, has Solyndra analyzed long-term life-cycle and performance impacts of reducing thickness? Consider also that

CIGS are sensitive to environmental conditions.

6. Three-scale up options are proposed for CIGS vapor applications. Decision points for when to adopt an option and the cost and schedule impacts are desirable.

7. Efficiency reviews should be submitted and reviewed. Achieving 44 to 48 percent increases in production rate for molybdenum back content and CIGS vapor deposition are challenging goals.

8. Further discussion and data on reliability, products, life-cycle performance and warranty would be helpful.

[redacted]

Document 8

#6

[redacted]

From: [redacted]
Sent: Tuesday, March 10, 2009 9:06 AM
To: [redacted]
Subject: Re: Update: Solyndra

Talked to them yesterday and they are excited for potus to do the event. Regards, [redacted]

[redacted]

----- Original Message -----
From: [redacted]
To: [redacted]
Sent: Tue Mar 10 08:39:24 2009
Subject: Re: Update: Solyndra

[redacted] - do we know if this is still a potus event? Last time I spoke w [redacted] he was not sure.

[redacted]

----- Original Message -----
From: [redacted]
To: [redacted]
Cc: [redacted]
Sent: Tue Mar 10 05:41:41 2009
Subject: Re: Update: Solyndra

Great result well negotiated. [redacted] and [redacted] can you also work w [redacted] this am to prepare a short memo for the whitehouse folks on what an announcement could look like on the 19th. We will want to try to get to crb on friday to make sure that we have enough time for the wh folks. Solyndra will be happy they blinked when potus arrives. Great work. Regards,
[redacted]

[redacted]

----- Original Message -----
From: [redacted]
To: [redacted]
Cc: [redacted]
Sent: Tue Mar 10 00:28:36 2009
Subject: Update: Solyndra

Gang,

Just spoke with [redacted]. Solyndra blinked. Congrats !

[redacted], pls followup with [redacted] so we can expeditiously move forward to the Credit Committee and CRB.

Well done !
[redacted]

Document 9

#7

[redacted]

From: [redacted]
Sent: Tuesday, March 10, 2009 9:15 AM
To: [redacted]
Subject: RE: Loan announcement?

There is still strong interest...that is great news and great work. When does the CRB meet?

-----Original Message-----
From: [redacted]
Sent: Tuesday, March 10, 2009 8:38 AM
To: [redacted]
Cc: [redacted]
Subject: Loan announcement?

[redacted]

Is there still an interest in a loan announcement March 19th?

I ask because we successfully wrapped up intense negotiations yesterday for a conditional commitment with Solyndra. There's still much paperwork to complete and wanted to check how hard we need to press.

[redacted]

Document 10

CREDIT COMMITTEE PAPER
REQUEST FOR LOAN GUARANTEE APPROVAL

PROJECT:	**Solyndra Fab 2, LLC**
LOAN NUMBER:	**1013 (FY06 Solicitation)**
DATE:	**March 11, 2009**

Redacted Version - All exemptions fall under b5

LGPO CLEARANCE

Origination Team Members, LGPO

[redacted], Program Manager, Origination, LGPO

[redacted], Senior Investment Officer, Origination, LGPO

[redacted], Senior Investment Officer, Origination, LGPO

[redacted], Director, Origination, LGPO

PROJECT REPORT

TABLE OF CONTENTS

ATTACHMENTS

Compliance Checklist	Tab 2
Proposed Term Sheet	Tab3
Equity Financing Plan	Tab 4
Financial Statements	Tab 5
Independent Engineer's Report	Tab 6
Independent Market Report	Tab 7
LGPO Credit Analysis Documents	Tab 8
Amortization Schedule	Tab 9
Equity / Debt Contribution Schedule	Tab 10
Management Team	Tab 11
Stress Testing / Financial Scenarios	Tab 12
NEPA Compliance Documents	Back Pocket

PROJECT AND LOAN SUMMARY SHEET

[redacted]

EXECUTIVE SUMMARY

Solyndra Inc. ("Solyndra" or "Sponsor") has developed an innovative technology involving the use of thin-film CIGS, a semiconductor material, to transform glass tubes into functional photovoltaic ("PV") modules. Forty of these modules are fabricated into a solar panel that has a number of advantages over traditional solar panels. The cylindrical tube gathers light from all directions, resulting in a higher PV conversion efficiency than competing thin film technologies. The Solyndra PV panels are lighter weight, provide a lower wind profile and are less expensive to install than other solar panels available on the market. Solyndra's proprietary design and configuration is now ready for large-scale commercial implementation -- taking the technology from the lab to the market.

Solyndra is currently in the latter stages of completing its initial 113 MW production line ("Fab1"), and is now in the ramp-up and technology optimization phase. The company intends to ultimately construct a larger facility ("Fab2") that will eventually consist of six production lines essentially identical to Fab1. Solyndra has applied for a loan guarantee from LGPO for a total of $535 million to finance the first three production lines of Fab2.

Upon completion, Fab2 PV output would reduce the emissions from traditional power sources, including: 245 million metric tons of carbon dioxide, 1 million metric tons of sulfur dioxide and 380 thousand metric tons of nitrogen oxides. [redacted]

The Sponsor is managed by a highly-experienced team of technical and financial professionals, and has engaged top-line engineering, construction, legal and financial advisors in developing its plans for the Project. The Sponsor has raised $750 million dollars in support of its operations to date, mostly from well-financed venture-capital firms, demonstrating the ability to raise the private equity needed to capitalize the Project. The Sponsor will be required to provide an additional $198 million of equity at financial close.

The market for PV solar power is growing. [redacted] The US the market is supported by the federal renewable energy investment tax credit, which was recently given an eight-year extension; in Europe the market is helped by "Feed-In-Tariffs" that give advantages to building owners who feed solar power back into the relevant power grid. [redacted]

As mitigation of the risks associated with any ramp-up of new technology to commercial scale, the Fab2 project will have the benefit of the Sponsor's experience in developing and operating its Fab1 production line which uses the same processes, tools and line-configuration. To date, over 20,000 Fab1 panels have been produced and sold, at specifications, efficiencies and throughputs nearing the steady-state production levels projected for the Fab2 production.

The LGPO recommends the approval of this Project's application and the issuance of a Conditional Commitment to execute the requested loan guarantee, subject to the Terms and Conditions accompanying this submission.

SUMMARY OF TERMS & CONDITIONS

[redacted]

PROJECT INFORMATION

Overview

Solyndra is proposing to construct and operate a thin-film, solar photovoltaic panel fabrication facility in Fremont, CA. When completed, Solyndra's Fab2 facility will produce ready-to-install PV panels capable of producing 420 Megawatts of electricity. The production capacity will be constructed, installed and financed in two phases. The company has approached the LGPO to finance Phase 1 of Fab2 (the "Project") which would comprise 210 Mw (approximately 1 million panels per year).

The Project will include the construction of a 650,000 square foot "front end" manufacturing building, the purchase and installation of the initial three production lines and the retrofitting of a 300,000 square foot "back end" assembly building (which will be leased). The first of three production lines is scheduled to begin operation in late 2010. The proposed site for the front end manufacturing building is a 30 acre parcel of land ¼ mile from Solyndra's headquarters. Solyndra has selected CH2M HILL as the engineering contractor. CH2M HILL will provide overall management for the engineering and design of the Fab2 facility.

Solyndra is negotiating the construction agreement with Rudolph and Sletten, Inc., a leader in California construction, and will complete the construction contract prior to loan closing. The contract will be on a Guaranteed Maximum Price basis, with incentives.

The Project will manufacture a thin film photovoltaic (PV) panel that provides inherently clean, greenhouse gas emission-free electrical energy production. Use of Solyndra Fab2 panels to generate electricity will avoid the air pollutants or anthropogenic emissions of greenhouse gases that are traditionally generated by fossil fuel-based electricity sources, which have been linked to human-induced global climate change.

Solyndra intends to rapidly penetrate the commercial rooftop market, with sales being driven by its differentiated and cost-effective product. The increased capacity of Fab2 will be necessary to meet its currently contracted production requirements and to provide sufficient capacity to further diversify its customer base in the US and overseas.

Solyndra is currently producing full-size PV panels utilizing its module design panels from their Fab1 Facility, and has achieved certification on these panels from both IEC and UL standards. Solyndra began installing the high-volume Fab1 production line in 2007. Fab1 is projected to have a capacity of 113 MW per year of panels and is currently undergoing commissioning and qualification. Solyndra plans to replicate its Fab1 technology, manufacturing knowledge and production infrastructure into the design of Fab2.

Project Eligibility

The Project meets all statutory requirements set forth in Title XVII of the Energy Policy Act of 2005, specifically, Section 1703 which defines an "eligible project". The project (1) avoids, reduces, or sequesters air pollutants or anthropogenic emissions of greenhouse gases. The full anticipated project (Phase 1 and Phase 2 of Fab2), if implemented at the scale proposed will avoid 245 million metric tons of carbon dioxide, 1 million metric tons of sulfur dioxide and 380 thousand metric tons of nitrogen oxides); and (2) employs new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued. Under subsection (b) Categories, the project is a "renewable energy system."

Innovative Technology

The Sponsor has developed a unique, high performance, photovoltaic panel designed to solve some of the most challenging installation problems for PV systems on commercial rooftops. Solyndra's novel cylindrical cell design enables improved collection of all available light and do not require costly tracking or tilt mounting hardware. Solyndra's PV panels greatly simplify and lower the cost of mounting, allowing tighter module packing (even over rooftop obstacles), are impervious to moisture and allow lower temperature operation. Solyndra's panels are low weight and allow wind to flow through the modules (essentially eliminating wind loading). This unique design is self-ballasting and enables the installation of PV systems on lighter duty roofs not currently suitable for PV panels.

TECHNICAL INFORMATION

Construction Plans

The Fab2 facility, when completed, will consist of a 650,000 square foot front end manufacturing building and a 300,000 square foot back end assembly building. It is anticipated that the front end building will eventually support six production lines capable of producing an aggregate of 420 megawatts per year of solar panels. This project (Phase 1 of Fab2) encompasses only three production lines.

Solyndra Fab2's Back End manufacturing activity will be housed in one or more leased buildings.

Solyndra anticipates contracting with Rudolph and Sletten to provide general contractor services for Fab2 Phase 1 construction. Final execution of this contract will be a Condition Precedent to financial closing on the loan guarantee. Studios Architecture was retained for master planning and Hathaway Dinwiddie Construction Company ("HDCC") for pre-construction services related to Solyndra Fab2's Front End facility. The Applicant, Studios Architecture and HDCC have a pre-existing relationship established for work performed on the Applicant's corporate headquarters in Fremont, CA.

The proposed project design method for Solyndra Fab2 will be a traditional "Design, Negotiate and Build" method with a design assist process for the mechanical, plumbing, process piping, electrical and controls systems.

The Sponsor will employ a bonus strategy with the General Contractor. Instead of negotiating liquidated damages, the Applicant will establish key milestone dates for the project and establish goals for savings on the Guaranteed Maximum Price budget and meeting the expectations for quality of work. If the General Contractor and their subcontractors meet all the established goals, they will be paid a bonus.

Solyndra has designed and built proprietary manufacturing process equipment for their Fab1 production line. Solyndra will duplicate this technology for Fab2, and will be responsible for manufacturing and installing a significant portion of the line equipment for Fab2. They have a dedicated equipment division to address this challenge.

Independent Engineer's Report

The DOE's independent engineer for this project is RW Beck, which submitted its final report February 27, 2009. The full report is attached in Tab 6. RW Beck's fundamental conclusions include:

[redacted]

Operations & Maintenance

The Operations and Maintenance of the Project facility will be performed by a separate corporate entity, owned and controlled by Solyndra, Inc.

Status of Environmental Review

The DOE NEPA review process [redacted]

BUSINESS PLAN

Overview

Solyndra's novel PV design offers several operational advantages including "air-flow" gaps which eliminate wind loading, low-weight and the ability for modules to be installed over roof obstructions and closer to skylights without penetration of the rooftop. In summary, Solyndra's PV panels are designed to provide more energy per rooftop and a 40% reduction in balance of system costs (mounting and installation related costs). Solyndra bundles the mounts and related accessories with its PV panels. To the knowledge of the RW Beck, no other PV panel manufacturer includes mounts in its pricing. The average delivered price of Solyndra's panels on a dollar per kWh basis is competitive to wafer silicon PV panels and First Solar's thin film CdTe PV panels.

Solyndra is focusing primarily on the large-scale commercial rooftop market (e.g., manufacturing and big-box retail). It will not target the building owners directly, but rather will sell its product to "integrators" who will install and connect the PV panels, often as a part of the installation of a new or retrofitted roof (tying-in well with increasing regulatory requirements for installation of reflective white roof membranes or other energy-efficiency equipment), and often in conjunction with other parties who are positioned to take advantage of various tax credits and accounting incentives.

Solyndra's existing customer base is diversified into US, European and (so-far-limited) Asian markets (through its multi-national integrators), mitigating the risk of regulatory, FX and economic changes. The Navigant market analysis firm has projected [redacted]

Solyndra Advantages

Solyndra uses a hollow glass tube as the substrate and hermetically seals this tube in a larger protective outer glass tube (creating the module) while adding an "Optical Coupling Agent" (OPA) between the tubes to increase the amount of light incident on the PV module. Forty modules are then fabricated into a deployable PV array or panel.

Solyndra has identified the following advantages of its technology strategy, compared to its competitors in rooftop applications:

> Efficiency. Utilization of a material with a higher PV conversion efficiency than competing thin-film PV technologies (*i.e.*, a-Si and CdTe). An extremely thin "active layer" of CIGS can be deposited onto a substrate via a number of deposition technologies, allowing for reduced material usage compared to single- and multi-crystalline silicon PV technologies. CIGS cells in the laboratory have reached a higher cell efficiency (20 percent) compared to other thin film technologies (a-Si and CdTe).
>
> Encapsulation. Novel hermetic encapsulation technology. This eliminates the chance for water diffusion into the cell, which can cause reliability problems over the lifetime of the product. It also allows for the use of the optical coupling agent, which traps additional light, resulting in higher energy output for each module.
>
> Design. The cylindrical shape of Solyndra cells has a number of advantages. The omni-facial cylindrical cell geometry optimizes the collection of available direct, diffuse and reflected sunlight. Because the sun sees the same cell geometry throughout the day, an omni-facial cell is inherently self-tracking for collection of direct light without any additional tracking hardware; diffuse light is collected from all angles. Reflected light is also efficiently collected by the downward-facing area of the cell. This additional light collection also results in increased energy output per module.
>
> The unique geometry of Solyndra's panels also allows for a higher energy density per rooftop, as panels can be placed with less concern for panel-to-panel shading (no need for tilt) and the panels can be placed closer to obstructions. This enables larger system sales per rooftop, resulting in potentially higher gross margins for installers. The novel PV panel design provides a combination of lighter weight, lower wind profile, and better collection of available light in rooftop applications compared to competing PV technologies.

- Balance of System Costs. The unique form factor of Solyndra's PV panel allows for a reduced installation cost compared to other PV technologies. The horizontal mounting and free air-flow, self-ballasting panel construction greatly simplify the requirements for mounting hardware. The mounting structure is lightweight, inexpensive, non-penetrating and easy to install. The simple mounts can be quickly attached and then the panels can be set down on the rooftop. No additional ballast or mounting hardware is needed to secure the panels to the rooftop. According to Solyndra, the greatly simplified mounting hardware and reduction in required labor, along with other system-level benefits, enable a reduction in BOS cost of over 40 percent compared to mounts for standard PV modules. Solyndra PV systems are faster and less costly to install than conventional PV systems, resulting in lower design and installation, labor costs.

LGPO further notes [redacted]

[redacted]

Pricing and Volume – Existing Contracts

Contracted Panel Price ($/watt)	2008	2009	2010	2011	2012
Phoenix Solar	[redacted]				
SPI					
Gecko Logic					
Carlisle					
Weighted Avg Panel Price					
Fab2 Panel Price Assumption					

Volume Under Contract (MW)	2008	2009	2010	2011	2012
Phoenix Solar	[redacted]				
SPI					
Gecko Logic					
Carlisle					
Total					
Fab1 Output					
Fab2 Output					
Total Output					
[redacted]					

Solyndra anticipates [redacted]

Market Analysis

Solyndra's market penetration and sales will continue to be driven by the regulatory landscape. [redacted]

[redacted]

[redacted]

In the US [redacted]

The incentives in Europe [redacted]

The Solyndra business plan for US markets is founded upon [redacted] RW Beck has concluded that (with stated caveats and in certain markets) the answer [redacted]

In European markets the deal structure is simpler, but the driving issue remains the same: [redacted] Again, RW Beck has concluded that this is possible in certain markets (and the number of markets is growing):

[redacted]

RW Beck has made individual analysis of several of Solyndra's target market jurisdictions in the US and in Europe. For detail, we refer to the attached Draft Report of the Independent Market Consultant. The fundamental analysis applies to each of these markets – [redacted]

From the Market Consultant's Report, a graphic analysis of the general concept follows:

[redacted]

US Market Mechanism: RPS

The incentives mechanism at the state level [redacted]

Solyndra's primary US marketing strategy, [redacted]

[redacted]

European Market Mechanism: FIT

The European market is primarily driven [redacted]

[redacted]
Installation Years 2010 – 2016

		Prices by Installation Year ($/kWh)						
State	Price/Grid Parity	2010	2011	2012	2013	2014	2015	2016
[redacted]								

Solyndra's panels at the projected panel prices could be economically marketed [redacted]

Competition

First Solar, a leading manufacturer of PV panels, has introduced thin-film CdTe PV panels which operate at greater than 9 percent efficiency, with competitive pricing and availability for commercial rooftop and large-scale utility, ground-mounted systems. The cost to make CdTe PV modules have recently reached under $1 per W_p, according to First Solar. CdTe panels are rigid products fabricated on low-cost, soda-lime glass substrates. CdTe panels will have a relatively high balance of system cost compared to the Solyndra panels, due to the mounting requirements. Rooftop installations, due to the limited amount of space, usually end up using higher efficiency panels, including those manufactured with wafer silicon and CIGS, rather than the type sold by First Solar.

Solyndra specifically reported that it does not intend to compete in land/ground applications, and consequently, [redacted] Solyndra's major competition comes, rather, from the manufacturers of wafer silicon panels, which control 90% of the roof-top market share

Retail System Cost Comparison
($/W$_p$)

	2010	2011	2012	2013	2014	2015	2016
Solyndra Technology							
[redacted]							
Wafer-Silicon Technology							
[redacted]							

[redacted]

RW Beck Market Analysis

RW Beck analysis of the markets that Solyndra competes in has concluded that:

[redacted]

[redacted]

FINANCING PLAN

Overview

[redacted]
The company must raise at least [redacted]

Uses Of Funds:

Facilities Capex:
 Front End
 Back End
 Contingency

Equipment Capex:
 Line 1
 Line 2
 Line 3
 Contingency

Real Estate
Interest during Cons.
Other Costs
Total Costs

Sources Of Funds:
Senior Debt (DOE):
Equity – Cash:
Total Uses

Funding Structure:
LGPO % of Sen. Debt:
Source of Funds:

[redacted]

Financial Model and Sensitivity Analysis

Solyndra's base case financial projections are included in Tab 12. The following summarizes the results of the base case projections, as well as the sensitivity analysis for three scenarios.

Base Case Analysis

The Base Case analysis uses data and projections from the Project's business model and a comprehensive compilation of inputs used for its business planning purposes.

The Base Case uses the following key assumptions:

[redacted]

Base Case Assumptions								
	2009	2010	2011	2012	2013	2014	2015	2016
# of Panels Shipped	[redacted]							
Ave Selling Price ($/watt)	[redacted]							
Revenue ($Million)	[redacted]							
Gross Margin ($Million)	[redacted]							
Gross Margin %	[redacted]							
Net Income ($Million)	[redacted]							

Base Case Results								
	2009	2010	2011	2012	2013	2014	2015	2016
Cash Flow ($Million)	[redacted]							
Debt Service (P+I) ($MM)	[redacted]							
Debt Service Coverage	[redacted]							

Given these production and market assumptions, the Project expects to achieve gross margins of [redacted] upon reaching full production, against revenues of [redacted] This cash flow [redacted]

Performance approaching Base Case assumptions would provide [redacted]

Downside Case – Output Decreased by 10%

Key Assumptions:

[redacted]

Downside Case Assumptions	2009	2010	2011	2012	2013	2014	2015	2016
# of Panels Shipped	[redacted]							
Ave Selling Price ($/watt)								
Revenue ($Million)								
Gross Margin ($Million)								
Gross Margin %								
Net Income ($Million)								

Downside Case Results	2009	2010	2011	2012	2013	2014	2015	2016
Cash Flow ($Million)	[redacted]							
Debt Service (P+I) ($MM)								
Debt Service Coverage								

Note that in this scenario the Project [redacted]

Stressed Case

This scenario assumes [redacted]

Stressed Case Assumptions	2009	2010	2011	2012	2013	2014	2015	2016
# of Panels Shipped	[redacted]							
Ave Selling Price ($/watt)								
Revenue ($Million)								
Gross Margin ($Million)								
Gross Margin %								
Net Income ($Million)								

Stressed Case Results	2009	2010	2011	2012	2013	2014	2015	2016
Cash Flow ($Million)	[redacted]							
Debt Service (P+I) ($MM)								
Debt Service Coverage								

Under this stress, debt service remains over [redacted]

Minimum Coverage Case

This scenario stresses the model such that the [redacted]

Minimum Coverage Case Assumptions								
	2009	2010	2011	2012	2013	2014	2015	2016
# of Panels Shipped	[redacted]							
Ave Selling Price ($/watt)								
Revenue ($Million)								
Gross Margin ($Million)								
Gross Margin %								
Net Income ($Million)								

Minimum Coverage Case Results								
	2009	2010	2011	2012	2013	2014	2015	2016
Cash Flow ($Million)	[redacted]							
Debt Service (P+I) ($MM)								
Debt Service Coverage								

Under this hypothetical, [redacted]

This artificial scenario demonstrates [redacted]

Key Risks & Mitigants

Market Risk

Solyndra faces a number of risks to its operations, however the most important risk category pertains to Market Risk. In this case, Market Risk can be broken down into several sub-categories of risk:

[redacted]

Mitigant: [redacted]

[redacted]

Mitigant: [redacted]

[redacted]

Mitigant: [redacted]

The RW Beck analysis has commented on the following specific market risks:

[redacted]

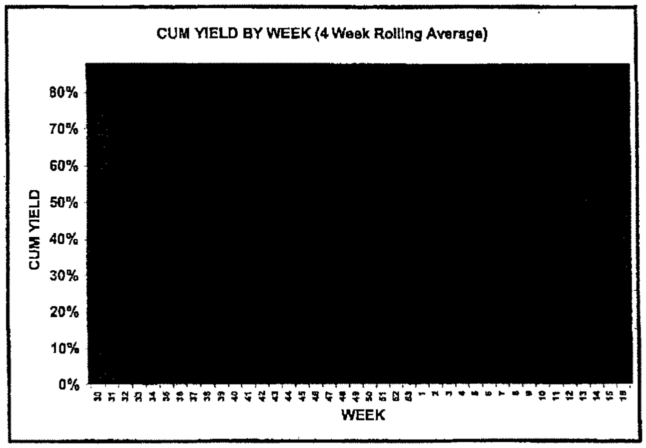
Scale Up Risk

The Project [redacted]

[redacted] RW Beck has completed a thorough review of [redacted] and has confirmed [redacted]

[redacted]

Solyndra Fab2 Manufacturing Facility
Five-month Cumulative Trend for ILDS / Fab1 Line



<u>Completion Risk</u>

[redacted]

APPLICANT INFORMATION

Management Team

Solyndra has assembled a senior management team with considerable corporate experience in designing, constructing, and ramping up large scale manufacturing facilities. The Company also has a core expertise in designing specialty tooling equipment that is utilized in its production process. Solyndra currently employs approximately 750 full time and contract individuals, most of which are engineering resources focused on the technical development of the Company's products and manufacturing process. Solyndra is led by the seasoned management team described below:

- **Dr. Chris Gronet**. Solyndra's principal inventor, Founder and Chief Executive Officer, was previously a senior executive at Applied Materials for 11 years, a leading semiconductor equipment manufacturer. Dr. Gronet is intimately involved in the day to day operations of the Company including monitoring and contributing to product design, process innovations, and manufacturing ramp. Dr. Gronet holds over 20 U.S. patents in thin film and related technologies. Dr. Gronet earned a Ph.D. in semiconductor processing and a Bachelor of Science degree in materials science, both from Stanford University.

- **Bill Stover**. Chief Financial Officer. Mr. Stover was most recently Chief Financial Officer at Micron Technology, Inc., a manufacturer of semiconductor devices. Prior to joining Micron, Mr. Stover was an audit manager with Coopers & Lybrand.

- **Ben Bierman**. Vice President of Technology in charge of day to day at Fab1 operations, has more than 20 years of semiconductor manufacturing and fabrication equipment experience at Applied Materials and LAM Research.

- **Dr. Kelly Truman**. Vice President of Marketing and Business Development, has more than 20 years experience in the semiconductor industry most recently as the Vice President of Marketing at ReVera, a provider of metrology used to monitor and control films and critical layers deployed in the semiconductor manufacturing process.

In addition to significant management resources, Solyndra is also able to draw on the technical expertise of certain Directors on its Board. **Dr. James Gibbons**, Director, was the former Dean of Engineering of Stanford University and founder of Sera Solar. **Dr. Dan Maydan**, Director, was President of Applied Materials from 1994 to 2003 and previously spent 13 years at Bell Labs. Dr. Gibbons and Dr. Maydan are actively involved in the technical oversight of the Company's technology development and manufacturing capacity expansion.

The majority of the management team and technical staff have extensive experience in process equipment design and fabrication, high-technology systems integration, CIGS thin films and high-volume hard disk manufacturing. The Applicant has assembled a Board of Directors with direct experience in both thin film materials science research and development, as well as the design and manufacture of thin film production machinery. In addition, members of the Board have outstanding records of success in guiding the development of numerous high-technology concerns, with a particular emphasis on renewable energy.

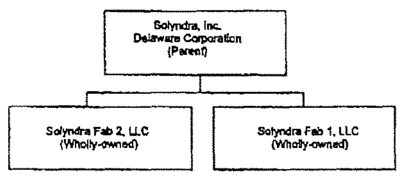
Relative to other thin film PV manufacturers, the Applicant has a substantial advantage due to its in-house equipment integration and manufacturing expertise for high-volume thin film production. The management team has developed considerable direct experience in the equipment design, manufacture and production of its unique cylindrical CIGS-based PV systems that it gained through design and development of the Applicant's original "mini" In-Line Development System (ILDS) and its full production scale Fab1.

Background and Legal Structure

Solyndra Fab2, LLC, (the "Borrower" or "Project") is a wholly-owned subsidiary of the parent, Solyndra, Inc. The Borrower is a special purpose entity that has been formed solely for the purpose of constructing, financing, owning and operating the Project. The Sponsor was incorporated in 2005 in the state of Delaware and currently owns 100% of the capital stock of the Project. Solyndra, Inc. is a privately-held company whose voting ownership is held by venture capital firms and individuals (employees and management).

Organization

Solyndra, Inc. is the Applicant to the Loan Guarantee Program and is the Sponsor for the Solyndra Fab2 project. Solyndra, Inc. has two subsidiaries including Solyndra Fab2, LLC (the legal entity representing Solyndra Fab2) and Solyndra Fab1, LLC. The Parent owns 100% of the capital stock of its subsidiaries. Solyndra Fab1, LLC currently serves no operational purpose. It was established at a time when the Applicant anticipated a corporate structure that legally separated each fabrication facility.



Government Support/Permits

The Project is not receiving any direct financial support from the US government, the State of California, County of Alameda or City of Fremont. The Sponsor will receive all necessary federal, state and local permits to begin construction of the Fab2 facility by loan closing. The Applicant has excellent relationships with administrative personnel in the City of Fremont, including permitting and inspection personnel. These relationships have allowed rapid processing of building permits and other related applications in the past.

Credit Assessment/Credit History

The initial Preliminary Credit Assessment was submitted by Fitch on August 27, 2008 and assessed the credit as a B+.

A credit history dated as of June 4, 2008 for the Applicant as prepared by Dun & Bradstreet, Inc. shows:

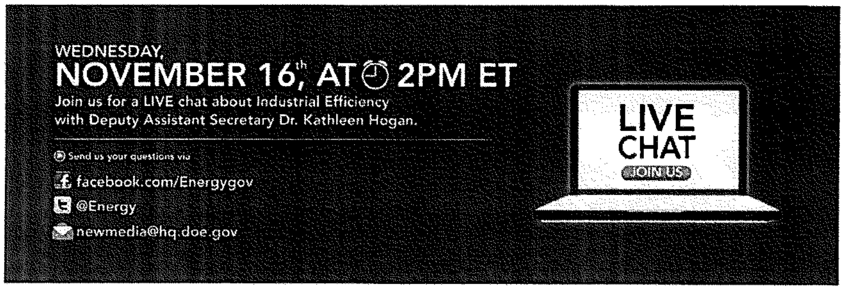
D&B Rating 1R3

This credit rating was assigned because of D&B's assessment of the company's financial ratios and its cash flow.
Rating: 1R3 (1R indicates 10 or more employees)
Composite credit appraisal: 3 is fair

Applicant Statement

The Applicant has attested that, based on the Project information provided to the LGPO for consideration of extending a loan guarantee, that there is a reasonable prospect that the Guaranteed Obligation will be paid on time and in full (including interest) from project cash flow according to the terms proposed in the Application.

Document 11



Home

Obama Administration Offers $535 Million Loan Guarantee to Solyndra, Inc.

March 20, 2009 - 12:00am

Washington, DC - Energy Secretary Steven Chu today offered a $535 million loan guarantee for Solyndra, Inc. to support the company's construction of a commercial-scale manufacturing plant for its proprietary cylindrical solar photovoltaic panels. The company expects to create thousands of new jobs in the U.S. while deploying its solar panels across the U.S. and around the world.

"This investment is part of President Obama's aggressive strategy to put Americans back to work and reduce our dependence on foreign oil by developing clean, renewable sources of energy," Secretary Chu said. "We can create millions of new, good paying jobs that can't be outsourced. Instead of relying on imports from other countries to meet our energy needs, we'll rely on America's innovation, America's resources, and America's workers."

Secretary Chu is moving aggressively to accelerate important Department of Energy investments that can create jobs and transform the way America uses and produces energy. This allows the Department of Energy to offer its first loan guarantee within the first two months of the Obama Administration. This loan guarantee will be supported through the President's American Recovery and Reinvestment Act, which provides tens of billions of dollars in loan guarantee authority to build a new green energy economy.

Solyndra's photovoltaic systems are designed to provide the lowest installed cost and the highest solar electricity output on commercial, industrial and institutional roof tops, which are a vast, underutilized resource for the distributed generation of clean electricity. Solyndra's proprietary design transforms glass tubes into high performance photovoltaic panels which are simple and inexpensive to install. By replacing power generated from fossil fuel sources, the electricity produced from the solar panels will reduce emissions of greenhouse gases.

Based in Fremont, CA, Solyndra is currently ramping up production in its initial manufacturing facilities. Once finalized, the DOE loan guarantee will enable the company to build and operate its manufacturing processes at full commercial scale.

Solyndra estimates that:

- The construction of this complex will employ approximately 3,000 people.

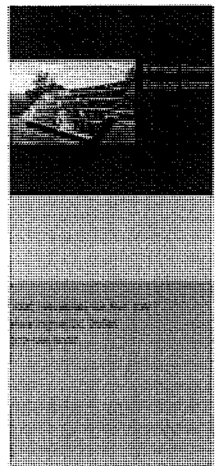
RELATED ARTICLES

Vice President Biden Announces Finalized $535 Million Loan Guarantee for Solyndra

Obama Administration Offers $59 Million in Conditional Loan Guarantees to Beacon Power and Nordic Windpower, Inc.

President Obama Announces Loan Guarantees to Construct New Nuclear Power Reactors in Georgia

- The operation of the facility will create over 1,000 jobs in the United States.
- The installation of these panels will create hundreds of additional jobs in the United States.
- The commercialization of this technology is expected to then be duplicated in multiple other manufacturing facilities.



Secretary Chu is offering the loan guarantee by signing a "conditional commitment" today, following approval this week by the Department of Energy's Credit Review Board. Just as homebuyers who have been approved for a loan are required to meet certain conditions before closing, the conditional commitment will require Solyndra to meet an equity commitment as well as other conditions prior to closing. Today's action signals the Department's intent to move forward on Solyndra's application for $535 million loan guarantee provided the company meets its obligations.

Before offering a conditional commitment, DOE takes significant steps to ensure risks are properly mitigated for each project prior to approval for closing of a loan guarantee. The Department performs due diligence on all projects, including a thorough investigation and analysis of each project's financial, technical and legal strengths and weaknesses. In addition to the underwriting and due diligence process, each project is reviewed in consultation with independent consultants.

Secretary Chu initially set a target to have the first conditional commitments out by May - three months into his tenure - but today's announcement significantly outpaces that aggressive timeline. Secretary Chu credited the Department's loan team for their work accelerating the process to offer this conditional commitment in less than two months, demonstrating the power of teamwork and the speed at which the Department can operate when barriers to success are removed.

Media contact(s):

(202) 586-4940

Document 12

Obama Administration Offers $59 Million in Conditional Loan Guarantees to Beacon Power and Nordic Windpower, Inc.

July 2, 2009 - 12:00am

WASHINGTON, DC – Secretary Steven Chu today announced $59 million in conditional loan guarantees from the Department of Energy for Nordic Windpower, USA, and Beacon Power. Nordic Windpower has been offered $16 million to support the expansion of its assembly plant in Pocatello, Idaho, to produce its one megawatt wind turbine. Beacon Power, an energy storage company, has been offered $43 million to support the construction of its 20 megawatt flywheel energy storage plant in Stephentown, New York that will help ensure the reliable delivery of renewable energy to the electricity grid.

As stated by Secretary Chu, "These projects represent the innovative technologies that will help America reduce its dependence on fossil fuels and fight climate change," while moving the nation closer to meeting President Obama's goal of doubling renewable power.

These are the second and third conditional commitments for loan guarantees made by the Obama administration. In March, the Department made its first conditional loan guarantee for $535 million to Solyndra, Inc., which plans to construct a manufacturing plant to bring its cutting-edge solar technology to the commercial market. Secretary Chu has made it the priority of the Department to streamline the loan guarantee process by simplifying paperwork requirements and providing additional resources to process applications. The loan guarantees announced today will be supported through the 2009 American Recovery and Reinvestment Act

Nordic Windpower, USA

Nordic Windpower, USA was offered a conditional commitment for $16 million to support the tooling and commercial-scale up of its assembly plant in Pocatello, Idaho. Nordic's proprietary one megawatt wind turbine uses two blades and a patented teeter-hub technology that dampens loads, resulting in a lightweight turbine at least 10% less costly to manufacture, install, operate and maintain than competing systems.

The Nordic wind turbine represents significantly improved technology which enables the turbine blades to flex at the hub, partially dissipating the eccentric loads, or turbulent winds, before they reach the drive train. This makes Nordic's turbines more reliable and enables them to achieve structural integrity at a lower cost than more rigid designs

RELATED ARTICLES

President Obama Announces Loan Guarantees to Construct New Nuclear Power Reactors in Georgia

Department of Energy Offers $245 Million Conditional Loan Guarantee to Red River Environmental Products

Fact Sheet: The Department of Energy's Loan Programs

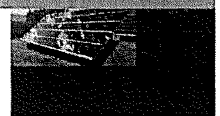
Beacon Power

Beacon Power, an energy storage company headquartered in Tyngsboro, Massachusetts, was offered a conditional commitment for $43 million. Beacon Power designs and develops advanced products and services to support more stable, reliable and efficient grid operation. The loan guarantee will support the construction of Beacon's 20 megawatt flywheel energy storage plant in Stephentown, New York that will help ensure the reliable delivery of renewable energy to the electricity grid. Beacon's innovative flywheel system, the core component of the 20 megawatt plant, is specifically optimized to perform frequency regulation on utility grids by absorbing and discharging energy to maintain the consistency and reliability of the electric grid.

Beacon's 20 megawatt power plant project will introduce a newly developed, not yet commercial technology to provide frequency regulation services to increase the nation's use of renewable energy and help reduce greenhouse gas emissions.

Media contact(s):

(202) 586-4940



1000 Independence Ave. SW
Washington DC 20585
202-586-5000

Document 13

26

From: [redacted]
To:
Subject: RE: Solyndra
Date: Thursday, August 20, 2009 12:30:18 AM

This sounds like an issue needing immediate attention. Certainly, we can't meet with OMB until this is addressed.

[redacted] called to get a status check from me. Do I need to raise this with him?

[redacted]

From: [redacted]
Sent: Wednesday, August 19, 2009 10:28 PM
To: [redacted]
Subject: Solyndra

[redacted]

Thanks for following up yesterday on Solyndra. I think we were able to close out a number of issues. I appreciate the work Solyndra did on this yesterday evening regarding the financial model and construction milestones.

I'm concerned, however, that we still have a major outstanding issue. The attached model represents the Base Case that was utilized by [redacted] and the project team. In this version, all working capital assumptions were eliminated, suggesting that Fab2 will hold no A/R; inventory or A/P balances. While debt coverage is robust under stress conditions, the project cash balance goes to $62,000.00 in September 2011. Under the assumption that a small amount of cash is tied up in working capital, the project will face a funding shortfall. Even one day of A/R results in a negative cash balance, for example.

The issue of working capital assumptions has been a major issue repeatedly raised since December. Furthermore, the assumption of no working capital at the project company is inconsistent with the model we looked at just yesterday and the project team 'due diligence update'. We are now two days away from the scheduled OMB presentation and, having received some information, we seem to have a major issue. We need to figure out how to resolve ASAP.

In addition to the critical issue above, we have a number of other modeling issues that need to be addressed. For example, as stated yesterday, property taxes don't seem to appear in the model. We should also revise the income tax assumption to match the PWC assessment.

I suggest we convene tomorrow morning to figure out how we are going to address. I have to meet with [redacted] first thing, but suggest 10:30.

Does that work for everyone?

Thanks.

From: [redacted]
To: [redacted]
Subject: FW: Solyndra: Responses to Credit Analysis Questions
Date: Thursday, August 20, 2009 3:27:59 PM

[redacted]

Thanks for requesting the additional information. I would like your analysis of the materials presented.

In order to move this forward, I think we have the following next steps:

1. I will look at the property tax information against the issue raised by RW Beck in January.

2. We can adjust the income tax assumption to 30%. The result should be de minimus, but we should use that assumption from PWC.

3. The issue of Working Capital remains unresolved. First, it seems clear that the cost overrun equity commitment would support cost overruns and ineligible project costs. However, the issue is cash balances, not cost. [redacted] seems to agree that the model runs out of cash in Sept. 2011 even in the base case without any stress. This is a liquidity issue. Secondly, given the implications above, it is difficult to assume in a default scenario that any other entity would be able to assume management of the project company without any working capital. As a practical matter, this is not feasible and leads to questions of ability to run the project company as a stand alone entity. Finally, how can we advance a project that hasn't funded working capital requirements nor seems to have any provision for funding working capital requirements and that generates a working capital shortfall of $50M when working capital assumptions are entered into the model? This is a serious issue we need to resolve as a credit matter. It also simply won't stand up to review by oversight bodies. Are there provision in the agreements that provide access to working capital provided by the parent (e.g., a liquidity facility)? I don't think the cost overrun commitment accomplishes this, but perhaps an inter-company line of credit would.

4. We still do not have a lender case. In order to move forward, I have gone ahead and built one. I will send it under separate cover. I need you to confirm it and to include it in the due diligence update. Moving forward, the deal team needs to provide this case. Notwithstanding the working captal issue above, the lender case supports the conclusions you've made and addresses the LGPO policy requirement of having a lender case.

Thanks.

-----Original Message-----
From: [redacted]
Sent: Thursday, August 20, 2009 2:24 PM
To: [redacted]
Cc: [redacted]
Subject: Solyndra: Responses to Credit Analysis Questions

[redacted]

In response to questions related to the credit analysis of the Solyndra Fab 2 project, we have prepared the responses below.

The current Solyndra Fab 2 Base Case Projections have changed since the original model was presented,

Document 14

27

From: [redacted]
To:
Subject: FW: Solyndra: Responses to Credit Analysis Questions
Date: Thursday, August 20, 2009 3:27:59 PM

[redacted]

Thanks for requesting the additional information. I would like your analysis of the materials presented.

In order to move this forward, I think we have the following next steps:

1. I will look at the property tax information against the issue raised by [redacted] in January.

2. We can adjust the income tax assumption to [redacted] The result should be de minimus, but we should use that assumption from PWC.

3. The issue of Working Capital remains unresolved. First, it seems clear that the cost overrun equity commitment would support cost overruns and ineligible project costs. However, the issue is cash balances, not cost. [redacted] seems to agree that the model runs out of cash in Sept. 2011 even in the base case without any stress. This is a liquidity issue. Secondly, given the implications above, it is difficult to assume in a default scenario that any other entity would be able to assume management of the project company without any working capital. As a practical matter, this is not feasible and leads to questions of ability to run the project company as a stand alone entity. Finally, how can we advance a project that hasn't funded working capital requirements nor seems to have any provision for funding working capital requirements and that generates a working capital shortfall of $50M when working capital assumptions are entered into the model? This is a serious issue we need to resolve as a credit matter. It also simply won't stand up to review by oversight bodies. Are there provision in the agreements that provide access to working capital provided by the parent (e.g., a liquidity facility)? I don't think the cost overrun commitment accomplishes this, but perhaps an inter-company line of credit would.

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Thanks.

-----Original Message-----
From: [redacted]
Sent: Thursday, August 20, 2009 2:24 PM
To: [redacted]
Cc: [redacted]
Subject: Solyndra: Responses to Credit Analysis Questions

[redacted]

In response to questions related to the credit analysis of the Solyndra Fab 2 project, we have prepared the responses below.

The current Solyndra Fab 2 Base Case Projections have changed since the original model was presented, and the DOE Loan Origination team [redacted] and [redacted] have reviewed the updated model. The terms of the Project Sales Agreement require that Solyndra, Inc. purchase 100% of the output of the Project as it comes off the manufacturing line; hence, "Inventory" is now assumed to be zero. Consequently, working capital requirements for the project are modest, and for modeling purposes the Accounts Receivable and Accounts Payable are set at a net zero.

Solyndra is informed that testing the Base Case under stress conditions results in essentially nil cash at Fab 2 in September 2011, and any assumption of a delay in collecting Accounts Receivable from Solyndra would be an unbudgeted cash drain on the Solyndra Fab 2 Project, potentially resulting in a cost overrun. This analysis is correct assuming that the Project has not otherwise come in under budget elsewhere and that none of the Project's budgeted contingency was available to pay for this cost overrun. However, it should be noted that September 2011 falls well before Fab 2 has achieved "Project Completion," which is forecast to occur in April 2012. Project Completion as defined by the Common Agreement includes factors related to Physical Completion, Operational Completion and Financial Completion.

DOE bargained for a 100% Solyndra, Inc. guarantee to pay for any cost overruns beyond the $733 million Project Cost prior to Project Completion, and further requires Solyndra, Inc. to pre-fund a restricted cash account of $30 million to cover any potential cost overruns. The Base Case Projections show that Fab 2 will have accumulated approximately $123 million of cash at the time of Project Completion when Solyndra, Inc.'s guarantee would be released. Of the $123 million of cash at Fab 2, approximately $60 million funds the full Debt Service Reserve Account. No cash dividends can be made until certain milestones are achieved after Project Completion, which assures the liquidity of the Project. Solyndra believes that it has included all of the Project Costs that it reasonably anticipates in the $733 million budget.

Additionally, considering the magnitude of the import of Fab 2 to Solyndra, Inc.'s business and the substantial equity commitment made by Solyndra, Inc. to the Project, there exist tremendous incentives for Solyndra, Inc. to ensure a successful Project.

Solyndra has modeled a 25% income tax rate for Solyndra Fab 2 so that the Project can pay for the income tax that its activities engender.

Solyndra believes that it will pay a 25% effective income tax rate on a consolidated basis for its worldwide operations, and Solyndra assumes this rate in all of its forecasts. At the request of DOE, Solyndra's auditors, PricewaterhouseCoopers provided an opinion dated August 6, 2009 that states that a range of 24%-30% was appropriate for Solyndra, Inc., which Solyndra believes substantiates its estimate of 25%. Due to the operating losses forecast for Solyndra Fab 2 during its initial ramp of commercial production, the Base Case Projections indicate that Fab 2 will not have a tax liability until its NOL's have been exhausted in June 2012. The Base Case Projections as submitted to DOE are fully-functional, and changing the income tax rate from Solyndra's estimate of 25% to the high-end of the reasonable range (30%) as indicated by PwC reveals only a modest impact to the Project. Cash balances at Fab 2 in June 2012 are forecast to be approximately $136 million, including an approximately $60 million debt service reserve account. Any change to the income tax rate has no material impact on the Project's liquidity. The impact of a 30% income tax rate assumption is only seen in a minor reduction of 0.1 to the Debt Service Coverage Ratios, as noted below

At the lowest Debt Service Coverage Ratios period calculated for the year 2015, the Base Case Projections show that only $81 million of the FFB loans remain outstanding and Fab 2 will have generated in excess of $500 million of cash. A liquidation of Fab 2 at the end of 2015 would generate substantially more than $81 million (according to the analysis performed by Fitch Rating). At this low point, Fab 2 is forecast to generate 160% of the required cash to make debt payments. Hence, Solyndra concludes that DOE enjoys a very secure position at this point in time even with a 30% income tax rate. While Solyndra believes that a 25% income tax rate is appropriate, a summary analysis of the effects of a 30% income tax rate is attached for DOE's consideration.

The Base Case Projections include all property taxes. The property tax is combined with a number of Facilities-related expenses in the worksheet named "Model Assumptions" in the Base Case Projections. A scan of Row 146 reveals episodic spikes in Facilities costs, which correlate to the underlying property tax assumptions. A copy of the detailed line item assumptions that comprise the Facilities budget is attached for DOE's consideration. Specific line items related to property tax are highlighted in green color (please see Rows 102, 105,
106 and 134 in the "Facilities Budget" file). A summary review of this Facilities Budget worksheet will review that property tax is modeled in significant detail.

Please contact me to discuss any questions you may have related to the foregoing. Thank you.

Regards,

[redacted]

****

[redacted]

SOLYNDRA, INC.

47700 Kato Road

Fremont, CA 94538

[redacted]

www.solyndra.com

Document 15

18

[redacted]

From: [redacted]
Sent: Thursday, August 27, 2009 4:39 PM
To: [redacted]
Cc:
Subject: RE: Solyndra Update

Hello folks –

Wrapping up some loose ends from our call today:

---

1. Timing - We've made some adjustments to our schedule and it now looks like the VP's window of availability is 12:00 PM ET - 12:45 PM ET. That would put us at a 9:00 AM PT event start with VP portion around 9:15 AM PT. Does that work on the CA end?

2. OMB Approval - Can someone provide a quick rundown of what final step this is that OMB would be clearing? We just want to make sure we can be as helpful as possible in ensuring this gets done for you on timeline. We were thinking all OMB clearance was to be finished this week (?) - but perhaps there is a final step we hadn't considered?

3. Browner/WH Attendee – [redacted], can you took a look at this part?

4. Notification Timeline - Team DOE will draft up a proposal for Congressional/elected, company/investor and press notification for discussion. Noting that I'm connecting Sudafi and [redacted] with [redacted] and [redacted] re: electeds.

5. VP Side/Satellite - VP will do this from the White House - TBD whether there is a press pool in there or we just make the feed available - but no audience. We'll go back to WHCA to let them know this is a go and connect with appropriate OVP and DOE folks to begin working through the cost and logistical details.

Anything I've missed?

[redacted]

From: [redacted]
Sen[redacted]
To: [redacted]
Cc: [redacted]
Subject: Re: Solyndra Update

Sure. Including DOE press.

----- Original Message -----
From: [redacted]
To: [redacted]
Cc: [redacted]
Sent: Wed Aug 26 18:49:36 2009
Subject: RE: Solyndra Update

Alright, everyone - thanks for your patience as we nailed this down here.

It looks like this will definitely be a VPOTUS event after all - and it would need to be on the 4th in that case.

I hear [redacted] had a good visit out there and things look feasible from a logistical standpoint - but much more to discuss. Shall we hop on a call tomorrow to discuss further? How about 1:00 PM? If that works, will circulate number.

From: [redacted]
Sent: Tuesday, August 25, 2009 11:54 AM
To: [redacted]
Cc: [redacted]
Subject: RE: Solyndra Update

Sounds good. POTUS on the 8th was what we were going for, but that's looking unlikely. With POTUS unlikely, we wanted to give this to the VPOTUS, and 4th was looking best.

Glad to discuss tomorrow.

From: [redacted]
Sent: Tuesday, August 25, 2009 11:51 AM
To: [redacted]
Cc: [redacted]
Subject: RE: Solyndra Update

hey all - lets talk about this, as of last Friday the POTUS was set to satellite in and the event has been moved to the 8th.

Where did you see Solyndra was on the 4th? [redacted]ed about the dates you have [redacted], want to make sure we're all on the same page. You, [redacted] and I should probably discuss when tomorrow's event is over.

From: [redacted]
Sent: Tuesday, August 25, 2009 11:48 AM
To: [redacted]
Cc: [redacted]
Subject: RE: Solyndra Update

Adi, I am looping in [redacted] Thanks.

[redacted]
Small Business Loan Guarantee Program Advisor Recovery Act Team U.S. Department of Energy
[redacted]

From: [redacted]
Sent: Tuesday, August 25, 2009 10:28 AM
To: [redacted]
Cc: [redacted]
Subject: Solyndra Update

We are thinking (technical logistics allowing) that we would want the VP can satellite into the event on 9/4 (next Friday). It's the same day unemployment numbers come out, and we'd want to use this as an example where the Recovery Act is helping create new high tech jobs. Does that work for you guys? Were you guys going to send Sec. Chu or someone else to CA? We are discussing the possibility of sending someone from here (e.g. Carol) out there as well.

Let me know if 9/4 sounds ok. Let me know what DoE would be thinking of doing with the Secretary or otherwise. Don't need a formal event memo in a rush, but just want to start planning things if this sounds generally ok. Glad to do a quick call with whomever. Thanks,

[redacted]

Document 16

Steve

From: Chris Gronet [redacted]
Sent: Thursday, October 01, 2009 11:31 PM
To: Steve Mitchell
Subject: Fab 3 and NYTimes.com: Solar Panel Tariff May Further Strain U.S.-China Trade

Hi Steve,

Attached FYI.

The Bank of Washington continues to help us!

[redacted] and I talked about the following for Fab 3 in the U.S. (the "Tulsa" package):

1. State and local incentives (grants, subsidies, land, taxes, labor, training, utilities, fee and permit waivers, etc.)
2. 1705 DOE Loan (or bank guarantee)
3. DOE 30% manufacturing equipment tax credits
4. Continue to leverage ExIm for foreign projects because of high U.S.-content (this is a huge advantage for us...we will be the largest U.S.-content solar panel manufacturer in the world very soon)

We think it makes sense to do a study, put together a book, and present it as part of the 1705 application. 1705 implementation is on hold for now as they figure out some issues, but it is coming soon.

Target is to have LOI or framework documents complete by mid-2010.

[redacted] and [redacted] are visiting after the board meeting on Oct. 22 to discuss the Fab 3 option in Abu-Dhabi.

Appreciate your thoughts/feedback.

Chris Gronet

CEO
Solyndra, Inc.
47700 Kato Road
Fremont, CA 94538 USA
[redacted]

From: emailthis@ms3.lga2.nytimes.com [mailto:emailthis@ms3.lga2.nytimes.com] On Behalf Of [redacted]
Sent: Thursday, October 01, 2009 9:12 PM
To: Chris Gronet
Subject: NYTimes.com: Solar Panel Tariff May Further Strain U.S.-China Trade

<http://www.nytimes.com/> <http://www.nytimes.com/adx/bin/adx_click.html?type=goto&opzn&page=www.nytimes.com/yr/mo/day/business&pos=TopRight-EmailThis&sn2=fbf225e8/e97c738b&sn1=7af1fc70/f9f80bb8&camp=foxsearch2009_emailtools_1011078b_nyt5&ad=amelia_b_88x31&goto=http%3A%2F%2Fwww%2Efoxsearchlight%2Ecom%2Famelia>

This page was sent to you by [redacted]

Message from sender:
Chinese panels imported into the U.S. now need to pay a 2.5% duty... John Scott

BUSINESS / GLOBAL BUSINESS | October 01, 2009
Solar Panel Tariff May Further Strain U.S.-China Trade
<http://www.nytimes.com/2009/10/01/business/global/01tariff.html?emc=eta1>
By KEITH BRADSHER
New tariffs on solar panels imported to the United States come as panel manufacturers are losing money, in part because of fierce competition from China.

Click here to view trailer
<http://www.nytimes.com/adx/bin/adx_click.html?type=goto&opzn&page=www.nytimes.com/yr/mo/day/business&pos=Center1&sn2=bf5f383c/45e6e138&sn1=72813a5a/fd2a0b4&camp=foxsearch2009_emailtools_1011078g-nyt5&ad=Adam_120x60_g_nowplaying&goto=http://www.foxsearchlight.com/adam>

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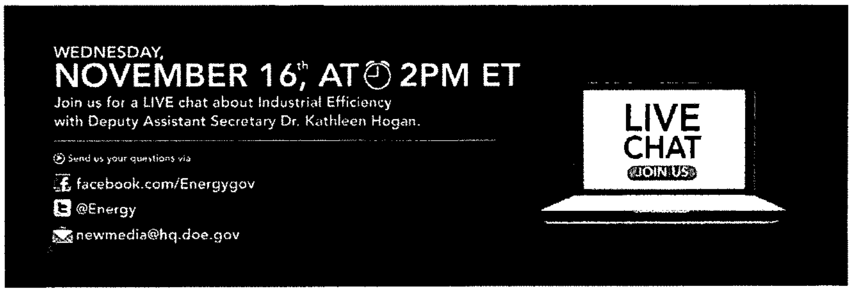
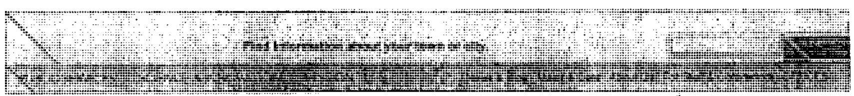
Document 17





Home

Energy Department Announces New Private Sector Partnership to Accelerate Renewable Energy Projects

October 7, 2009 - 12:00am

Washington DC — U.S. Energy Secretary Steven Chu today announced the Department of Energy (DOE) will provide up to $750 million in funding from the American Recovery and Reinvestment Act to help accelerate the development of conventional renewable energy generation projects. This funding will cover the cost of loan guarantees which could support as much as $4 to 8 billion in lending to eligible projects, and the Department will invite private sector participation to accelerate the financing of these renewable energy projects.

To this end, the Department announced the creation of its new Financial Institution Partnership Program (FIPP), a streamlined set of standards designed to expedite DOE's loan guarantee underwriting process and leverage private sector expertise and capital for the efficient and prudent funding of eligible projects.

"A renewable energy economy is a true opportunity to create new jobs, reinvigorate America's competitiveness and support the president's goal of doubling renewable energy in the United States," said Secretary Chu "American innovation can be the catalyst that jump starts a new clean energy Industrial Revolution."

The Recovery Act created a new Section 1705 under Title XVII of the Energy Policy Act of 2005 (Title XVII) for the rapid deployment of renewable energy projects and related manufacturing facilities, electric power transmission projects and leading edge biofuels projects that commence construction before September 30, 2011.

This first solicitation under the new program will seek loan guarantee applications for conventional renewable energy generation projects, such as wind, solar, biomass, geothermal and hydropower. Past solicitations for renewable energy generation projects have focused on loan guarantee applications using new or innovative technologias not in general use in the marketplace.

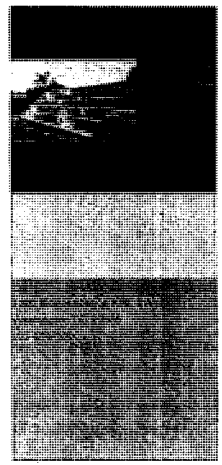
The goal of FIPP is to leverage the human and financial capital of private sector financial institutions by accelerating the loan application process while balancing risk between DOE and private sector partners participating in the program

RELATED ARTICLES

Department of Energy Finalizes Partial Guarantee for $852 Million Loan to Support California Concentrating Solar Power Plant

Working with the Private Sector to Achieve a Clean Energy Economy

Secretary Chu, Senator Reid, Rep. Berkley Announce Conditional Commitment for Loan Guarantee to Fotowatio Solar Project Near Las Vegas, Nevada



Under this first FIPP solicitation, proposed borrowers and project sponsors do not apply directly to DOE but instead work with financial institutions satisfying the qualifications of an eligible lender which may apply directly to DOE to access a loan guarantee. The solicitation invites applications from eligible lenders for partial, risk-sharing loan guarantees from DOE. The guarantee percentage will be no more than 80% of the maximum aggregate principal and interest during a loan term, and the project debt must obtain a credit rating of at least 'BB' or an equivalent with a nationally recognized credit rating agency.

This solicitation marks the eighth round of solicitations issued by the Department's Loan Guarantee Program since its inception.

Read more information on this solicitation and the Department's Loan Guarantee Program.

Energy and Climate Stakeholders Briefing (PDF)

Media contact(s):

(202) 586-4940

Document 18

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INDEPENDENT MARKET CONSULTANT'S REPORT

SOLYNDRA FAB 2 MANUFACTURING FACILITY

TABLE OF CONTENTS

Page

INDEPENDENT MARKET CONSULTANT'S REPORT

SOLYNDRA FAB 2 MANUFACTURING FACILITY

TABLE OF CONTENTS
(continued)

R·W·BECK

April 27, 2009

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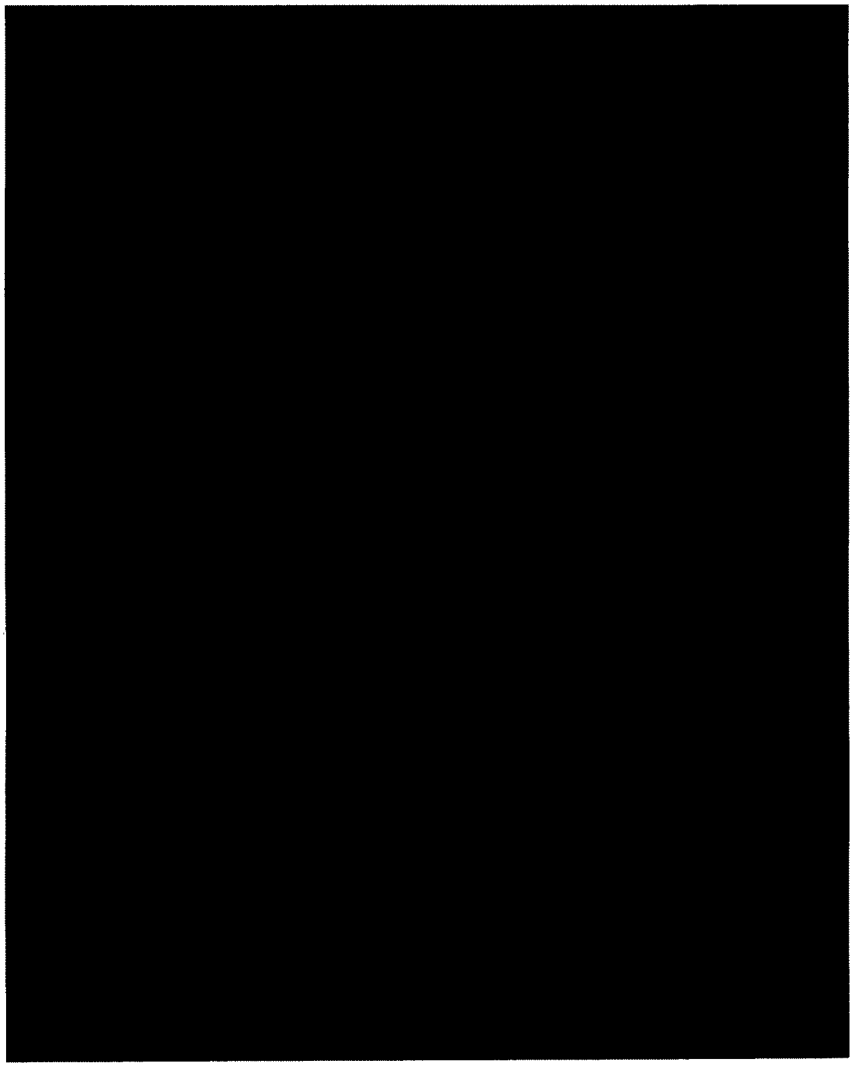

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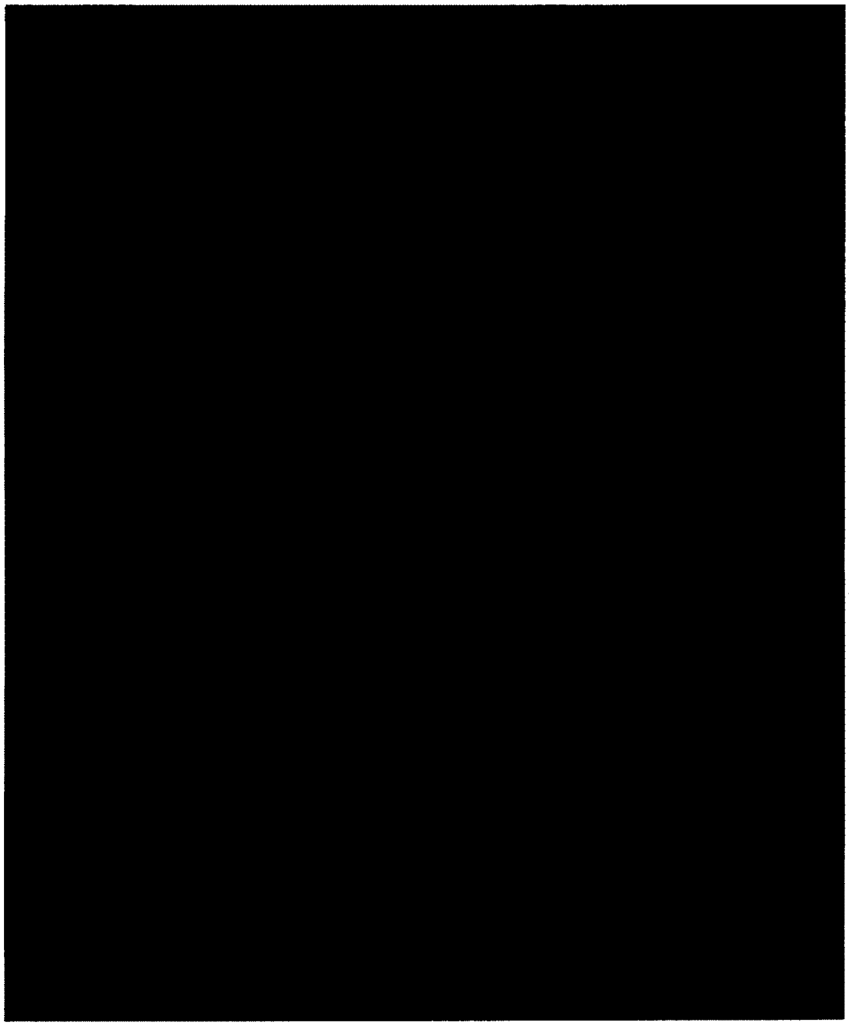

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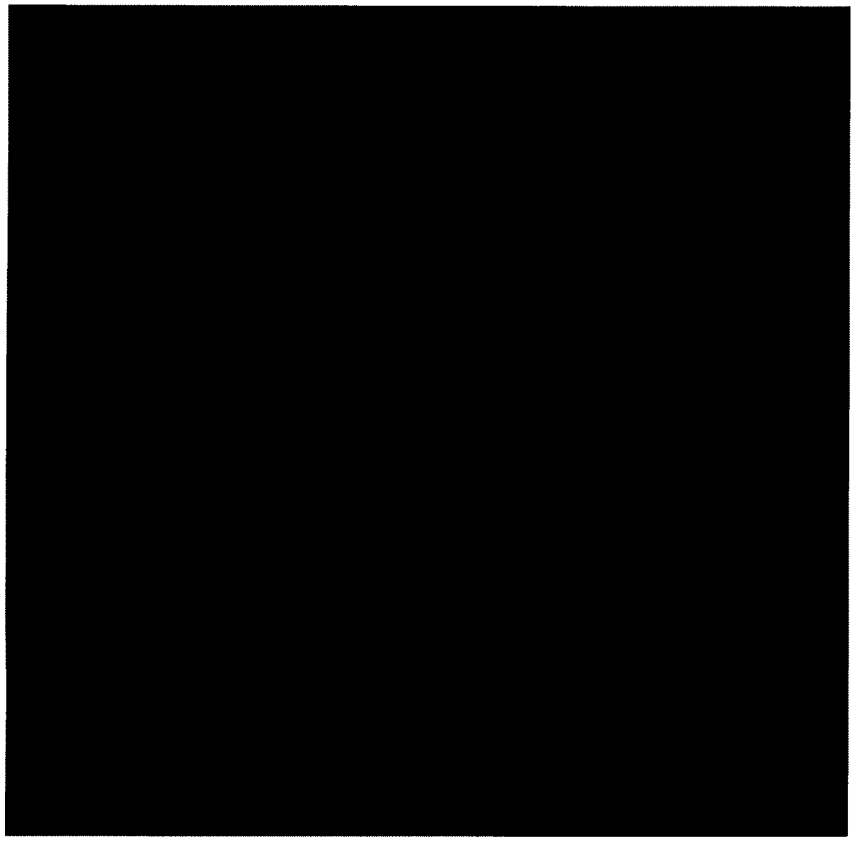

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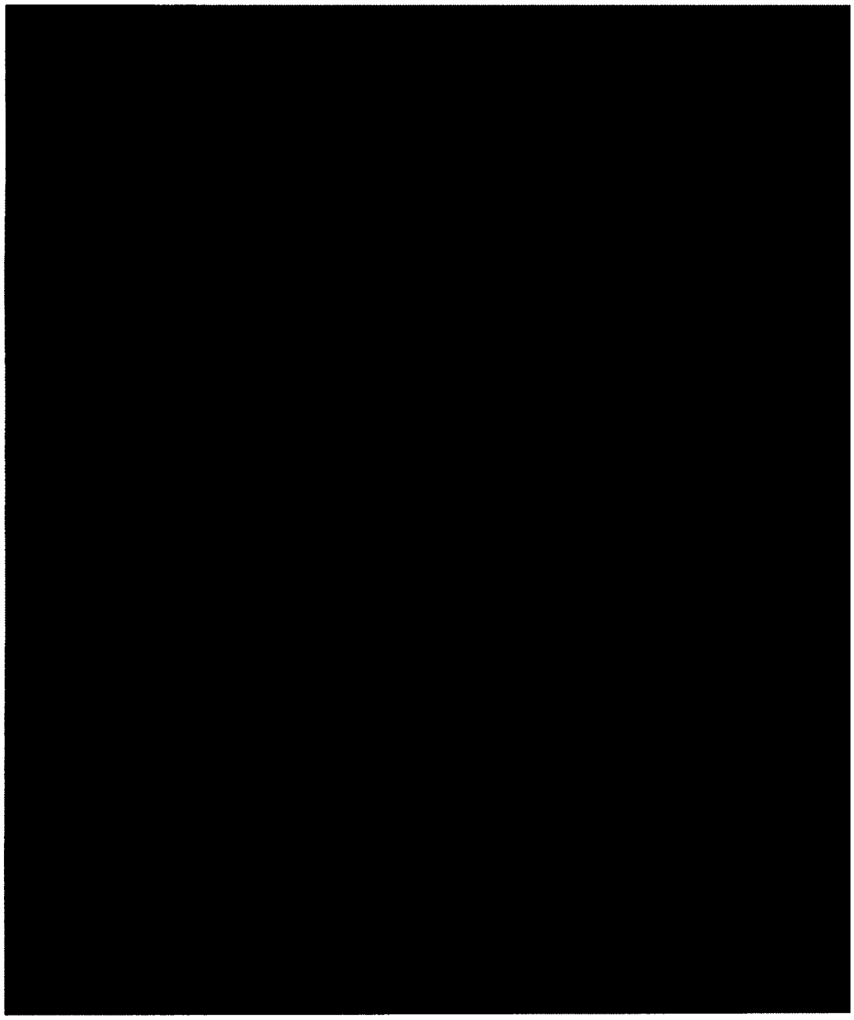

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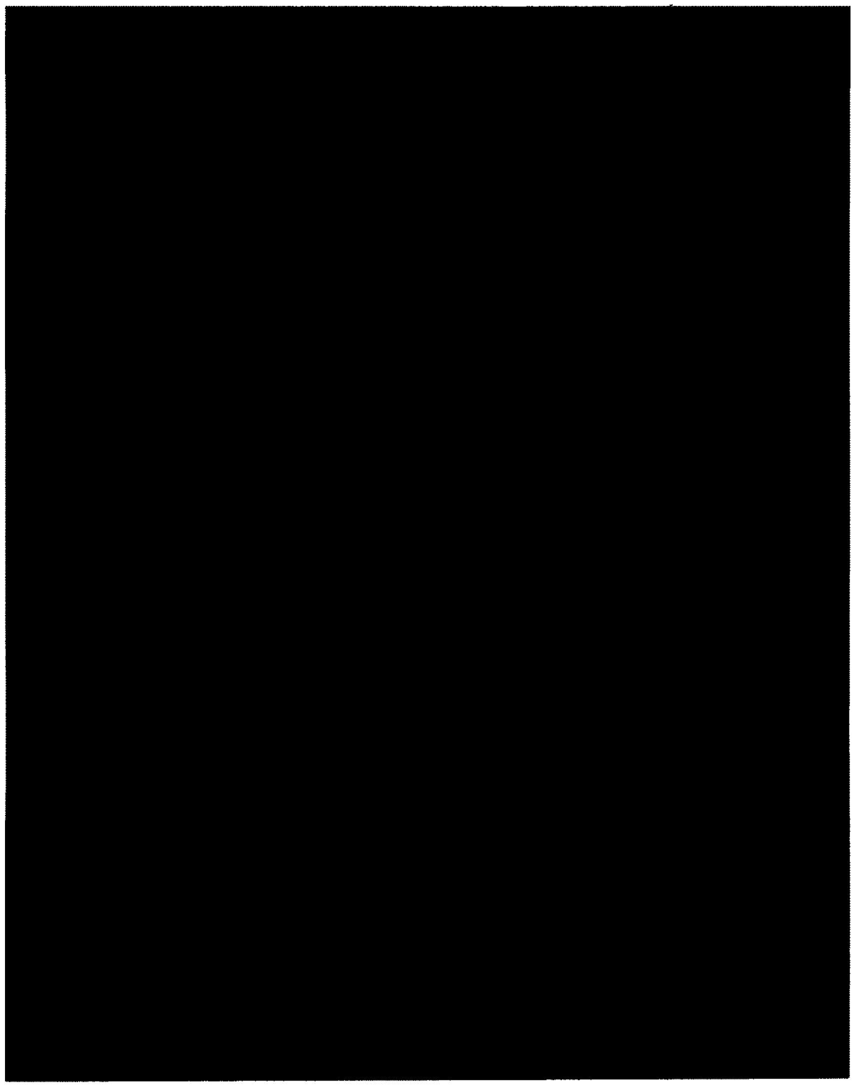

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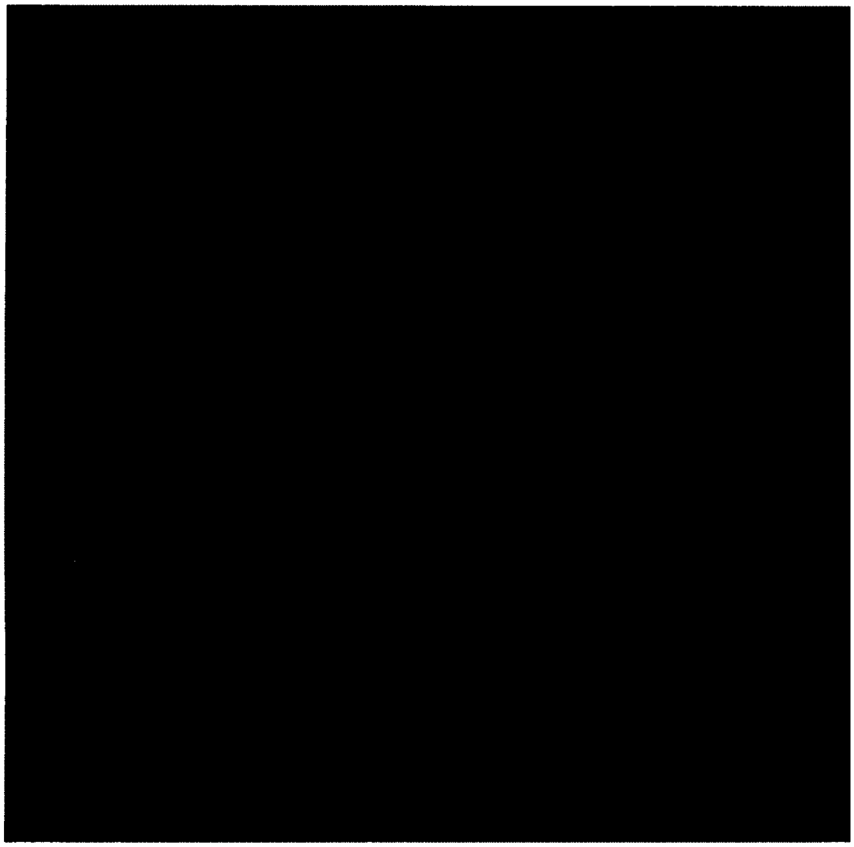

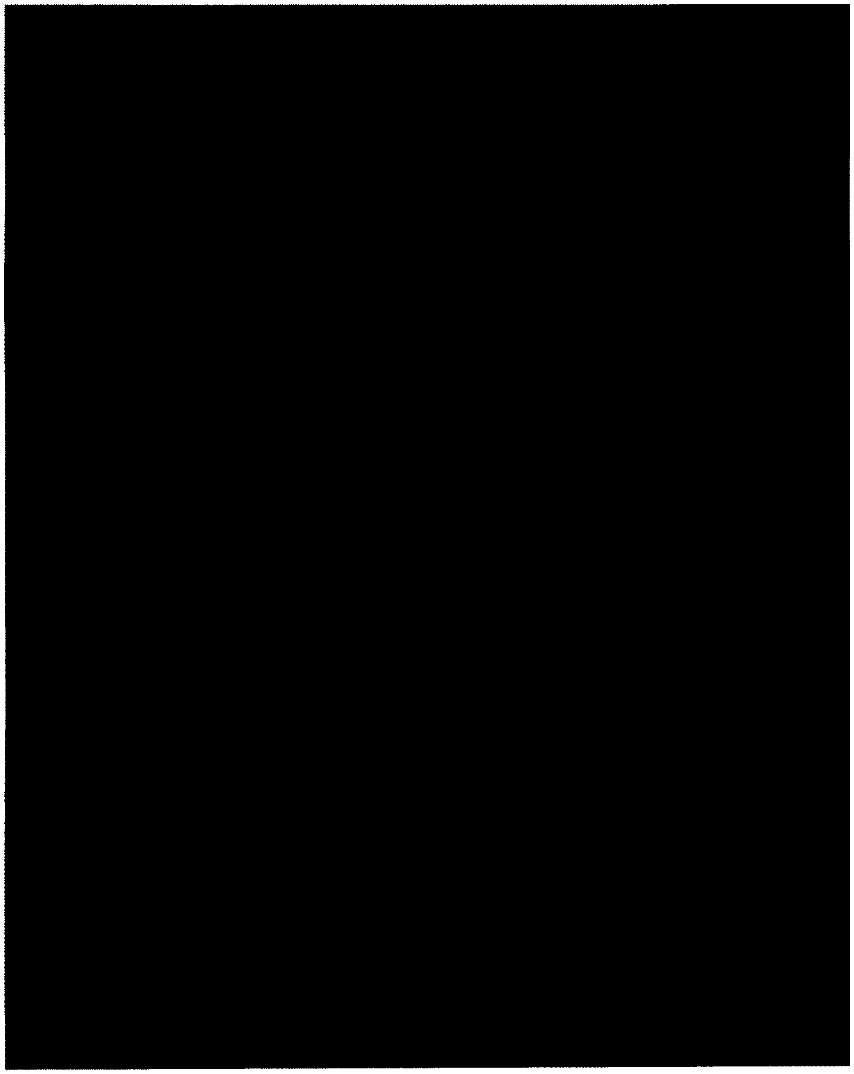

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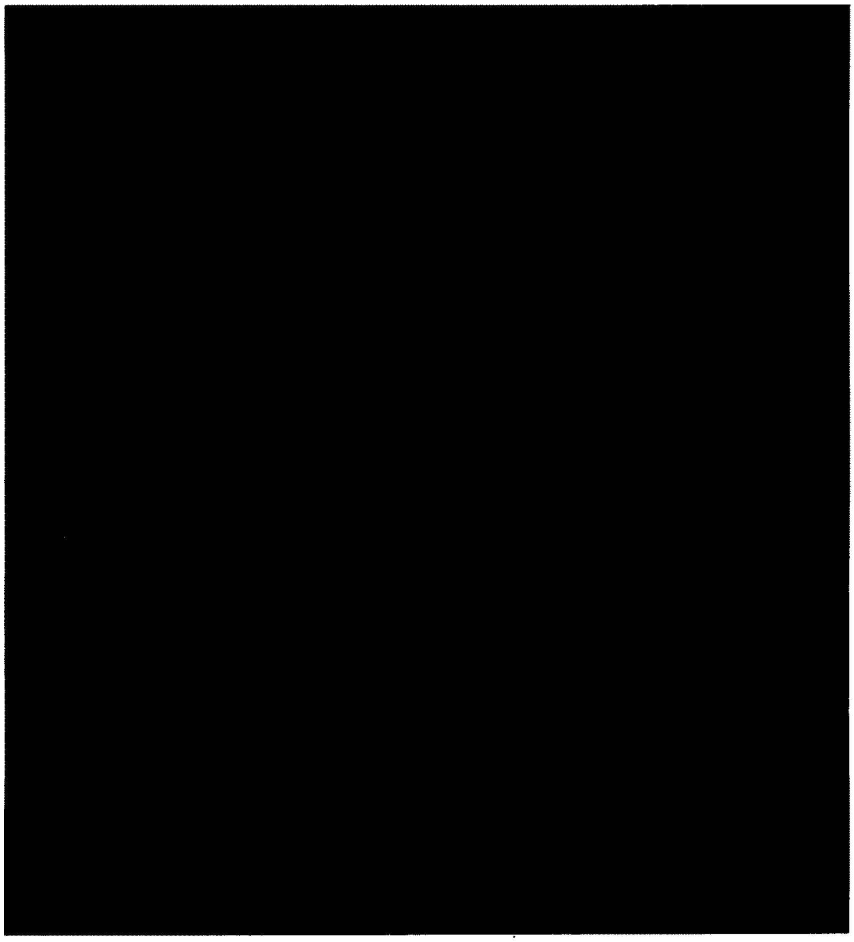

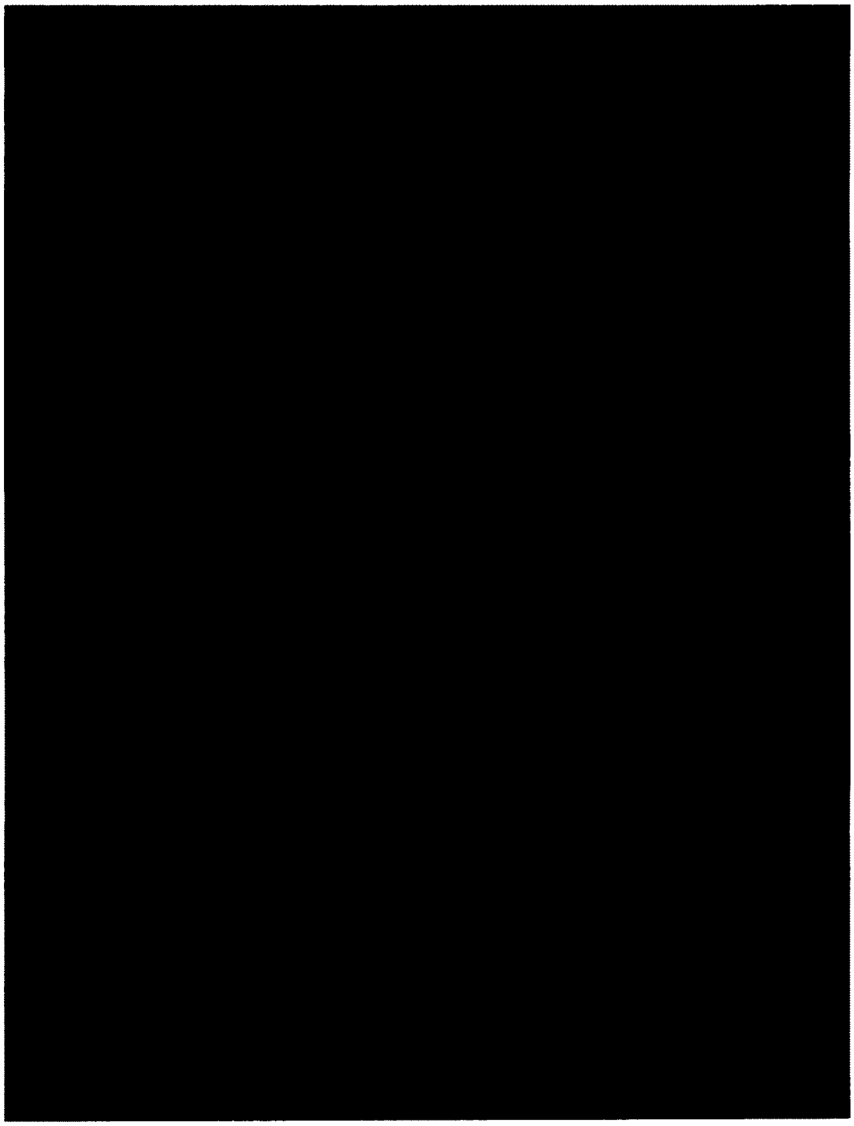

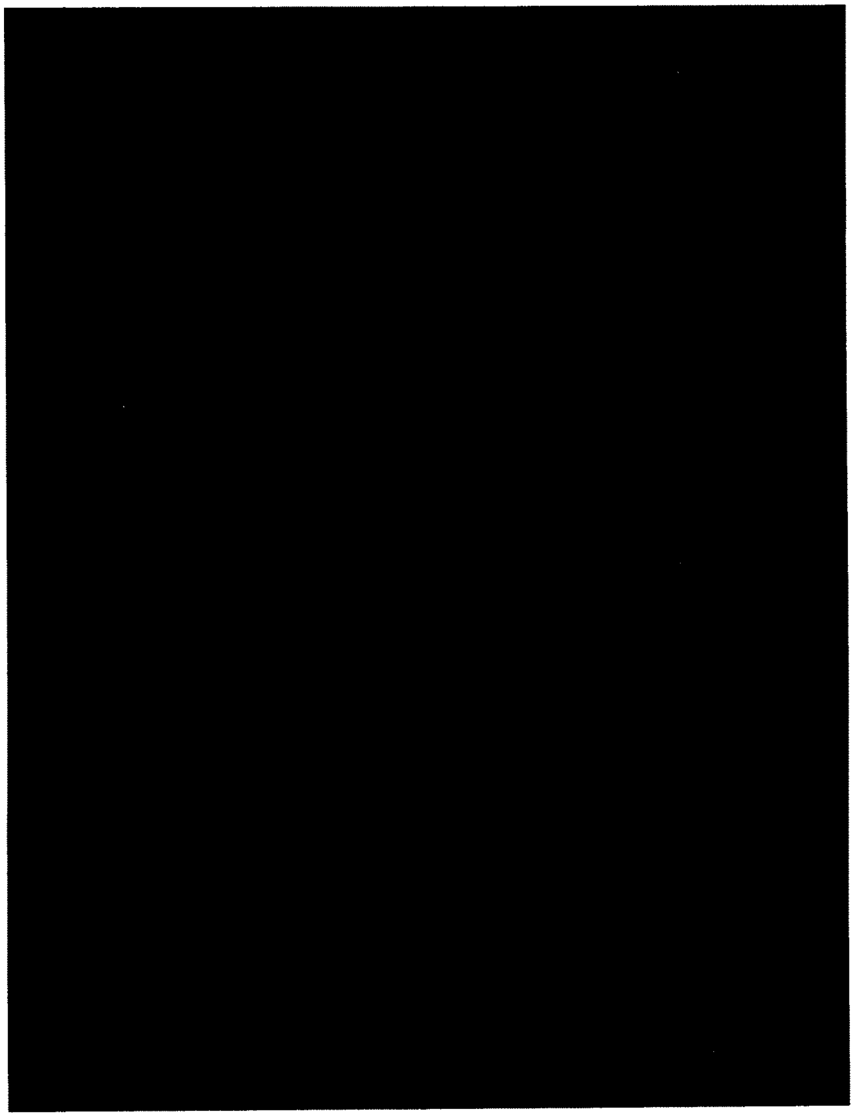

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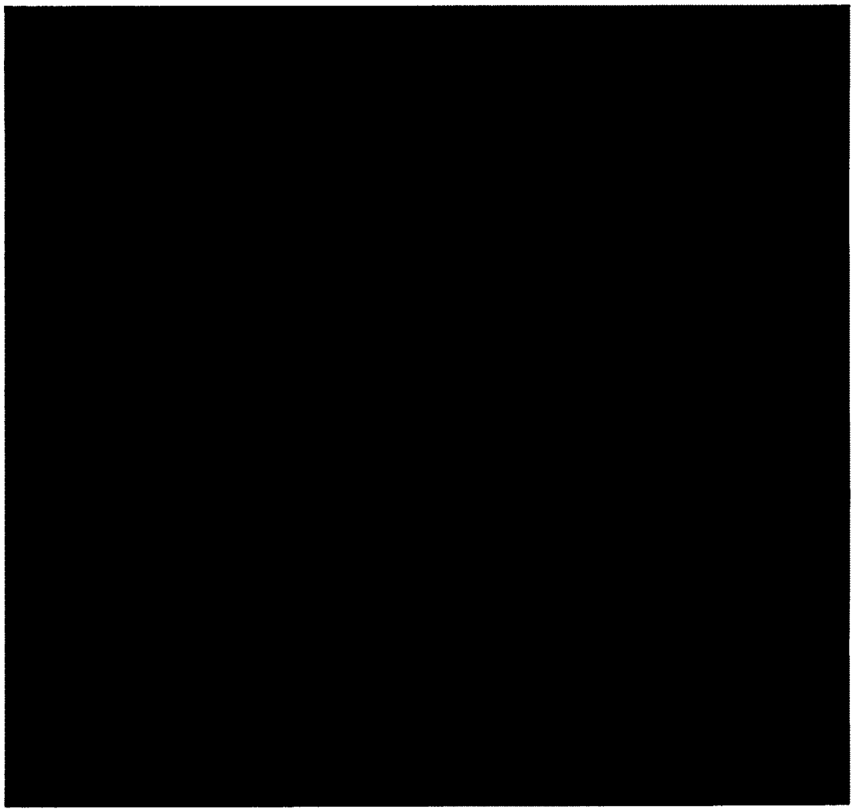

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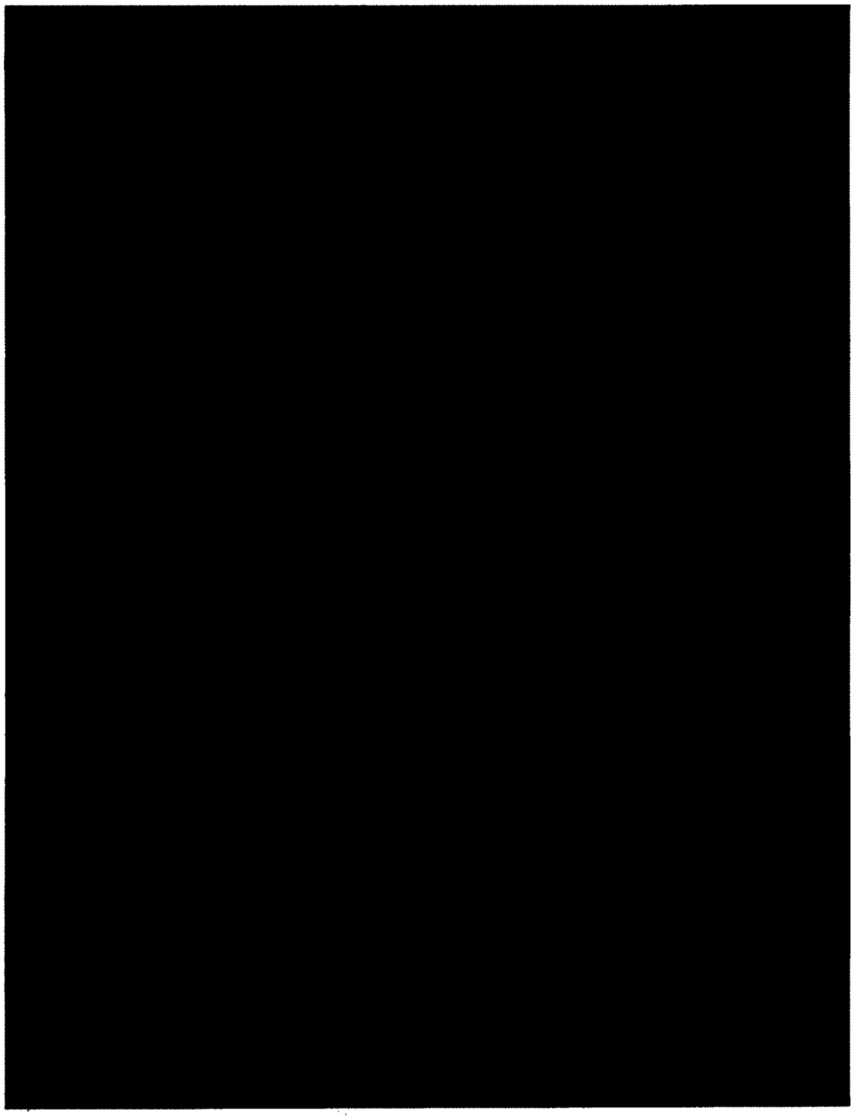

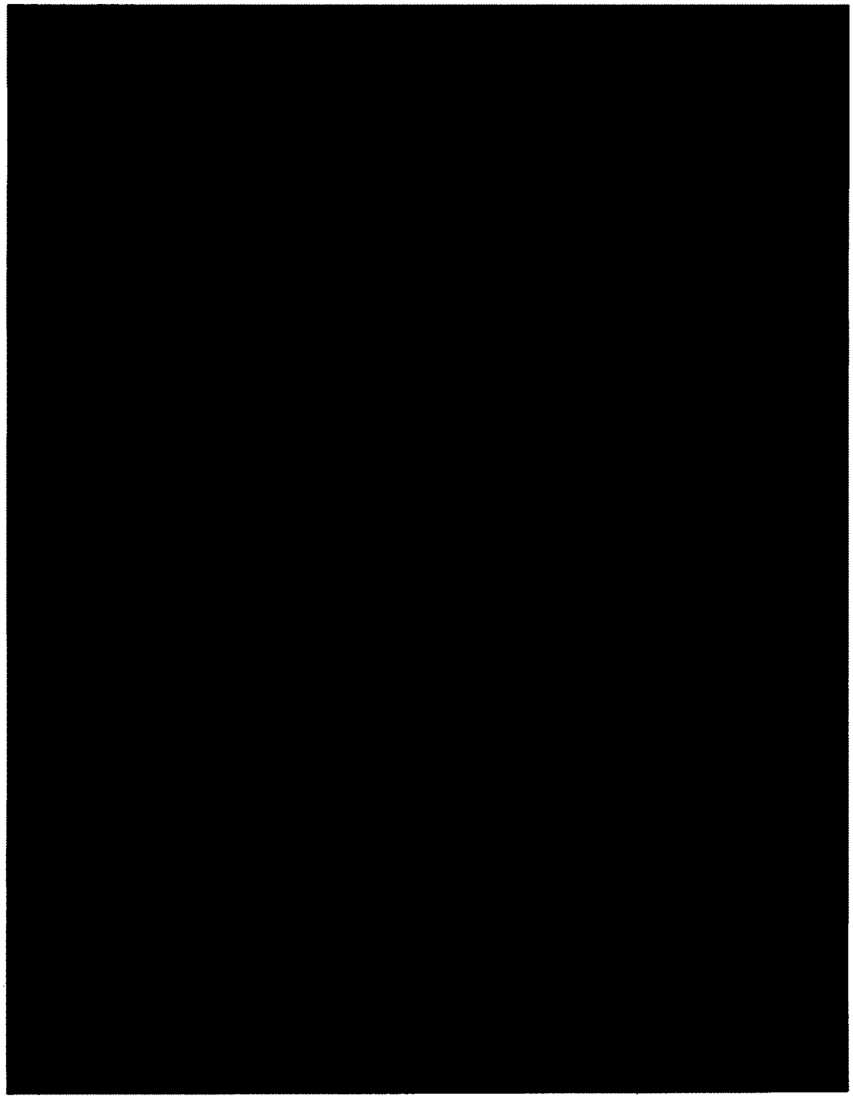

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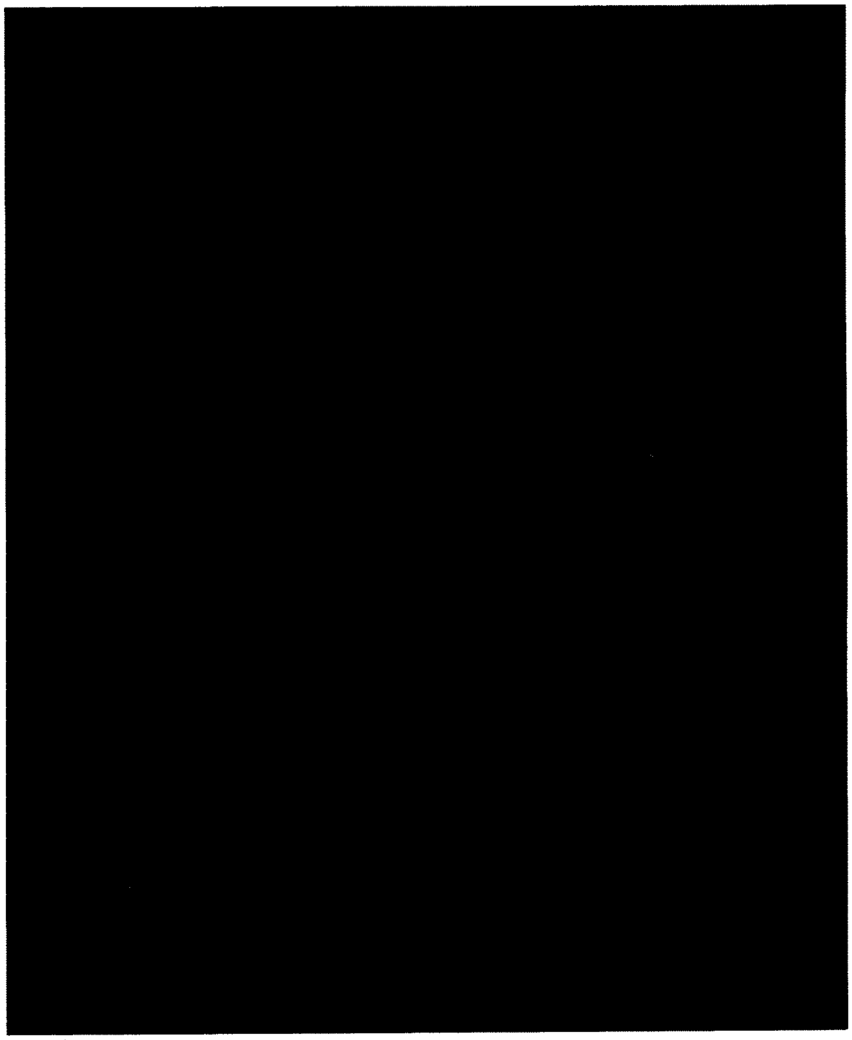

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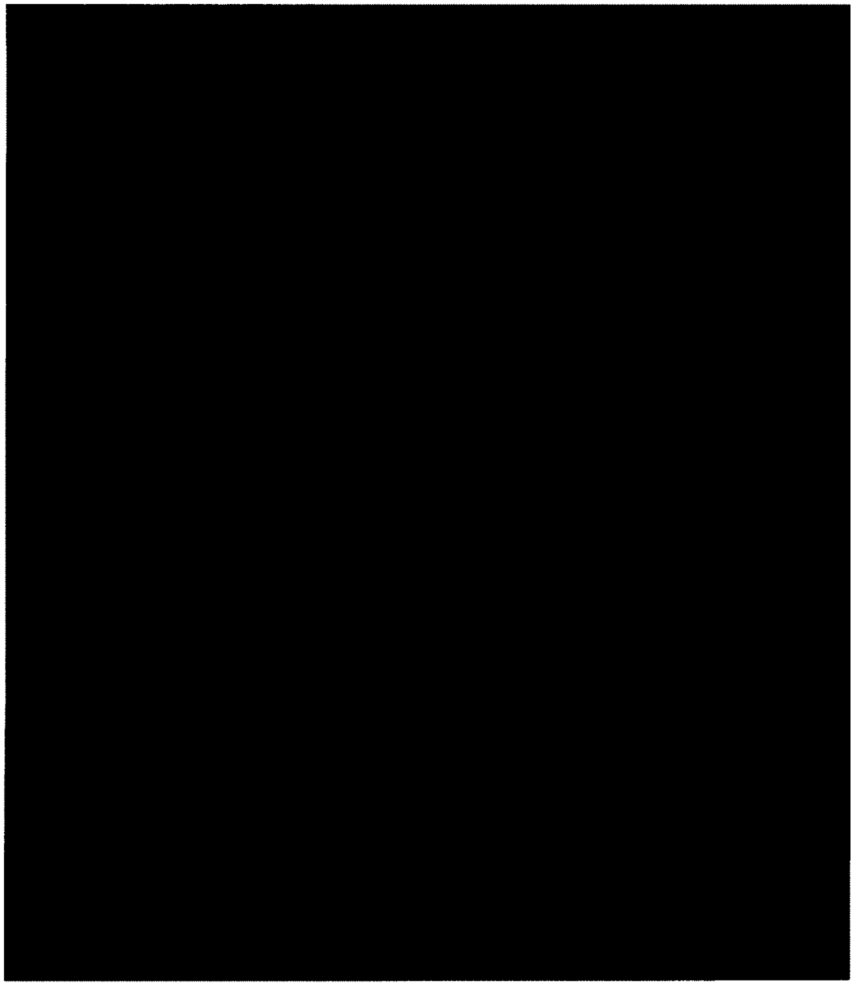

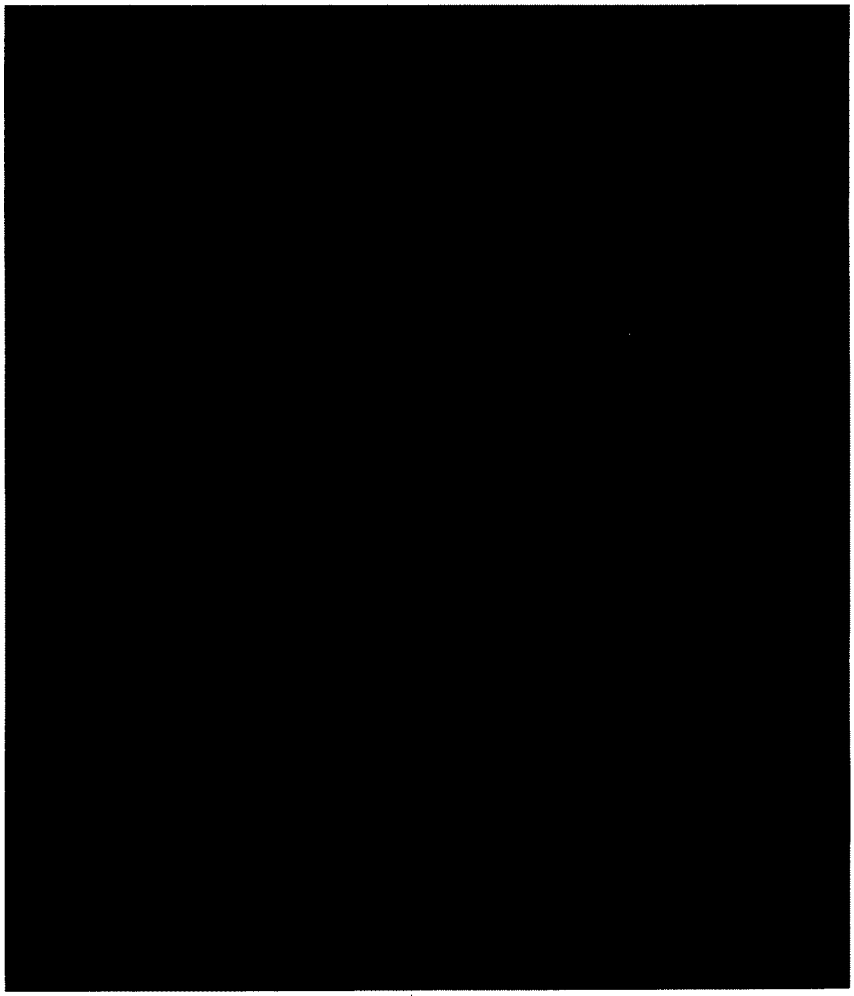

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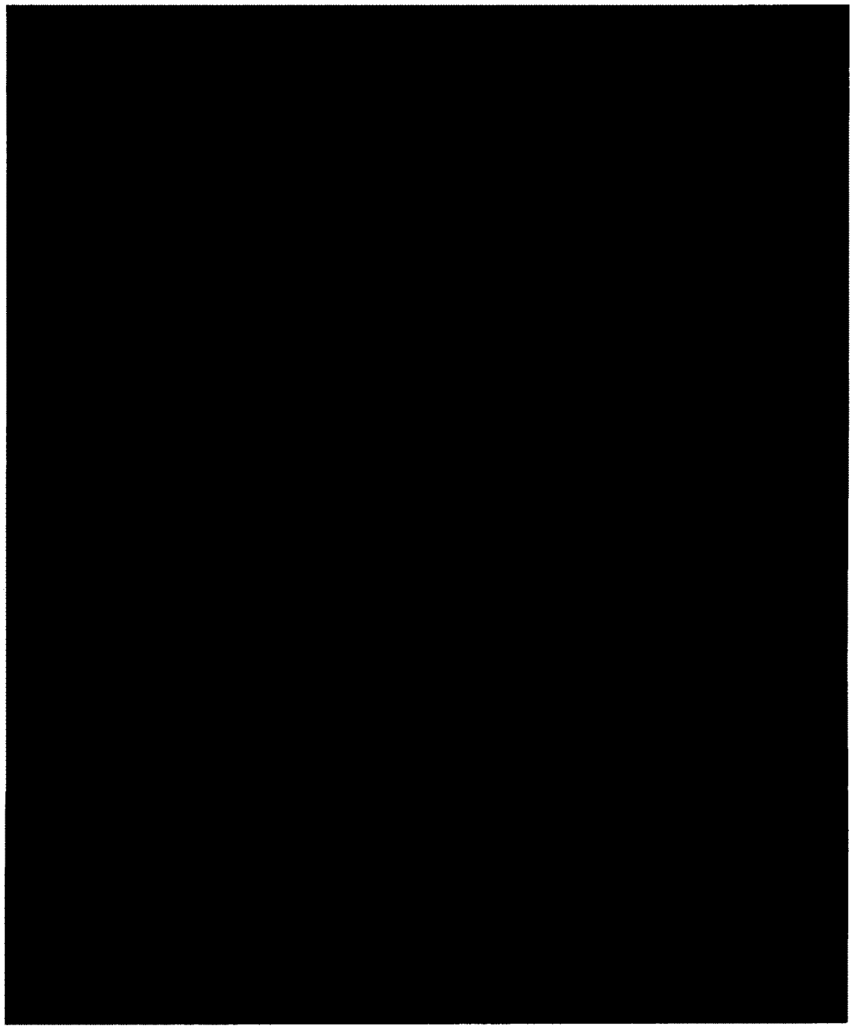

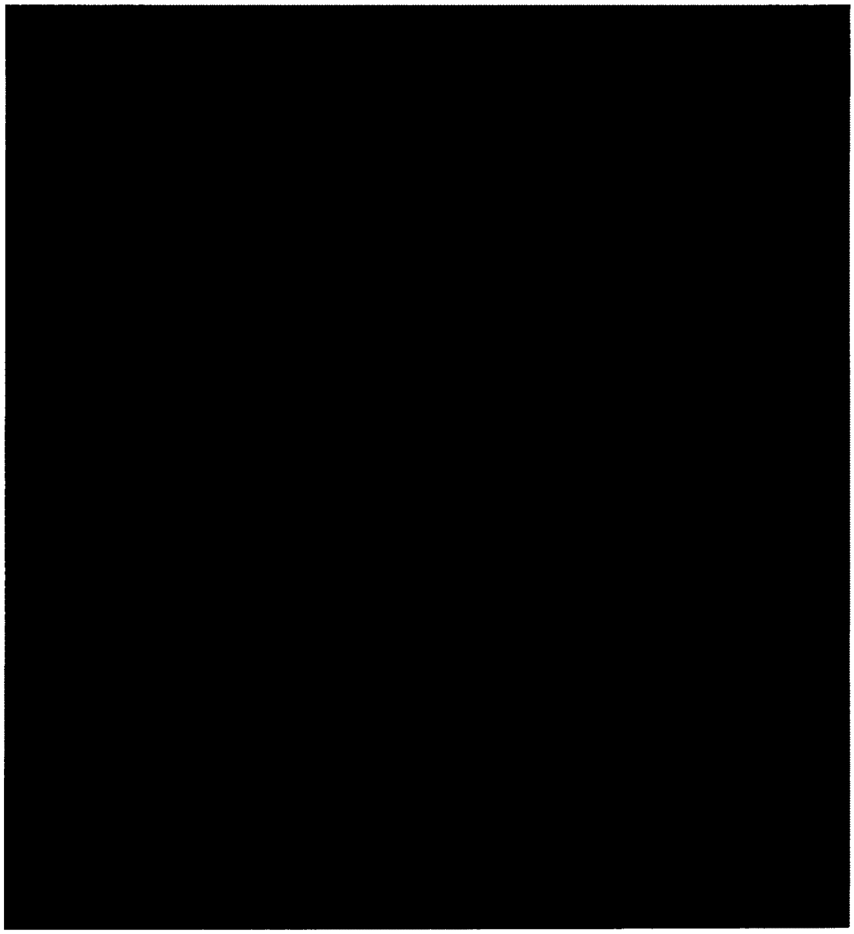

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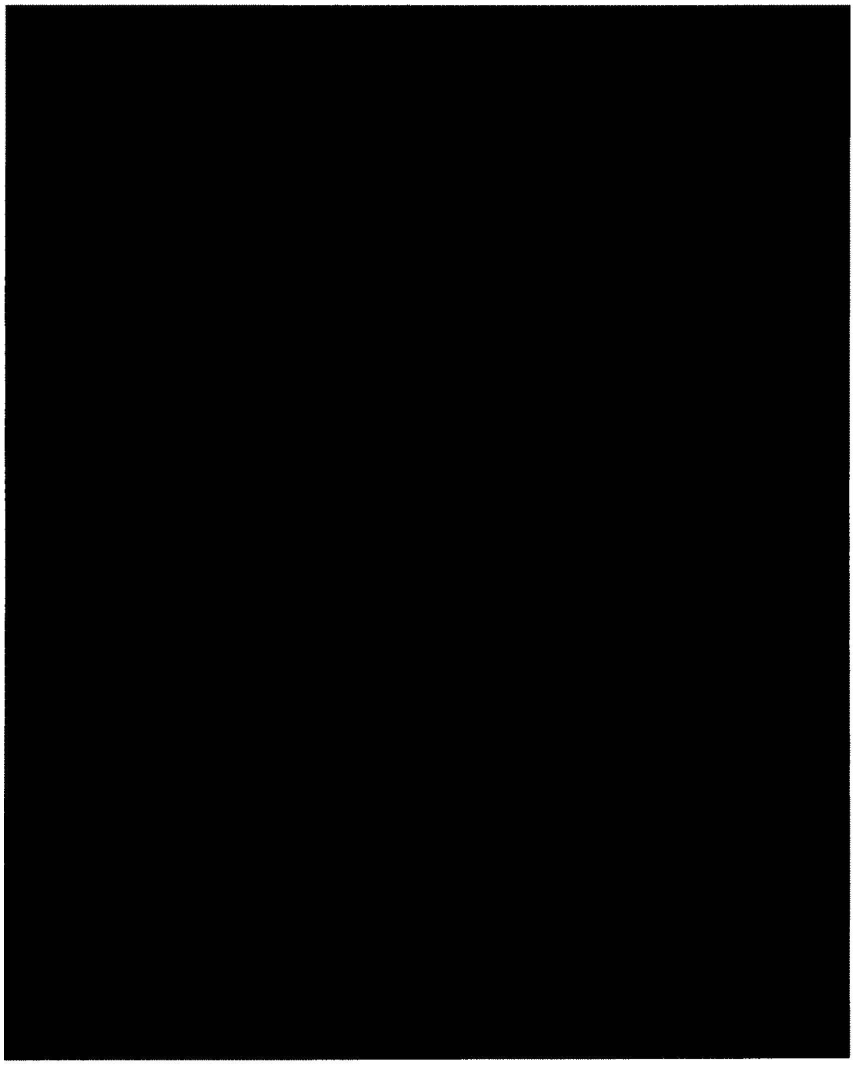

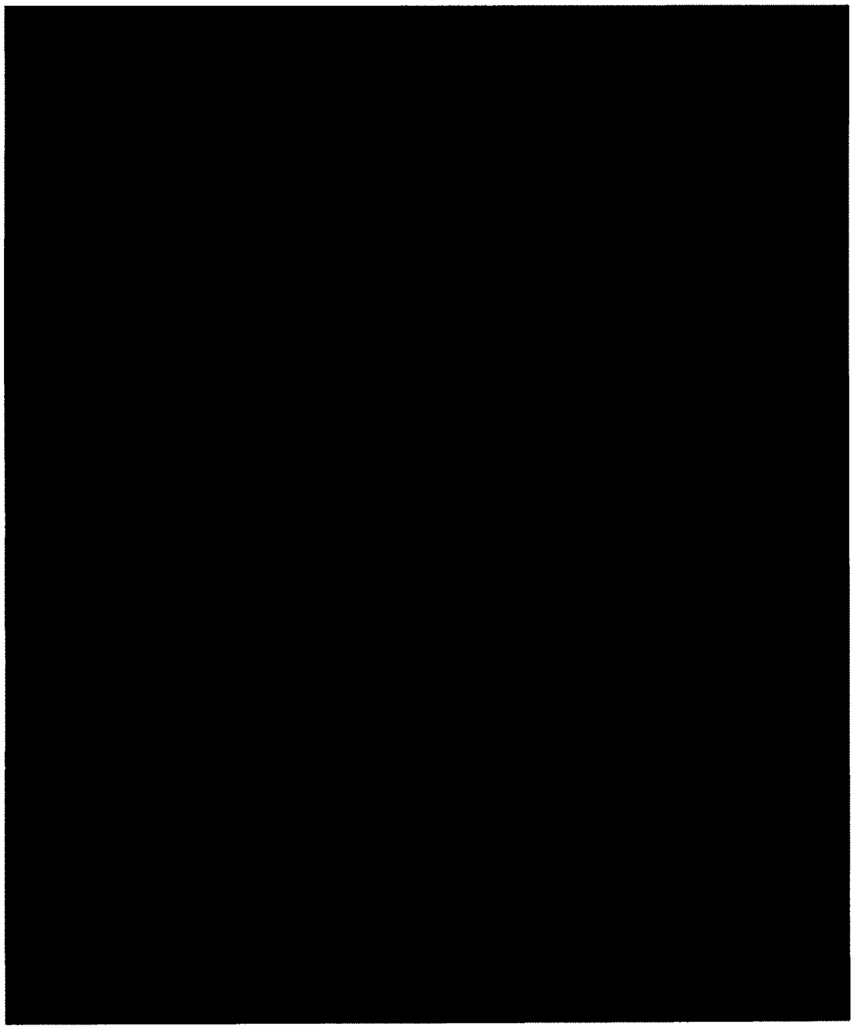

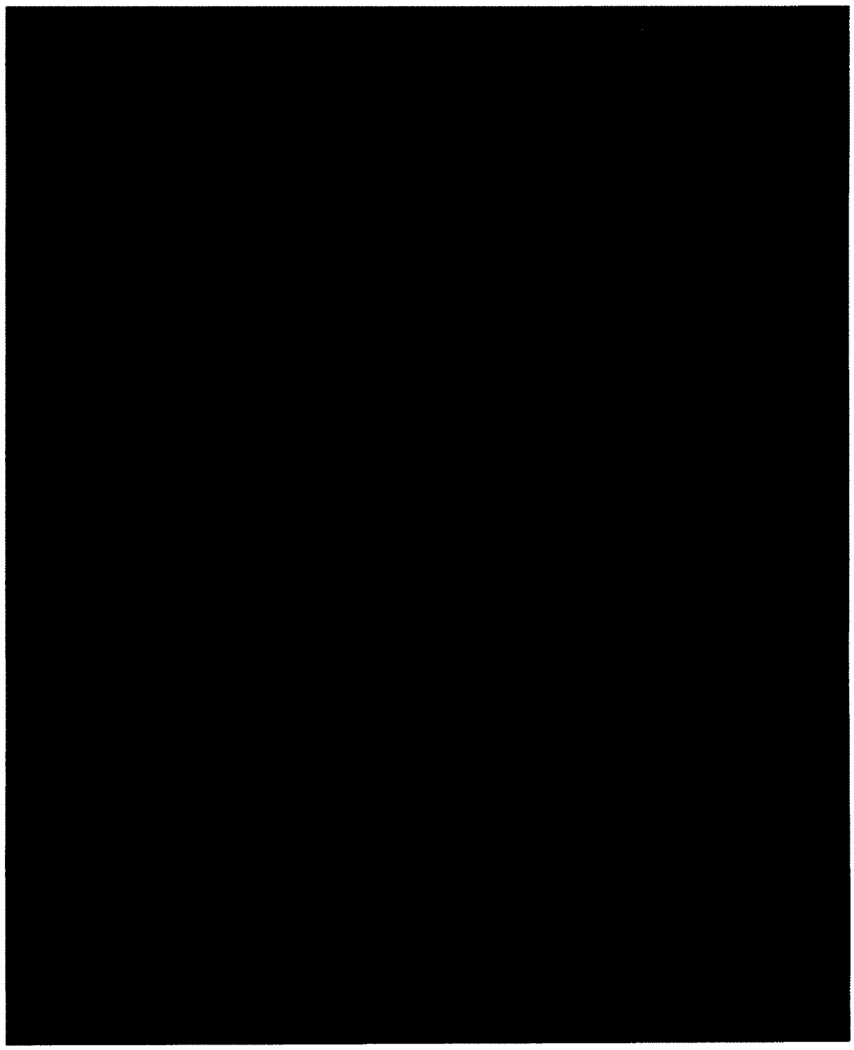

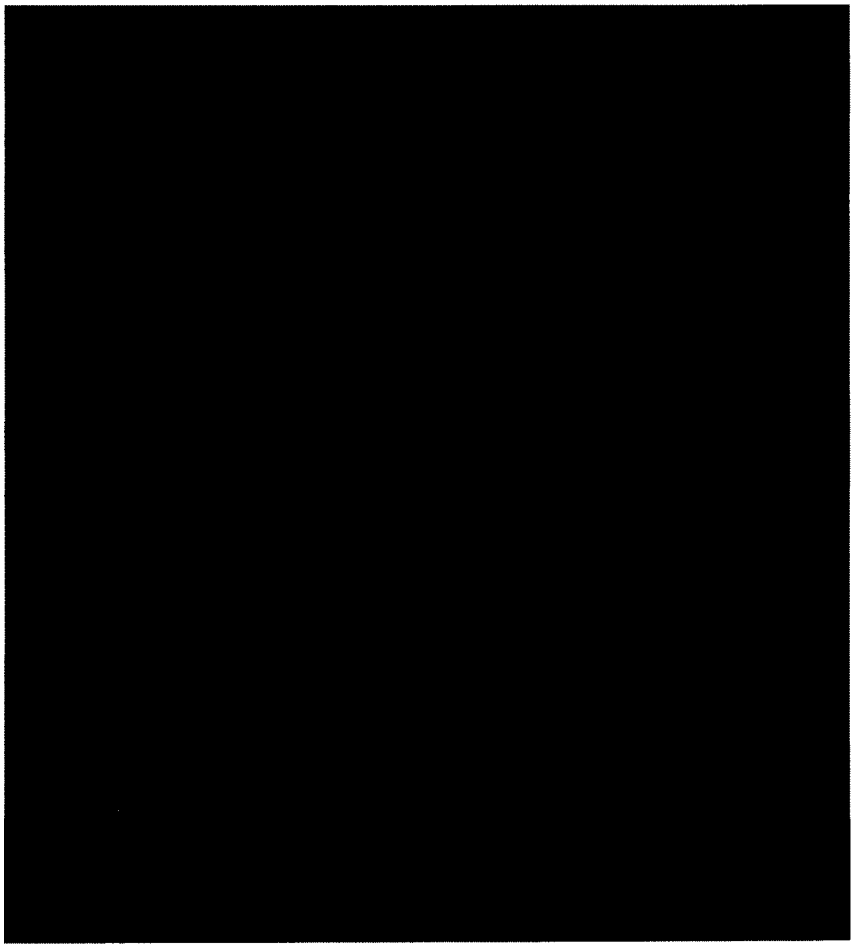

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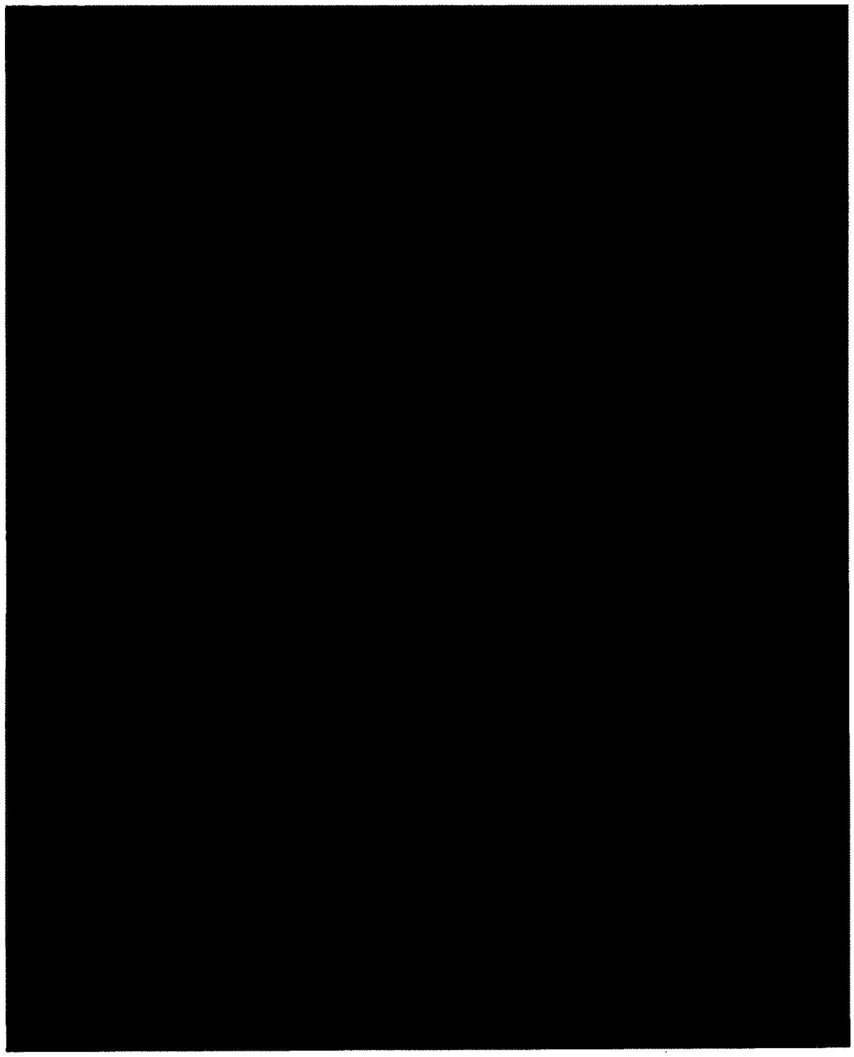

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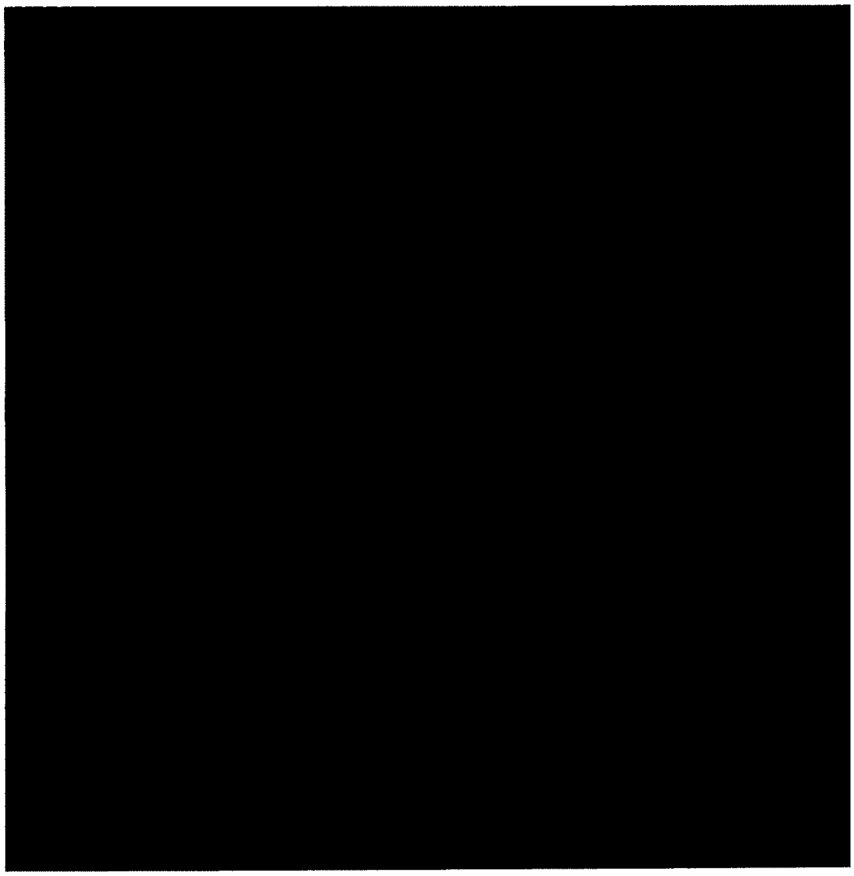

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Respectfully submitted,

R. W. BECK, INC.

INDEPENDENT MARKET CONSULTANT'S REPORT

SOLYNDRA FAB 2 MANUFACTURING FACILITY

R·W·BECK

Document 19

From: Steve Mitchell [redacted]
Sent: [redacted]uary 18, 2010 3:02 AM
To: [redacted]
Subject: Fw: DOE meeting

Was hoping to give you some better feedback but still soft.

----- Original Message -----
From: Chris Gronet [redacted]
To: Steve Mitchell
Sent: Sun Jan 17 20:53:52 2010
Subject: RE: DOE meeting

Overall positive but nothing definite. We need to get in front of Silver again asap, and I am working on this directly.

I can provide more color tomorrow afternoon if you have time to talk. I am open 12-1 or 2-3 or later in the evening.

Gaffney accepted our offer today and will start Jan 25. More details shortly.

Chris Gronet
CEO
Solyndra, Inc.
47700 Kato Road
Fremont, CA 94538 USA
[redacted]

-----Original Message-----
From: Steve Mitchell [redacted]
Sent: Sunday, January 17, 2010 6:47 PM
To: Chris Gronet
Subject: DOE meeting

Chris,

I'm curious how the meeting with [redacted] turned out. Any update?

Steve

Document 20

From: Steve Mitchell [redacted]
Sent: Thursday, February 11, 2010 2:10 AM
To: George Kaiser
Cc: [redacted]
Subject: Fw: Successful meeting with Jonathan Silver
Attachments: 2010-02-09 Jonathan Silver - Solyndra Update.pdf

George,

This sounds as if the meeting with the DOE went as a well as we could have hoped for.

Steve

From: Chris Gronet [redacted]
To: [redacted]
Cc: [redacted]
Sent: Wed Feb 10 19:41:43 2010
Subject: Successful meeting with Jonathan Silver

Hi All,

Please find below [redacted] report regarding our meeting with Jonathan Silver yesterday. It was successful; he received and processed our messages and played them back. But we don't have a firm answer on the Phase 2 application. The snow prevented Jonathan from meeting with his staff before our meeting (the DOE offices were closed, but he was there), so he could not provide any detailed updates. The next hurdle is to be accepted for the start of diligence. We all felt positive by the end of the meeting that we would cross this hurdle in the next two weeks, and there was discussion about using the same diligence partners to minimize time and overhead. After that, the challenge will be the calendar. There are a number of applications ahead of us that are scheduled for action by CRB and OMB.

Other notes:

1. Quote from Jonathan regarding our Fab 2 Phase 2 project: "A May groundbreaking is not out of the question." The context here is that groundbreaking means closure of the loan, implying that the guarantee could come much sooner.
2. He may seek our help in Congressional hearings to support his messages for the LGP (next hearing in two weeks).
3. He was impressed that we have developed a U.S. supply chain which not only creates more U.S. jobs and economic stimulus but also protects our IP.
4. I believe we now have an open line of communication. His last email: "Glad we could get together. I appreciated the update. You have made admirable progress. I look forward to staying in touch."
5. We are not the only company seeking a second loan guarantee.

Best regards,

Chris Gronet
CEO
Solyndra, Inc.
47700 Kato Road
Fremont, CA 94538 USA
[redacted]

From [redacted]

We (including [redacted] and [redacted] had an encouraging meeting yesterday with Jonathan Silver. As you know, the snowy weather on the East Coast has effectively shut down the US Government, and our meeting scheduled for Wednesday at DOE was in jeopardy. Fortunately, we were able to reach Jonathan in his office, and he agreed to meet us yesterday at our hotel.

Jonathan is a smart, no-nonsense businessman with a clear mandate to execute successful loan guarantee transactions using a traditional project finance approach. That said, he is acutely sensitive to the political ramifications of any LGPO action, and this pressure colored all of his comments.

We were successful in establishing our key themes, and Jonathan was repeating them to us by the end of the session: strong management, great execution, significant market and market penetration, mature technology, capacity to close quickly on Phase 2, capacity to create jobs, one of DOE's winners. A copy of the presentation we used is attached. Not attached are a time-lapse video of the Fab 2 Front End construction and an aerial tour video of our manufacturing complex. These images had a powerful impact on Jonathan, and he acknowledged that Solyndra is frequently cited as a success story for DOE.

We had a lengthy discussion surrounding the issue of access to capital from sources other than DOE. He was particularly interested to hear why the debt markets are closed for companies of our type because that question is put to him with frequency by various constituents, some of whom apparently suggest that the capital markets have thawed.

Because DOE was closed today, Jonathan's staff did not have the opportunity to provide an advance briefing related to our Phase 2 application status. Nevertheless, Jonathan appeared to acknowledge that we will likely move to the due diligence stage when he directly engaged in a discussion of the potential political challenges that a second Solyndra loan guarantee would present. Rather than challenge the merits of our application, he moved on to think through the political implications of a second loan guarantee. Jonathan asked us for assistance in crafting the messages in response to four questions that he anticipated from his various constituents:

1. As a policy matter, why should DOE give additional loan guarantees to companies that had previously received them?
2. As a policy matter, why should DOE give additional loan guarantees to companies that have not yet achieved significant milestones of success with their first loan?
3. If a company that seeks a second loan guarantee has a compelling value creation story and substantially mitigated downside risk, why does it not have access to traditional forms of capital?
4. Why should DOE move quickly to approve a second loan guarantee application when many other applicants across technologies have yet to receive their first?

Jonathan was able to provide responses to each question based on the content of our presentation and our discussion; however, he asked us to repackage the content to expressly address these four questions. He is clearly preparing his responses to DOE's CRB (Credit Review Board), Congress, OMB, the Treasury, and other entities that have influence. Jonathan is smart enough to know that he will succeed by getting ahead of any negative reaction. We think it as a positive sign that he's asking us to partner with him to help address those that would challenge the approval of a Phase 2 loan guarantee and any second loan guarantees offered to other applicants.

Jonathan did say that above all other political matters, the creation of jobs is currently of paramount importance to many of his constituents. He appreciated that we have the capability to immediately create thousands of jobs with Phase 2.

Document 21

From: [redacted]
Sent: Saturday, February 27, 2010 2:00 PM
To: Ken Levit
Subject: Re: KPMG

That's awesome! Get us a doe loan

From: [redacted]
To: Steve Mitchell
Sent: Sat Feb 27 07:55:17 2010
Subject: Re: KPMG

They about had an orgasm in Biden's office when we mentioned Solyndra.

From: [redacted]
To: Ken Levit
Sent: Sat Feb 27 07:49:07 2010
Subject: Re: KPMG

We've been giving [redacted] updated numbers. They are working on some bill asking for money but I've just been getting them dollar numbers so I don't really know. That process is foreign to me

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From: [redacted]
To: Steve Mitchell
Sent: Sat Feb 27 06:46:15 2010
Subject: Fw: KPMG

Is stuff going on? I got a report yesterday from a lobbyist at capital that was a bit screwy about quality jobs act changes. Curious.

[redacted]

-----Original Message-----
From: [redacted]
Sent: Sat, Feb 27, 2010 6:30 am
Subject: Re: KPMG

Thanks. We met with ARRA Recovery Team in Biden's office--they seemed to love our Brady Project--also all big fans of Solyndra.

1

Document 22

[redacted]

From: Silver, Jonathan
Sent: Thursday, March 04, 2010 1:56 PM
To: [redacted] Spinner, Steve; Rogers, Matt; OConnor, Rod
Subject: Re: loans we're taking credit for tomorrow

You are right. [redacted].

Jonathan Silver
Executive Director
Loan Programs
U.S. Department of Energy

[redacted]

----- Original Message -----
From: [redacted]
To: [redacted] Silver, Jonathan; [redacted] Spinner, Steve; Rogers, Matt; OConnor, Rod
Sent: Thu Mar 04 13:05:07 2010
Subject: loans we're taking credit for tomorrow

So we're all on the same page. The S1 ppt for tomorrow will take credit for the following 12 loans:

4 autos [redacted]
solyndra [redacted]

Lemme know ASAP if you feel differently on [redacted]

Document 23

From: George Kaiser [redacted]
Sent: Saturday, March 06, 2010 12:39 AM
To: Steve Mitchell
Cc: [redacted] Ken Levit
Subject: RE:

Sounds good. I assume that we would not move ahead with the offering until we have formal DOE approval or would you issue while you are under due diligence?

BTW, a couple of weeks ago when Ken and I were visiting with a group of Administration folks in DC who are in charge of the Stimulus process (White House, not DOE) and Solyndra came up, every one of them responded simultaneously about their thorough knowledge of the Solyndra story, suggesting it was one of their prime poster children.

From: Steve Mitchell
Sent: Friday, March 05, 2010 3:39 PM
To: George Kaiser
Cc: [redacted] 'Ken Levit'
Subject: FW:

George,

Chris Gronet had a good call with Jonathan Silver of the DOE today. Apparently our application has been caught up with several other groups who were also wanting a second bite at the DOE loan guaranty apple. This started a policy discussion as to whether a company should be able to get a second loan. Jonathan Silver championed the cause that they should and he has just this week apparently won that battle. He would not say that we are the first one that will be considered but he all but did – he conceded that we are the only company to have actually closed and funded on our loan and most of the other companies still have no revenues. He has asked for another call for next wed or thur but said he will not have an answer then but that he is hoping to release an answer with a couple of weeks. To be clear, then "answer" we are looking for is that the DOE will then proceed on formal due diligence and toward a term sheet – so not definitive that we get the loan guaranty but broadly (including [redacted] and others close to the DOE process) seen as a very positive sign as it is the same diligence that the DOE conducted on the front end of the fab (same engineering teams and the environmental – which was the single largest gating item last time – is already done on the entire sight). So it appears things are headed in the right direction and Chu is apparently staying involved in Solyndra's application and continues to talk up the company as a success story.

Please let me know if you have any questions.

Steve

From: Chris Gronet [redacted]
Sent: Friday, March 05, 2010 2:37 PM
To: Steve Mitchell
Subject:

Hi Steve,

Jonathan Silver was very positive but didn't have a definite answer on diligence yet. We will talk again next Thurs.

Chris Gronet
CEO
Solyndra, Inc.
47700 Kato Road
Fremont, CA 94538 USA
[redacted]

Document 24

385

[redacted]

From: [redacted]
Sent: Monday, April 19, 2010 5:37 PM
To: [redacted]
Subject: RE: Solyndra

I reviewed the documents DOE sent, which state that the project continues to be successful and in accordance with the business plan, despite the parent's recent financial audit. DOE seems to separate the parent from the project in terms of risk monitoring, but I think the deal is structured in a way that does not support that view.

1. The parent is the prime equipment supplier and sole purchaser for the project's output.
2. Although the parent has pledged full construction completion support, the cash account is to be funded during construction. The deteriorating financial status of the parent could impact the ability to fund the construction completion account and increase completion risk for the project.

[redacted]
Policy Analyst
Office of Management and Budget
[redacted]

-----Original Message-----
From: [redacted]
Sent: Monday, April 19, 2010 4:31 PM
To: [redacted]
Subject: FW: Solyndra

Could you please send me your thoughts on this?

-----Original Message-----
From: [redacted]
Sent: Monday, April 19, 2010 8:56 AM
To: [redacted]
Cc: [redacted]
Subject: Fw: Solyndra

Please see DOE's monitoring report on Solyndra.

I'll read this afternoon. Perhaps we can share thoughts later today/tomorrow morning after we have a chance to read.

----- Original Message -----
From: [redacted]
To: [redacted]
Sent: Mon Apr 19 08:39:07 2010
Subject: FW: Solyndra

FYI per your request.

[redacted]
US Department of Energy

Document 25

From: [redacted]
Sent: Saturday, May 08, 2010 2:02 AM
To: [redacted]
Cc:
Subject: Solyndra Update - More Important to Read than [redacted]

Solyndra Update

Gentlemen - I apologize for the multiple emails but given the length and the issues discussed I decided to separate the emails for Solyndra and [redacted] into two.

To put it bluntly our poster child of private equity is acting up something fierce. The past five months have witnessed a tremendous competitive headwind for the company coupled with some severe management mistakes. Cutting to the chase – we will not be going public during 2010 and our longer term business plan looks to be somewhat in jeopardy. I am sorry to deliver this bad news, it's been sudden and unexpected but I'll attempt to summarize the issues and go forward plan.

Over the last six months the average selling price for solar panels globally has plummeted due to Chinese "dumping" which is really a combination of their breaking the cost barrier nobody thought they could and generous govt subsidies. Solyndra's business model has been predicated on maintaining a premium to traditional solar, and we have maintained that – but as the competitors price has fallen so has ours despite our maintaining a premium price. At the same time our CEO has been very slow to react, and on the sales side has harmed our large customer relationships with his unwillingness to find a middle ground. Couple this with continued issues speeding production and you have a brutal combination that leads to a [redacted] or more capital hole we did not expect in addition to the [redacted] we wanted to raise in an IPO to fund the next Fab alongside DOE loan two. It's the funding gap, coupled with the freefall in selling prices that have the bankers saying we can't go public and we shouldn't sell the company. Rather than go into even more detail, after my comments I have attached two emails from Steve doing a good job explaining the situation and the solutions we are working towards for those interested in all the dirty laundry. The punch line is that if all goes according to the recalculated plan we will be asked to put more $'s into the company along with other insiders in order to bridge us to an IPO. The DOE loan, despite these issues, is still on track for October and should be flexible enough to allow for a 2011 IPO.

Clearly my key considerations have been understanding what went wrong, whether we have a handle on it (credible plan) and helping with the strategic decision around what path to go down next. To his credit [redacted] has been very communicative during this crisis review process and I am sitting in on the board discussions, the calls with bankers, and discussions with [redacted] The board was very slow to recognize the problem – but the reaction has been swift as soon as the problems were discovered.

[redacted] has spent most of the last five weeks in Fremont at the company. Along with the board member from [redacted] and [redacted] is basically running the company now that Chris Gronet the CEO has been compromised with the board. Because of the huge time commitment [redacted] is making (rightly so) he, [redacted] and I sat down yesterday and went through his other companies to see where there might be people time needed while he is occupied. The good news, in contrast to [redacted] most of Steve's companies are managed in conjunction with [redacted] or myself and three of his companies are in a sales process. I'll be spending more time with [redacted] will help fill in some of the other spaces.

Obviously the surprise downward turn here is unexpected and unfortunate and I am sorry to have to relay this to you especially given how well things had been going. I think there is still a plan here to getting a solid return out of Solyndra for ourselves (and our friends and family shares alongside us) but we have pushed out any significant positive event until

2011 and perhaps 2012. The go forward plan is under discussion everyday and we hope to have a solid option for discussion next week.

As always I am happy to talk about any aspect of this.

[redacted]

Email's from [redacted] today and a week ago:

[redacted]

As discussed earlier today, both [redacted] have advised that Solyndra cannot realistically access the public markets today in light of size of capital need [redacted] use of proceeds (viability capital - not growth capital), solar industry is specifically tough right now, our ASP drop needs to show stability (we've dropped prices from [redacted] watt in Q4 09, [redacted] last quarter to [redacted] watt this quarter - we weren't reflective of the market the last 6 months but they feel strongly we need to show this decline curve flattening out through Q3 of this year), and it would be very helpful to have the DOE approval for phase 2 in hand prior to an IPO as well.

We have made many operational changes to the business that are taking hold and I believe have positioned the company to accomplish its revised plan of record. More importantly, we have asked the management team (and they have done so) to draw up a realistically conservative plan of record that they believe they will not miss. The three large components of Solyndra's business are watt per panel, average sales price and utilization.

As discussed in the prior email below, although the company made some poor decisions in the face of the onslaught of low priced Chinese panels, it is the dramatic move in the price of crystalline silicon panels (which is the baseline for pricing all solar panels) that has opened up an additional [redacted] hole in the company's plan to cash break even. The simple math is [redacted] sold at [redacted] less is [redacted] 2010 and [redacted] sold at [redacted] than plan is [redacted] million in 2011. In addition, we derated our panel power by 3.5% and are underwriting the plan to a [redacted] /minute line speed versus the 36cm/minute line speed of our prior plan which adds another [redacted] million in capital need. Under our new plan of record we also project Solyndra's panel to price in 2013 at [redacted] versus a previous [redacted] and the panel power to be [redacted] per panel versus [redacted] watts per panel and to be produced at [redacted] line speed versus the [redacted] line speed - these projections produce a profitable yet less profitable business - so ultimately a less valuable business in 2013 (2013 is the year in which crystalline panel pricing should reach its lowest possible level according to almost all analysts). Although these changes don't seem large, the operational leverage of solyndra's Fab 2 are incredible as output, asp and watt's per panel all fall right to the bottom line.

The company will have a cash need beginning in July of this year and the vast majority of its capital need is within the next 12 months [redacted]

[redacted] We are working to raise [redacted] or to bring in a strategic partner, however, we don't believe we will be able to bring in a strategic partner within the timeframe necessary to fix the company's balance sheet in the short term. Accordingly, we are suggesting an internal round of [redacted] has a bifurcated valuation - if the company can raise another [redacted] from a strategic (or internally) by Sept 1 then this round is priced as a pre-IPO round with various IRR hurdles depending on when the company goes public (probably 25% in 12 months, 40% from 12 to 24 months and 55% from 24 to 36 months)(we will also require the F round that was raised last year to reprice from [redacted] pre-money to [redacted] pre-money since the F's preference is probably in the money even if we sold the company in a fire sale today. Alternatively, if we don't raise the strategic capital then the "G round" would re-price at a very dilutive valuation (we are still working on this but we are talking about the new money converting into the greater of 80% of the company or a [redacted] IRR in an IPO or a [redacted] liquidation preference in a sale event). Our primary intent is to properly reward new capital for the risk and lower ultimate value of the company as well as to highly incent existing investors to write a check in this new round.

We are still working on the business operations and the framework in which we would recommend that [redacted] invests additional capital but I wanted to get you and [redacted] (who we have been meeting with regularly on this) an update with the current situation. I will have another email with a more fleshed out transaction in the next 3 or 4 days for your questions and comments prior to discussing beyond our group and [redacted]

Please let me know what questions and comments you may have. I will be back at Solyndra's office the last part of next week.

[redacted]

----- Original Message -----
From: [redacted]
To: [redacted]
Sent: Sun Apr 25 21:52:32 2010
Subject:

[redacted]

As discussed, Solyndra is facing an unexpected increase in its projected capital needs to get to cash flow break even. I have been out at the company for the last two weeks and am headed back out tmrw morning as well. Under the business plan we had been operating under for the last year the company expected to need another [redacted] plus the equity portion of Fab 2 (likely [redacted] until it became a net cash producer. As previously discussed, the additional capital need for the company is now somewhere between [redacted] (plus the phase 2 equity) - the difference in capital is primarily driven by when phase 2 occurs, panel pricing assumptions and watt per panel performance between now and 2012.

The miss was driven by four issues set out below in relation to their level of magnitude of impact on the company:

1) Chinese panel pricing: the Chinese are essentially dumping panels on the world market (apparently the WTO may bring charges but certainly that won't happen in a time that matters). The Chinese government has provided its three leading panel producers with essentially unlimited zero cost capital which has enabled them to completely vertically integrate and grind panel cost to a point that no one (analysts, competitors and us included) believed crystaline silicon could reach. As a result, Solyndra's price curve is declining at a faster than expected pace. This has forced the company to revise their price targets through 2013 and is the primary contributor to the projected capital shortfall. Important to note that Gronet was unwilling to accept that the market was forcing a lower price - he reacted unilaterally by forcing his sales people to maintain high pricing in spite of customers' pleas to "help them out" - this attitude worked when Solyndra was on "allocation" during our ramp period and customers were very interested in trying out the panels. Unfortunately, Gronet over played his hand with these customers and burned a lot of bridges and started selling to lower tiered customers who would pay the higher price but as you know this comes at a price to the company as these customers can't meet our rapidly growing supply and are a lower credit risk as well.

2) De-rate of Solyndra's panel power: Solyndra had taken what turns out to be an aggressive rating of its panel power. As a result, many of our early customers were not getting the projected electricity generation they had expected. Our distributors were also over selling the product by assuming better than existed conditions for sites they were selling - also leading to lower than anticipated power production. This lead to disgruntled customers which could have been easily rectified by shipping additional panes for installation or a small rebate to reflect actual power production. Unfortunately, Gronet again took a unilateral stance and over the objections of his sales and marketing folks to argue with customers over their data set or power readings - Gronet clearly never learned the "customer is always right" slogan (some of the stories I've learned border on moronic). This culminated in our production and sales people (as part of a larger mutiny by the entire executive team to disclose all of this to the board which occurred two weeks ago and you and I have discussed) demanding Solyndra "de-rate" its panel by 3.5%. This effectively lowers revenues by 3.5% across the board - we will make up this panel power but we anticipated the increase in panel power to be an increase in revenue generation, not a catch up to where we were.

3) Timing of DOE: Across the board management does believe we will get the DOE approval for phase 2, but the government does things in its own time line. The delay in the second phase pushes revenue generation from phase 2 off on a day for day basis. This also effects our cash needs as all of our equipment division and some of our overhead gets allocated to the project and is covered by the loan - this is not occurring until we close the loan and in the interim the company must fully fund these teams which impacts cash needs in the short term.

4) 30cm line speed: The company continues to run the Fab at 30cm line speed. They can run the Fab at 36cm but they get far shorter runs which results in more downtime. This doesn't have an enormous impact on

output but it does have some impact. The company feels certain it can overcome these issues, but they have run virtually no R&D in the past 12 months as they have been racing to produce commercial product to ramp revenues.

Surprisingly, almost all of the responsibility for this rests with Chris Gronet - he was very slow in recognizing the magnitude of China's actions in the industry and when he did see the issue he decreased transparency to the board and made several bad decisions in a row, over the objections of his entire management team - primarily around pricing, customer service and worst of all he left his channel strategy, low load white roof tops, and started selling to whatever company would meet his high pricing requirement which drove the company away from its core customer base. China's big moves became apparent to the industry between November and February so we probably could not have know about some of this until March, however, it took a full mutiny by management to bring this to the board's attention and to enable the company to start facing its reality and start moving constructively to address the situation.

I do believe we are implementing many positive changes to get the company where it needs to be - [redacted] were at the company last week with me and have a good understanding of many of the issues as well. In short, Gronet probably would not have survived this in a normal situation but with an IPO in the near term, his close relationship with the DOE and the fact that he is the founder and the face of the company it is not practical to make any high level changes in the short term. Having said that, assuming the company does get public I would be surprised if he isn't moved to the chairman role within 9 to 15 months (his confidence is shaken and I believe he started managing out of fear - I'm not sure he would fight a new hire once the situation is stabilized). In the near term he will be focusing on the IPO, the DOE, technology development, government relations (especially with the US government - he has star power in DC and we need our government to step up if at all possible) and to be the face of the company. Operationally we have made a couple of changes that we believe our very positive - we have moved technology under Ben Bierman (he already has manufacturing and fab construction) and we moved all marketing under [redacted] The 5 key executives: [redacted] will report directly to Chris (he loses 3 direct reports) but more importantly they will run the day to day operations of the company including sales, marketing, customer relations and pricing which have proven to be areas Chris has just failed in. At the end of the day, we gave Chris an enormous amount of credit because he kept succeeding and failed to see when the founder/inventor was left behind by his company.

We are in the process of finalizing a revised business plan but it appears we will be projecting a capital need to break even of app. [redacted] which is on the low end of the outlook we were provided a couple of weeks back. We will present this plan to [redacted] at the end of this week with the intention of going public in the very near term (June) and hope to raise [redacted] We will have to go out on a Fab 2 phase 1 only business plan with the DOE and phase 2 as implicit upside in the plan. As a result, we have dramatically revised our valuation expectations from [redacted] pre-money to [redacted] (and would probably take the company public at [redacted] In the event the company gets the phase 2 DOE approval, it will need another app. [redacted] of equity. We are anticipating that the bankers will push us to provide a solution for that capital need as it is assumed we will get the DOE loan and the IPO could suffer greatly from fear of a secondary offering in the short term and the resulting dilution (or potential IPO investors could sit on the side line and wait to see if we get the DOE loan knowing they can get an allocation then). We are anticipating a shareholder loan that goes into effect if certain covenants are met - the big ones being the IPO and the DOE loan approval. This loan would be in the $200 million range and we anticipate it being very expensive for the current shareholders (we are trying to get it done on a pro-rata basis by all major shareholders to show support for the company).

I apologize that all of this is coming down at the end of what has felt like a very good deal for some time, but please know that we are 100% focused on making this work and I do believe there is still a lot of value we can extract from our investment - it just may take more time. I will continue to update you as things evolve.

[redacted]

Document 26

Page 14

20

[redacted]

From: [redacted]
Sent: Monday, May 24, 2010 10:05 AM
To: Klain, Ronald A.
Subject: FW: Wanted to share some concerns about the President's visit to Solyndra: Please keep confidential--will you send to ron

I talked to Matt as well. The short term problem is very understandable. The longer term with Europe such a large share of their market could be problematic. But, as you note, that is what risk is about.

-----Original Message-----
From: Rogers, Matt [mailto:[redacted]]
Sent: Monday, May 24, 2010 10:03 AM
To: [redacted]
Subject: FW: Wanted to share some concerns about the President's visit to Solyndra: Please keep confidential--will you send to ron

Here's the loop

Matt Rogers
Senior Advisor to the Secretary for Recovery Act Implementation U.S. Department of Energy
1000 Independence Avenue, SW Washington, DC 20585
Assistant: [redacted]

-----Original Message-----
From: Klain, Ronald A. [mailto:[redacted]]
Sent: Monday, May 24, 2010 10:01 AM
To: OConnor, Rod; Rogers, Matt
Cc: [redacted]
Subject: RE: Wanted to share some concerns about the President's visit to Solyndra: Please keep confidential--will you send to ron

Thanks! This looks fine to me. TPs would be a good thing.

-----Original Message-----
From: OConnor, Rod [mailto:[redacted]]
Sent: Monday, May 24, 2010 9:56 AM
To: Klain, Ronald A.
Subject: FW: Wanted to share some concerns about the President's visit to Solyndra: Please keep confidential--will you send to ron

Ron-
Bottom line is that we believe the company is okay in the medium term, but will need some help of one kind or another down the road. I know [redacted] talked through the going concern issue last week. Matt's summary is below. We are putting together talking points on this which I will send over-let me know if you need more.

-----Original Message-----
From: Rogers, Matt
Sent: Monday, May 24, 2010 9:17 AM
To: OConnor, Rod

Cc: Hurlbut, Brandon
Subject: RE: Wanted to share some concerns about the President's visit to Solyndra: Please keep confidential--will you send to ron

The "going concern" letter is standard for companies pre-IPO. The letter says in short that the company needs more capital to keep going long-term, which is why they are planning to tap the public markets. We will see these with all the pre-IPO companies that we fund and is not a general concern.

There are three, related economic concerns that are important. The price for solar panels has fallen significantly as the cost of silicon has fallen, reducing the margin that Solyndra can earn. In addition, the European market for their product (2/3 exported to Europe) is weak with the financial issues in Europe, especially in Spain. They have been counting on an energy bill to pass, including a renewable energy standard to ensure adequate US market size.

The good news is that the loans that we made are allowing the company to increase revenues and reduce production costs significantly, helping them remain competitive in a tough market. If Europe goes south and we don't see an energy bill here, they will face issues in the 18-24 month window, but the company should be strong going into the fall with their new facilities on line.

Matt Rogers
Senior Advisor to the Secretary for Recovery Act Implementation U.S. Department of Energy
1000 Independence Avenue, SW Washington, DC 20585
[redacted]

-----Original Message-----
From: Klain, Ronald A. [mailto:[redacted]
Sent: Monday, May 24, 2010 8:38 AM
To: OConnor, Rod; Rogers, Matt
Subject: FW: Wanted to share some concerns about the President's visit to Solyndra: Please keep confidential

Can you guys look at this ASAP and get back to me.

-----Original Message-----
From: Jarrett, Valerie
Sent: Monday, May 24, 2010 6:11 AM
To: Klain, Ronald A.
Subject: Fw: Wanted to share some concerns about the President's visit to Solyndra: Please keep confidential

As you know, a Going Concern letter is not good. Thoughts?

----- Original Message -----
From: Steve Westly [redacted]
To: Jarrett, Valerie
Sent: Mon May 24 03:10:53 2010
Subject: Wanted to share some concerns about the President's visit to Solyndra: Please keep confidential

Valerie:

Congratulations on the historic progress the administration has made on health care and financial reform.

We're excited to have the president in San Francisco Tuesday night, and I'm looking forward to seeing him at the dinner for Senator Boxer at the Getty's home.

A number of us are concerned that the president is visiting Solyndra. The press has reported that the company has had to restate earnings--and there is an increasing concern about the company because their auditors, Coopers and Lybrand, have issued a "going concern" letter (See below). Many of us believe the company's cost structure will make it difficult for them to survive long term. The company is burning through capital at a rate of over $10.0 M per month from Q1-Q3 according to its own S-1 filing--and over $20 million a month including op ex and cap ex. This is a very large red flag.

A number of their executives are looking for opportunities at other solar companies, and we've heard that the bankers listed on the S-1 [redacted] do not plan to move forward with the IPO.

Could you perhaps check with DOE to make sure they're comfortable with the company? I just want to help protect the president from anything that could result in negative or unfair press. If it's too late to change/postpone the meeting, the president should be careful about unrealistic/optimistic forecasts that could haunt him in the next 18 months if Solyndra hits the wall, files for bankruptcy, etc.

Lastly, we like the CIGS space, but do not have investments in CIGS related companies.

Thanks..

[redacted]
Managing Partner
The Westly Group
[redacted]

PS It's this statement in paragraph three that I wanted to draw to your attention

"In fact their auditors PriceWaterhouse Coopers, have just issued what's known as a "going concern" opinion about the company."

Silicon Valley Frontlines
In-the-Trenches Consulting to Startup and Emerging-Growth Companies

Solyndra's IPO - Not a "Going Concern", But Hoping It's a Big Success!
As I've noted before, there are many companies now in the backlog of IPO's filed but not yet completed. One of them, the cleantech company Solyndra, is worth taking a closer look at because of its rather unique characteristics. This high-profile solar panel business has raised a whopping $961 million in venture financing since it began and has been in

registration since mid-December last year. It's looking to raise about $300 million from the public offering. Sound like a lot? Well, yes, but they need a lot!

Since introducing it's unique cylindrical components and related panels Solyndra has grown revenues from zero in 2007 to $6 million in 2008 and to $100 million in 2009 - astonishing growth but for the unfortunate fact that it still costs the company a lot more to make the panels than they can sell them for. For that $100m in 2009 revenues it cost them $162m to manufacture the product - and then another $115m to develop, market, sell and cover overheads. So for those at home keeping score they spent $277m to produce that $100m in revenues. It's still better - relatively speaking - than the $228m they spent in 2008 to produce just that $6m in revenues ....

This is not a typical business, even for the sometimes-extreme Valley! Here's a company whose products are clearly state-of-the-art but where, after raising and spending almost a billion dollars, the true economics of producing and selling them are yet to materialize. In fact their auditors PriceWaterhouse Coopers, have just issued what's known as a "going concern" opinion about the company. To step back for a second, all companies looking to go public via an IPO have to file an S-1 registration statement with the SEC which has to include three years worth of detailed, audited financial statements along with an additional two years of summary financial information, assuming the company has been around that long. As part of those statements the auditors issue an opinion, basically saying that those statements fairly represent the historical financial position and results of the business.

While this opinion is largely a rear-view mirror look the auditors are required to do some procedures to determine whether it is able to operate as a "going concern" in the future as a viable stand-alone business. The typical approach - and rule of thumb - is that it is is a going concern if it has enough cash on hand to run the business for twelve months from the date of the audit opinion (in essence, the date the auditors sign off on the period they just audited). The auditors won't be able to assume future additional financing (including the IPO) because that may not happen. Nor can they assume some rapid growth or improvement in the business that suddenly makes it cash-flow positive. The most likely thing is that it continues as it just left off in the most recent year. So let's look at some of those numbers.

In the year ended January 2, 2010 it spent $170m in cash just running its daily operating activities (basically the loss it incurred in selling the $100m of product plus its operating expenses and various other adjustments). It also had to build its production facilities and make other capital investments - which totaled another $175m. So there's almost $350m - millon! - of cash consumed in one year.

How did they finance that, because the money came from somewhere? Well, they raised $336m in venture financing (part of the $961m I mentioned above) which included converting some existing loans into equity (an ownership stake), and took on an additional $140m in debt. That debt is worth looking at - its money they have borrowed against a $535m loan facility guaranteed by the Department of Energy and is money coming from the Federal government's economic stimulus and recovery commitments. It has to be used for the building of Solyndra's second production plant in the Valley (those of you who regularly travel on Highway 880 in Fremont will see the first plant right by the Eastern side of the road) and which Solyndra itself must finance at least 27% on its own in addition to the DOE guaranteed loans.

At the end of 2009 where did all this leave the company? Well, it had $50m cash in the bank (it also had $151m of further cash on the balance sheet, but that cash is restricted and can't be used for regular operations). And the customers who bought the $100m in products still owed it $34m in remaining payments for them. Against that it owed $105m in current liabilities (payments for product costs, purchases, etc) and $140m in long term debt (the money borrowed above). Not exactly a lot of net cash on hand to pay the existing bills and then run the 2010 operations.

When you look at all the numbers, and you add to that the complexity of the business, the risk factors (their S-1 lists 24 pages of them!) in the technology and the marketplace, then on a pure business analysis you have to agree with the auditors - they are not a going concern. It's also not unusual for a Silicon Valley early stage company (and it is still very early in the development of this technology and it's market) to be in this position. In fact, that's exactly why they need an IPO - to raise the money for growth and to get to cash flow positive from operations. But its pretty unusual for a company to take the step they just did - publishing an open letter to their customers and suppliers to explain why, in their view, this is not a problem.

To take a closer look at their SEC filing, click here.

I'm rooting for this company. It's in the forefront of developing new energy solutions we desperately need. They claim that "by the end of 2012, we will be able to deliver photovoltaic systems that produce electricity on commercial rooftops at rates that are competitive with the retail price of electricity in key markets on a non-subsidized basis". I'd love to see that. They employ 800 people, mostly in the Valley. Many of those people are in manufacturing - a segment hard hit since 2000. That number will increase with their second plant and further production ramp up. This is the kind of business the Valley needs, and needs to be successful. And the country needs the technology.

Still, a lot of people will have to make some pretty big bets to pull this off!

Posted by Philip Smith on April 04, 2010 at 09:[illegible] in Cleantech

Document 27

From: Chris Gronet [redacted]
Sent: Thursday, June 17, 2010 6:52 PM
To: Steve Mitchell
Subject: RE: RE: next steps

We (the exec com) are closed on gov't relations reporting into [redacted] [redacted]s disappointed but is willing to work with this structure.
Also closed on asking [redacted] to taking on the acting role for [redacted] (while we conduct the search and consider him for the role as well).

Chris Gronet
CEO
Solyndra, Inc.
47700 Kato Road
Fremont, CA 94538 USA
[redacted]

From: [redacted]
Sent: Thursday, June 17, 2010 9:07 AM
To: [redacted] Chris Gronet
Subject: Fw: next steps

Let's discuss. The white house offer to help may cut this short but it could be done in conjunction.

From: [redacted]
To: [redacted]
Sent: Thu Jun 17 06:19:55 2010
Subject: RE: next steps

Steve, have reviewed the materials sent over by [redacted] and we've also done a bit of additional diligence on our side. The CDA investments are powerful and I think will provide significant credibility and urgency to the need for the US government to step into deeper support for the broader industry, as well as directly to Solyndra.

The CDA investments, as well as the other external factors you and [redacted] have mentioned that are threatening company viability, in my view require direct and aggressive engagement with Washington. Advise the following steps:

1. **Substantiation.** We need to substantiate and crystallize the significance of the CDA investments to both Solyndra *and* the broader industry. We need to be tight in defining the extent to which the CDA investments are upping the stakes on domestic industry and putting immediate pressure on Solyndra's viability – and how the CDA action represents only the most recent step in an ongoing pattern that, if not reversed by some type of US action, will leave the US without a competitive position in this space shortly.
2. **Outreach.** Once we've got a handle on task 1, authorize us (McBee) to perform quiet and surgical outreach with both company supporters and thought leaders on Capitol Hill and in the Administration to lay the groundwork for a broader assault by the company. We can test the narrative, socialize leaders in Washington to the consequences of inaction, and create some appetite to move out with a fix.
3. **Define the fix.** We need to define "the ask" – is it Solyndra-specific (a DOD framework agreement) or industry wide (incentives, mandates, etc) or both? I think at some level it has to be a combination as, again, we'll be most successful if we position this as an industry problem for which Solyndra, as a frontier company, is the

bellwether and is taking the initial and at present most acute pain. We should perform task 3 in conjunction with task 2, but I do not believe that the company should go to the Hill with a specific ask until we have conditioned the environment in advance. Our advance work will also yield useful feedback that will allow us to zero in on a fix that is supportable.

4. **Engagement.** Assuming we have fully substantiated our arguments re task 1, get the right level of response as part of task 2, and have identified the fix outlined in task 3, we will need company officials to engage the US government directly to articulate the problem, raise the stakes around lack of inaction, and advance a solution that allows the industry – and in the near term Solyndra – to stay competitive in the face of global competitive pressure.

My advice is to move quickly on this – to get items 1-3 at a minimum done during the month of July before Congress adjourns (and Washington effectively shuts down) for the month long August congressional recess.

Key on our side is to make sure that we fully establish/protect your credibility as it relates to what will effectively be your opening (and probably closing) argument – that the company's viability is threatened primarily (entirely) because of aggressive and persistent action by the Chinese government. Most importantly is that Solyndra, as the industry leader represents only the first domino, and that unless the US government up's its response to anti-competitive Chinese maneuvers, the entirety of the innovative/domestic solar manufacturers will be strangled in their crib.

All of that requires us to articulate specifically how the company is being undercut in the market. It's worth noting in this context that there is a lot of chatter in the beltway (fanned by your domestic competitors) around your cost structure, which is also something we'll need to discuss and address.

Below are example questions designed to help pull together evidence in support of our position and to hopefully make the point that a consortium of US manufacturers is likely facing similar issues. The point we want to drive is that while Solyndra may be first to be impacted because we are further along, unless the federal government steps up, the US will be without a competitive position in this space shortly.

- What is the current market share of the Chinese manufacturers (Trina, Suntech) in those markets in which Solyndra and its first-moving US competitors currently participate (US, EU specifically)?
  - Data back to Q1 2009 would be most useful to demonstrate the Chinese's recent entry and expanding market share

- What is Solyndra's manufacturing cost trajectory over the next 18-24 months?
  - (If available) How does this curve compare with the Chinese (Trina, Suntech) and domestic competitors possibly facing similar price pressure?

- What is the variance between assumptions included in the company's LGP application/S-1 filing and current real-world pricing?

- How much, if at all, has the European debt issue affected Solyndra sales into the EU (currently their largest share of commercial sales)?
  - Has Solyndra and/or other US manufacturers registered foreign-currency exchange losses on par with the Chinese?

If you're down for this plan, I will get a team on it right away (to include myself). I'm prepared to play hard here and I think you should also – key is to make sure we've got our facts in order as I think communicating the implications of the CDA investments and Solyndra's vulnerability as a result has the potential to be explosive particularly given the trajectory of the energy policy discussion in Washington over the past several wks. We need to come correct out of the blocks –

Thoughts??

From: [redacted]
Sent: Wednesday, June 16, 2010 2:39 PM
To: [redacted]
Cc: Support Staff
Subject: RE: next steps

[redacted]

Anything we need to be talking about?

[redacted]

From: [redacted]
Sent: Monday, June 14, 2010 7:39 AM
To: [redacted]
Cc: Support Staff
Subject: next steps

[redacted] based on the info [redacted] has sent over I'm doing a bit of quiet outreach in an effort to provide best alternatives re next steps.

Advise that we cancel our call today and instead let me come back to you in the next couple of days via mail about how we might proceed after we've had some discussions on the Hill. I can follow up w/ you directly after the email to discuss. OK w/ you?

[redacted]

Document 28

From: [redacted]
Sent: Tuesday, June 22, 2010 5:33 PM
To: [redacted]
Subject: RE: RE: next steps

Hey [redacted]–just checking back with you per below – know you have a ton of balls in the air.

Bottom line is that if you are comfortable with the below approach I think we [redacted] can run w/ things and use you and company leadership very surgically recognizing your time pressures. Just need general buy off on approach and a bit of substantiation as outlined below and we can sprint. Let me know how you want to play it -

From: [redacted]
Sent: Thursday, June 17, 2010 7:20 AM
To: [redacted]
Subject: RE: next steps

[redacted] have reviewed the materials sent over by [redacted] and we've also done a bit of additional diligence on our side. The CDA investments are powerful and I think will provide significant credibility and urgency to the need for the US government to step into deeper support for the broader industry, as well as directly to Solyndra.

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Below are example questions designed to help pull together evidence in support of our position and to hopefully make the point that a consortium of US manufacturers is likely facing similar issues. The point we want to drive is that while Solyndra may be first to be impacted because we are further along, unless the federal government steps up, the US will be without a competitive position in this space shortly.

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Thoughts??

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To: [redacted]
Cc: Support Staff
Subject: RE: next steps

[redacted]

Anything we need to be talking about?

[redacted]

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Sent: Monday, June 14, 2010 7:39 AM
To: Steve Mitchell
Cc: Support Staff
Subject: next steps

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Advise that we cancel our call today and instead let me come back to you in the next couple of days via mail about how we might proceed after we've had some discussions on the Hill. I can follow up w/ you directly after the email to discuss. OK w/ you?

[redacted]

Document
29

From: [redacted]
Sent: Tuesday, June 22, 2010 5:58 PM
To: [redacted]
Attachments: image003.jpg

[redacted]

I am in Washington, DC where I briefly had a chance to touch base with [redacted]

[redacted] wants to get some of his people briefed in order to get started to put together some asks from our favorite Senators in Congress and the White House. His primary briefing requirement is to get a better handle on the issue of Solyndra's product costs. He expects to be questioned on the subject of our cost structure because of what is in the rumor mill in DC.

[redacted] knows you are juggling a lot of priorities and is sensitive to not taking up a lot of your time. He just needs a little upfront investment before letting his people loose on the "asks". Overall, the level of interest in Washington is very high due to the situation in the Gulf.

[redacted] was just getting on a plane to California. Perhaps you will be able to catch each other this week. He did say he is coming back to California in each of the next two weeks.

Best,

[redacted]

Document 30

From: [redacted]
Sent: Friday, June 25, 2010 9:25 PM
To: [redacted]
Subject: Re: Re: solyndra.jpg

Not bad.

----- Original Message -----
From: [redacted]
To: [redacted]
Sent: Fri Jun 25 16:25:46 2010
Subject: Re: solyndra.jpg

Please do. How is [redacted] on this?

----- Original Message -----
From: [redacted]
To: [redacted]
Sent: Fri Jun 25 16:22:18 2010
Subject: Re: solyndra.jpg

We could work on that.

----- Original Message -----
From: [redacted]
To: [redacted]
Sent: Fri Jun 25 16:23:01 2010
Subject: Re: solyndra.jpg

Get them to buy our panels. All they have to do is do some US content type of requirements for DOD procurement.

----- Original Message -----
From: [redacted]
To: [redacted]
Sent: Fri Jun 25 16:17:43 2010
Subject: Re: solyndra.jpg

Seriously. I can only imagine. Issue came up in Harry Reid staff meeting too. Wild.

----- Original Message -----
From: [redacted]
To: [redacted]
Sent: Fri Jun 25 16:15:10 2010
Subject: Re: solyndra.jpg

Ugh. Trust me. I feel it.

----- Original Message -----

From: [redacted]
To: [redacted]
Sent: Fri Jun 25 16:10:34 2010
Subject: solyndra.jpg

This picture is hanging in the White House, in the stair well in the West Wing. Gosh...no pressure.

Document 31

From: Ken Levit [redacted]
Sent: Friday, June 25, 2010 9:29 PM
To: Steve Mitchell
Subject: Re: Re: solyndra.jpg

He's a bit pessimistic on the loan.

He knows you're doing everything humanly imaginable.

We should get that dod thing enacted into law if there's an energy bill. Is Solyndra working it?

----- Original Message -----
From: Steve Mitchell [redacted]
To: Ken Levit
Sent: Fri Jun 25 16:25:46 2010
Subject: Re: solyndra.jpg

Please do. How is George on this?

----- Original Message -----
From: Ken Levit [redacted]
To: Steve Mitchell
Sent: Fri Jun 25 16:22:18 2010
Subject: Re: solyndra.jpg

We could work on that.

----- Original Message -----
From: Steve Mitchell [redacted]
To: Ken Levit
Sent: Fri Jun 25 16:23:01 2010
Subject: Re: solyndra.jpg

Get them to buy our panels. All they have to do is do some US content type of requirements for DOD procurement.

----- Original Message -----
From: Ken Levit [redacted]
To: Steve Mitchell
Sent: Fri Jun 25 16:17:43 2010
Subject: Re: solyndra.jpg

Seriously. I can only imagine. Issue came up in Harry Reid staff meeting too. Wild.

----- Original Message -----
From: Steve Mitchell [redacted]
To: Ken Levit
Sent: Fri Jun 25 16:15:10 2010
Subject: Re: solyndra.jpg

Ugh. Trust me. I feel it.

----- Original Message -----
From: Ken Levit [redacted]
To: Steve Mitchell; [redacted]George Kaiser
Sent: Fri Jun 25 16:10:34 2010
Subject: solyndra.jpg

This picture is hanging in the White House, in the stair well in the West Wing. Gosh...no pressure.

DOCUMENT

A

From: Steve Mitchell [redacted] on behalf of [redacted]
Sent: Saturday, July 17, 2010 1:35 AM
To: [redacted]
Subject: FW: Meetings for the week of July 19
Attachments: image001.jpg

From: Chris Gronet [redacted]
Sent: Thursday, July 15, 2010 7:55 PM
To: Steve Mitchell
Subject: RE: Meetings for the week of July 19

Tried your cell earlier.
Yes, lots of catch up. Meeting with GSA is now set for next Wed. [redacted] will attend. I am hosting some French dignitaries on the same day.

We have 4 sales VPs in training on Monday (including [redacted]
We have good candidates coming in for 2 more segment leads (REITs, GH) assuming [redacted] continues with Utilities.
I spoke with [redacted] this afternoon. He is still thinking things over and plans to talk to [redacted] in the morning.
[redacted] was in again today to meet with [redacted] and [redacted] [redacted] likes him, believes he is a strategic thinker, but wonders if he can execute a strategy. Two references came back "average". So we will continue a worldwide search with [redacted]

[redacted] have searches going for Proj Dev and Proj Finance leads.

Chris Gronet
CEO
Solyndra, Inc.
47700 Kato Road
Fremont, CA 94538 USA
[redacted]

From: Steve Mitchell [redacted]
Sent: Thursday, July 15, 2010 1:01 PM
To: Chris Gronet
Subject: RE: Meetings for the week of July 19

He better be! How on earth have we not been a part of these projects from the beginning? Lots of catch up to do here. Let's get all over it.

From: Chris Gronet [redacted]
Sent: Thursday, July 15, 2010 2:49 PM
To: Steve Mitchell
Subject: FW: Meetings for the week of July 19

FYI below. 260 green projects in process for U.S. gov't buildings.

Jonathan Silver is trying to help.
[redacted] our VP Gov't Procurement, started last week, and I think he will be a star.

Chris Gronet
CEO
Solyndra, Inc.
47700 Kato Road
Fremont, CA 94538 USA
[redacted]

From: Silver, Jonathan [redacted]
Sent: Thursday, July 15, 2010 7:23 AM
To: [redacted]@gsa.gov'; Chris Gronet
Cc: [redacted]@gsa.gov; [redacted]@gsa.gov; [redacted]@gsa.gov; [redacted]@gsa.gov
Subject: RE: Meetings for the week of July 19

[redacted]
Thanks for your note. You and your team are doing amazing things!
I am copying Chris Gronet here. Chris is the CEO of Solyndra and I know your two teams will have a lot to discuss.
Best,
Jonathan

Jonathan Silver
Executive Director
Loan Programs
US Department of Energy
1000 Independence Avenue, S.W.
Washington, DC 20585
Phone: [redacted]
email: [redacted]

From: [redacted]@gsa.gov [mailto:[redacted]@gsa.gov]
Sent: Thursday, July 15, 2010 10:20 AM
To: Silver, Jonathan
Cc: [redacted]@gsa.gov; [redacted]@gsa.gov; [redacted]@gsa.gov; [redacted]@gsa.gov
Subject: Re: Meetings for the week of July 19

Jonathan: nice to hear from you. I'd heard you were at DOE.

We're installing a lot of solar, not to mention green roofs, efficient heating and cooling, etc. You probably know we got $5.5B in Recovery Act funds mostly to upgrade and green our buildings; we have about 260 projects going.

Would be better for these people to meet our hands-on green project management people. I'll try to arrange. Can you give me a point of contact for the Solyndra people and we'll contact them directly.

[redacted]

"Silver, Jonathan" [redacted]

07/14/2010 03:44 PM

To [redacted]@gsa.gov" [redacted]@gsa.gov>
cc
Subject Meetings for the week of July 19

[redacted]
Hope this finds you well.
As you may know, I am running the loan programs at the Department of Energy. We are responsible for the government's investments in all forms of clean energy: wind, solar, nuclear and the like. Very interesting.
One of our loan guarantee recipients is a company called Solyndra. They received a $500 million loan guarantee from us to build a state of the art manufacturing plant in California. Solyndra makes an advanced solar roof top array for large commercial facilities and is now installed in locations all over the United states and Europe.
Members of management will be in DC next week and would like to come talk with you about government buildings. Would you be willing to meet briefly with them? More on them below.
I would personally appreciate it.
Many thanks,
Jonathan

Jonathan Silver
Executive Director
Loan Programs
US Department of Energy
1000 Independence Avenue, S.W.
Washington, DC 20585
Phone: [redacted]
email: [redacted]

[redacted] Senior Vice President, Corporate Development and General Counsel, and [redacted] Director of Government Relations at Solyndra would like to meet with you on July 21 or 22 to discuss policies that will increase government and military deployment of US-made solar panels. Solyndra manufactures 100% of its solar panels at its Fremont, California headquarters. Solyndra has one factory nearing full production, and received a $535 million loan guarantee from the Energy Department to build a second factory in Fremont. That factory will produce 250 megawatts of solar panels per year, and will begin producing panels later this year. Solyndra currently employs 1000 people in Fremont; through its US-centered supply chain it draws materials from businesses in 20 states, creating hundreds of jobs throughout the country. Its second factory will create an additional 1000 jobs in Fremont and with its US suppliers. Solyndra's solar panels are comprised of a series of cylindrical glass tubes. They are ideal for low-load, large, flat roofs and perform optimally with a cool-roof, white roof membrane. Solyndra is one of the very few solar panel manufacturers reaching large-scale production in the US. The company would like to work with you to promote policies that increase the use of solar energy technology throughout the government, and especially within the military, as a key driver to grow a domestic solar panel market for US manufacturers. Specific policy objectives would include extending Buy American Act requirements to energy supply contracts pursuant to power purchase agreements, and replicating the significant green building and solar requirements in place for new Marine Corp construction throughout the military.

DOCUMENT

B

Planet Gore

The hot blog.

Time to Investigate the DOE and Solyndra

By Greg Pollowitz
Posted on August 03, 2010 10:15 AM

Solyndra, the solar panel manufacturer that was awarded over $500 million in taxpayer-funded loan guarantees, is in serious trouble. Last week they pulled their IPO and replaced their CEO and founder with an Intel executive who has no experience in the solar industry.

An excerpt from the *San Jose Mercury News* piece linked above:

> Solyndra has received $535 million in federal loan guarantees and $970 million in an array of equity financing, primarily from venture capitalists.
>
> The difficulties at Solyndra raise questions about why President Barack Obama's administration spent considerable taxpayer dollars to buoy a company that has begun to list.
>
> "Solyndra made some miscalculations, the venture capitalists miscalculated, Energy Secretary Steven Chu miscalculated, and ultimately the Obama administration miscalculated," Wesoff said.

Bull. They didn't "miscalculate." The evidence was right in front of their noses when they made the investment, as I pointed out in March 2009. Here's the key question I asked back then:

> 4. Goldman Sachs downgraded the solar industry last year. *Barrons* reports from October 2008:
>
> > Solar stocks are trading sharply lower this morning after **Goldman Sachs analyst Michael Molnar** declared he has become cautious on the solar group, "as less generous subsidies combined with a wave of supply pose a real risk."
> >
> > Molnar asserts in a research note that the risk of oversupply in the solar market "will soon become a reality as considerably less generous demand subsidies take hold just as a wave of supply and tight financing hit the market." He thinks that "liberal subsidies of the past in markets like Germany and Spain are unlikely to be replicated in the future givne fears of their ultimate cost in a bad world economy."

> As supply increases, he contends, prices will have to "adjust strongly downward to generate demand." He thinks that trend will lead to below-consensus estimates for module manufacturers and compressed valuations for stocks in the sector.

Since Goldman was advising Solyndra on this project, did anyone in Chu's Department of Energy question why taxpayers are guaranteeing the debt on a new solar plant for a market that Goldman's own analysts have downgraded? Has President Obama's election changed Goldman's view on alternative energy to the point that it is now recommending the sector?

I called it a "bailout" of Solyndra then and I stand by that. Except it was a bailout with no strings attached. It is an investment that should not have been made with our money. Chu should make public all due-diligence materials he and his department reviewed, including e-mails and copies of the numerous contracts Solyndra has signed with potential buyers, so the public can see how this Solyndra bailout happened.

PERMALINK

DOCUMENT

C

From: [redacted]
Sent: Tuesday, August 10, 2010 7:46 PM
To: [redacted]
Cc: [redacted] Brian Harrison; Steve Mitchell
Subject: RE: RE: NCPV Hotline - August 10, 2010

[redacted]

Getting business from Uncle Sam is a principal element of Solyndra's channel strategy. When Obama visited Solyndra in June, 2010, Chris Gronet spoke very openly to Obama about the need for installation of Solyndra's rooftop solar on U.S. government buildings. I heard Obama actually promise Chris that he would look into it when he returned to Washington. The point is that the government has to pay for energy no matter what. The capital funding to deploy a lot of rooftop solar on government buildings (say $300million) just falls off the table in Washington anyway.

I also believe he [redacted] could act as a major change agent to get solar deployed as a cost parity play with the alternative GHG-belching coal-fired power plants. [redacted] could easily deploy more than 1 million people to this kind of mission. I recently agreed to work with [redacted] as a member of the Campaign Cabinet of the [redacted] Working together with DOE, DOI and other agencies, we should be able to get a lot of Solyndra's rooftop solar deployed throughout the U.S government building/energy infrastructure. I'd like to get a storyline together with Solyndra to make a case for the U.S. Government adoption of Solyndra's product capability. We need to do a better job of telling our story in Washington especially as relates to the threat of competition from China, Inc. I am stunned by the lack of knowledge of our representatives in Washington about China's plans to "dump" pcSi solar in the U.S. market. This has been confirmed by Solyndra's Washington lobbyist, [redacted]

Best,

[redacted]

-----Original Message-----
From: [redacted]
Sent: Tuesday, August 10, 2010 10:30 AM
To: [redacted]
Cc: [redacted]
Subject: Fw: NCPV Hotline - August 10, 2010

[redacted]

Note that [redacted] got a 15 MW order at an Air Force base. Frankly I'm surprised, as those sites tend to be relatively unconstrained on space and so [redacted] is unlikely to be the low bidder. I wonder if 'buy American' rules held sway here. If so, might Solyndra prioritize federal government business, where it could have an 'unfair advantage'?

They may already be doing this, but if it's in fact an effective strategy, perhaps they ought to elevate its priority to the top. (No currency risk nor credit risk, either!). Do they have a salesperson who is specifically dedicated to gov't business? (Which, as you know, is a different animal than commercial sales).

DOCUMENT
D

From: [redacted]
Sent: Saturday, September 18, 2010 8:48 PM
To: Steve Mitchell
Subject: FW: FW: White House Meeting
Attachments: image004.jpg

[redacted]

Notwithstanding the two attached requests/offers, I never even got the courtesy of a response. So, I assume they don't want my help.

i will be at the White House helping some of our other portfolio companies this coming week.

Can you give me any guidance about what is going on? I am happy to try you via cell phone whenever it works for you, if you prefer.

Best,

[redacted]

From: [redacted]
Sent: Thursday, September 09, 2010 10:34 PM
To: [redacted]
Cc: 'Brian Harrison'
Subject: White House Meeting

[redacted]

I will be back in Washington, DC on September 21 and 22, 2010. If I do schedule a meeting at the White House, are there some specific agenda items I can pursue on behalf of Solyndra? I am sure the subject of Solyndra will come up in any event. Please give me your guidance.

Best,

[redacted]

From: [redacted]
Sent: Friday, September [redacted] 2:50 PM
To: Brian Harrison; [redacted]
Subject: FW:

Let me know when and if I can get a message to him in the WHouse.

[redacted]
Founder & Managing Director

 AVI-HCEC-0033096

[redacted]

From: Recos [redacted]
Sent: Friday, September 03, 2010 11:05 AM
To: [redacted]
Subject:

Hey [redacted] it's Rahm – great seeing you the other day, apologies that it was so short. If you are ever in DC please let me know.

DOCUMENT

E

[redacted]

From: [redacted]
Sent: Wednesday, October 13, 2010 10:31 AM
To: [redacted]
Subject: Re:

Is there a scheduled meeting time on Friday? Place?

On Tue, Oct 12, 2010 at 4:34 PM, [redacted] wrote:
Hi All:

Are there any preliminary questions that you have for onward transmission to the team at Solyndra? I would like to send some questions over with the objective of scheduling a call for tomorrow afternoon so that the time on Friday can be used most efficiently. My proposal would be for a call immediately following the internal meeting tomorrow afternoon or maybe before.

[redacted]

---------- Forwarded message ----------
From: Bill Stover [redacted]
To: [redacted]
Date: Tue, 12 Oct 2010 14:15:35 -0400
Subject: RE: Solyndra advance materials

[redacted]

Good morning. In addition to the Adobe pdf file transmitted last evening, I'm attaching for your review our detail business model. Please confirm that you have been able to receive and open these materials. Let me know if you would like to set up a conference call in advance of our meeting on Friday.

Bill Stover

SVP, CFO

[redacted]

From: Bill Stover
Sent: Monday, October 11, 2010 11:27 PM

To: [redacted]
Cc: Brian Harrison; [redacted]
Subject: Solyndra advance materials

[redacted]

Consistent with your discussion with Brian Harrison last Friday, I am enclosing various materials that summarize the revised business plan Solyndra recommended to its Board of Directors late last week. As Brian indicated on the phone call, our situation has changed quite dramatically. There are essential matters of assistance that we will be discussing with your team in person this coming Friday. As background for the materials and our discussions, I thought it appropriate to provide an overview of the situation, what's changed, and essential governmental assistance.

<u>Situation</u> – With the arrival of Brian Harrison, newly-appointed President and CEO, the company undertook a comprehensive review of all elements of operations, industry conditions, and the state of our market development. The assessment largely concluded that manufacturing operations and the build out of Fab 2 were proceeding consistent with plan. However, industry competition was acknowledged to be as severe as presumed and demand creation for Solyndra's unique photovoltaic solution was deemed to be proceeding noticeably behind plan.

In the last weeks of the company's 3rd fiscal quarter (ended Oct 2nd), management determined that sales were likely to fall meaningfully short of forecast and that finished goods inventory would accumulate. The implications of lack of sell-through are quite significant, most directly on liquidity, but also as it relates to completing the company's private capital raise. We notified our investment bank of the 3rd quarter results, and received a quick determination that we would <u>not</u> be able to complete our private raise prior to year end as we had previously anticipated. The immediate implication of slower demand creation for our panels, and the inability to tap private capital markets is that the company will run out of the cash necessary to sustain operations in the first quarter of 2011. *Without access to FFB loan funds in October, November and December for work that has been completed, Solyndra would run out of cash in November.*

Our last business plan projected a very rapid build out of Fab 2; essentially tripling capacity in a year. Without assurance of demand for the rapidly scaling production capacity, and without firm commitments for an incremental $300 Million of capital, the company was forced to consider various adjusted business plans. The objectives of these alternative analysis were to 1) minimize cash required while allowing time to stimulate demand, 2) accomplish the build out of Fab 2 Phase 1 and ensure debt service, and 3) position the company for longer term growth and value creation for all stakeholders. We will be prepared to discuss other plans with you, but believe the plan with a high confidence for success is the "Consolidation Plan" noted below. Two additional alternatives for which the Board was briefed were the continued rapid growth plan which required more capital than is readily accessible in the short term, and a liquidation path should the company be unable to timely secure necessary partnering with multiple constituents, including DOE.

Consolidation Plan – The accompanying plan fundamentally changes the course of completing the Fab 2 Phase 1 capacity by redeploying existing Solyndra Fab 1 tools. Instead of Solyndra spending incremental capital to finish the tool build of certain of the remaining tools for lines 2 and 3, Solyndra will physically shut down manufacturing in Fab 1 over the course of several months, and move production tools into Fab 2. Such consolidation of operations allows Solyndra to most efficiently operate manufacturing. For the next two quarters, total production is lower which better matches near term production with market demand. Solyndra's cash requirements for labor and materials are meaningfully reduced. Under the Consolidation Plan, Solyndra will employ approximately 200 fewer people than we do today.

Assistance – We expect that the Consolidation Plan will allow us to optimize operations, raise additional capital, service our debt and successfully build our business, albeit at a more moderate scale. Detailed in the attached materials are two slides describing specific loan accommodations which are essential to making this Consolidation Plan work. For clarity, I note several:

- Continued access to the remaining FFB loan funds and restricted cash account in concert with completion of the full Phase 1 production capacity
- Delay in principal and interest payment schedule by one year
- No further interest payments until commencement of principal repayment
- Extension of the loan maturity to December 2019 (increase loan from 7 to 10 years)
- Removal of the requirement for $30 Million cost overrun reserve account
- To the extent changes alter the credit subsidy cost, such incremental costs are satisfied through DOE budget

We have briefed our Board of Directors, key shareholders and noteholders regarding concessions that may be required by DOE to secure DOE's commitment to support the Consolidation Plan, including:

- Commitment to a fully-funded plan [$150 Million]
- First priority security interest in all Solyndra, Inc. assets, including intellectual property

- Solyndra, Inc. guarantee of Fab 2 indebtedness

Please find attached a .pdf summary of the Consolidation Plan which incorporates all of the loan modifications proposed above.

Thank you tremendously for your investment of time and resources on these matters. Our team is available Tuesday between 12:00 pm - 2:00 pm Eastern time to brief you further on the materials. Additionally, we've set aside all of Wednesday to be responsive to your queries once you have had an opportunity to review the materials. Thursday will be a travel day for meetings in your offices on Friday.

Bill Stover

SVP, CFO

[redacted]

---------- Forwarded message ----------
From: Bill Stover [redacted]
To: [redacted] "Silver, Jonathan" [redacted]
Date: Tue, 12 Oct 2010 02:27:00 -0400
Subject: Solyndra advance materials

[redacted]

Consistent with your discussion with Brian Harrison last Friday, I am enclosing various materials that summarize the revised business plan Solyndra recommended to its Board of Directors late last week. As Brian indicated on the phone call, our situation has changed quite dramatically. There are essential matters of assistance that we will be discussing with your team in person this coming Friday. As background for the materials and our discussions, I thought it appropriate to provide an overview of the situation, what's changed, and essential governmental assistance.

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Thank you tremendously for your investment of time and resources on these matters. Our team is available Tuesday between 12:00 pm - 2:00 pm Eastern time to brief you further on the materials. Additionally, we've set aside all of Wednesday to be responsive to your queries once you have had an opportunity to review the materials. Thursday will be a travel day for meetings in your offices on Friday.

Bill Stover

SVP, CFO

[redacted]

DOCUMENT

F

BRIEFING MEMO

THE WHITE HOUSE
Washington

October 25, 2010

MEMORANDUM FOR THE PRESIDENT

FROM: CAROL BROWNER
RON KLAIN
LARRY SUMMERS

SUBJECT: Renewable Energy Loan Guarantees and Grants

Your advisors seek your direction on implementing the energy loan guarantee program. Three near-term risks characterize this program: rescission of non-obligated funds; criticism from Hill supporters and stakeholders for slow implementation; and making commitments to projects that would have happened anyway and thus fail to advance your clean energy agenda. In considering these risks, the Department of Energy supports a process that would limit OMB and Treasury review. OMB and Treasury support the establishment of clear policy principles for project review, recognizing that this may pose a risk that some program funds may not be obligated by the program's September 30, 2011 sunset date. We also believe you should consider working with Congress to reprogram loan guarantee funds for an extension of the Recovery Act's renewable grant program during the lame duck tax extenders debate. An expanded EDB, including Secretary Chu, will provide an opportunity to discuss the options described below with you tomorrow.

DISCUSSION

Background

The Recovery Act created two new programs to promote deployment of renewable power: the 1705 energy loan guarantee program and the 1603 grant in lieu of tax credit program.

1705 Energy Loan Guarantee Program: The Recovery Act appropriated about $6 billion to enable the government to pay for the credit subsidies associated with loan guarantees for renewable energy (and related) projects. The credit subsidy can be thought of as the premium that must be paid for the insurance the government provides in guaranteeing the loan for a project. This program was intended to address concerns about tightening credit markets for renewable projects. It represents a modification of the existing 1703 loan guarantee program, which supports innovative technologies and covers renewables, nuclear, and advanced fossil. To date, the 1703 program has not received appropriations for credit subsidies, thus requiring project developers to pay the government for the credit subsidy and thereby limiting the interest in the 1703 program among small renewable developers.[1]

1603 Grant Program: Renewables developers may opt to convert the existing renewable investment tax credit, equal to 30 percent of a project's investment cost, into a grant. Before the financial crisis, renewable developers often partnered with large financials that had sizable taxable income and could use tax credits, i.e., provide "tax equity." This program addresses concerns about the capacity of the tax equity market for renewables through 2010.

Doubling Renewable Power Goal: Based on these Recovery Act programs, the Administration set a goal to double renewable power generation within three years. In 2009, the wind industry enjoyed its best year ever with nearly 10,000 megawatts of new installed capacity. Lawrence Berkley National Lab estimated that nearly one-quarter of this capacity would not have been built in the absence of the 1603 grant program. The 1705 loan guarantee program did not close any deals on renewable generation in 2009.

Summary of 1705 Loan Guarantee Program and 1603 Grant Program (through October 25)

	1705 Loan Guarantee	1603 Grant
Staff	100-200 FTE DOE staff and contractors	5 Treasury FTEs and 15 DOE FTEs
Determination of Receipt	Discretionary, reflecting deal characteristics and negotiations with sponsor	Standardized, subject to eligible technology entering into service
Typical length of review	6+ months	4-6 weeks
Program sunset date	September 30, 2011	December 31, 2010
Total number of projects (closed/conditional for 1705)	4 / 8	3,851
Number of wind power projects	1 / 1	203
Number of solar power projects	0 / 2	3,571
Number of geothermal power projects	1 / 1	23
Number of biomass power projects	0 / 0	25
Number of other technology projects	2 / 4	29
Number of states with supported projects	4 / 6	48 plus DC and PR
Total capacity installed (MW)	~80 / ~1,600	~8,600
Total investment supported	$1.2 billion / $7.6 billion	~$18.2 billion

Note: Project sponsors for all power generation projects under the 1705 program have indicated that they intend to claim a 1603 grant once they enter into service.

[1] The 1703 program has made conditional commitments for the Southern Company's Vogtle nuclear power plant in Georgia and AREVA's Eagle Rock Enrichment Facility in Idaho.

Estimated Benefits of 1705 and 1603 to Renewables Developers: The combined effect of 1603 and 1705 lowers the cost of a new wind farm by about 55% and solar technologies by about half relative to a no-subsidy case (see appendix table 1). Renewables' intermittency problem limits the deployment of these technologies, which could be remedied by installing back-up capacity (likely increases the cost by 2 to 4¢/kWh). Past experience with the wind tax credit suggests that the 1603 grant and the associated tax credits could have a significant impact on new wind capacity. Appendix figure 1 shows (in shaded regions) the halt to new investment during the three times the wind tax credit expired since 1999.

Loan Guarantee Pipeline and Process: After receiving an application, DOE conducts extensive due diligence work on the technological, financial, credit, legal, contractual, environmental, and operational aspects of each project. This due diligence can take months to complete and often results in significant changes to the original transaction structure to mitigate identified risks. In addition to negotiating with the project sponsors, DOE also engages in a back-and-forth with OMB and Treasury, in particular after the deal package has been submitted for review. OMB review of DOE projects has averaged 28 calendar days since September 2009, and 17 business days for the 1 closing and 3 conditional commitments DOE has transmitted between August 1 and October 15 of this year. DOE notes that the back and forth consumes a significant amount of staff time, thereby making it challenging to move several transactions forward simultaneously. Policy review by Treasury and the White House has occasionally extended the amount of time a project is under review beyond the time taken by OMB to score a credit subsidy. Last week, DOE conducted an interagency preview of five projects, with the expectation that most of these could reach the conditional commitment stage within the next 4-8 weeks under the current review system. DOE currently has 35 projects in due diligence, and expects a significant number of new applications when two project solicitations close in the next few weeks. Since loan guarantee funds can only be obligated at closing, conditional commitments will need to occur in the first quarter of 2011 in order to close by September 30, 2011.

Legislative Implications

The Administration's approach to the renewable loan guarantee program and grants has implications for legislative activity, including the FY2011 appropriations (House mark is $0, Senate mark is $380 million for energy loan guarantee credit subsidies); the tax extenders bill in which some Members would like to extend the 1603 grant; and the FY2012 budget.

Risks Characterizing the Loan Guarantee Program

Rescission Risk: The 1705 loan guarantee program has been scaled back to about $2.5 billion after reprogramming for Cash-for-Clunkers (May 2009) and the state aid package (August 2010). There has been recent interest in rescinding unobligated Recovery Act balances to pay for other programs. DOE has obligated about 2.5% of the $2.5 billion in the 1705 program appropriations. An additional 9 projects have received 1705 conditional commitments, and if DOE closes these deals, the total obligations would be about $500 - $900 million.

Congressional Risk: Failing to make progress on renewables loan guarantees could upset the Hill (Sen. Bingaman, Speaker Pelosi), as well as renewables stakeholders, and draw criticism of the White House, which has been singled out as a roadblock on past loan guarantees.

Economic Risk: OMB and Treasury, which have statutory obligations to review 1705 loan guarantees, have raised implementation questions, including: "double dipping" – the total government subsidy for loan guarantee recipients, which have exceeded 60%; "skin in the game" – the relatively small private equity (as low as 10%) developers put into projects; and non-incremental investment – some loan guarantee projects would appear likely to move forward without the credit support offered by 1705 (including those projects that already exist and for which the loan guarantee simply provides a means for refinancing). See the appendix for an illustration of these issues with the Shepherds Flat project.

Energy Loan Guarantee Program Options

Option 1: Limit OMB and Treasury Oversight Role
In the current review process, after working with project sponsors for 6 to 18 months, DOE submits projects for review of the credit subsidy for conditional commitments and policy review by OMB and Treasury. DOE would prefer to eliminate the deal-by-deal review and instead have OMB and Treasury play roles akin to what they do for other credit programs, such as OPIC and Ex-Im Bank. It should be noted, however, that OPIC and Ex-Im credit programs have a long track record; OMB was more involved in the review of these programs in their early years; and they have boards with representation by other Federal agencies, including Treasury, that review and approve all major projects. DOE would make initial credit subsidy estimates at the conditional commitment stage, and OMB would only review and approve of the credit subsidy used at the time of closing on a deal.

Pros
- Some Members of Congress may applaud this effort, *if* it results in a meaningful increase in the rate of granting conditional commitments to energy projects.

Cons
- Still exposes 1705 program to rescission risk until DOE can move through its pipeline a lot more conditional commitments – up to twice as many in the next few months as have been made in first 20 months of the program.
- OMB believes that this approach will not remedy the challenge of an insufficient number of financially and technically viable projects in the 1705 pipeline.
- The economic risks will not likely be addressed.

Option 2: Make the Process Work Better by Establishing Clear Policy Principles
Treasury and OMB believe that clear policy principles – and associated metrics for evaluation – should be developed for the energy loan guarantee program. These principles would be applied to all projects and address issues like doubling dipping, skin in the game, and incrementality of investment (including refinancing). Those proposed loan guarantee projects that have satisfactory measures under each of the key policy principles would then be expedited through review. Those that do not would require more extensive policy review

and possible rejection. It is important to recognize that under such an approach, there is a risk that not all of the 1705 appropriation of $2.5 billion will be obligated by the program's sunset of September 30, 2011.

Pros

- Ensures the economic integrity of government support for renewables.

Cons

- Exposes the program to rescission risk through September 30, 2011.
- Some Members of Congress may criticize this effort to limit the application of the loan guarantee program. The White House will bear this criticism.

Option 3: Reprogram 1705 Funds for an Extension of 1603 Grant Program

The 1603 grant program expires on December 31, although the associated tax credits that could be converted into grants under this program do not sunset until December 31, 2012. A 2-year extension of the 1603 grant program through the sunset of the associated tax credits has a $2.5 billion tax score. The Administration could work with Congress during the lame duck on the tax extenders bill to reprogram the 1705 funds to pay for the 1603 extension. As a variant of this option, the funds could be reprogrammed to support other clean energy priorities, such as the 48C clean energy manufacturing tax credit.

Pros

- Moves funds to the 1603 program that has been much more effective in promoting renewable energy, and likely to have a more significant impact on renewable energy investment in 2011 and 2012.
- Reduces economic risks and the rescission risks identified above.

Cons

- Sen. Bingaman, who views 1705 as "his program," would strongly oppose.
- Could signal the failure of a Recovery Act program that has been featured prominently by the Administration.
- The reprogramming effort entails the risk that Congress accepts the 1705 rescission but fails to deliver the 1603 extension.

Option 4: Streamline and Accelerate OMB / Treasury Reviews with Project Prioritization

OVP supports an option that falls in possible middle ground between options 1 and 2. This approach would create an expedited deal review process, while not doing away with Treasury and OMB reviews altogether. One option to be explored would be to assign higher credit subsidy scores in order to reach faster agreement on the government's risk tolerance and to more quickly utilize the $2.5 billion in appropriated funds. In addition, this approach could prioritize deals with more favorable policy characteristics (e.g., deals with lower total government subsidies). This option would prevent the holding of the loan guarantee program to a more rigorous policy standard in awarding stimulus funds than other Recovery Act programs. The focus would be on spending all remaining funds while maintaining the necessary risk avoidance and *prioritizing* policy issues where possible.

Pros:

- Parties with equities, including Hill members and industry groups, would view the Administration as supporting a program that they have spent political capital defending.
- This would be an attempt to fix a broken process, as opposed to a complete and unexpected overhaul which could engender criticism.

Cons:

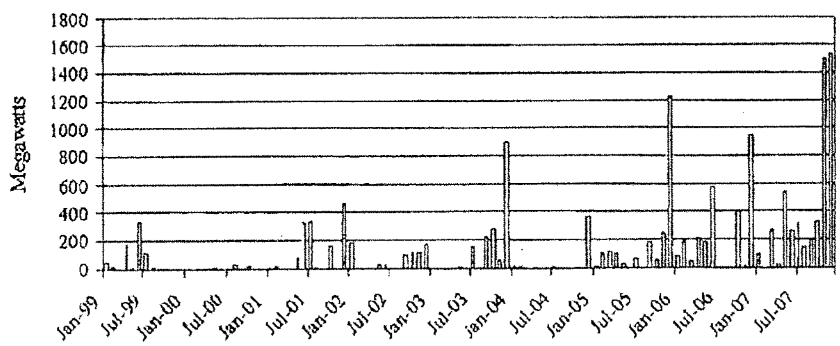
- DOE, OMB, and Treasury have tried to reach common ground on which to execute the program to date, and success has been limited.
- In order to spend the remaining budget authority, the policy principles may be so lax that this option may resemble Option 1 in practice.

Appendix Table 1: Cost of Generating Power from New Capacity Investment by Technology Type, ¢/kWh

	Natural Gas	Wind	Solar Thermal
No Subsidy Cost	7.3	8.8	23.2
Cost with 1603	7.3	6.7	16.0
Cost with 1603 and 1705	7.3	4.0	12.6

Source: DOE Energy Information Administration 2010.

Appendix Figure 1: U.S. Wind Capacity Additions and Periods of No Wind Tax Credit (shaded), 1999-2007



Source: Metcalf 2009 using DOE Energy Information Administration data.

Appendix: Shepherds Flat Loan Guarantee

The Shepherds Flat loan guarantee illustrates some of the economic and public policy issues raised by OMB and Treasury. Shepherds Flat is an 845-megawatt wind farm proposed for Oregon. This $1.9 billion project would consist of 338 GE wind turbines manufactured in South Carolina and Florida and, upon completion; it would represent the largest wind farm in the country. The sponsor's equity is about 11% of the project costs, and would generate an estimated return on equity of 30%.

- Double dipping: The total government subsidies are about $1.2 billion.

Subsidy Type	Approximate Amount (millions)
Federal 1603 grant (equal to 30% investment tax credit)	$500
State tax credits	$18
Accelerated depreciation on Federal and State taxes	$200
Value of loan guarantee	$300
Premium paid for power from state renewable electricity standard	$220
Total	$1,238

- Skin in the game: The government would provide a significant subsidy (65+%), while the sponsor would provide little skin in the game (equity about 10%).

- Non-incremental investment: This project would likely move without the loan guarantee. The economics are favorable for wind investment given tax credits and state renewable energy standards. GE signaled through Hill staff that it considered going to the private market for financing out of frustration with the review process. The return on equity is high (30%) because of tax credits, grants, and selling power at above-market rates, which suggests that the alternative of private financing would not make the project financially non-viable.

- Carbon reduction benefits: If this wind power displaced power generated from sources with the average California carbon intensity, it would result in about 18 million fewer tons of CO_2 emissions through 2033. Carbon reductions would have to be valued at nearly $130 per ton CO_2 for the climate benefits to equal the subsidies (more than 6 times the primary estimate used by the government in evaluating rules).

DOCUMENT G

[redacted]

From: [redacted]
Sent: Tuesday, October 26, 2010 5:32 PM
To: 'Browner, Carol M.'
Subject: RE: Internal announcement

Left you a VM on your cell

From: Browner, Carol M. [redacted]
Sent: Tuesday, October 26, 2010 5:30 PM
To: [redacted]
Subject: Re: Internal announcement

What is the announcement?

From: [redacted]
To: Browner, Carol M.; Klain, Ron; [redacted]
Sent: Tue Oct 26 17:19:59 2010
Subject: FW: Internal announcement

Let me know if you want to discuss.

From: Silver, Jonathan
Sent: Monday, October 25, 2010 10:01 PM
To: [redacted]
Subject: Fw: Internal announcement

Fyi
We should discuss in the morning.

Jonathan Silver
Executive Director
Loan Programs
U.S. Department of Energy

[redacted]

From: [redacted]
To: Silver, Jonathan
Sent: Mon Oct 25 21:38:49 2010
Subject: Fw: Internal announcement

FYI.

[redacted]

From: Brian Harrison [redacted]
To: [redacted]
Sent: Mon Oct 25 21:28:59 2010
Subject: Internal announcement

[redacted]

I hope that your meeting preparation with your inter-agency colleagues and Goldman is going well. The reason for this note is to make you aware that Solyndra has received some press inquiries about rumors of problems (one of them with quite accurate information) and we have received in bound calls from potential financial investors. Both of these data points indicate the story is starting to leak outside Solyndra. It is our view inside Solyndra that while not desirable from DOE perspective we need to internally announce to employees and with one selected press member on Thursday of this week, October 28. It is our belief that it is better for all parties to get in front of the story and control the messaging rather than get behind the story and on the defensive. So, I would like to go forward with the internal communication on Thursday, October 28. There will be no mention of the DOE.

Additionally, the meeting with Secretary Chu was a very good one. I did not have an opportunity to speak with him privately.

Regards, Brian

DOCUMENT
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From:	[redacted]
Sent:	Wednesday, October 27, 2010 7:26 AM
To:	[redacted] Ken Levit
Cc:	[redacted]
Subject:	Solyndra Conference Call

[redacted]

held a conference call this morning with existing investors to provide an update on discussions with the DOE and the fundraise process. Below is a summary of my notes from the call:

with DOE
officials visited Solyndra's facilities last week as part of their diligence in connection with restructuring the loan terms. The officials toured the production facilities and conducted meetings with Solyndra's management team. 80% of the discussion was focused on Solyndra's sales and marketing plan and how the DOE could underwrite Solyndra's projected sales volume. The DOE originally asked to see signed purchase orders, but management explained that there is nothing concrete - just a compilation of anecdotal evidence that Solyndra will be able to increase sales volumes through its new sales methods/channels.

is planning to draw on the DOE loan in November and December. Management stated that DOE officials have indicated the November draw should be approved, but it is likely they will need to see equity committed to the company prior to the December draw. It sounds like the DOE is primarily focused on not looking bad, and if they continue to fund while equity holders are unwilling to commit, they could look bad.

Process
DOE has a meeting with Goldman Sachs tomorrow to discuss the probability of fundraise success. Management thinks GS will tell the DOE that most the industrial companies are not interested (aside from Bosch which has requested more information), and they are just beginning to contact financial investors. I think this meeting could potentially prompt the DOE to ask for some commitment from investors prior to the November funding.

Layoffs
discussed their timeline for announcing layoffs. They currently expect to tell suppliers/customers/potential investors on Oct 27 and employees/press on Oct 28 (this Thursday). The DOE has requested a delay until after the election (without mentioning the election), but management believes they need to communicate as quickly as possible as rumors are rampant and many employees have left (Sept'10 employee churn was equal to total 2009 employee churn).

DOCUMENT

I

From: Steve Mitchell [redacted]
Sent: Saturday, October 30, 2010 2:40 AM
To: Ken Levit; George Kaiser
Subject: RE: One more DoD contact idea

Ken,

let's discuss tmrw and get Arnold talking with the right guys at Solyndra. We are also working with [redacted] two star general (retired) and [redacted] and [redacted] are helping to arrange something with [redacted]

I will send an update soon but the bottom line is that the DOE continues to be cooperative and have indicated that they will fund the November draw on our loan (app. $40 million) but have not committed to December yet. They did push very hard for us to hold our announcement of the consolidation to employees and vendors to Nov. 3rd - oddly they didn't give a reason for that date.

Steve

From: Ken Levit [redacted]
Sent: Fri 10/29/2010 1:29 AM
To: Steve Mitchell; George Kaiser
Subject: One more DoD contact idea

[redacted] tonight gave me a great idea, to call and possibly enlist [redacted] who worked for [redacted] forever, ran [redacted] office for ten years, has run numerous study board for DoD, gives half his time to [redacted] re DoD and consults for other half. He really is a legendary expert on DoD and super-close to various of the Congressional and WH experts. It's a good idea. [redacted] would help make the intro.

DOCUMENT

J

From: [redacted]
Sent: Saturday, October 30, 2010 4:26 AM
To: Ken Levit
Subject: Re: did they do layoffs?

No announcement till after elections at doe request

From: Ken Levit
To: [redacted]
Sent: Fri Oct 29 17:21:07 2010
Subject: did they do layoffs?

DOCUMENT

K

From: Ken Levit
Sent: Saturday, October 30, 2010 8:58 PM
To: [redacted]
Subject: RE: GKFF Portfolio Update 10/29/10

Kind of a big bummer.

From: [redacted]
Sent: October 30, 2010 3:43 PM
To: [redacted] Ken Levit
Cc: [redacted]
Subject: GKFF Portfolio Update 10/29/10

[redacted]

Solyndra

Fundraise Update - Solyndra is still in need of approximately $150mm of outside equity capital by the end of the year. To date, the general level of interest from outside investors has been low which is signaling that raising outside funds by the end of the year will be tough. Goldman has been unsuccessful gaining traction with large industrial companies (with the exception of Bosch and GE who have requested more information but do not appear overly serious). Goldman began discussions with traditional private equity funds earlier this week and three firms, General Atlantic, Warburg Pincus, and SilverLake, have indicated interest. Solyndra also intends to contact other solar companies in the near future, but we cannot say with confidence that they will show any more interest than the investors contacted to date.

DOE Loan Restructuring - Solyndra management has had a series of meetings with the DOE over the past couple of weeks to discuss restructuring the existing DOE loan agreement. It appears that the DOE is willing to accommodate Solyndra's asks, but they appear to be concerned about "looking bad" if they continue to fund Solyndra while (1) equity owners don't support the company or (2) Solyndra fails to execute on their business plan. Solyndra plans to draw additional funds from the DOE in November and December, so it is critical to have their approval to maintain adequate liquidity. With respect to additional loan draws, management believes the November funding is effectively approved, but the December funding could be held up if the DOE feels uncomfortable about the prospects of additional capital. The DOE is also holding meetings with Goldman in order to understand the probabilities of a successful fundraise. This meeting could potentially impact the DOE's decision to allow the November or December fundings.

DOE officials visited Solyndra's facilities last week as part of their diligence in connection with restructuring the loan terms. The officials toured the production facilities and conducted meetings with Solyndra's management team. 80% of the discussion was focused on Solyndra's sales and marketing plan and how the DOE could underwrite Solyndra's projected sales volume. The DOE originally asked to see signed purchase orders, but management explained that there is nothing concrete - just a compilation of anecdotal evidence that Solyndra will be able to increase sales volumes through its new sales methods/channels.

Layoff Announcement - Management discussed their timeline for announcing layoffs. They recently decided to delay the announcement date from 10/28 until 11/3 per the DOE's request. Management is eager to announce the company's revised plans because rumors are rampant and employee churn is increasing substantially (Sept'10 employee churn was equal to total 2009 employee churn). The current plan is to lay off about 100 part-time factory workers and 50 full time factory workers (in connection with the consolidation of Fab 1 into Fab 2). In approximately 6 months, management plans to lay-off another 50-100 R&D focused employees.

Next week we will send an update on the fundraising progress with the financial sponsors mentioned.

[redacted]

[redacted]

DOCUMENT

L

From: George Kaiser
Sent: Sunday, November 07, 2010 5:37 PM
To: Steve Mitchell
Cc: [redacted]
Subject: RE: RE: National Review blog

Yeah but the other issue is how we/they prepare themselves for Congressional investigation of the loan award by DOE.

From: Steve Mitchell
Sent: Sunday, November 07, 2010 11:34 AM
To: George Kaiser
Cc: [redacted]
Subject: Re: National Review blog

Thanks. Saw it this morning. Things are going much better at the company and the DOE has been working to help us be successful - I'm sure this will limit the DOE's ability to act like a lender instead of a government bureaucracy.

From: George Kaiser
Sent: Sunday, November 07, 2010 11:29 AM
To: Steve Mitchell
Subject: FW: National Review blog

From: Ken Levit [redacted]
Sent: Sunday, November 07, 2010 10:52 AM
To: George Kaiser
Subject: Re: National Review blog

Faster than I expected but it's a near certainty that this will be a House investigation. Bummer. The company will be distracted by this. They are going to need a federal strategy--offense and defense.

From: George Kaiser [redacted]
To: Ken Levit
Sent: Sun Nov 07 10:47:49 2010
Subject: National Review blog

Time to Subpoena the D.O.E. over Solyndra

Saturday, November 6th, 2010
National Review Online, by Greg Pollowitz Posted By: StormCnter- Sat, 06 Nov 2010 10:20:02 GMT Hot Air: The Obama administration made Solyndra, a solar'power manufacturing company, a symbol of its "green jobs" push in the Porkulus program. Barack Obama himself toured the factory, as did Barbara Boxer. Taxpayers

ended up sinking $535 million into building Solyndra a new facility that promised to add jobs in the clean'energy sector. (Snip) In other words, we invested $535 million into a company that apparently couldn't compete on a price basis with its foreign competition.

DOCUMENT

M

From: George Kaise[redacted]
Sent: Wednesday, November 24, 2010 2:56 PM
To: Steve Mitchell
Cc: [redacted] Ken Levit
Subject: RE: Solyndra Update

Would financial investors feel better if they were rendered parri pasu with the DOE on either total or future advances? Would DOE do that to gain a financial investment? The collateral is not worth a tremendous amount anyway.

From: Steve Mitchell
Sent: Tuesday, November 23, 2010 8:19 PM
To: George Kaiser
Cc: [redacted] 'Ken Levit'; Steve Mitchell
Subject: Solyndra Update

George,

I had a good call with Brian Harrison and Bill Stover yesterday and wanted to send an update on the company's current situation.

Sales & Marketing: The company should sell between 12.5 and 15 MWs this quarter – 12.5MWs would be below plan but would occur by choice as Brian has refused to sell into German distribution at low ball prices (if we don't sell it this quarter he believes we can move it next quarter). The dormant inventory in distributors hands has been worked down by Solyndra's sales team – this was app. 6MWs last quarter and this quarter which gives us a market run rate of between 18 to 20MWs. Pricing has held up and should be around $2.40 for the quarter. The most dramatic change is Brian's growing confidence that we can meet the capacity ramp in 2011. He and [redacted] (our new head of marketing) indicated that the change in market dynamics for our product over the last 3 months has been significant – he attributes this to the integrators understanding our product's application better (and valuing it) and the implementation of forward pricing so the integrator and end user feel they can design in a Solyndra solution to be installed 6 to 9 months out. The communication around shutting Fab 1 and consolidating operations into Fab 2 was apparently handled very well with customers and suppliers and the fall out there has been negligible. I asked Brian the direct question on his belief that the company can drive demand to meet the Q3 capacity step up to 35MWs and he did not guaranty it but he does believe it is achievable. Brian indicated that Solyndra's greenhouse solution is building momentum but he does not expect to see much in the way of sales until Q2 – the feed-in-tariff in Italy is very good for our greenhouse application.

We have had a few good wins that Brian believes are indicative of our value proposition starting to resonate – under the CA renewable energy standards utilities must develop owned renewable energy production as well as buy power from 3rd party producers (requirements are for 50/50 self-generated to purchased energy production). [redacted] had committed to bring online a 7MW installation to be installed on one of its own distribution centers (ProLogis owns the building – you may recall we have a 16MW installation with them next year). [redacted] was installing crystalline silicon panels until they realized the roof was more load challenged than it had original thought – turns out Solyndra panels are the only panel that can go on this roof. [redacted] called in somewhat of a panic and Brian is 95% certain we will install this project in [redacted] Brian stated that more and more of these types of situations are occurring and that he believes momentum is starting to build.

[redacted] asked to come out to Fremont to see our facilities as more integrators were starting to pitch Solyndra products as [redacted] has highly engineered rooftops with sky lights. This is years in the making unfortunately, but the meeting went very well and [redacted] officials spent about 3.5 hours with Brian. There were some early discussions about [redacted] buying from Solyndra directly and then outsourcing the installation.

I realize much of the sales report is anecdotal. The key question that outside investors, the DOE and current investors are asking is can Solyndra develop the channels and create demand to meet the ramp up in capacity that occurs in 2011. I, and others, are talking to the company weekly to try and gauge this and will start speaking with customers again soon – but the inputs are primarily anecdotal sales evidence – the size of transactions, where they are occurring, new customers designing us in (for instance [redacted] was refusing to quote Solyndra panels in September and through [redacted] and [redacted] efforts they look to be a significant partner going forward) and forward looking orders. [redacted] assured me that we would not know factually significantly more in November or December than we did in September or October about Solyndra's ability to move 2011 output, but that the company would have a much better "feel" for it. He asserts that moving the capacity will not be without its challenges but that he is feeling much better about our prospects.

Operations: Output for the quarter is on track from a volume perspective, however, we did have a low watt per panel output week earlier this month [redacted] watt panels ended up being [redacted] watt panels) which lowered our output from a power production standpoint. This was the result of poor quality moli (source metal) target that has been rectified. [redacted] was budgeted for production in the 4th quarter, however this includes [redacted] of output from Fab 2 which we will sacrifice if the manufacturing tax credit comes to fruition. The company will start taking Fab 1 machines down in mid-December and should start installing them in Fab 2 in mid-February. Solyndra did receive [redacted] in the form of Cal. Manufacturing Tax Credit, however, this was not upside to our business plan as we expected to receive this.

Although the consolidation message went well with customers and suppliers, the consolidation is just one more event of volatility that is unnerving Solyndra's employees and attrition is becoming an issue. The company has lost an average of 30 employees each of the last 4 months. Some of these would have been lost to the RIF anyway, however, several of them were employees that are part of the long term success of the technology. Apparently the job market in Silicon Valley is very hot right now and the employees we are losing are the primary bread winner in their household and the uncertainty of Solyndra's viability is forcing the decision to move on. The company is implementing a retention package for app. 100 key employees that will incent them to stay through the next 6 to 9 months which is a critical transition period – if the company fails to secure financing this is moot.

Financing: As you know, [redacted] originally approached about 30 strategic investors to lead the app. [redacted] of equity capital that [redacted] revised plan calls for to reach cash flow breakeven (this requires not only the [redacted] but the requested concessions from the DOE as well). The strategic investors have all passed. This was not surprising and beyond [redacted] none of the strategic investors engaged in any meaningful way – this is just way outside of the risk/return parameters for these investors.

We have now reached out to financial investors and we have had a better response from this group. Eight financial groups have opted to take meetings. [redacted] is the only one to pass after the initial meeting – they were initially very excited about the opportunity, however, they passed for the following stated reasons 1) they already have a failed CIGS investment in their fund and there is an emotional/mental block to investing in another CIGS player, 2) concern over future pricing declines beyond $2.00 per watt which would require an additional capital raise and 3) fear that the brand is hampered by the pulled IPO and negative press which will be a drag on the company's ability to meet its sales targets. Tough but honest feedback.

The company has met with [redacted] and has meetings scheduled with [redacted] and [redacted] reached back out to Solyndra to reengage on the opportunity. [redacted] and management describe [redacted] as actively engaged in diligence – apparently [redacted] is hammering on capex costs for future growth (a valid concern) and to what extent can the capex per watt be reduced in future fabrication facilities ([redacted] team has several ex [redacted] guys).

The three primary questions that are being asked are 1) can the company drive demand to meet 2nd half of 2011 capacity expansion, 2) can the company continue to cut costs (this is getting the most favorable results) and 3) how does a new investor make the economics work. The first two issues are apparently fairly understood by the potential investors as their interest level has increased the 3rd question is receiving more focus. Basically they are indicating that with [redacted] of DOE debt and [redacted] of convertible debt (the june loan) even assuming the prior rounds of A through F are wiped out it is tough for them to see the types of returns they want to see on this type of investment. Assuming Solyndra hits its plan of [redacted] of Ebitda in 2014 and assuming it trades at [redacted] Ebitda like its peers than the company has an enterprise value of [redacted] - [redacted] of DOE debt leaves [redacted] of equity value. If the new money converts on an equal basis with our convertible debt it will own app. [redacted] of the equity X [redacted] equates to [redacted] of equity value for the new investors or [redacted] However, Solyndra will have reached its full manufacturing capacity by 2014 and a valid argument can be made that without growth prospects the company will be valued at [redacted] Ebitda or will have to raise additional capital (i.e. dilution) to reach a greater valuation multiple. At a [redacted] Ebitda multiple the enterprise value is [redacted] minus [redacted] in debt resulting in a [redacted] equity value – this results in [redacted] in equity value for new investors and [redacted] invested capital. With the execution risk, historical failure to hit plans on budget and the reality of Chinese competition the interested investors are making the argument that they need better economics. Nobody has submitted a term sheet or detailed an outline of a deal, however, [redacted] is telling us that interested investors are making the case that the DOE is going to have to equitize a portion of its debt or more likely need to haircut the debt by [redacted] or [redacted] and that the subordinated debt will need to take a haircut or sit behind liquidation preferences. [redacted] and management continue to work with all parties and hopefully we will receive some indications of interest soon.

DOE: As you know, we reached out to the DOE in late September early October to discuss our revised business plan that included consolidating Fab 1 and Fab 2 operations, the need to raise an additional [redacted] and the need to alter the terms of our loan agreement with the DOE. DOE funded the company's October draw of app. [redacted] prior to our meeting in DC and following that meeting funded another [redacted] for November. Key to the company's viability and assumption underlying the [redacted] need is that DOE will continue to fund under the funding schedule outlined in the loan agreement. Our concern has been that they will withhold funding to try and force investors to contribute additional capital now. In our meeting in DC the DOE asked specifically to Argonaut's willingness to fund additional equity capital. I made it very clear that although we believe in the technology and have been incredibly supportive to date, the company needs a new investor with a strong balance sheet for it to effectively move forward. In the event that we are able to see real progress in cost cutting and demand creation and the company secures a strong lead investor that we are very open to making an additional investment (but I was very clear that we were not intending to save the day or underwrite the entire amount). At the time the DOE officials seemed okay with that response, however, as fund raising has been slow (in their minds, not mine as I never thought anyone would make an investment decision until January/February as the more time that passes the more vision they have as it relates to Fab 2 ramp up risk and demand creation) they seem to be getting increasingly nervous about continuing to fund the loan.

The DOE has had discussions with [redacted] and myself over the past two days. They directly asked Argonaut if we would fund a portion of their loan in December which I declined to do. They indicated that since this "crisis" occurred they are the only group funding the company and that they needed to be able to show their superiors and the OMB that the DOE is not the only group supporting Solyndra. I very politely pointed out that the crisis occurred with a [redacted] price decline from foreign competition and that we reached out to the DOE in April/May as soon as we learned of the revenue deficiencies facing the company and that the current investor group made a [redacted] loan/equity contribution to the company over the past 6 months (the last payment of which was made on Oct. 1st) and that those dollars are behind the DOE's in the capital stack. This point seemed to very much resonate with them and in some ways they appear to be looking to us to give them the arguments to make so they could continue funding the loan. To reiterate the point, it is critical to Solyndra's survival that the DOE continue to fund the loan – if the DOE choses to withhold a draw on Dec 10th or Jan 10th it will shut the company down without financial intervention.

I spent a good amount of time with [redacted] and Bill Stover today discussing the possibility that DOE would elect not to continue funding under the loan agreement. None of them see that as a realistic outcome over the next two or three months (I'm less optimistic as I have no faith in my understanding (or anyone's for that matter) of the pushes and pulls driving decision making in Washington (i.e. do it now during a lame duck congress, do it now and have two years behind them before a new presidential election, get it funded and keep it alive past the next election, etc.). The DOE has funded app. [redacted] of a [redacted] and to pull the plug without us being materially outside of our covenants and effectively shut the company down while we are in the middle of fund raising, in Goldman's belief, causes more problems than it solves. In any event, the 10th of each month will be critical through February – the funding amounts fall off dramatically at that point. Assuming the DOE continues to fund loan draws the company has until February before it needs to raise capital (there is a lot of sensitivity around receivables and payables that could make this late January or early March). This could be extended by 30 to 60 days if Solyndra qualifies for the full [redacted] manufacturing tax credits.

It isn't really an issue to be fleshed out in this email but under the terms of our subordinated debt we have a first lien security interest in everything Solyndra owns including Fab 1 and the intellectual property (excluding Fab 2). We are taking the time to understand the ramifications of an event in which the DOE decides to stop funding and what a Fab 1 only business plan would look like. This is obviously not an option we would want to pursue unless forced into it but I've asked the questions as to how much capital it would take to reach cash flow positive and what is expected Ebitda and cash flow at full capacity (which is approximately [redacted] and [redacted] in revenues). This route would only be taken if we were left with no other option (and it penciled out as an option we would want to pursue versus liquidation) and it would require a pre-packaged bankruptcy.

I've attached the financial metrics to the consolidation plan that was presented to the DOE. The password is sunshine (no caps). Please note the SG&A and Depreciation in 2011 are inflated by [redacted] as a result of the write off of Fab 1 facilities – they negate each other in the Ebitda line.

Please let us know if what questions or comments you may have.

Steve

DOCUMENT MC

From: Steve Mitchell [redacted] on behalf of [redacted]
Sent: Wednesday, November 24, 2010 8:00 PM
To: [redacted] George Kaiser
Cc: [redacted] Ken Levit
Subject: Re: Solyndra Update

[redacted] who is our day to day below Jonathan Silver, believes [redacted] can do everything we have asked of [redacted] without Chu's signature. We have yet to directly ask for a haircut on the debt. When I discussed that the concept was coming up with this concept [redacted] said it was something [redacted] could not do, but [redacted] didn't say if Chu or some other organization (congress, etc) would be required for such a change. We have been working with management to draw up strawman structures that may work - we have tried all sorts of variations that didn't discount he debt but bifurcated a portion behind a new investment liquidation preference. [redacted] indication is that would probably not be enough for a new investor and that they would require a haircut on the senior debt.

From: [redacted]
Sent: Wednesday, November 24, 2010 08:51 AM
To: George Kaiser; Steve Mitchell
Cc: [redacted] Ken Levit [redacted]
Subject: RE: Solyndra Update

And have we gotten any clarity on what the DOE is "allowed" to do without significant additional govt approvals? Last time we talked about this I thought they were not allowed to reduce the debt outstanding or accept equity for debt outstanding without a lot of hoops and hearings?

From: George Kaiser [mailto [redacted]
Sent: Wednesday, November 24, 2010 8:45 AM
To: Steve Mitchell
Cc: [redacted] Ken Levit
Subject: RE: Solyndra Update

What about DOD (and other governmental entity) sales efforts? Do the DOE people focus at all on how a Buy American plan could be a win win win for them and do they have any influence?

From: Steve Mitchell
Sent: Tuesday, November 23, 2010 8:27 PM
To: George Kaiser
Cc: [redacted] 'Ken Levit'
Subject: RE: Solyndra Update

Here is a reply all without the attachment if your email was blocked since the attachment is password protected.

From: Steve Mitchell
Sent: Tuesday, November 23, 2010 8:19 PM
To: George Kaiser
Cc: [redacted] 'Ken Levit';

Steve Mitchell
Subject: Solyndra Update

George,

I had a good call with Brian Harrison and Bill Stover yesterday and wanted to send an update on the company's current situation.

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We have now reached out to financial investors and we have had a better response from this group. Eight financial groups have opted to take meetings. [redacted] is the only one to pass after the initial meeting – they were initially very excited about the opportunity, however, they passed for the following stated reasons 1) they already have a failed CIGS investment in their fund and there is an emotional/mental block to investing in another CIGS player, 2) concern over future pricing declines beyond [redacted] which would require an additional capital raise and 3) fear that the brand is hampered by the pulled IPO and negative press which will be a drag on the company's ability to meet its sales targets. Tough but honest feedback.

The company has met with [redacted] and has meetings scheduled with [redacted] and [redacted] recently decided to reengage) and [redacted] reached back out to Solyndra to reengage on the opportunity. [redacted] and management describe [redacted] as actively engaged in diligence – apparently [redacted] is hammering on capex costs for future growth (a valid concern) and to what extent can the capex per watt be reduced in future fabrication facilities (TPG's team has several ex Flextronics guys).

The three primary questions that are being asked are 1) can the company drive demand to meet 2nd half of 2011 capacity expansion, 2) can the company continue to cut costs (this is getting the most favorable results) and 3) how does a new investor make the economics work. The first two issues are apparently fairly understood by the potential investors as their interest level has increased the 3rd question is receiving more focus. Basically they are indicating that with [redacted] of DOE debt and [redacted] of convertible debt (the june loan) even assuming the prior rounds of A through F are wiped out it is tough for them to see the types of returns they want to see on this type of investment. Assuming Solyndra hits its plan of [redacted] of Ebitda in 2014 and assuming it trades at [redacted] Ebitda like its peers than the company has an enterprise value of [redacted] - [redacted] of DOE debt leaves [redacted] of equity value. If the new money converts on an equal basis with our convertible debt it will own app. [redacted] of the equity X [redacted] equates to [redacted] of equity value for the new investors or [redacted] However, Solyndra will have reached its full manufacturing capacity by 2014 and a valid argument can be made that without growth prospects the company will be valued at [redacted] Ebitda or will have to raise additional capital (i.e. dilution) to reach a greater valuation multiple. At a [redacted] Ebitda multiple the enterprise value is [redacted] minus [redacted] in debt resulting in a [redacted] equity value – this results in [redacted] in equity value for new investors and [redacted] invested capital. With the execution risk, historical failure to hit plans on budget and the reality of Chinese competition the interested investors are making the argument that they need better economics. Nobody has submitted a term sheet or detailed an outline of a deal, however, [redacted] is telling us that interested investors are making the case that the DOE is going to have to equitize a portion of its debt or more likely need to haircut the debt by [redacted] and that the subordinated debt will need to take a haircut or sit behind liquidation preferences. Goldman and management continue to work with all parties and hopefully we will receive some indications of interest soon.

DOE: As you know, we reached out to the DOE in late September early October to discuss our revised business plan that included consolidating Fab 1 and Fab 2 operations, the need to raise an additional [redacted] and the need to alter the terms of our loan agreement with the DOE. DOE funded the company's October draw of app. [redacted] prior to our meeting in DC and following that meeting funded another [redacted] for November. Key to the company's viability and assumption underlying the [redacted] need is that DOE will continue to fund under the funding schedule outlined in the loan agreement. Our concern has been that they will withhold funding to try and force investors to contribute additional capital now. In our meeting in DC the DOE asked specifically to Argonaut's willingness to fund additional equity capital. I made it very clear that although we believe in the technology and have been incredibly supportive to date, the company needs a new investor with a strong balance sheet for it to effectively move forward. In the event that we are able to see real progress in cost cutting and demand creation and the company secures a strong lead investor that we are very open to making an additional investment (but I was very clear that we were not intending to save the day or underwrite the entire amount). At the time the DOE officials seemed okay with that response, however, as fund raising has been slow (in their minds, not mine as I never thought anyone would make an investment decision until January/February as the more time that passes the more vision they have as it relates to Fab 2 ramp up risk and demand creation) they seem to be getting increasingly nervous about continuing to fund the loan.

The DOE has had discussions with Goldman, Madrone and myself over the past two days. They directly asked Argonaut if we would fund a portion of their loan in December which I declined to do. They indicated that since this "crisis" occurred they are the only group funding the company and that they needed to be able to show their superiors and the OMB that the DOE is not the only group supporting Solyndra. I very politely pointed out that the crisis occurred with a 50% price decline from foreign competition and that we reached out to the DOE in April/May as soon as we learned of the revenue deficiencies facing the company and that the current investor group made a $175 million loan/equity contribution to the company over the past 6 months (the last payment of which was made on Oct. 1st) and that those dollars are behind the DOE's in the capital stack. This point seemed to very much resonate with them and in some ways they appear to be looking to us to give them the arguments to make so they could continue funding the loan. To reiterate the point, it is critical to Solyndra's survival that the DOE continue to fund the loan – if the DOE choses to withhold a draw on Dec 10th or Jan 10th it will shut the company down without financial intervention.

I spent a good amount of time with [redacted] today discussing the possibility that DOE would elect not to continue funding under the loan agreement. None of them see that as a realistic outcome over the next two or three months (I'm less optimistic as I have no faith in my understanding (or anyone's for that matter) of the pushes and pulls driving decision making in Washington (i.e. do it now during a lame duck congress, do it now and have two years behind them before a new presidential election, get it funded and keep it alive past the next election, etc.). The DOE has funded app. [redacted] and to pull the plug without us being materially outside of our covenants and effectively shut the company down while we are in the middle of fund raising, in [redacted] belief, causes more problems than it solves. In any event, the 10th of each month will be critical through February – the funding amounts fall off dramatically at that point. Assuming the DOE continues to fund loan draws the company has until February before it needs to raise capital (there is a lot of sensitivity around receivables and payables that could make this late January or early March). This could be extended by 30 to 60 days if Solyndra qualifies for the full [redacted] manufacturing tax credits.

It isn't really an issue to be fleshed out in this email but under the terms of our subordinated debt we have a first lien security interest in everything Solyndra owns including Fab 1 and the intellectual property (excluding Fab 2). We are taking the time to understand the ramifications of an event in which the DOE decides to stop funding and what a Fab 1 only business plan would look like. This is obviously not an option we would want to pursue unless forced into it but I've asked the questions as to how much capital it would take to reach cash flow positive and what is expected Ebitda and cash flow at full capacity (which is approximately [redacted] and [redacted] in revenues). This route would only be taken if we were left with no other option (and it penciled out as an option we would want to pursue versus liquidation) and it would require a pre-packaged bankruptcy.

I've attached the financial metrics to the consolidation plan that was presented to the DOE. The password is [redacted]. Please note the SG&A and Depreciation in 2011 are inflated by [redacted] as a result of the write off of Fab 1 facilities – they negate each other in the Ebitda line.

Please let us know if what questions or comments you may have.

Steve

DOCUMENT

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From: Steve Mitchell [redacted]
Sent: Friday, December 03, 2010 10:07 PM
To: George Kaiser
Cc: [redacted] Ken Levit
Subject: FW: Dept of Energy Meeting Monday, December 6
Attachments: DOE Mtg Dec 6.pdf

DOE proposal

From: Bill Stover [mailto:[redacted]
Sent: Friday, December 03, 2010 7:16 AM
To: [redacted]
Cc: Brian Harrison; Steve Mitchell; [redacted]
Subject: Dept of Energy Meeting Monday, December 6

Good Morning [redacted]

Thank you for making your team available for our meeting on Monday. Our gathering on Monday, and subsequent days as necessary, is a critical opportunity to forge a common ground for structuring a solution that works for the Dept of Energy, the Company, and our investors.

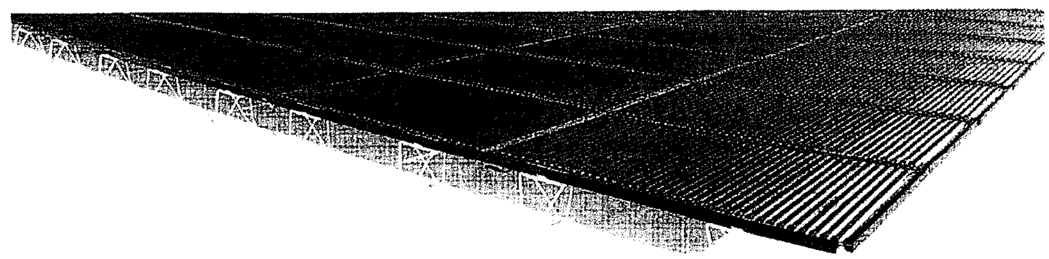
As indicated previously, Brian Harrison, myself, Steve Mitchell and [redacted] will be in attendance. [redacted] one of Steve's senior analysts, will also be joining. Given the nature of our deliberations and the urgency of moving forward timely, Jonathan Silver's availability to join discussions is essential.

As requested, I've attached an outline reflecting the Company's and our existing investors' perspective. We recognize there are very tough challenges noted therein for all constituents, but are optimistic that we can find common ground to move forward.

I will give you a call this morning.

W. G. "Bill" Stover, Jr.
CFO

[redacted]



Dept. of Energy Meeting

December 6, 2010 – 9:00 am
Forrestal Building
1000 Independence Ave, S.W.

Solyndra Confidential

SOLYNDRA™
The new shape of solar™

Why are we here?

- Desired Outcome
  - Come to agreement on structural path forward to secure incremental funding
- Timing/Urgency
  - Without access to FFB loan, the Company will be unable to pay its obligations in December
- Preserve 1,000 Solyndra jobs and U.S. supplier infrastructure spending of $150 Million annually
- Avoid the Alternative
  - Absent a viable funding path, the Company must move forward with a bankruptcy filing in December

Situation Assessment

Company's perspective:

- --Ensure continued access to FFB loan draws
- --Obtain incremental capital to achieve positive cash flow from operations ($150 Million per plan)
- --Securing capital from new investors is not possible within the relevant time horizon

Dept. of Energy's perspective:

- --Complete Fab 2
- --Achieve sustainable operating state; fully service FFB loan
- --Debt to equity conversion is not possible
- --Incremental investor capital must be committed as a condition for continued FFB/DOE loan draws

Situation Assessment

Existing Investors' perspective:

- Have demonstrated commitment to the business through most recent [redacted] convertible debt infusion [redacted] funded as recently as Sept 23)
- [redacted] equity invested is gone; equity investors resigned to zero recovery
- Each existing investor will evaluate incremental funding as a fresh investment decision wholly on its merits
- Terms of any new investment must:
  - Be in context of fully funded plan
  - Have liquidation rights to allow recovery of new capital

Potential Solution in Summary

- [redacted] of incremental capital to be secured through a combination of increasing the FFB loan size and existing investor funding; i.e. fully-funded plan
  - [redacted] increase to FFB loan
  - [redacted] investor funding (convertible debt pari passu with FFB loan increase)
  - Senior liquidation position over [redacted] existing FFB loan and [redacted] existing convertible notes

- [redacted] FFB loan and [redacted] existing convertible notes have pari passu rights in all security

Summary of Revised Proposal

- ***Loan Amount:*** increase loan amount by [redacted] in total)
- ***Convertible Debt:*** [redacted] new debt from existing investors
- ***Seniority:*** Increased loan amount and new convertible debt pari passu, and senior to all other indebtedness
- ***Security Interest:*** expanded to include a first priority security interest in all assets of Solyndra, Inc. including intellectual property
- ***Guarantee***: Complete and unconditional guarantee of all Fab 2 obligations including the Indebtedness by Solyndra, Inc.
- ***Loan Maturity:*** extended to December 15, 2020
- ***Amortization Schedule: Tranche 1 -*** [redacted] amortizing over term through December 2020
  - Interest forbearance until December 15, 2013; beginning of principal & interest amortization schedule
- ***Balloon Payment: Tranche 2 -*** [redacted] and its related interest accumulation due December 2020

Summary of Revised Proposal, cont.

- ***Pre-Funding of Cost Overrun Account:*** Removal of obligation to pre-fund [redacted] for cost overruns
- ***Advance Schedule:*** Continued draws to full extent of loan total
- ***Credit Subsidy Cost Payments:*** To the extent that the modifications set out in this Term Sheet result in an additional Credit Subsidy Cost payment, DOE will use funds allocated under Section 1705 of Title XVII to fund those payments
- ***Anticipated Physical and Operational Completion:*** extended to December 31, 2013
- ***Debt Service Reserve Ratio:*** needs to be modified in concert with adjusted business plan

Summary of New Convertible Debt

- ***Amount:*** [redacted]
- ***Option:*** Right, at the election of the Company and new investors, to increase convertible debt financing by $50,000,000 (aggregate $100 Million) on same terms
- ***Interest Rate:*** [redacted] accruing through maturity
- ***Conversion:*** Optional at holders discretion; conversion ratio and/or pre-money valuation to be determined
- ***Maturity:*** December 15, 2015
- ***Liquidation Preference:*** Pari passu with incremental $100 Million of [redacted] loan funding, and senior to existing [redacted] FFB loan and existing [redacted] convertible notes

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From: David Prend [redacted]
Sent: Monday, December 06, 2010 5:57 PM
To: Steve Mitchell
Subject: Re: Re: Solyndra Proposal

The seniority is clearly on the table. Maybe you can get enough from DOE to make the deal attractive to a new investor? Clearly we need to take this to the White House if necessary...

Sent from my iPhone

On Dec 6, 2010, at 9:45 AM, "Steve Mitchell" [redacted] wrote:

> I have zero dollars for this or almost anything.
>
> **From:** David Prend [redacted]
> **Sent:** Monday, December 06, 2010 11:44 AM
> **To:** Steve Mitchell
> **Subject:** Re: Solyndra Proposal
>
> It is a start... Pari passu is at least on the table...
>
> Sent from my iPhone
>
> On Dec 6, 2010, at 9:35 AM, "Steve Mitchell" [redacted] wrote:
>
>> **From:** [redacted]
>> **Sent:** Sunday, December 05, 2010 08:33 PM
>> **To:** Steve Mitchell
>> **Subject:** RE: Fwd: Solyndra Proposal
>>
>> Counter includes all [redacted] coming from existing investors; [redacted] of it in the form of senior secured, pari passu to [redacted] of DOE's debt (which includes the remaining [redacted] of the [redacted]. The [redacted] from existing investors funded pro rata with the remaining draw schedule. The remaining [redacted] to come from existing investors in the form of convertible debt which sits below the existing [redacted] convertible and will also fund with the remaining draw schedule. Above funding from existing investors a condition precedent for the December advance. DOE's incremental funding comes solely in the form of a principal & interest holiday that adds [redacted] to the loan amount.
>>
>> **From:** Steve Mitchell
>> **Sent:** Sunday, December 05, 2010 7:50 PM
>> **To:** [redacted]
>> **Subject:** Fw: Fwd: Solyndra Proposal

Haven't reviewed.

From: Bill Stover [redacted]
Sent: Sunday, December 05, 2010 07:35 PM
To: Brian Harrison [redacted] Ben Schwartz [redacted]; Steve Mitchell; [redacted]
Cc: [redacted]
Subject: Fwd: Solyndra Proposal

I just received this as landed in Denver. For those on the ground in DC, we can gather at Hyatt Regency breakfast at 8:00 before heading to MoFo at 9:00. Joint session still scheduled for noon.

We will be modeling the attached yet tonight.

Begin forwarded message:

> **From:** [redacted]
> **Date:** December 5, 2010 3:17:31 PM MST
> **To:** "bill.stover [redacted]
> **Subject: Fw: Solyndra Proposal**
>
> Bill,
>
> My apologies for the delay in getting this to you.
>
> Hope to see you tomorrow.
>
> [redacted]
>
> ---
>
> **From:** [redacted]
> **To:** [redacted]
> **Sent:** Sun Dec 05 17:15:34 2010
> **Subject:** Solyndra Proposal

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[redacted]

From: [redacted]
Sent: Wednesday, December 08, 2010 4:42 PM
To: [redacted]
Subject: Fw: Solyndra liquidity crisis

FYI --

From: [redacted]
To: [redacted]
Sent: Wed Dec 08 16:32:58 2010
Subject: Fw: Solyndra liquidity crisis

From: [redacted]
To: [redacted]
Cc: [redacted]
Sent: Wed Dec 08 16:25:34 2010
Subject: Solyndra liquidity crisis

DOE has shared with us (and Treasury) that Solyndra is in the midst of a severe liquidity crisis. In its negotiations with Solyndra investors regarding potential restructuring options, DOE has created a deadline THIS FRIDAY that may precipitate a meltdown that would likely be very embarrassing for DOE and the Administration. We should know by COB tomorrow if Solyndra will meet this deadline.

DOE has indicated to Solyndra that they will not disburse the next scheduled loan disbursement (expected this Friday) unless two of Solyndra's main current investors commit to making an additional [redacted] equity investment before then. This investment is only half of the amount called for by Solyndra's consolidation plan, but efforts thus far to raise equity from strategic and financial investors have not been successful.

If investors do not commit these funds and DOE does not disburse on the loan, Solyndra may default on obligations to various suppliers soon thereafter. This would likely become public quickly, and could force the company into bankruptcy. If investors commit the funds, restructuring discussion will continue, and may involve significant changes including extending the current loan tenor and repayment grace periods, and even potentially discounting the value of DOE's debt and/or subordinating parts of it to attract further equity capital.

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From: [redacted]
Sent: Wednesday, December 08, 2010 8:46 PM
To: George Kaiser; [redacted]
Subject: RE: DOE negotiatons regarding solyndra

Unless there is some agreement (or in the case of tax liabilities, law) giving them priority, they are no different than any other shareholder/creditor.

From: George Kaiser
Sent: Wednesday, December 08, 2010 9:47 AM
To: [redacted]
Subject: RE: DOE negotiatons regarding solyndra

Can the government be crammed down in a bankruptcy court?

From: [redacted]
Sent: Wednesday, December 08, 2010 9:36 AM
To: George Kaiser; [redacted]
Subject: RE: DOE negotiatons regarding solyndra

I can do that, though I may not have all my questions answered (I have the key questions answered, but I have raised a couple of alternative approaches and do not yet know the viability of them.)

From: George Kaiser
Sent: Wednesday, December 08, 2010 9:28 AM
To: [redacted]
Subject: RE: DOE negotiatons regarding solyndra

Can both of you do 1:00 today if I move my [redacted] meeting a little earlier?

From: [redacted]
Sent: Wednesday, December 08, 2010 9:14 AM
To: George Kaiser; [redacted]
Subject: Re: DOE negotiatons regarding solyndra

I can do 1:00.

From: George Kaiser
Sent: Wednesday, December 08, 2010 07:50 AM
To: [redacted]
Subject: RE: DOE negotiatons regarding solyndra

[redacted] your availability?

From: [redacted]
Sent: Tuesday, December 07, 2010 1:08 PM
To: George Kaiser; [redacted]
Subject: Re: DOE negotiatons regarding solyndra

Wasn't sure whether you wanted all of us there but I'd like to attend if so.

If so - Ken and I are scheduled for my quarterly investment meeting with the trustees from 2 to 5 Thursday. I can try to change the meeting or perhaps we could meet at 1pm and I'll push them back to 230 or 3?

From: George Kaiser [redacted]
Sent: Tuesday, December 07, 2010 11:59 AM
To: [redacted] Steve Mitchell [redacted]
Cc: [redacted] Ken Levit
Subject: RE: DOE negotiatons regarding solyndra

OK - 3:00.

From: [redacted]
Sent: Tuesday, December 07, 2010 11:24 AM
To: George Kaiser; Steve Mitchell
Cc: [redacted]
Subject: RE: DOE negotiatons regarding solyndra

I have a bank call at 2:00. Sandy put 3:00 on my calendar.

From: George Kaiser
Sent: Tuesday, December 07, 2010 11:15 AM
To: [redacted] Steve Mitchell
Cc: [redacted]
Subject: RE: DOE negotiatons regarding solyndra

2:00 Thursday?

From: [redacted]
Sent: Tuesday, December 07, 2010 11:11 AM
To: George Kaiser; Steve Mitchell
Cc: [redacted]
Subject: RE: DOE negotiatons regarding solyndra

That would be the key (your last parenthetical comment).

From: George Kaiser
Sent: Tuesday, December 07, 2010 11:06 AM
To: Steve Mitchell
Cc: [redacted]
Subject: RE: DOE negotiatons regarding solyndra

I would go a long way to preserve the NOLs. [redacted] I want to talk about this before I leave town (by Thursday night). If you want a stall plan, Steve, you could make our decision subject to our better understanding of whether the NOLs can conceivably be preserved in a semi-liquidation (that is, somehow maintaining the line of business and avoiding change of control).

From: Steve Mitchell
Sent: Tuesday, December 07, 2010 10:30 AM
To: George Kaiser
Cc: [redacted]
Subject: Re: DOE negotiatons regarding solyndra

We and the DOE loan fundings (both the 75 and their 95)would be reset to the revised business plan so they could only create a loan covenant crisis again if the company doesn't meet its revised plan (this is a Brian Harrison plan, not a [redacted] plan).

This would be a fully funded plan and by the end of the year the company should be cash positive. It is a tight plan as it relates to cash and meeting the capacity ramp in Q3 and Q4 are critical to this success.
But we would not anticipating a need for additional cash - if we do need additional cash it would be a working capital need (or we completely blew the plan).

As for the manufacturing tax credit - they are now very aware of the importance of this to Solyndra. The cannot agree to lobby for our behalf but indicate they are trying to be helpful. We are currently hearing that this (and many other refundable credits) have been in and out of the current bill a couple of times over the last 48 hours. I don't think they can have a meaningful impact on this as it is now a very political part of the entire tax discussion that is way above the DOE discussions.

Oddly, this structure appears to preserve Solyndra's NOLs as well. This needs to be confirmed but is an app. [redacted] number and would be very helpful for future cash flows.

From: George Kaiser
Sent: Tuesday, December 07, 2010 10:09 AM
To: Steve Mitchell
Cc: [redacted]
Subject: RE: DOE negotiatons regarding solyndra

Yeah, I realized that. I'd go in pari pasu but that is probably not a deal killer. They would have no ability to create another funding crisis on the rest of the loan because of covenant violations? This would get both of us through deadlines until June 30? What chance is there to realize cash breakeven by then? Can they help on the manufacturing tax definition, now that they have a vested interest?

From: Steve Mitchell
Sent: Tuesday, December 07, 2010 10:06 AM
To: George Kaiser
Cc: [redacted]
Subject: Re: DOE negotiatons regarding solyndra

As currently described - yes. But we have not communicated this to the DOE yet so we could ask for pari passu with their 75 and 95. We would be taking equity upside with our 75 that they would not receive - which was the rational for being junior to their new capital. We would still amortize ahead of their already funded debt.

From: George Kaiser
Sent: Tuesday, December 07, 2010 10:03 AM
To: Steve Mitchell
Cc: [redacted]
Subject: RE: DOE negotiatons regarding solyndra

So, the new [redacted] on our side would be subordinate to the new [redacted] on the DOE side?

From: Steve Mitchell
Sent: Tuesday, December 07, 2010 9:59 AM
To: George Kaiser
Cc: [redacted]
Subject: Re: DOE negotiatons regarding solyndra

George,

We've had quite a bit of internal discussions and some back and forth with the DOE since last night. My prior email was more of an update and I would like to request authority to make an offer to the DOE today that would fully fund Solyndra's go forward plan and revise the DOE loan. I don't think providing [redacted] now to keep the DOE funding makes sense at this hour. This amount only gets us through February and we won't raise additional capital in that time period. It also enforces the DOE's thought that we will continue to fund the company.

We would like to propose that the DOE increase its loan by [redacted] (we asked for this late last night and don't know if it is possible at this hour) and Argonaut and Madrone will underwrite a [redacted] commitment (50/50) to fully fund the business on a go forward basis. We have consistently told the DOE we don't have the entire [redacted] to fund the business and we won't invest in anything short of a fully funded plan. The DOE's [redacted] plus the additional [redacted] will be the senior secured debt of Solyndra. The argonaut/madrone [redacted] will be subordinated to the senior loan but senior to the remaining [redacted] of DOE loan (which will have the discounted 15 year term characteristics I described last night). The convertible debt will convert into equity and our new [redacted] will have equity purchase rights in some form for a large share of the ownership as well.
This gives the company the best opportunity to execute on its business plan as they can stop fundraising and communicate to the marketplace that they are fully funded. I expect our commitment of [redacted] could be lowered by other investor's participation should we choose to do so. Jamie and the Madrone group have approved this plan. I have talked with [redacted] and he is okay to move forward subject to my discussion with you for your feedback one way or another.

I don't know the odds of the DOE agreeing to do this - I put them around 50 / 50. If we make this proposal the best case scenario for this week is that the DOE's agrees to try and get the loan increase approved, funds Thursday's loan draw and we wait to hear in December whether they can increase the loan. If they don't increase the loan we would not be obligated to fund any additional capital. Please let me know if you are okay with us making this proposal.

Thanks

Steve

From: Steve Mitchell
Sent: Monday, December 06, 2010 08:26 PM
To: George Kaiser
Cc: [redacted] Steve Mitchell; [redacted]

Subject: DOE negotiatons regarding solyndra

George,

As you know, Jonathan and I are in DC along with the Solyndra management team trying to work out terms to the DOE loan that would enable the company to raise money (internally or externally) and also keep the DOE on its current funding schedule. Last week we requested that the DOE increase the size of its loan by [redacted] and current investors would potentially provide an additional [redacted] of equity to fully fund the anticipated [redacted] o reach cash flow break even. The DOE has been adamant that they cannot statutorily amend the loan to provide additional capital and a new loan would be completed by June at the earliest and would not occur in the current DC environment. With that framework we sat down today to try and find some common ground. I have been very upfront that the likelihood of reaching a deal this week was low and that if the DOE decides not to fund on Friday that we understand the ramifications (i.e. we move toward a liquidation scenario). We have also consistently stated that we would not fund into a plan that was not fully funded.

One of the primary concerns that potential investors have cited when passing on Solyndra has been that they would be investing behind [redacted] of the DOE loan. To be clear, they are also very concerned about the company's capacity ramp in the second half of 2011 (and the channel development that needs to occur to meet this increase in output), the cost reduction roadmap for the product, the Chinese competition remaining rational actors regarding pricing (i.e. maintaining a gross margin) and that additional capacity expansion would need to be based on a lower cap-ex model than we currently have for growth. To the extent we can work out terms with the DOE (which will require some additional capital commitment by Argonaut and Madrone), it is my opinion that it will be very difficult to attract a new investor in the timeframe in which the capital needs to be raised and we will face letting the company go under or funding it ourselves along with Madrone.

As mentioned above, the DOE can not fund more capital than the original loan called for [redacted] remains to be drawn), however, as of today they have shown a willingness to be very creative to incent additional capital investment. However, their opening requirement for funding any incremental loan draws was that current investors commit an additional [redacted] this week (funded pro rata with the future loan draws). This is something I have pushed back on but it is clear that if we want to receive additional capital from the DOE that we will need to make a commitment of some amount of capital - I have discussed [redacted] with [redacted] of Madrone and this is a number he is comfortable committing to on a 50/50 basis with Argonaut at this time but no more (the unfortunate reality is that none of the other investment groups can make a commitment in any way close to this schedule so any new dollars should end up owning the company).

We were far apart from the DOE on our asks - I have been pushing them to haircut their loan by [redacted] which they will not (cannot) politically get done and they would rather have the fallout from a bankrupt investment than appear to enrich others by discounting the loan to its potentially current value and let us make outsized returns in an upside scenario [redacted] the lead negotiator for the DOE) understands [redacted] should discount the loan to increase the odds of a return of some portion of capital and [redacted] response is in the US government environment it is impossible for her to accomplish this. [redacted] has engaged with me on a discount to a greater extent than on an increase in the loan amount (which is consistently dead on arrival), however, she states that it is not a possibility (though it could be a walk away request in my mind).

In light of the distance between our respective positions we agreed to work on a framework of terms that could potentially get done recognizing that I would have to secure a committment from you, [redacted] Madrone and other investors. I have attached the framework that was distributed tonight to the DOE and our group. The terms are basically as follows: Current investors would commit to an additional [redacted] of capital this week and would contribute an additional [redacted] into a fully funded plan (in other words, the company would only have to raise [redacted] of outside capital to have a fully funded plan); the DOE would committ to funding its remaining \$95 million of loan draws; the \$150 million of new investor capital and the to be funded [redacted] would make up the senior secured debt of Solyndra (secured by Fab 1, Fab 2, IP and corporate); the remaining [redacted] would be subordinated to the newly funded [redacted] senior debt and would be discounted to app. [redacted] and would accrete back up to [redacted] over a 15 year term. The [redacted] convertible debt contributed this summer would be converted into app. 80% ownership of the common equity. For making the new senior loan [redacted] new investors would receive warrants in the common (or some form of preferred) for a majority of the company (not sure what this should be yet but not a large concern for the DOE as it is behind their loans (but to be clear, the [redacted] amortizes pro rata along with the remaining [redacted] of DOE loan draws - this is designed to de-risk this capital as much as possible). In the event the company qualifies for the manufacturing tax credit this would reduce the amount of the [redacted] for dollar by app. [redacted]

Please note that we have some open points on this - we proposed a balloon payment on the [redacted] subordinated note and the DOE is asking for some amortization - [redacted] per quarter beginning in 2016 with a [redacted] balloon payment was inserted but not agreed to. The DOE indicated that they would need an additional firm commitment of [redacted] or they would not pay the January or February draws - I was adamant that this was a non-starter and that we would only commit to funding the additional committment into a fully funded plan. The [redacted] will get the company through the end of February and [redacted] gets the company through the end of the 2nd quarter. At that time we should have a good idea on sales traction and could possibly raise outside capital, however, I put very little faith on raising additional capital in 2011 from outside investors and I put no faith in raising outside capital prior to February. [redacted] shares my concerns that it will be very difficult to bring in additional equity capital as the company has just been out in the marketplace too long (pre-IPO convert, IPO filing, current raise) and it has gotten long in the tooth for potential investors.

We are expected to meet with the DOE again at 10am tmrw morning. Each group is going back to superiors / investment committee, etc to determine if these terms are even in the realm of possibility for getting a deal done. To be clear, the [redacted] would need to be split 50/50 from Argonaut and Madrone but would not get the company far enough along to have a serious chance of raising additional capital (i.e. unless the tax credit comes through we will need to contribute additional capital or let the company go and be [redacted] deeper in the hole). However, the new capital is at a much more secure level in terms of return in a liquidation scenario (I don't think in a disaster the entire [redacted] of proposed senior debt gets paid back, but at the end of February it would be app. an incremental [redacted] of DOE capital and our [redacted] and this would most likely be recovered in a liqudation scenario).

If the DOE requires more than an additional [redacted] committment to continue funding through February I would not recommend moving forward. However, with the senior loan position alongside the DOE it is getting more interesting to give the company the additional runway to play out its channel devlopment and grow under Brian's leadership. I know this is a short time frame and we don't necesarily have to reach an agreement with the DOE tmrw but we definitely need some fairly concrete direction within a couple of days. I wish you had met Brian and had a direct update on Solyndra's operations from management as they can do a much better job conveying where the company is (as you know it is a big ship that is turning slowly but they do feel it is getting turned around in the right direction). Please let me know if you have any questions, comments or suggestions or if you would like to have a call with me and management at around 8am or 8:30am CST prior to our meeting with the DOE. At a minimum I will step out of the DOE meeting and update you on their feedback. At some point our negotiations will break down or I will request authorization of some amount of capital to commit (most likely $12.5 million) to be funded in January. Obviously this is a moving process and I will keep you and the rest of the team in the loop as much as possible.

Steve

From: Ben Schwartz [redacted]
Sent: Mon 12/6/2010 5:26 PM
To: [redacted]
Cc: Steve Mitchell; Brian Harrison; [redacted] Bill Stover; [redacted]
Subject: Solyndra Response

Attached is our response, can you please circulate to the rest of your team.

Thanks.

Ben Schwartz
VP, Deputy General Counsel
Solyndra, Inc.
[redacted]

This e-mail and any accompanying attachments contain information that is confidential to Solyndra, Inc.

The information is intended solely for the use of the individual to whom it is addressed.

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If you are not the intended recipient, please notify us immediately by returning this message to the sender and delete all copies.

Thank you for your cooperation.

DOCUMENT R

[redacted]

From: [redacted]
Sent: Friday, December 10, 2010 4:02 PM
To: [redacted]
Subject: Summary of Key Business Terms
Attachments: Summary of Solyndra Key Business Terms and Conditions.docx

[redacted]
Director
Portfolio Management
Loan Guarantee Program Office
US Department of Energy
1000 Independence Avenue SW
Washington, DC 20585
[redacted]

Solyndra
Summary of Key Business Terms and Conditions

The restructuring will consist of Senior Debt of up to [redacted] and Senior Second Position Debt of [redacted]
The December Advance is contingent on:

i. Pro-rata funding by the current investors up to an aggregate of [redacted]
ii. A guarantee from Solyndra, Inc. covering all obligations of Fab 2; and
iii. A finalized term sheet executed by Solyndra and its Existing Investors.

The plan is to reach financial close in 4-6 weeks.

SENIOR DEBT: [redacted] 6 year facility

Tranche A: [redacted] of new Investor Debt (Argonaut/Madrone/Existing Investors)
Interest: Libor plus 600 basis points reducing to [redacted] effective December 2012.

- Funding Date: Pro-rata with DOE debt beginning in January.
- Liquidity Rights: Payment priority from proceeds in event of liquidation before initial scheduled principal payment date (March, 2013).

Tranche B: [redacted] of DOE/FFB financing (including [redacted] yet to be funded)

Collateral (Tranche A and B): (1) all equity interests and assets in Fab 2 LLC (including IP, all equipment, agreements, etc.); and (2) all assets in Solyndra, Inc. (Tranche A only)

Payment Terms (Tranche A and B): (1) Initial principal payment: March, 2013; (2) Equal quarterly principal payments over 16 quarters; (3) Final maturity: December, 2016; (4) PIK interest period: through December, 2012; (5) Cash sweep as discussed below; and (6) All prepayments without penalty.

Tranche C: Up to an additional [redacted] of new Investor Debt

- Pari-passu and same collateral and terms as Tranche A, but no priority payment from proceeds in the event of liquidation before initial scheduled principal payment date, or as to be negotiated by new lenders and acceptable to DOE/FFB.

SENIOR SECOND POSITION DEBT: [redacted]

- Previously funded DOE/FFB debt [redacted] and Existing Investor Convertible Debt [redacted] will be discounted using an OID structure:
    - DOE/FFB Debt: [redacted] initial principal amount [redacted] accreting to [redacted] evenly on a quarterly basis over a 12 year period.
    - Existing Investor Convertible Debt: [redacted] initial principal amount [redacted] accreting to [redacted] evenly on a quarterly basis over a 15 year period.

Payment Terms	DOE/FFB OID	Existing Investor OID
Tenor	12 years	15 years
Principal payments	24 quarters beginning March, 2017	36 quarters beginning March, 2017
Final maturity	December, 2022	December, 2025
PIK interest period	Through December, 2014	Through December, 2015
Mandatory Redemption	Once total balances in certain accounts exceeds 125% of outstanding balance	None
Optional Prepayment	Original principal and accrued interest;	None
Payment Event of Default	All future accretions brought forward if uncured payment default	All future accretions brought forward if uncured payment default

Collateral Package:

Current Package	Proposed Package
• Building and land • Equipment • Leashold Interests • Limited use of license for Solyndra technology up to the production output of Fab 2	• Building and land • Equipment • Leashold Interests • Intellectual property • Fab 1 and associated equipment • Supply, sales, and other operating agreements • Personnel • Limited guarantee of Solyndra, Inc. All assets of Solyndra, Inc. have been transferred to Fab 2, LLC.

DOCUMENT
S

DOE/SOLYNDRA PROJECT

Materials for Restructuring Analysis

[Updated: 01-03-11]

[Items in blue have been added to or otherwise addressed in memorandum]

[Items in red need not be addressed in memorandum]

(see Table of Contents at end)

FFB NOTE PURCHASE AGREEMENT

Rights and Agreements of the Secretary and FFB

Section 11.1 Rights and Agreements related to Enforcement.

11.1.1 Secretary's Authority.

In consideration of the Secretary's Guarantee relating to the Note that has been purchased by FFB under this Agreement, the Secretary shall have the sole authority (vis-a-vis FFB), in the case of a default by the Borrower under such Note or the occurrence of an Event of Default under the Security Instruments, in respect of acceleration of such Note, the exercise of other available remedies, and the disposition of sums or property recovered. [Note Purchase Agreement, §11.1.1]

11.1.2 Acknowledgment of Security Interest.

FFB acknowledges that the Borrower has, through the execution of the Security Instruments, pledged and granted a security interest to the "Collateral Agent," for the benefit of the "Secured Parties"(as those terms are defined in the Common Agreement) in certain property of the Borrower to secure the payment and performance of certain obligations owed to the Secretary under, *inter alia*, the Security Instruments. [Note Purchase Agreement, §11.1.2]

11.1.3 FFB Cooperation.

FFB shall cooperate with the Secretary to enable the Secretary to exercise and enforce the Secretary's rights and remedies under this Agreement, the Program Financing Agreement, the Note, and the Security Instruments, including, when reasonably requested by the Secretary, executing and delivering to the Secretary instruments, agreements, and other documents prepared by or for the Department for FFB's execution. [Note Purchase Agreement, §11.1.3]

Section 11.2 Secretary's Right to Purchase Advances or the Note.

Notwithstanding the provisions of the Note, the Borrower acknowledges that, under the terms of the Program Financing Agreement, the Secretary may purchase from FFB all or any portion of any Advance that has been made under the Note, or may purchase from FFB the Note in its entirety, in the same manner, at the same price, and subject to the same limitations as shall be applicable, under the terms of the Note, to a prepayment by the Borrower of all or any portion of any Advance made under the Note, or a prepayment by the Borrower of the Note in its entirety, as the case may be. [Note Purchase Agreement, §11.2]

Definitions

"Security Instruments" shall have the meaning specified in Schedule I to this Agreement.

"Security Instruments" means, collectively, (i) the Common Agreement, and (ii) the "Security Documents" (as that term is defined in the Common Agreement), as such agreements and documents may be amended, supplemented, and restated from time to time in accordance with their respective terms. [Note Purchase Agreement Schedule I, Item 3]

Purchase Commitment

Subject to the terms and conditions of this Agreement, FFB agrees to purchase the Note that is offered by the Borrower to FFB for purchase under this Agreement. [Note Purchase Agreement Article 2]

Interest

Section 7.6 Interest Rate Applicable to Advances.

The rate of interest applicable to each Advance made under the Note shall be established as provided in paragraph 6 of the Note. [Note Purchase Agreement §7.6]

Billing by FFB

Section 9.1 Billing Statements to the Borrower, the Department, and the Loan Servicer.

FFB shall prepare a billing statement for the amounts owed to FFB on each Advance that is made under the Note purchased under this Agreement, and shall deliver each such billing statement to the Borrower, the Department, and the Loan Servicer. [Note Purchase Agreement §9.1]

9.3.2 Agreement.

The Borrower agrees that any and all determinations made by FFB shall be conclusive and binding upon the Borrower with respect to:

(a) the amount of accrued interest owed on the Note determined using this rounding methodology; and

(b) the amount of any equal principal installment payment due and payable on the Note determined using this methodology. [Note Purchase Agreement §9.3.2]

Each amount that becomes due and owing on the Note purchased under this Agreement shall be paid when and as due, as provided in the Note. [Note Purchase Agreement Article 10]

Miscellaneous

Section 13.6 Rights Confined to Parties.

Nothing expressed or implied herein is intended or shall be construed to confer upon, or to give to, any Person other than FFB, the Borrower, and the Secretary, and their respective successors and permitted assigns, any right, remedy or claim under or by reason of this Agreement or of any term, covenant or condition hereof, and all of the terms, covenants, conditions, promises, and agreements contained herein shall be for the sole and exclusive benefit of FFB, the Borrower, and the Secretary, and their respective successors and permitted assigns. [Note Purchase Agreement §13.6]

FFB PROMISSORY NOTE

Computation of Interest on Each Advance.

(a) Subject to paragraphs 12 and 15 of this Note, interest on the outstanding principal of each Advance shall accrue from the date on which the respective Advance is made to the date on which such principal is due. [FFB Promissory Note §6]

Payment of Interest; Payment Dates; Payment Borrowings Permitted to Pay Accrued Interest before the First Principal Payment Date.

(a) Interest accrued on the outstanding principal balance of each Advance shall be due and payable on each of the particular dates specified on page 1 of this Note as "Payment Dates" (each such date being a "Payment Date"), beginning on the first Payment Date to occur after the date on which such Advance is made, up through and including the Maturity Date.

(b) On any Payment Date to occur before the "First Principal Payment Date" (as that term is defined in paragraph 8 of this Note), the Borrower shall be permitted to borrow all or a portion of the amount of accrued interest due and payable on such Payment Date for each Advance made before the First Principal Payment Date (each such borrowing being a "Payment Borrowing"), by causing to be delivered to FFB an Advance Request, together with written notification of the Secretary's approval thereof, not later than the third Business Day before the date specified in such Advance Request as the date for such Advance for a Payment Borrowing, specifying the principal amount to be borrowed, in which event FFB shall, subject to the terms and conditions of the Note Purchase Agreement, make an Advance, by an internal transfer of funds on the books of the United States Department of the Treasury, for the account of the Borrower in the amount specified in the respective Advance Request, and shall apply such amount to the payment of the accrued interest. In the case of each Payment Borrowing, FFB shall establish an interest rate for the respective Payment Borrowing in accordance with the principles of paragraph 6(c) of this Note, which rate shall apply from the date on which the Advance is made. [FFB Promissory Note §7]

Fee.

A fee to cover expenses and contingencies, assessed by FFB pursuant to section 6(c) of the FFB Act, shall accrue on the outstanding principal amount of each Advance from the date on which the respective Advance is made to the date on which the principal amount of such Advance is due. The fee on each Advance shall be equal to three-eighths of one percent (0.375%) per annum of the unpaid principal balance of such Advance. The fee on each Advance shall be computed in the same manner as accrued interest is computed under paragraph 6(b) of this Note, and shall be due and payable at the same times as accrued interest is due and payable under paragraph 7 of this Note (adjusted as provided in paragraph 10 of this Note if a Payment Date is not a Business Day). The fee on each Advance shall be credited to the Secretary as required by section 505(c) of the Federal Credit Reform Act of 1990, as amended (codified at 2 U.S.C. § 661d(c)). [FFB Promissory Note §9]

Manner of Making Payments.

(a) For so long as FFB is the Holder of this Note, each payment under this Note shall be paid in immediately available funds by electronic funds transfer to the account of the United States Treasury (for credit to the subaccount of the Secretary) maintained at the Federal Reserve Bank of New York in the manner described below:

U.S. Treasury Department
ABA No. 0210-3000-4
TREAS NYC/CTR/BNF=D 89000001
OBI=Dept of Energy Loan # (Solyndra Fab 2 LLC)

provided, however, that a payment made in the manner described above shall not discharge any portion of a payment obligation under this Note, or be applied as provided in paragraph 14 of this Note, until the payment has been received and credited to the subaccount of FFB (within the account of the United States Treasury maintained at the Federal Reserve Bank of New York) specified by FFB in a written notice to the Secretary, or to such other account as may be specified from time to time by FFB in a written notice to the Secretary. [FFB Promissory Note §11]

Secretary's Guarantee of Note.

Upon execution of the guarantee set forth at the end of this Note (the "Guarantee"), the payment by the Borrower of all amounts due and payable under this Note, when and as due, shall be guaranteed by the United States of America, acting through the Secretary, pursuant to Title XVII of the Energy Policy Act of 2005, as amended (42 U.S.C. § 16511 et seq.). In consideration of the Guarantee, the Borrower promises to the Secretary to make all payments due under this Note when and as due. [FFB Promissory Note §20]

Security Instruments.

This Note is one of several notes permitted to be executed and delivered by, and is entitled to the benefits and security of, the "Security Instruments" (as defined in the Note Purchase Agreement), whereby the Borrower pledged and granted a security interest in certain property of the Borrower, described therein, to secure the payment of and performance of certain obligations owed to the Secretary, as set forth in the Security Instruments. For purposes of the Security Instruments, in consideration of the undertakings by the Secretary set forth in the Program Financing Agreement, the Note Purchase Agreement, and the Guarantee, the Secretary shall be considered to be, and shall have the rights, powers, privileges, and remedies of, the Holder of this Note. [FFB Promissory Note §21]

Guarantee Payments; Reimbursement.

If the Secretary makes any payment, pursuant to the Guarantee, of any amount due and payable under this Note, each and every such payment so made shall be deemed to be a payment hereunder; provided, however, that no payment by the Secretary pursuant to the Guarantee shall be considered a payment for purposes of determining the existence of a failure by the Borrower to perform its obligation to the Secretary to make all payments under this Note when and as due. The Secretary shall have any rights by way of subrogation, agreement or otherwise which arise as a result of such payment pursuant to the Guarantee and as provided in the particular agreement specified on page 1 of this Note as the "Common Agreement" between the Borrower and the United States of America, acting through the Secretary, to evidence the Borrower's obligation to reimburse the Secretary for payment made by the Secretary pursuant to the Guarantee. [FFB Promissory Note §22]

Default and Enforcement.

(a) In case of a default by the Borrower under this Note or the occurrence of an "Event of Default" (as defined in the Security Instruments), then, in consideration of the obligation of the Secretary under the Guarantee, the Secretary, in the name of the Secretary or the United States of America, shall have all rights, powers, privileges, and remedies of the Holder of this Note, in accordance with the terms of this Note and the Security Instruments, including, without limitation, the right to (i) enforce or collect all or any part of the obligation of the Borrower under this Note or arising as a result of the Guarantee; (ii) accelerate (as provided in paragraph 24); (iii) compromise or otherwise negotiate with the Borrower; (iv) bring suit against or foreclose upon any or all of the security interests granted by the Borrower; and (v) to file proofs of claim or any other document in any bankruptcy, insolvency, or other judicial proceeding, and to vote such proofs of claim. [FFB Promissory Note §23(a)]

(b) The Borrower acknowledges that FFB has agreed in the Note Purchase Agreement that, in consideration of the Guarantee, the Secretary shall have the sole authority (vis-à-vis FFB), in the case of a default by the Borrower under this Note or the occurrence of an Event of Default under the Security Instruments, in respect of acceleration (as provided in paragraph 24), the exercise of other remedies available hereunder or under the Note Purchase Agreement, and the disposition of sums or property recovered. [FFB Promissory Note §23(b)]

Acceleration.

Upon the occurrence and continuation of a default by the Borrower under this Note or an Event of Default under the Security Instruments, the Secretary, pursuant to the Security Instruments, may declare the entire unpaid principal amount of this Note, all interest thereon, and all other amounts payable under this Note, and upon such declaration such amounts shall become, due and payable to the Secretary, under the circumstances described, and in the manner and with the effect provided, in the Security Instruments. [FFB Promissory Note §24]

COMMON AGREEMENT

All payments due under the DOE Credit Facility shall be made by the Borrower pursuant to the terms of the DOE Credit Facility Documents and the Collateral Agency Agreement. The Collateral Agent shall apply each payment received by it in accordance with the Collateral Agency Agreement; provided, however, that, notwithstanding any instructions to the contrary in the FFB Note, for purposes of administering payments to FFB, the Borrower shall remit such payments directly to an account designated by the Loan Servicer for payment to FFB. [3.1.1]

Interest Account and Interest Computations.

In accordance with Section 609.10(e)(1) of the Applicable Regulations, interest shall accrue on the unpaid principal amount of each DOE-Guaranteed Loan from the date such DOE-Guaranteed Loan is disbursed to the Collateral Agent or otherwise disbursed or deemed disbursed pursuant to the DOE Credit Facility Documents, to the date such DOE-Guaranteed Loan is paid in full, at a rate per annum relating thereto as specified in the DOE Credit Facility Documents. The Borrower hereby authorizes each Credit Party to record in an account or accounts maintained by such Credit Party on its books (A) the interest rates applicable to all DOE-Guaranteed Loans, (B) the interest periods for each DOE-Guaranteed Loan outstanding, (C) the date and amount of each principal and interest payment on each DOE-Guaranteed Loan outstanding, and (D) such other information as such Credit Party may determine is necessary for the computation of interest payable by the Borrower hereunder. The Borrower agrees that all computations of interest by a Credit Party pursuant to this Section 3.2.1 shall, in the absence of manifest error, be prima facie evidence of the amount thereof. All computations of interest shall be made as set forth in the relevant DOE Credit Facility Documents. [3.2.1]

Interest Payment Dates.

Subject to the terms of the DOE Credit Facility, the Borrower shall pay accrued interest on the outstanding principal amount of each DOE-Guaranteed Loan on each Quarterly Payment Date, on prepayment (to the extent thereof), and at maturity (whether by acceleration or otherwise). [Common Agreement §3.2.2]

Representations

The Borrower makes all of the following representations and warranties to and in favor of each Credit Party as of (i) the Common Agreement Date, (ii) the Financial Closing Date, (iii) each Periodic Approval Date, (iv) each Advance Date, and (v) the Project Completion Date, except as such representations and warranties relate to an earlier date, and all of these representations and warranties shall survive the Financial Closing Date. [Common Agreement Article 5]

Covenants

The Borrower covenants and agrees that until the date all Secured Obligations (other than inchoate indemnity obligations) are paid in full and the DOE Credit Facility Commitment has terminated, unless the Loan Servicer waives compliance in writing: [Common Agreement Article 6]

Events of Default

Remedies for Events of Default.

Upon the occurrence and during the continuance of an Event of Default, the Credit Parties may, without further notice of default, presentment or demand for payment, protest or notice of non-payment or dishonor, or other notices or demands of any kind, all such notices and demands being waived (to the extent permitted by Governmental Rules), exercise any or all rights and remedies at law or in equity (in any combination or order that the Credit Parties, may elect), including, without limitation or prejudice to the Credit Parties' other rights and remedies, the following: [Common Agreement §8.2]

(i) (A) refuse, and the Collateral Agent or any Credit Party shall not be obligated, to make or guarantee any further Advances or any payments from any Project Account or any Account Proceeds or other funds held by the Collateral Agent by or on behalf of the Borrower, and (B) suspend or terminate the DOE Credit Facility Commitment;

(ii) take those actions necessary to perfect and maintain the Liens of the Security Documents;

(iii)declare and make all sums of outstanding principal and accrued but unpaid interest remaining under this Common Agreement and the other Loan Documents together with all unpaid fees, Periodic Expenses and charges due hereunder or under any other Loan Document, payable on demand or immediately due and payable, whereupon such amounts shall immediately mature and become due and payable;

(iv)enter into possession of the Project (or any portion thereof) and perform any and all work and labor necessary to complete the Project (or any portion thereof) or to operate and maintain the Project (or any portion thereof), or otherwise foreclose upon or take possession of any Collateral Security and all sums expended by any such Person in so doing, together with interest on such amount at the Late Charge Rate, shall be repaid by the Borrower to such Person upon demand and shall be secured by the Security Documents, notwithstanding that such expenditures may, together with the aggregate amount of Advances under the DOE Credit Facility, exceed the amount of the total DOE Credit Facility Commitment;

(v) set off and apply such amounts to the satisfaction of the Secured Obligations under all of the Loan Documents, including (A) all monies on deposit in any Project Account, (B) any Account Proceeds, (C) any amounts paid under the Equity Funding Agreement or the Sponsor Support Agreement including any Reserve Letters of Credit issued thereunder, or (D) any other moneys of the Borrower on deposit with the Collateral Agent or any Credit Party;

(vi)prior to the Project Completion Date, require the Sponsor to make an Accelerated Equity Contribution in an amount equal to the lesser of: (A) the balance of the undrawn Base Equity Commitment and all amounts of the Overrun Equity Commitment, and (B) the outstanding amount of the Secured Obligations at such time;

(vii) cure defaults;

(viii) proceed to protect and enforce its rights and remedies by appropriate proceedings, whether for damages or the specific performance of any provision of this Common Agreement or any other Transaction Document, or in aid of the exercise of any power granted in this Common Agreement or any other Transaction Document, or by law, or proceed to enforce the payment of any amount due and payable; and

(ix)exercise any and all rights and remedies available to it under any of the Transaction Documents with respect to the Project, the Borrower, the Sponsor, the Equity Owners and any other Project Participant and under the Collateral Security or otherwise under Governmental Rules; and

(x) in accordance with Section 609.10(e)(4) of the Applicable Regulations, take such other actions as DOE may reasonably require to provide for the care, preservation, protection, and maintenance of all Collateral so as to enable the United States to achieve maximum recovery upon default by Borrower on the DOE-Guaranteed Loans.

Agents

Appointment of Agents.

In connection with the Project, each Credit Party hereby appoints, and by its signature below, each such Agent accepts such appointment:

(b) the Collateral Agent to act as Collateral Agent and authorizes it to exercise such rights, powers, authorities and discretions as are specifically delegated to the Collateral Agent by the terms of this Common Agreement and the other Loan Documents, together with all such rights, powers, authorities and discretions as are reasonably incidental thereto. [Common Agreement §9.1(b)]

Reimbursement Agreement

Reimbursement Obligation.

If the Borrower defaults in any payment due to FFB under the DOE-Guaranteed Loan or otherwise under any FFB Funding Document, and as a result of such payment default by the Borrower, DOE becomes obligated to make any payments to FFB pursuant to the DOE Guarantee (a "DOE Guarantee Payment"), the Borrower shall become immediately obligated to reimburse DOE in an amount (the "DOE Guarantee Payment Amount") equal to the sum of (i) all DOE Guarantee Payments paid by DOE to FFB, and (ii) all costs or expenses incurred by DOE in connection therewith, whether by payment to FFB or otherwise. [Common Agreement §10.1]

Payments and Computations.

Interest.

The Borrower shall pay to DOE an amount (the "Borrower Reimbursement Obligations") equal to the sum of (i) the DOE Guarantee Payment Amount, and (ii) interest on DOE Guarantee Payment Amount from the date the DOE Guarantee Payment was paid or incurred by DOE under the DOE Guarantee until payment in full by the Borrower to DOE of the DOE Guarantee Payment Amount, at a rate of interest equal to the rate of interest in effect under the FFB Note Purchase Agreement with respect to Overdue Amounts at the time of the payment default by the Borrower. [Common Agreement §10.2.1]

Method of Payment.

The Borrower shall make each payment with respect to Borrower Reimbursement Obligations hereunder (a "Borrower Reimbursement Payment"), irrespective of any right of counterclaim or set-off, in Dollars and in immediately available funds on or before the fifth Business Day following a written demand by DOE to the Borrower indicating the DOE Guarantee Payment Amount and the date it was paid or incurred by DOE, by wire transfer to the following account, or to such other account as may be specified by DOE from time to time: [Common Agreement §10.2.2]

U.S. Treasury Department
ABA No. 0210-3000-4 TREASNYC/CTR/BNF=D89000001
OBI=LGPO Loan No. 1013 – Guarantee Reimbursement

Taxes.

All Borrower Reimbursement Payments by the Borrower hereunder shall be made in accordance with Section 3.1.2. [Common Agreement §10.2.3]

Calculations.

All computations of interest or fees under this Common Agreement shall be made by the Loan Servicer, on the same basis as payments under the FFB Note Purchase Agreement. [Common Agreement §10.2.4]

Determinations.

Each determination of an amount of interest or fees payable hereunder by the Loan Servicer shall be conclusive and binding for all purposes, absent manifest error. [Common Agreement §10.2.5]

Obligations Absolute.

To the fullest extent permitted by law, the Borrower Reimbursement Obligations are absolute, irrevocable and unconditional, and shall be paid strictly in accordance with the terms of this Common Agreement under all circumstances whatsoever, including without limitation the following circumstances, whether or not with notice to or the consent of the Borrower:

(i) the occurrence, or the failure by DOE or any other Secured Party or any other Person to give notice to the Borrower of the occurrence, of any Event of Default or Potential Default under this Common Agreement or any default under any of the other Loan Documents;

(ii) the extension of the time for performance of any obligations, covenants or agreements of any Person under or arising out of any of the Loan Documents;

(iii)the existence of any claim set-off, counterclaim, defense or other rights of any kind or nature which (A) the Borrower, DOE or any other Person may have at any time against FFB or any transferee, or (B) the Borrower or any other Person may have at any time against DOE, whether in connection with the Loan Documents, the transactions contemplated therein or any unrelated transactions;

(iv)any failure, omission or delay on the part of (A) DOE to assert a defense to a DOE Guarantee Payment Amount under the DOE Guarantee or to otherwise contest the DOE Guarantee, or (B) DOE or any other Secured Party or the Borrower to enforce, assert or exercise any other right, power or remedy conferred by this Common Agreement or any of the Loan Documents;

(v) the taking or the omission on the part of DOE or any other Secured Party or the Borrower of any other actions referred to in any of the Loan Documents;

(vi)the compromise, settlement, release, modification, amendment (whether material or otherwise) or termination of any or all of the obligations, conditions, covenants or agreements of any Person in respect of any of the Loan Documents;

(vii) any amendment or waiver of the payment, performance or observance of any of the obligations, conditions, covenants or agreements of any Person contained in any of the Loan Documents;

(viii) the exchange, surrender, substitution or modification of any security for any of the Loan Documents;

(ix)any disability, incapacity or lack of powers, authority or legal personality of or dissolution or change in the status of the Borrower or any other Person;

(x) any release, irregularity, invalidity, illegality, lack of genuineness, unenforceability or modification affecting this Common Agreement, the DOE Guarantee, the FFB Funding Documents, or the other Loan Documents, or the transactions contemplated hereby or thereby;

(xi)the voluntary or involuntary liquidation, dissolution, sale or other disposition of all or substantially all the assets of, the marshaling of assets and liabilities, receivership, insolvency, bankruptcy, assignment for the benefit of creditors, reorganization, arrangement, composition with creditors or readjustment of, or other similar proceedings which affect the Borrower or any other Person party to any of the Loan Documents;

(xii) the release or discharge by operation of law of the Borrower from the performance or observance or any obligation, covenant or agreement contained in any of the Loan Documents;

(xiii) any statement or any other document presented under the DOE Guarantee proving to be forged, fraudulent, invalid or insufficient in any respect or any statement therein being untrue or inaccurate in any respect whatsoever;

(xiv) any determination by a court or arbitrator, or any settlement of a disputed claim by any party hereto or other Person, relating to this Common Agreement, the DOE Guarantee, the DOE Credit Facility Agreement, or the other Loan Documents, or the transactions contemplated hereby or thereby; or

(xv) any other circumstance or happening whatsoever, whether or not similar to any of the foregoing. [Common Agreement §10.3]

Security.

Borrower Reimbursement Obligations Secured

The parties expressly acknowledge that the Collateral Security pledged under the Security Documents is pledged to secure payment by the Borrower of the Borrower Reimbursement Obligations. [Common Agreement §10.4.1]

Actions.

The Borrower expressly acknowledges that DOE is free to litigate, settle or otherwise satisfy or discharge its obligation with respect to any DOE Guarantee Payment Amount, and take any action under the Security Documents or otherwise with respect to the Collateral Security, as it may from time to time deem appropriate, and any failure by DOE to advise, notify, or consult with the Borrower shall not be a defense to, or in any way diminish, discharge or derogate from the Borrower Reimbursement Obligations hereunder. [Common Agreement §10.4.2]

DOE Rights.

Rights Cumulative.

DOE's right to reimbursement provided for in this Article 10 shall be in addition to, and not in limitation of, any other claims, rights or remedies of subrogation, reimbursement, contribution, exoneration or indemnification or similar claims, rights or remedies, whether arising under contract, by statute, or otherwise that DOE may have from time to time. [Common Agreement §10.5.1]

Subrogation.

Without limiting the generality of Section 10.5.1, in accordance with Section 609.10(e)(2) of the Applicable Regulations, upon any DOE Guarantee Payment DOE shall be subrogated to the rights of FFB or any subsequent holder of the DOE-Guaranteed Loan, including all related Liens and Collateral, and has superior rights in and to the property acquired from the recipient of the payment as provided in §609.15 of the Applicable Regulations. [Common Agreement §10.5.2]

Further Assurances.

The Borrower shall cooperate with DOE in connection with the exercise of any of its rights under this Article 10 and agrees, promptly upon request by DOE or the Loan Servicer, to execute, acknowledge and deliver all further instruments and documents, and take all such further acts as DOE or the Loan Servicer may reasonably request from time to time in order to carry out the purposes of this Article 10 or to enable DOE to exercise and enforce its rights and remedies hereunder. [Common Agreement §10.6]

COMMON AGREEMENT DEFINITIONS

"Secured Parties" DOE and the Collateral Agent, as their respective interests may appear.

SECRETARY'S GUARANTEE

[The DOE Guarantee reads in its entirety as follows:]

The United States of America, acting through the Secretary of Energy ("Secretary"), hereby guarantees to the Federal Financing Bank, its successors and assigns ("FFB"), all payments of principal, interest, premium (if any), and late charges (if any), when and as due in accordance with the terms of the note dated September 3, 2009, issued by **SOLYNDRA FAB 2 LLC** (the "Borrower") payable to FFB in the maximum principal amount of $535,000,000, to which this Secretary's Guarantee is attached (such note being the "Note"), with interest on the principal until paid, irrespective of (i) acceleration of such payments under the terms of the Note, or (ii) receipt by the Secretary of any sums or property from its enforcement of its remedies for the Borrower's default. [DOE Guarantee, paragraph 1]

The obligation of the United States of America to pay amounts due and payable under this Secretary's Guarantee when such amounts become due and payable in accordance with its terms, constitutes the absolute obligation of the United States of America, against which no offset may be made by the United States of America in discharge of its obligation to make these payments and for which the full faith and credit of the United States of America are pledged. [DOE Guarantee, paragraph 2]

This Secretary's Guarantee is issued pursuant to Title XVII of the Energy Policy Act of 2005, as amended (42 U.S.C. § 16511 et seq.), section 6 of the Federal Financing Bank Act of 1973 (12 U.S.C. § 2285), and the Note Purchase Agreement dated as of September 2, 2009, among FFB, the Borrower, and the Secretary. [DOE Guarantee, paragraph 3]

RESTRUCTURING TERM SHEET

Solyndra
Proposed Key Business Terms and Conditions

Structural Consideration: All assets of Solyndra Inc. (including intellectual property) to be moved into Fab 2 LLC. Net Operating Losses currently at Solyndra, Inc. to remain at Solyndra, Inc. Solyndra, Inc. to provide a guaranty of the DOE Guaranteed Loan to be released upon entry into definitive documentation.

Senior Debt - $300 million:

Tranche A:

- $75 million at interest rate of 3-month LIBOR plus 600 basis points [with warrant coverage pursuant to a to be determined structure acceptable to DOE] (reducing to 3-month LIBOR plus 200 basis points effective December 2012)
  - o To be underwritten by Argonaut/Madrone
    - Subject to DOE/FFB funding of remaining undisbursed amount of the DOE Guaranteed Loan (approximately $95 million) subject to CP's noted below
      - Pro-rata funding with the DOE from and after December 9, 2010 (provided, however, that fundings in December, 2010 may be deferred until date of January funding by DOE/FFB (which is anticipated to be January 10, 2011) upon a written commitment by Argonaut/Madrone to fund the full Tranche A)
- First out in the event of a liquidation event prior to initial scheduled principal payment date (March, 2013)
- Collateral:
  - o Equity interests in Fab 2 LLC and all assets of Fab 2 LLC, including all intellectual property, equipment, agreements, etc. ("Operating Company Collateral")
  - o All assets of Solyndra, Inc. (i.e. NOL) ("Holding Company Collateral")
- Solyndra, Inc. shall implement charter restrictions, rights plans or take other similar actions reasonably requested by the Tranche A holders to ensure that it does not suffer a change in ownership for purposes of Section 382 of the Internal Revenue Code.

Tranche B:

- $150 million at interest rate of 2.5%
- To be provided by DOE/FFB (includes undisbursed amount of the DOE Guaranteed Loan (approximately $95 million))
- Collateral:
  - o Equity interests in Fab 2 LLC and Operating Company Collateral

Tranche C:
Up to an additional $75 million senior debt financing permitted pari passu with Tranche A and B. Collateral and terms as stated on Tranche A above (except Tranche C will not receive a first out position in the event of a liquidation event prior to initial scheduled principal payment date), or as to be negotiated by new lenders and acceptable to DOE/FFB.

Payment terms – Tranches A, B and C (if applicable):
- o Initial principal payment: March, 2013
- o Equal quarterly principal payments over 16 quarters
- o Final maturity: December, 2016
- o PIK interest period: Through December, 2012
- o Cash sweep as discussed below under Waterfall
- o All prepayments without penalty

Senior Second Position Debt:
- $385 million DOE/FFB financing (represents amounts previously funded)
  - o OID to accomplish the following:
    - $270 million initial principal amount, accreting to $385 million evenly on a quarterly basis over a 12 year period
- $175 million existing Convertible Debt
  - o OID to accomplish the following:
    - $80 million initial principal amount, accreting to $175 million evenly on a quarterly basis over a 15 year period
- $385 million DOE/FFB and $175 million existing Convertible Debt secured on a pari passu basis in equity interests in Fab 2 LLC and Operating Company Collateral

- Payment terms
  - o DOE/FFB OID
    - o Principal payments: 24 quarters beginning March, 2017; sculpted so that there is no bullet payment due
    - o Final maturity: December, 2022
    - o PIK interest period: Through December, 2014
    - o Mandatory redemption requirements:
      - Once total balances in Debt Service Reserve and the Excess Cash Retention Account exceeds 125% of outstanding balance of the DOE/FFB OID
    - o Optional prepayment
      - Only with payment of fully accreted balance of the of the DOE/FFB OID
    - o Upon an event of default, all future accretions will be brought forward (ie. The amount outstanding will be equal to the original face amount less all principal repayments up to the default date)

- Existing Convertible Debt OID:

- Principal payments: 36 quarters beginning March, 2017; sculpted so that there is no bullet payment due
- Final maturity: December, 2025
- PIK interest period: Through December, 2015
- Mandatory redemption requirements:
  - Once total balances in Debt Service Reserve and Excess Cash Retention Account exceeds 125% of outstanding balance and only after the DOE/FFB OID facility is fully repaid
- Optional prepayment
  - Only with settlement of payment of fully accreted balance of Convertible Debt and all accrued and unpaid interest

Restrictions on Solyndra, Inc. and Fab 2 LLC (without consent of DOE):

- No investment in business activities outside of those directly in support of Fab 2 production and sales
- No dividends to shareholders
- No use of IP outside of the current project
- No issuance of debt (except for Tranche C as provided for above)
- Other usual and customary restrictions

CPs for December Advance:. Usual and customary, plus the following:

- As provided for the in the letter to which this term sheet is attached
- Construction and equipment supply plan consistent with projections acceptable to DOE and the IE

CPs to Further DOE Advances:

- Construction progress consistent with the construction plan
- Operational spending within a range (tbd) of agreed budget
- Progress on market development to be agreed upon consistent with plan
- Monthly funding by Tranche A investors into the Liquidity Reserve Account equal to a pro-rata share of each respective DOE/FFB funding to be funded contemporaneously with each such DOE/FFB funding
- No MAE (to be defined consistent with agreed upon operating plan)
- Other usual and customary

Events of Default for Senior Debt:

- Cash Balance of Borrower falls below $5,000,000
- Other usual and customary

Cashflow Waterfall:

All revenues paid to Borrower into a Revenue Account held by a Collateral Agent. All cash to be held in accounts noted below by the Collateral Agent (except for O&M account), with transfers pursuant to certificates reviewed and approved by DOE on a monthly basis into the following accounts in the following priority:

- First, an amount sufficient to pay budgeted operations and maintenance costs due or reasonably expected to become due within the next month funded into the O&M Account;
- Second, an amount equal to 1/3 of the amount necessary to fund the Debt Service due in the next quarterly period funded into the Debt Service Account;
- Third, an amount equal to the Debt Service Reserve requirement up to a maximum of the next six months of Debt Service (not covered by the Debt Service Account) into the Debt Service Reserve Account;
- Fourth, commencing upon Project Completion, an amount sufficient to replenish the Liquidity Reserve Account such that the account balance is maintained equal to a maximum of $40 million into the Liquidity Reserve Account
- Fifth, commencing upon Project Completion an amount equal to finance capital expenditures approved by the IE into the CapEx Reserve Account;
- Sixth, 60% of any excess amount to be used to reduce outstanding indebtedness beginning in March 2013 (pro rata among Senior Debt (Tranches A, B and C) for as long as any such Senior Debt is outstanding)
- Seventh, all remaining cash into the Excess Cash Retention Account

Other Indebtedness

- None

Governance:

- DOE/FFB Board observation rights until full repayment of the OID facility
- Intercreditor Agreement: To be discussed

Solyndra.2010.12.12.1657.kcc.v.1

DOE STATUTE AND REGULATIONS

[Based on Statute and Regulations Updated 03-30-10]

[Statute in Dark Blue, *USCS current through PL 111-12, approved March 30, 2009*]

[Final Regulations in Dark Red, *Federal Register, Vol. 72, No. 204, October 23, 2007 and amended in Federal Register, Vol. 73, No. 8, January 11, 2009 and Federal Register, Vol. 74, No. 232, December 4, 2009*]

[Public Comments on the Notice of Public Rulemaking in Dark Green, with DOE's Responses in connection with Notice of Public Rulemaking in Green, *Federal Register, Vol. 72, No. 204, 10-23-07*]

Definitions

§16511. Definitions

[Codification of Section 1701]

In this *title [42 USCS §§16511* et seq.]:

...

(5) Obligation. The term "obligation" means the loan or other debt obligation that is guaranteed under this section.[1]

§609.2 Definitions.

...

Guaranteed Obligation[2] means any loan or other debt obligation of the Borrower for an Eligible Project for which DOE guarantees all or any part of the payment of principal and interest under a Loan Guarantee Agreement entered into pursuant to the Act.

Defaults

§16512. Terms and conditions

[Codification of Section 1702]

...

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1 See also definition of "Guaranteed Obligation" at §609.2 of Final Regulations.

2 See also 42 USCS §16511(5).

(g) Defaults.

(1) Payment by Secretary.

(A) In general. If a borrower defaults on the obligation (as defined in regulations promulgated by the Secretary and specified in the guarantee contract), the holder of the guarantee shall have the right to demand payment of the unpaid amount from the Secretary.[3] [§1702(g)(1)(A)]

(B) Payment required. Within such period as may be specified in the guarantee or related agreements, the Secretary shall pay to the holder of the guarantee the unpaid interest on, and unpaid principal of the obligation as to which the borrower has defaulted, unless the Secretary finds that there was no default by the borrower in the payment of interest or principal or that the default has been remedied.[4] [§1702(g)(1)(B)]

(C) Forbearance. Nothing in this subsection precludes any forbearance by the holder of the obligation for the benefit of the borrower which may be agreed upon by the parties[5] to the obligation and approved by the Secretary.[6] [§1702(g)(1)(C)]

(2) Subrogation.

(A) In general. If the Secretary makes a payment under paragraph (1), the Secretary shall be subrogated to the rights of the recipient of the payment as specified in the guarantee or related agreements[7] including, where appropriate, the authority (notwithstanding any other provision of law) to--

(i) complete, maintain, operate, lease, or otherwise dispose of any property acquired pursuant to such guarantee or related agreements;[8] or

(ii) permit the borrower, pursuant to an agreement with the Secretary, to continue to pursue the purposes of the project if the Secretary determines this to be in the public interest.[9]

(B) Superiority of rights. The rights of the Secretary, with respect to any property acquired pursuant to a guarantee or related agreements, shall be superior to the rights of any other person with respect to the property.[10]

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3 See also §§609.15(a)-(e) of Final Regulations.

4 See also §609.15(f) of Final Regulations.

5 Consider whether DOE could pay a fee for forbearance. [M&F Comment January 2009]

6 See also §609.15(d) of Final Regulations.

7 See also §§609.10(e)(2) and 609.15(g) of Final Regulations.

8 See also §609.15(j) of Final Regulations.

9 See also §609.13(b) of Final Regulations.

(C) Terms and conditions. A guarantee agreement shall include such detailed terms and conditions as the Secretary determines appropriate to--

(i) protect the interests of the United States in the case of default; and

(ii) have available all the patents and technology necessary for any person selected, including the Secretary, to complete and operate the project.[11]

(3) Payment of principal and interest by Secretary. With respect to any obligation guaranteed under this section, the Secretary may enter into a contract to pay, and pay, holders of the obligation, for and on behalf of the borrower, from funds appropriated for that purpose, the principal and interest payments which become due and payable on the unpaid balance of the obligation if the Secretary finds that--

(A) (i) the borrower is unable to meet the payments and is not in default[12];

(ii) it is in the public interest to permit the borrower to continue to pursue the purposes of the project;[13] and

(iii) the probable net benefit to the Federal Government in paying the principal and interest will be greater than that which would result in the event of a default;[14]

(B) the amount of the payment that the Secretary is authorized to pay shall be no greater than the amount of principal and interest that the borrower is obligated to pay under the agreement being guaranteed;[15] and

(C) the borrower agrees to reimburse the Secretary for the payment (including interest) on terms and conditions that are satisfactory to the Secretary.[16] [§1702(g)(3)]

(4) Action by Attorney General.

(A) Notification. If the borrower defaults on an obligation, the Secretary shall notify the Attorney General of the default.[17]

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10 See also §609.15(g) of Final Regulations.

11 See also §609.10(d)(11) of Final Regulations. Protection of intellectual property is an important element of the program. [M&F Comment January 2009]

12 See also §609.13(a)(1) of Final Regulations.

13 See also §609.13(b) of Final Regulations.

14 See also §609.13(c) of Final Regulations.

15 See also §609.13(d) of Final Regulations.

16 See also §609.13(e) of Final Regulations.

17 See also §609.15(c) of Final Regulations.

(B) Recovery. On notification, the Attorney General shall take such action as is appropriate to recover the unpaid principal and interest due from--

(i) such assets of the defaulting borrower as are associated with the obligation;[18] or

(ii) any other security pledged to secure the obligation.[19]

§609.15 Default, demand, payment, and collateral liquidation.[20]

(a) In the event that the Borrower has defaulted in the making of required payments of principal or interest on any portion of a Guaranteed Obligation, and such default has not been cured within the period of grace provided in the Loan Guarantee Agreement and/or the Loan Agreement, the Eligible Lender or other Holder, or nominee or trustee empowered to act for the Eligible Lender or other Holder (referred to in this section collectively as "Holder"), may make written demand upon the Secretary for payment pursuant to the provisions of the Loan Guarantee Agreement. [Regulations §609.15(a)]

(b) In the event that the Borrower is in default as a result of a breach of one or more of the terms and conditions of the Loan Guarantee Agreement, note, mortgage, Loan Agreement, or other contractual obligations related to the transaction, other than the Borrower's obligation to pay principal or interest on the Guaranteed Obligation, as provided in paragraph (a) of this section, the Holder will not be entitled to make demand for payment pursuant to the Loan Guarantee Agreement, unless the Secretary agrees in writing that such default has materially affected the rights of the parties, and finds that the Holder should be entitled to receive payment pursuant to the Loan Guarantee Agreement.[21] [Regulations §609.15(b)]

(c) In the event that the Borrower has defaulted as described in paragraph (a) of this section and such default is not cured during the grace period provided in the Loan Guarantee Agreement, the Secretary shall notify the U.S. Attorney General and may cause the principal amount of all Guaranteed Obligations, together with accrued interest thereon, and all amounts owed to the United States by Borrower pursuant to the Loan Guarantee Agreement, to become immediately due and payable by giving the Borrower written notice to such effect (without the need for consent or other action on the part of the Holders of the Guaranteed Obligations). In the event the Borrower is in default as described in paragraph (b) of this section, where the Secretary determines in writing that such a default has materially affected the rights of the parties, the Borrower shall be given the period of grace provided in the Loan Guarantee

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18 See also §609.15(i) of Final Regulations.

19 See also §609.15(j) of Final Regulations.

20 See also 42 USCS §16512(g)(1)(A), for §609.15(a)-(e) hereof.

21 [S]ection 609.15(b) is not intended and should not be read to preclude demands for failure to pay principal and interest where there has been a default other than a payment default. A non-payment default can become a payment default if such default is not cured within the time specified in the Loan Guarantee Agreement and the debt is accelerated and thus causes the entire amount of the loan to become immediately due and payable. **[DOE Response] [60132]**

Agreement to cure such default. If the default is not cured during the period of grace, the Secretary may cause the principal amount of all Guaranteed Obligations, together with accrued interest thereon, and all amounts owed to the United States by Borrower pursuant to the Loan Guarantee Agreement, to become immediately due and payable by giving the Borrower written notice to such effect (without any need for consent or other action on the part of the Holders of the Guaranteed Obligations).[22] [Regulations §609.15(c)]

(d) No provision of this regulation shall be construed to preclude forbearance by the Holder with the consent of the Secretary for the benefit of the Borrower.[23] [Regulations §609.15(d)]

(e) Upon the making of demand for payment as provided in paragraph (a) or (b) of this section, the Holder shall provide, in conjunction with such demand or immediately thereafter, at the request of the Secretary, the supporting documentation specified in the Loan Guarantee Agreement and any other supporting documentation as may reasonably be required to justify such demand. [Regulations §609.15(e)]

(f) Payment as required by the Loan Guarantee Agreement of the Guaranteed Obligation shall be made 60 days after receipt by the Secretary of written demand for payment, provided that the demand complies with the terms of the Loan Guarantee Agreement. The Loan Guarantee Agreement shall provide that interest shall accrue to the Holder at the rate stated in the Loan Guarantee Agreement until the Guaranteed Obligation has been fully paid by the Federal government. [Regulations §609.15(f)]

(g) The Loan Guarantee Agreement shall provide that, upon payment of the Guaranteed Obligations, the Secretary shall be subrogated to the rights of the Holders and shall have superior rights in and to the property acquired from the Holders. The Holder shall transfer and assign to the Secretary all rights held by the Holder of the Guaranteed Obligation. Such assignment shall include all related liens, security, and collateral rights to the extent held by the Holder.[24] [Regulations §609.15(g)]

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22 See also 42 USCS §16512(g)(4)(A).

23 See also 42 USCS §16512(g)(2)(C).

24 See also 42 USCS §§16512(g)(2)(A)-(B).

DOE today adopts the same interpretation of Title XVII as it adopted in regard to nearly identical language in section 19(g)(2) of the Alternative Fuels Act. Thus, DOE interprets the language in Title XVII as requiring a first lien on all project assets, but as allowing DOE to treat assets pledged to secure a project loan that are not project assets the same as project assets. Consistent with the regulations concerning the disposition of proceeds from the sale of assets pursuant to the Alternative Fuels Act (section 796(f) and (k)), ... where DOE only guarantees a portion of a Guaranteed Obligation, the Secretary may enter into inter-creditor or other arrangements to share the proceeds from the sale of project collateral with lenders or other holders of the non-guaranteed portion of the Guaranteed Obligation. DOE may, at the discretion of the Secretary, share the proceeds from the sale of collateral. DOE is limited, however, to no greater than a pro rata share for the non-guaranteed Holder. However, in cases where DOE guarantees 100 percent of a loan, the loan must be issued to and funded by the Federal Financing Bank. In those circumstances, DOE will have a first lien priority on project

(h) Where the Loan Guarantee Agreement so provides, the Eligible Lender or other Holder, or other servicer, as appropriate, and the Secretary may jointly agree to a plan of liquidation of the assets pledged to secure the Guaranteed Obligation. [Regulations §609.15(h)]

(i) Where payment of the Guaranteed Obligation has been made and the Eligible Lender or other Holder or other servicer has not undertaken a plan of liquidation, the Secretary, in accordance with the rights received through subrogation and acting through the U.S. Attorney General, may seek to foreclose on the collateral assets and/or take such other legal action as necessary for the protection of the Government.[25] [Regulations §609.15(i)]

(j) If the Secretary is awarded title to collateral assets pursuant to a foreclosure proceeding, the Secretary may take action to complete, maintain, operate, or lease the project facilities, or otherwise dispose of any property acquired pursuant to the Loan Guarantee Agreement or take any other necessary action which the Secretary deems appropriate, in order that the original goals and objectives of the project will, to the extent possible, be realized.[26] [Regulations §609.15(j)]

(k) In addition to foreclosure and sale of collateral pursuant thereto, the U.S. Attorney General shall take appropriate action in accordance with rights contained in the Loan Guarantee Agreement to recover costs incurred by the Government as a result of the defaulted loan or other defaulted obligation. Any recovery so received by the U.S. Attorney General on behalf of the Government shall be applied in the following manner: First to the expenses incurred by the U.S. Attorney General and DOE in effecting such recovery; second, to reimbursement of any amounts paid by DOE as a result of the defaulted obligation; third, to any amounts owed to DOE under related principal and interest assistance contracts; and fourth, to any other**[60145]** lawful claims held by the Government on such process. Any sums remaining after full payment of the foregoing shall be available for the benefit of other parties lawfully entitled to claim them.[27] [Regulations §609.15(k)]

(l) If there was a partial guarantee of the Guaranteed Obligation by DOE, the remaining funds received as a result of the liquidation of project assets may, if so agreed in advance, be applied as follows:

(1) First, to the payment of reasonable and customary fees and expenses incurred in the liquidation; and

(2) Second, distributed among the Holders of the debt on no greater than a pro rata share basis. [Regulations §609.15(l)]

(m) No action taken by the Eligible Lender or other Holder or other servicer in the liquidation of any pledged assets will affect the rights of any party, including the Secretary,

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assets pledged as collateral and all other debt for the project at issue must be subordinate to the Guaranteed Obligation. **[DOE Response] [60124-5]**

25 See also 42 USCS §16512(g)(4)(B)(i).

26 See also 42 USCS §§16512(g)(2)(A)(i) and 15612(g)(4)(B)(ii).

27 See also 42 USCS §16512(h)(1).

having an interest in the loan or other debt obligations, to pursue, jointly or severally, to the extent provided in the Loan Guarantee Agreement, legal action against the Borrower or other liable parties, for any deficiencies owing on the balance of the Guaranteed Obligations or other debt obligations after application of the proceeds received upon liquidation. [Regulations §609.15(m)]

(n) In the event that the Secretary considers it necessary or desirable to protect or further the interest of the United States in connection with the liquidation of collateral or recovery of deficiencies due under the loan, the Secretary will take such action as may be appropriate under the circumstances. [Regulations §609.15(n)]

(o) Nothing in this part precludes the Secretary from purchasing the Holder's interest in the project upon liquidation. [Regulations §609.15(o)]

Subordination

§16512. Terms and conditions

[Codification of Section 1702]

(d) Repayment.

. . .

(3) Subordination. The obligation shall be subject to the condition that the obligation is not subordinate to other financing.[28]

§609.10 Loan Guarantee Agreement.

(d) Prior to the execution by DOE of a Loan Guarantee Agreement, DOE must ensure that the following requirements and conditions, which must be specified in the Loan Guarantee Agreement,[29] are satisfied:

(13) Any Guaranteed Obligation is not subordinate[30] to any loan or other debt obligation and is

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28 See also §609.10(d)(13) of Final Regulations.

29 Note the requirement that these terms be specified in the Loan Guarantee Agreement. Note also that some are representations, some are covenants, some are conditions precedent, and some are terms of the loan guarantee. [M&F Comment April 2009]

30 The phrase "not subordinate" allows for pari passu senior loans.

in a first lien position on all assets of the project and all additional collateral pledged as security for the Guaranteed Obligations and other project debt;[31]

B. Financial Structure Issues

The Act imposes certain limitations on the financial structure of proposed projects, including that a loan guarantee "shall not exceed an amount equal to 80 percent of the project cost of the facility that is the subject of the guarantee as estimated at the time at which the guarantee is issued." (42 U.S.C. 16512(c)) Section 1702(g)(2)(B) of the Act further requires that "with respect to any property acquired pursuant to a guarantee or related agreements, [DOE's rights] shall be superior to the rights of any other person with respect to the property." In the NOPR, the Department interpreted this statutory provision to require that DOE possess a first lien priority in the assets of the project and other assets pledged as security, and stated that because DOE believed it is not permitted by Title XVII to adopt a *pari passu* security structure, Holders of the non-guaranteed portion of a loan or debt instrument supported by a Title XVII guarantee would have a subordinate claim to DOE in the event of default.

. . .

According to JP Morgan Securities, Inc. (JP Morgan) it is unclear how lenders would fund the non-guaranteed portions of a partially guaranteed loan on which stripping was prohibited since banks rarely lend for tenures beyond eight to ten years, particularly when the debt is subordinated. JP Morgan further stated that an expectation that lenders would maintain the non-guaranteed portions for the life of such loans is unrealistic, and that by taking a second lien interest, a lender's participation is tantamount to an equity investment. (JP Morgan at 1).

. . .

It is customary and common practice in project financing for multiple lenders to enter into *a pari passu* structure with respect to assets pledged as collateral to secure debt. If such a structure were employed for the Title XVII program, DOE, pursuant to its Loan Guarantee Agreement, and lenders that held non-guaranteed debt, could share proportionately in the proceeds from the sale of project assets pledged as collateral if there were a default and the collateral was sold. In the NOPR, DOE interpreted Title XVII's requirement that DOE have a superior right to project assets pledged as collateral to prohibit *pari passu* structures, and as requiring all other lenders to be subordinate to DOE.

. . .

In the preamble to the final rule implementing section 19(g)(2) of the Alternative Fuels Act and in response to arguments by commenter's concerning the issue of *pari passu* sharing of the project collateral, DOE stated as follows:

> Subsection 796.11(a)(9) of the proposed regulation required that the guaranteed loan not be subordinate to any other loan for the project and that the guaranteed loan be in a first lien position with respect to assets of the project and other

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31 See also 42 USCS §16512(d)(3). This language is tracked in the OGC Form Term Sheet. [M&F Comment April 2009]

> collateral which are pledged as security for repayment of the **[60125]** guaranteed loan. DOE construes the Act to require this, and that only with regard to assets not directly related to the project, but which may be pledged as collateral, may a less than first lien position be acceptable to DOE.

(45 FR 15468, 15471).

DOE today adopts the same interpretation of Title XVII as it adopted in regard to nearly identical language in section 19(g)(2) of the Alternative Fuels Act. Thus, DOE interprets the language in Title XVII as requiring a first lien on all project assets, but as allowing DOE to treat assets pledged to secure a project loan that are not project assets the same as project assets. Consistent with the regulations concerning the disposition of proceeds from the sale of assets pursuant to the Alternative Fuels Act (section 796(f) and (k)), section 609.15 of today's final rule *also provides that where DOE only guarantees a portion of a Guaranteed Obligation, the Secretary may enter into inter-creditor or other arrangements to share the proceeds from the sale of project collateral with lenders or other holders of the non-guaranteed portion of the Guaranteed Obligation. DOE may, at the discretion of the Secretary, share the proceeds from the sale of collateral. DOE is limited, however, to no greater than a pro rata share for the non-guaranteed Holder. However, in cases where DOE guarantees 100 percent of a loan, the loan must be issued to and funded by the Federal Financing Bank. In those circumstances, DOE will have a first lien priority on project assets pledged as collateral and all other debt for the project at issue must be subordinate to the Guaranteed Obligation.*

OMB CIRCULARS

The provision to look at in the circular is the definition of Modification, particularly para. 3, and the definition of Work Out.

OMB Circular A-11

(b) ***Claim payment*** means a payment made to private lenders when a guaranteed loan defaults. [OMB Circular A-11, Section 185, Page 6]

(m) ***Loan guarantee*** means any guarantee, insurance, or other pledge with respect to the payment of all or a part of the principal or interest on any debt obligation of a non-Federal borrower to a non-Federal lender, except for the insurance of deposits, shares, or other withdrawable accounts in financial institutions. Loans that are financed by the FFB pursuant to agency loan guarantee authority are treated as direct loans rather than loan guarantees. [OMB Circular A-11, Section 185, Page 9]

(n) ***Loan guarantee commitment*** means a binding agreement by a Federal agency to make a loar guarantee when specified conditions are fulfilled by the borrower, the lender, or any other party to the guarantee agreement. [OMB Circular A-11, Section 185, Page 9]

(o) ***Loan guarantee subsidy cost*** means the estimated long-term cost to the Government of a loan guarantee, calculated on a net present value basis, excluding administrative costs. Specifically, the cost of a loan guarantee is the net present value, at the time when the guaranteed loan is disbursed by the lender, of the following estimated cash flows:

- Payments by the Government to cover defaults and delinquencies, interest subsidies, and other requirements; and
- Payments to the Government, including origination and other fees, penalties, and recoveries.
-

These estimated cash flows include the effects of expected Government actions and the exercise by the guaranteed lender or the borrower of an option included in the loan guarantee contract. [OMB Circular A-11, Section 185, Page 9]

(p) ***Loan terms*** are those terms made explicit in the contract between the U.S. Government and the borrower or in the federally guaranteed contract between a private lender and the borrower. These assumptions are forecast in the formulation subsidy cost estimate but are known at the time of loan origination. They may include: the interest rate charged on loans, the extent of a guarantee, fees, repayment terms, collateral held, and other factors such as grace periods. [OMB Circular A-11, Section 185, Page 9]

(r) ***Modification*** means a Government action that (1) differs from actions assumed in the baseline estimate of cash flows and (2) changes the estimated cost of an outstanding direct loan (or direct loan obligation) or an outstanding loan guarantee (or loan guarantee commitment). The modification may be **[10]** for a single loan or loan guarantee as well as a group; it may be any size; and it may affect pre–1992 direct loans and loan guarantees or post–1991 direct loans or loan guarantees. New legislation that alters the baseline cash flow estimate for a loan or group of loans always results in a modification. A Government action may change the cost directly by altering the terms of existing contracts, selling loan assets (with or without recourse) or converting guaranteed loans to direct loans by purchasing them from a private lender. It also may change the cost indirectly by legislatively changing the way in which a portfolio of direct loans or guaranteed loans is administered. Examples of changes in the terms of existing loan contracts are forgiveness, forbearance, interest rate reductions, extensions of maturity, and prepayments without penalty. Examples of changes in loan administration are new methods of debt collection, such as using tax refunds to repay loans and restrictions on debt collections. If the baseline cost estimate does not assume an action, and the cost would be increased or decreased as a result of that action, the action is a modification. [OMB Circular A-11, Section 185, Page 9-10]

Modifications do not include a Government action that is assumed in the baseline cost estimate, as long as the assumption is documented and has been approved by OMB. For example, modifications would not include routine administrative workouts (see section 185.3(ab)) of troubled loans or loans in imminent default. They also would not include a borrower's or the Government's exercise of an option that is permitted within the terms of an existing contract, such as a borrower prepaying the loan. The baseline subsidy estimate must include all anticipated actions by the Government, lenders, and borrowers that are permissible under current law and that affect the cash flow. Subsequently, if the cost estimate of an action by the borrower, lender, or the Government differs from what is anticipated in the documented baseline subsidy estimate, then the difference in cost is included in a reestimate. Assumptions underlying the subsidy estimates must be documented to assist in determining whether an action is a modification or a reestimate. [OMB Circular A-11, Section 185, Page 10]

Modifications do not include additional disbursements to borrowers that increase the amount of an outstanding direct loan or an outstanding loan guarantee. These are treated as new direct loans or loan guarantees in the amount of the additional disbursement. [OMB Circular A-11, Section 185, Page 10]

There are situations where it is not clear whether a Government action constitutes a modification or a reestimate. These situations should be judged on a case-by-case basis by OMB in consultation with the agency. They could include actions by the Government that are not addressed in existing contracts, management changes that are within an agency's existing specific authority for the loan program, and broad changes in agency policy (e.g., loan sale policy). In general, if the possibility of the action was explicitly included in the cash flows for the baseline subsidy estimate, and this can be documented, it would most likely be a reestimate. If not, it would most likely be a modification. [OMB Circular A-11, Section 185, Page 10]

Modifications produce a one-time change in the subsidy cost of *outstanding* direct loans and loan guarantees. The effect of the Government action on the subsidy cost of direct loan obligations and loan guarantee commitments made after the date of the modification, if there is any effect, is not a modification. Instead, the effects are incorporated in the initial cost estimates for subsequent direct loan obligations and loan guarantee commitments. [OMB Circular A-11, Section 185, Page 10]

(s) ***Modification cost*** means the difference between the estimate of the net present value of the remaining cash flows assumed for the direct loan or loan guarantee contract before and after the modification. The estimate of the remaining cash flows before the modification must be the same as assumed in the baseline for the most recent President's budget. The estimate of the remaining cash flows after the modification must be the pre-modification cash flows adjusted solely to reflect the effects of the modification. [OMB Circular A-11, Section 185, Page 10]

An outstanding direct loan (or direct loan obligation) or loan guarantee (or loan guarantee commitment) cannot be modified in a manner that increases its cost, unless budget authority for the additional cost has been provided in advance in an appropriations act. If the modification is mandated in legislation, the legislation itself provides the budget authority to incur a subsidy cost obligation (whether explicitly stated or not). [OMB Circular A-11, Section 185, Page 10]

(ab) ***Work-outs*** mean plans that offer options short of default or foreclosure for resolving troubled loans or loans in imminent default, such as deferring or forgiving principal or interest, reducing the borrower's interest rate, extending the loan maturity, or postponing collection action. Work-outs are expected to minimize the cost to the Government of resolving troubled loans or loans in imminent default. They should only be utilized if it is likely that the borrower will be able to repay under the terms of the workout and if the cost of the work-out is less than the cost of default or foreclosure. For post–1991 direct loans and loan guarantees, the expected effects of work-outs on cash flow are included in the original estimate of the subsidy cost. Therefore, to the extent that the effects of work-outs on cash flow are the same as originally estimated, they do not alter the subsidy cost. If the effects on cash flow are more or less than the original estimate, the differences are included in reestimates of the subsidy and are not a modification. [OMB Circular A-11, Section 185, Page 12]

185.6 How do I calculate reestimates?

(a) *General.*

Subsidy reestimates are made on direct loans and loan guarantees that have been disbursed. They are recorded in the current year column of the budget. (For example, the subsidy for direct or guaranteed loans disbursed during 2010 would be reestimated during 2011 and would be recorded in the 2011 column of the FY 2012 Budget.) A closing reestimate should be made once all the loans in the cohort have been repaid or written off. [OMB Circular A-11, Section 185, Page 15]

Two different types of reestimates are made:

- Interest rate reestimates, for differences between discount rate assumptions at the time of formulation (the same assumption is used at the time of obligation or commitment) and the actual interest rate(s) for the year(s) of disbursement; and

- Technical reestimates, for changes in technical assumptions. [OMB Circular A-11, Section 185, Page 15]

Technical reestimates of the subsidy cost of a cohort of direct loans or loan guarantees must be made after the close of each fiscal year as long as the loans are outstanding, unless a different plan is approved by the OMB representative with primary budget responsibility for the credit account. The different plan might be with regard to the time when reestimates are made within the year or the frequency of reestimates. If the plan allows reestimates to be made less frequently than every year, it should require reestimates to be made for any year when any one of the following four conditions is met:

(1) When required based on periodic schedules established in coordination with OMB, consistent with the unique attributes of each program (e.g., initially every two years after the cohort has been substantially disbursed, then every five years);

(2) When a major change in actual versus projected activity is detected (e.g., a loan that is large relative to the size of the portfolio goes into default or prepays substantially earlier than expected);

(3) When a material difference is detected through monitoring triggers developed in coordination with OMB. The triggers would focus on major data elements (e.g., total projected versus total actual cohort collections) rather than in-depth individual cohort analysis. Agencies should focus on a few major loan elements recognizing there are different key elements applicable to each program and different reporting problems; and

(4) When a cohort is being closed out. [OMB Circular A-11, Section 185, Page 16]

Technical reestimates are made for all changes in assumptions other than interest rates. This type of reestimate compares the subsidy estimate that already includes any reestimate for actual interest rates with a reestimated subsidy using updated technical information (for defaults, fees, recoveries, etc.) as well as actual interest rates. [OMB Circular A-11, Section 185, Page 16]

The purpose of technical reestimates is to adjust the subsidy estimate for differences between the original projection of cash flows (as estimated at obligation) and the amount and timing of cash flows that are expected based on actual experience, new forecasts about future economic conditions, and other events and improvements in the methods used to estimate future cash flows. Because actual cash flows are experienced every year and the ability to forecast future years also changes, this reestimate must be done after the end of every fiscal year as long as any loans are outstanding (except as provided above). [OMB Circular A-11, Section 185, Page 16]

Reestimates must be made separately for each cohort. If a cohort is divided into risk categories, each risk category within a cohort must be reestimated separately. The reestimate will then be compared with the previous estimate. For this purpose, all details of the previous subsidy estimates by risk category should be retained in program records. [OMB Circular A-11, Section 185, Page 16]

185.7 How do I calculate and record modifications?

When a direct loan or loan guarantee is modified, the subsidy cost of the modification must be calculated. The subsidy cost calculation will indicate whether the Government action changes the subsidy cost. If there is no change in cost, there will be no budgetary effect, and nothing needs to be recorded in the budget. If the modification will increase or decrease the cost, the budgetary effect must be recorded as described under modification cost increases/decreases below. Additional transfers to or from the financing account will be required, with the type of transfer depending on whether the modification affects pre–1992 or post–1991 direct loans and loan guarantees. These additional transfers are described in a separate subsection below. [OMB Circular A-11, Section 185, Page 19]

The subsidy cost of the modification is the difference between the estimate of the net present value of the remaining cash flows for the direct loan or loan guarantee before and after the modification. The estimate of remaining cash flows before modification must be the same as assumed in the baseline for the most recent President's budget. The estimate of remaining cash flows after modification must be the premodification cash flows adjusted solely to reflect the effects of the modification. [OMB Circular A-11, Section 185, Page 19]

OMB Circular A-129

[Nothing of note for now . . .]

[EXTRA: LIST OF DOCUMENTS]

Loan Documents

Loan Documents

1. *Common Agreement (including Definitions, Exhibits & Disclosure Letter)*
2. *FFB Program Financing Agreement*
3. *FFB Note Purchase Agreement*
4. *FFB Promissory Note*
5. *DOE Guarantee*
6. *Collateral Agency Agreement*
7. *Equity Funding Agreement*
8. *Sponsor Support Agreement*

Security Documents

9. *Deed of Trust*

10. *Environmental Indemnity Agreement*
11. *Security Agreement*
12. *Account Control Agreement*
13. *Equity Pledge Agreement*
14. *Direct Agreements*

[ADD]

Table of Contents

DOCUMENT

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DOE/SOLYNDRA RESTRUCTURING

Contractual and Legal Analysis

[Rough Draft: 01-03-11]

(see Table of Contents at end)

I. BACKGROUND

[Briefly describe circumstances and need for restructuring]

II. EXISTING LOAN STRUCTURE

A. DOE-Guaranteed Loans and Advances

1. *DOE has guaranteed an FFB Loan in the principal amount of $535,000,000*

   a. The DOE-Guaranteed Loan is from FFB to the Borrower (Fab 2) in the principal amount of up to $535,000,000.

   b. The terms of the FFB loans (*i.e.*, the DOE-Guaranteed Loans) are set forth in a Note Purchase Agreement among the Borrower, DOE and FFB.

   c. FFB also holds a single "grid-style" Promissory Note, which covers Advances made from time to time (generally monthly).

2. *Advances of the DOE-Guaranteed Loan are made monthly in accordance with the conditions precedent set forth in the Common Agreement*

   a. Advances of the loan are made (generally monthly) in accordance with the provisions of the Note Purchase Agreement (which sets forth basic FFB funding mechanics).

   b. Detailed conditions precedent to each Advance, designed to protect the DOE's credit exposure, are set forth in the Common Agreement.

B. Repayment of Principal and Interest

1. *Interest on the DOE-Guaranteed Loan is payable quarterly*

   a. Interest is due and payable on the 15th day of each February, May, August and November (the "Quarterly Payment Dates"), beginning immediately on the first Quarterly Payment Date after an Advance is made, up through and including the Maturity Date. [FFB Promissory Note §__]

   b. Interest is payable during the construction period by means of "Payment Borrowings", which are Advances of the DOE-Guaranteed Loans in the required amount of interest. [FFB Promissory Note §__]

   c. On and after the First Principal Payment Date, interest is paid in cash from revenues generated from operations. [FFB Promissory Note §__]

2. *Principal of the DOE-Guaranteed Loan is payable quarterly, beginning May 15, 2012*

   a. Principal is payable in 18 equal quarterly payments on the Quarterly Payment Dates beginning on **May 15, 2012**, and thereafter on the 15th day of February, May, August and November of each year until **August 15, 2016**. [FFB Promissory Note §__]

C. Collateral Security Package

1. *All assets of the Borrower, as well as Solyndra, Inc.'s equity interests in the Borrower, are pledged as collateral security for the Borrower's payment obligations*

   a. All Borrower Assets Pledged. All assets of the Borrower are pledged as collateral security for the Guaranteed Loans.

   b. All Equity Interests Pledged. All Equity Interests in the Borrower (100% held directly by the Sponsor as the sole Equity Owner) are pledged as collateral security for the Guaranteed Loans.

2. *All security is pledged for DOE's benefit, not FFB's*

   a. The Note Purchase Agreement provides that "FFB acknowledges that the Borrower has, through the execution of the Security Instruments, pledged and granted a security interest to the "Collateral Agent," for the benefit of the "Secured Parties" (as those terms are defined in the Common Agreement) in certain property of the Borrower to secure the payment and performance of certain obligations owed to the Secretary under, *inter alia*, the Security Instruments." [Note Purchase Agreement, §11.1.2]

3. *FFB is not a Secured Party under the Loan Documents*

   a. The Common Agreement defines "Secured Parties" as DOE and the Collateral Agent, as their respective interests may appear.

4. *Upon a default by the Borrower under the FFB Promissory Note or an Event of Default under the Common Agreement and the Security Documents, DOE has the sole authority (vis-a-vis FFB) in respect of acceleration of the FFB Promissory Note and realization on collateral.*

   a. The Note Purchase Agreement provides

   "In consideration of the Secretary's Guarantee relating to the Note that has been purchased by FFB under this Agreement, the Secretary shall have the sole authority (vis-a-vis FFB), in the case of a default by the Borrower under such Note or the occurrence of an Event of Default under the Security Instruments, in respect of acceleration of such Note, the exercise of other available remedies, and the disposition of sums or property recovered. [Note Purchase Agreement" §11.1.1][1]

b. "Security Instruments" is defined to mean, "collectively, (i) the Common Agreement, and (ii) the "Security Documents" (as that term is defined in the Common Agreement), as such agreements and documents may be amended, supplemented, and restated from time to time in accordance with their respective terms." [Note Purchase Agreement Schedule I, Item 3]

D. DOE Guarantee

1. DOE's guarantee is issued under Title XVII and references the Federal Financing Bank Act

a. The DOE Guarantee provides that

"This Secretary's Guarantee is issued pursuant to Title XVII of the Energy Policy Act of 2005, as amended (42 U.S.C. § 16511 et seq.), section 6 of the Federal Financing Bank Act of 1973 (12 U.S.C. § 2285), and the Note Purchase Agreement dated as of September 2, 2009, among FFB, the Borrower, and the Secretary." [DOE Guarantee, paragraph 3]

b. The DOE Guarantee is a full faith & credit obligations of the U.S. government:

"The obligation of the United States of America to pay amounts due and payable under this Secretary's Guarantee when such amounts become due and payable in accordance with its terms, constitutes the absolute obligation of the United States of America, against which no offset may be made by the United States of America in discharge of its obligation to make these payments and for which the full faith and credit of the United States of America are pledged." [DOE Guarantee, paragraph 2]

2. DOE guarantees all payments of principal, interest, premium, and late charges, when and as due in accordance with the FFB Promissory Note

a. The DOE Guarantee guarantees

"all payments of principal, interest, premium (if any), and late charges (if any), when and as due in accordance with the terms of the note dated September 3, 2009, issued by **SOLYNDRA FAB 2 LLC** (the "Borrower") payable to FFB in the maximum principal amount of $535,000,000, to which this Secretary's Guarantee is attached (such note being the "Note"), with interest on the principal until paid, irrespective of (i) acceleration of such payments under the terms of the Note, or (ii) receipt by the Secretary of any sums or property from its enforcement of its remedies for the Borrower's default." [DOE Guarantee, paragraph 1]

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1 See similar language in Section 23(b) of the FFB Promissory Note

b. The FFB Promissory Note provides

Upon execution of the guarantee set forth at the end of this Note (the "Guarantee"), the payment by the Borrower of all amounts due and payable under this Note, when and as due, shall be guaranteed by the United States of America, acting through the Secretary, pursuant to Title XVII of the Energy Policy Act of 2005, as amended (42 U.S.C. § 16511 et seq.). In consideration of the Guarantee, the Borrower promises to the Secretary to make all payments due under this Note when and as due. [FFB Promissory Note §20]

E. Guarantee Payments

1. Absent a payment default, FFB has no right to demand any action from DOE

a. The Applicable Regulations provide:

"In the event that the Borrower is in default as a result of a breach of one or more of the terms and conditions of the Loan Guarantee Agreement, note, mortgage, Loan Agreement, or other contractual obligations related to the transaction, other than the Borrower's obligation to pay principal or interest on the Guaranteed Obligation, as provided in paragraph (a) of this section, the Holder will not be entitled to make demand for payment pursuant to the Loan Guarantee Agreement, unless the Secretary agrees in writing that such default has materially affected the rights of the parties, and finds that the Holder should be entitled to receive payment pursuant to the Loan Guarantee Agreement." [Regulations §609.15(b)]

2. If the Borrower defaults, FFB's recourse is to demand payment under the DOE Guarantee

a. The Act provides:

"(A) In general. If a borrower defaults on the obligation (as defined in regulations promulgated by the Secretary and specified in the guarantee contract), the holder of the guarantee shall have the right to demand payment of the unpaid amount from the Secretary."[2] [§1702(g)(1)(A)]

b. The Act provides:

"(B) Payment required. Within such period as may be specified in the guarantee or related agreements, the Secretary shall pay to the holder of the guarantee the unpaid interest on, and unpaid principal of the obligation as to which the borrower has defaulted, unless the Secretary finds that there was no default by the borrower

2 See also §§609.15(a)-(e) of Final Regulations.

in the payment of interest or principal or that the default has been remedied."[3] [§1702(g)(1)(B)]

c. The Applicable Regulations provide:

(a) In the event that the Borrower has defaulted in the making of required payments of principal or interest on any portion of a Guaranteed Obligation, and such default has not been cured within the period of grace provided in the Loan Guarantee Agreement and/or the Loan Agreement, the Eligible Lender or other Holder, or nominee or trustee empowered to act for the Eligible Lender or other Holder (referred to in this section collectively as "Holder"), may make written demand upon the Secretary for payment pursuant to the provisions of the Loan Guarantee Agreement. [Regulations §609.15(a)]

F. DOE's Rights Under the FFB Promissory Note

1. <u>DOE has all of FFB's rights, powers, privileges, and remedies as Holder of the FFB Promissory Note</u>

a. The FFB Promissory Note provides:

"This Note is . . . entitled to the benefits and security of, the "<u>Security Instruments</u>" (as defined in the Note Purchase Agreement), whereby the Borrower pledged and granted a security interest in certain property of the Borrower, described therein, to secure the payment of and performance of certain obligations owed to the Secretary, as set forth in the Security Instruments. For purposes of the Security Instruments, in consideration of the undertakings by the Secretary set forth in the Program Financing Agreement, the Note Purchase Agreement, and the Guarantee, the Secretary shall be considered to be, and shall have the rights, powers, privileges, and remedies of, the Holder of this Note." [FFB Promissory Note §21]

b. The FFB Promissory Note provides:

"In case of a default by the Borrower under this Note or the occurrence of an "Event of Default" (as defined in the Security Instruments), then, in consideration of the obligation of the Secretary under the Guarantee, the Secretary, in the name of the Secretary or the United States of America, shall have all rights, powers, privileges, and remedies of the Holder of this Note, in accordance with the terms of this Note and the Security Instruments, including, without limitation, the right to (i) enforce or collect all or any part of the obligation of the Borrower under this Note or arising as a result of the Guarantee; (ii) accelerate (as provided in paragraph 24); (iii) compromise or otherwise negotiate with the Borrower; (iv) bring suit against or foreclose upon any or all of the security interests granted

3 See also §609.15(f) of Final Regulations.

by the Borrower; and (v) to file proofs of claim or any other document in any bankruptcy, insolvency, or other judicial proceeding, and to vote such proofs of claim." [FFB Promissory Note §23(a)]

c. See definition of "Security Instruments", above

2. *DOE payments discharge FFB's rights, but not Borrower's, under the Promissory Note*

a. The FFB Promissory Note provides:

"If the Secretary makes any payment, pursuant to the Guarantee, of any amount due and payable under this Note, each and every such payment so made shall be deemed to be a payment hereunder; provided, however, that no payment by the Secretary pursuant to the Guarantee shall be considered a payment for purposes of determining the existence of a failure by the Borrower to perform its obligation to the Secretary to make all payments under this Note when and as due. [FFB Promissory Note §22]

G. Reimbursement Obligations

1. *The Borrower is currently contractually obligated to reimburse DOE with respect to DOE guarantee payments.*

a. The Common Agreement provides:

"The Borrower shall pay to DOE an amount (the "Borrower Reimbursement Obligations") equal to the sum of (i) the DOE Guarantee Payment Amount, and (ii) interest on DOE Guarantee Payment Amount . . . " [Common Agreement §10.2.1]

b. The FFB Promissory Note provides:

The Secretary shall have any rights by way of subrogation, agreement or otherwise which arise as a result of such payment pursuant to the Guarantee and as provided in the particular agreement specified on page 1 of this Note as the "Common Agreement" between the Borrower and the United States of America, acting through the Secretary, to evidence the Borrower's obligation to reimburse the Secretary for payment made by the Secretary pursuant to the Guarantee." [FFB Promissory Note §22]

2. *The Borrower's contractual reimbursement obligation is in addition to DOE's subrogation rights upon making DOE guarantee payments.*

a. The Applicable Regulations provide:

"The Loan Guarantee Agreement shall provide that, upon payment of the Guaranteed Obligations, the Secretary shall be subrogated to the rights of the Holders and shall have superior rights in and to the property acquired from the Holders. The Holder shall transfer and assign to the Secretary all rights held by the Holder of the Guaranteed Obligation. Such assignment shall include all related liens, security, and collateral rights to the extent held by the Holder."[4] [Regulations §609.15(g)]

b. The Common Agreement provides:

"DOE's right to reimbursement provided for in this Article 10 shall be in addition to, and not in limitation of, any other claims, rights or remedies of subrogation, reimbursement, contribution, exoneration or indemnification or similar claims, rights or remedies, whether arising under contract, by statute, or otherwise that DOE may have from time to time." [Common Agreement §10.5.1]

c. The Common Agreement provides:

"Without limiting the generality of Section 10.5.1, in accordance with Section 609.10(e)(2) of the Applicable Regulations, upon any DOE Guarantee Payment DOE shall be subrogated to the rights of FFB or any subsequent holder of the DOE-Guaranteed Loan, including all related Liens and Collateral, and has superior rights in and to the property acquired from the recipient of the payment as provided in §609.15 of the Applicable Regulations." [Common Agreement §10.5.2]

3. *The Collateral Security pledged under the Security Documents is pledged to secure the Borrower Reimbursement Obligations*

a. The Common Agreement provides that

"The parties expressly acknowledge that the Collateral Security pledged under the Security Documents is pledged to secure payment by the Borrower of the Borrower Reimbursement Obligations. [Common Agreement §10.4.1]"

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4 See also 42 USCS §§16512(g)(2)(A)-(B).

DOE today adopts the same interpretation of Title XVII as it adopted in regard to nearly identical language in section 19(g)(2) of the Alternative Fuels Act. Thus, DOE interprets the language in Title XVII as requiring a first lien on all project assets, but as allowing DOE to treat assets pledged to secure a project loan that are not project assets the same as project assets. Consistent with the regulations concerning the disposition of proceeds from the sale of assets pursuant to the Alternative Fuels Act (section 796(f) and (k)), . . . where DOE only guarantees a portion of a Guaranteed Obligation, the Secretary may enter into inter-creditor or other arrangements to share the proceeds from the sale of project collateral with lenders or other holders of the non-guaranteed portion of the Guaranteed Obligation. DOE may, at the discretion of the Secretary, share the proceeds from the sale of collateral. DOE is limited, however, to no greater than a pro rata share for the non-guaranteed Holder. However, in cases where DOE guarantees 100 percent of a loan, the loan must be issued to and funded by the Federal Financing Bank. In those circumstances, DOE will have a first lien priority on project assets pledged as collateral and all other debt for the project at issue must be subordinate to the Guaranteed Obligation. [DOE Response] [60124-5]

b. The Common Agreement defines

"Borrower Reimbursement Obligations" to be "the sum of (i) the DOE Guarantee Payment Amount, and (ii) interest on DOE Guarantee Payment Amount from the date the DOE Guarantee Payment was paid or incurred by DOE under the DOE Guarantee until payment in full by the Borrower to DOE of the DOE Guarantee Payment Amount, at a rate of interest equal to the rate of interest in effect under the FFB Note Purchase Agreement with respect to Overdue Amounts at the time of the payment default by the Borrower." [Common Agreement §10.2.1]

c. The Common Agreement defines

"DOE Guarantee Payment Amount" as an amount "equal to the sum of (i) all DOE Guarantee Payments paid by DOE to FFB, and (ii) all costs or expenses incurred by DOE in connection therewith, whether by payment to FFB or otherwise." [Common Agreement §10.1]

H. Administration of DOE-Guaranteed Loan

1. Billing by FFB

FFB prepares a billing statement for all amounts owed to FFB with respect to each Advance made under the Note and delivers each billing statement to the Borrower and DOE. [FFB Note Purchase Agreement, §9.1]

I. Agreed Funds Flow

[add]

J. Provision in Act for DOE Payment of Principal and Interest

1. The Act provides that DOE may enter into a contract to pay principal and interest to holders.

a. The Act provides:

" (3) Payment of principal and interest by Secretary. With respect to any obligation guaranteed under this section, the Secretary may enter into a contract to pay, and pay, holders of the obligation, for and on behalf of the borrower, from funds appropriated for that purpose, the principal and interest payments which become due and payable on the unpaid balance of the obligation if the Secretary finds that--

(A) (i) the borrower is unable to meet the payments and is not in default[5];

(ii) it is in the public interest to permit the borrower to continue to pursue

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5 See also §609.13(a)(1) of Final Regulations.

the purposes of the project;[6] and

(iii) the probable net benefit to the Federal Government in paying the principal and interest will be greater than that which would result in the event of a default;[7]

(B) the amount of the payment that the Secretary is authorized to pay shall be no greater than the amount of principal and interest that the borrower is obligated to pay under the agreement being guaranteed;[8] and

(C) the borrower agrees to reimburse the Secretary for the payment (including interest) on terms and conditions that are satisfactory to the Secretary."[9] [§1702(g)(3)]

b. The Applicable Regulations provide:

[add later]

2. *There is no need for DOE to enter into such a contract, since DOE has already guaranteed 100% of the loan to FFB.*

   a. This provision was likely added to allow for 100% guarantee coverage of troubled loans originally structured as 80% or 90% coverage.

3. *As a fallback, this provision would allow DOE to make payments to the FFB in the current situation, if there were any doubt as to DOE's authority to do so.*

   a. These provisions by their terms apply to guaranteed obligations

[Discuss this]

K. DOE Right to Purchase Note from FFB

1. *The Note Purchase Agreement provides that DOE may purchase individual advances or the FFB Promissory Note from FFB.*

   a. the Note Purchase Agreement provides

"Notwithstanding the provisions of the Note, the Borrower acknowledges that, under the terms of the Program Financing Agreement, the Secretary may purchase from FFB all or any portion of any Advance that has been made under the Note, or may purchase from FFB the Note in its entirety, in the same manner, at the same price, and subject to the same limitations as shall be applicable, under the

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6 See also §609.13(b) of Final Regulations.

7 See also §609.13(c) of Final Regulations.

8 See also §609.13(d) of Final Regulations.

9 See also §609.13(e) of Final Regulations.

terms of the Note, to a prepayment by the Borrower of all or any portion of any Advance made under the Note, or a prepayment by the Borrower of the Note in its entirety, as the case may be." [Note Purchase Agreement, §11.2]

b. Note that this gives DOE a right to purchase amounts payment-by payment.

III. RESTRUCTURING GOALS AND ISSUES

A. Tranche A and Tranche C Loans are to be Senior to Tranche B and Tranche D

1. *Tranche A debt is to have a priority return for two years, and thereafter be pari passu with Tranche B, and senior to Tranche D*

a. The Restructuring Term Sheet provides that Tranche A shall be

"First out in the event of a liquidation event prior to initial scheduled principal payment date (March, 2013)"

2. *Tranche C debt is to be pari passu with Tranche B, and senior to Tranche D*

a. The Restructuring Term Sheet provides that Tranche C shall be

"[in an amount] up to an additional $75 million senior debt financing permitted pari passu with Tranche A and B. Collateral and terms as stated on Tranche A above (except Tranche C will not receive a first out position in the event of a liquidation event prior to initial scheduled principal payment date)"

3. *Tranche A and Tranche C debt is to have same collateral as Tranche B and Tranche D*

a. The Restructuring Term Sheet provides that the collateral security for Tranche A is

"Equity interests in Fab 2 LLC and all assets of Fab 2 LLC, including all intellectual property, equipment, agreements, etc.'"

B. Subordination of DOE-Guaranteed Loans is Prohibited

1. *The Act and the Applicable Regulations prohibit subordination of the DOE-Guaranteed Loans*

a. The Act provides:

"(d) Repayment. ... (3) Subordination. The obligation shall be subject to the condition that the obligation is not subordinate to other financing."[10] [Act §1702(d)(3)]

b. The Applicable Regulations provide:

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10 See also §609.10(d)(13) of Final Regulations.

(d) Prior to the execution by DOE of a Loan Guarantee Agreement, DOE must ensure that the following requirements and conditions, which must be specified in the Loan Guarantee Agreement, are satisfied: ...
(13) Any Guaranteed Obligation is not subordinate to any loan or other debt obligation and is in a first lien position on all assets of the project and all additional collateral pledged as security for the Guaranteed Obligations and other project debt;[11] [Applicable Regulations §609.10(d)(3)]

2. *The definition of "obligations" is limited to the DOE-guaranteed obligations*

   a. The Act provides:

   In this *title [42 USCS §§16511* et seq.] ... (5) Obligation. The term "obligation" means the loan or other debt obligation that is guaranteed under this section.[12] [Act §1701(5)]

   b. The Applicable Regulations provide:

   Guaranteed Obligation[13] means any loan or other debt obligation of the Borrower for an Eligible Project for which DOE guarantees all or any part of the payment of principal and interest under a Loan Guarantee Agreement entered into pursuant to the Act. [Applicable Regulations §609.2]

3. *There does not seem to be any restriction on subordination of Borrower reimbursement obligations to DOE*

   [Discuss]

C. Forbearance

1. *The Act and the Applicable Regulations allow for forbearance for the benefit of the Borrower*

   a. The Act provides:

   (C) Forbearance. Nothing in this subsection precludes any forbearance by the holder of the obligation for the benefit of the borrower which may be agreed upon by the parties to the obligation and approved by the Secretary.[14] [§1702(g)(1)(C)]

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11 See also 42 USCS §16512(d)(3).

12 See also definition of "Guaranteed Obligation" at §609.2 of Final Regulations.

13 See also 42 USCS §16511(5).

14 See also §609.15(d) of Final Regulations.

b. The Applicable Regulations provide:

> (d) No provision of this regulation shall be construed to preclude forbearance by the Holder with the consent of the Secretary for the benefit of the Borrower.[15] [Applicable Regulations §609.15(d)]

IV. PROPOSED NEW STRUCTURE

A. Borrower Payments to Collateral Agent

1. *Tranche A would be funded as, and Tranche E would be converted into, Fab 2 Indebtedness.*

a. The Tranche A lenders (and, if they subscribe to the deal, the Tranche C lenders) would agree to fund their loan under the terms of the relevant Note Purchase Agreements and the Common Agreement.

b. Fab 2 will become liable on the existing Tranche E debt

2. *The Tranche B & Tranche D payments will run directly to DOE, and will together embody the secured reimbursement obligations now in Article 10 of the Common Agreement*

3. *All Borrower payment priority would be addressed in the Intercreditor Agreement.*

a. The priority of the payments to the lenders would be adjusted as per the terms of the Intercreditor Agreement.

b. All Fab 2 payments will be run through the Collateral Agent to ensure proper allocation.

B. No Change to DOE Payments to FFB

1. *Existing Fab 2 Indebtedness payable to FFB (Tranche B and Tranche D) would be left undisturbed.*

a. The Borrower will remain liable on the existing Tranche B and Tranche D indebtedness, and the contractual arrangements with FFB will be left undisturbed.

b. However, Fab 2 will make all payments with respect to Tranche B and Tranche D to the Collateral Agent for payment to DOE, as described below.

2. *FFB would have no role in the restructuring, because the Borrower's and DOE's obligations would be unchanged.*

a. FFB would not be a party to the Intercreditor Agreement and would otherwise not be a party to the restructuring documents.

---

15 See also 42 USCS §16512(g)(2)(C).

b. DOE [would acknowledge that it will] make payments to FFB under the DOE guaranty in accordance with the terms of the existing amortization schedule under the FFB Promissory Note so that the expected payment stream to FFB would not be disturbed.

C. **Effect of DOE Payments in advance of Borrower reimbursements**

1. *DOE payments will be made in advance of Borrower reimbursements*

   a. The total principal amount of DOE payments to FFB ("DOE Payments") will equal the total principal amount of the Borrower's payments to DOE ("Borrower Payments")

   b. However, the principal portion of DOE Payments will be due in advance of the coresponding principal portion of Borrower Payments.

   c. As a result of the timing difference, because a larger principal amount will be outstanding on the Borrower Payment than on the DOE Payments, it is likely that the total interest amount due to DOE will be greater than the interest paid by DOE to FFB

2. *DOE is making debt service payments to FFB as Loan Servicer; to the extent the Borrower does not make a corresponding payment, those debt service payments become guarantee payments.*

   [Discuss]

3. *Changes to reimbursement arrangements could be deemed to constitute forbearance by DOE.*

   a. Fab 2 would acknowledge its obligation to pay DOE (via the Collateral Agent) for its own account in respect of Tranche B & D payments made by DOE under the DOE Guarantee, and in exchange DOE would agree to accept repayment under the modified interest rate, amortization schedule and related terms of the restructured debt as per the term sheet.

   b. This could be accomplished by either (i) entering into a Reimbursement Agreement, or (ii) amending the existing reimbursement obligations in the Common Agreement.

4. *Borrower payments on Tranches B & D will be credited dollar-for-dollar to reduce the Borrower's obligations under the FFB Note.*

   a. The payments on Tranches B & D will be credited dollar-for-dollar to reduce the Borrower's obligations under the FFB Promissory Note.

D. **Security Interests**

1. *Existing Security Agreements would not be substantially modified, and all collateral would remain pledged to DOE*

   a. The existing security agreements in favor of DOE (including both (x) the existing deeds of trust and the personal property security agreements, and (y) the pledge by Solyndra, Inc. of its membership interests in Fab 2) would not be substantially modified except:

(i) certain modifications to specific covenants, representations and remedies provisions will be made to take into account the new collateral that will be subject to the security interests in favor of DOE and all the other lenders in respect of the intellectual property, equipment and other assets being sold or contributed by Solyndra, Inc. to Fab 2; and

(ii) [to the extent that the granting clause in favor of DOE covers indebtedness in addition to the principal, interest and indemnity payments, etc. owing under the existing loan documents, the granting clause would be modified so that there would be no lien securing additional debt].

2. *Other Lenders would enter into new security agreements.*

The Tranche A lenders and the Tranche E lenders would enter into a new set of security documents (including new personal property security agreements, deeds of trust and membership pledges) to secure obligations owing to each of them by Fab 2. These would be substantially the same as the collateral documents running in favor of DOE, as amended.

3. *DOE and all other Lenders would be secured by the same collateral.*

As a result of the foregoing, all of the Tranche A, Tranche B, Tranche C (if funded), Tranche D and Tranche E Debt would be secured by a perfected security interest in and lien on the same collateral (being all the assets of and membership interests in Fab 2).

4. *The Collateral Agent would act as collateral agent for all of the lenders.*

Pursuant to the terms of the Intercreditor Agreement, U.S. Bank would agree to act as collateral agent for all of the lenders. In addition, U.S. Bank would agree that, notwithstanding the fact that under the terms of the existing deeds of trust and personal property security agreements in favor of DOE, U.S. Bank is acting as collateral agent solely for the benefit of DOE, the provisions of the Intercreditor Agreement would supersede those so that any exercise of remedies by U.S. Bank and any distribution of proceeds by U.S. Bank would always be consistent with the terms of the Intercreditor Agreement.

5. *All lien priority would be addressed in the Intercreditor Agreement.*

The priority of the liens of the lenders would be adjusted as per the terms of the Intercreditor Agreement.

E. Prepayments

[address prepayment mechanics]

V. Treatment of New Structure Under OMB Rules

A. Modifications Under OMB FCRA Rules

1. *If the proposed changes to the transaction structure are deemed a "modification", additional budget authority must be provided.*

a. OMB Circular A-11 provides:

> "An outstanding direct loan (or direct loan obligation) or loan guarantee (or loan guarantee commitment) cannot be modified in a manner that increases its cost, unless budget authority for the additional cost has been provided in advance in an appropriations act. If the modification is mandated in legislation, the legislation itself provides the budget authority to incur a subsidy cost obligation (whether explicitly stated or not)." [OMB Circular A-11, Section 185, Page 10]

b. [Discuss implications]

2. *Changes in the terms of an existing loan, forbearance, interest rate reductions, and extensions of maturity all constitute modifications*

a. OMB Circular A-11 provides:

> "(r) ***Modification*** means a Government action that (1) differs from actions assumed in the baseline estimate of cash flows and (2) changes the estimated cost of an outstanding direct loan (or direct loan obligation) or an outstanding loan guarantee (or loan guarantee commitment). ... A Government action may change the cost directly by altering the terms of existing contracts, selling loan assets (with or without recourse) or converting guaranteed loans to direct loans by purchasing them from a private lender. ... Examples of changes in the terms of existing loan contracts are forgiveness, forbearance, interest rate reductions, extensions of maturity, and prepayments without penalty. ... If the baseline cost estimate does not assume an action, and the cost would be increased or decreased as a result of that action, the action is a modification." [OMB Circular A-11, Section 185, Page 9-10]

b. OMB Circular A-11 provides:

> "Modifications do not include a Government action that is assumed in the baseline cost estimate, as long as the assumption is documented and has been approved by OMB. For example, modifications would not include routine administrative workouts (see section 185.3(ab)) of troubled loans or loans in imminent default. ... The baseline subsidy estimate must include all anticipated actions by the Government, lenders, and borrowers that are permissible under current law and that affect the cash flow. Subsequently, if the cost estimate of an action by the borrower, lender, or the Government differs from what is anticipated in the documented baseline subsidy estimate, then the difference in cost is included in a reestimate. Assumptions underlying the subsidy estimates must be

documented to assist in determining whether an action is a modification or a reestimate." [OMB Circular A-11, Section 185, Page 10]

c. OMB Circular A-11 provides:

"There are situations where it is not clear whether a Government action constitutes a modification or a reestimate. These situations should be judged on a case-by-case basis by OMB in consultation with the agency. They could include actions by the Government that are not addressed in existing contracts, management changes that are within an agency's existing specific authority for the loan program, and broad changes in agency policy (e.g., loan sale policy). In general, if the possibility of the action was explicitly included in the cash flows for the baseline subsidy estimate, and this can be documented, it would most likely be a reestimate. If not, it would most likely be a modification." [OMB Circular A-11, Section 185, Page 10]

d. OMB Circular A-11 provides:

"Modifications produce a one-time change in the subsidy cost of *outstanding* direct loans and loan guarantees. The effect of the Government action on the subsidy cost of direct loan obligations and loan guarantee commitments made after the date of the modification, if there is any effect, is not a modification. Instead, the effects are incorporated in the initial cost estimates for subsequent direct loan obligations and loan guarantee commitments." [OMB Circular A-11, Section 185, Page 10]

B. Workouts Under OMB Rules

1. If the proposed changes to the transaction structure are deemed to be a "Work-out", there is no change to subsidy cost.

a. OMB Circular A-11 provides:

"(ab) ***Work-outs*** mean plans that offer options short of default or foreclosure for resolving troubled loans or loans in imminent default, such as deferring or forgiving principal or interest, reducing the borrower's interest rate, extending the loan maturity, or postponing collection action. Work-outs are expected to minimize the cost to the Government of resolving troubled loans or loans in imminent default. They should only be utilized if it is likely that the borrower will be able to repay under the terms of the workout and if the cost of the work-out is less than the cost of default or foreclosure. For post–1991 direct loans and loan guarantees, the expected effects of work-outs on cash flow are included in the original estimate of the subsidy cost. Therefore, to the extent that the effects of work-outs on cash flow are the same as originally estimated, they do not alter the subsidy cost. If the effects on cash flow are more or less than the original estimate, the differences are included in reestimates of the subsidy and are not a modification." [OMB Circular A-11, Section 185, Page 12]

VI. [ADD]

DOCUMENT
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[redacted]

From: [redacted]
Sent: Tuesday, January 04, 2011 10:22 AM
To: [redacted]
Subject: FW: Solyndra follow up

Below is the email I mentioned yesterday from two weeks ago when we asked DOE for their legal opinion on the subordination question. I have not received a response to this.

As I noted yesterday, I also think we should have DOE submit something in writing with their determination that this restructuring is a work-out, in addition to the questions we sent [redacted] yesterday on subordination and IP. As it stands, the PPT they sent suggests they believe a Solyndra default is imminent (cash running out by Jan 2011 – although at the parent level, not the project level), and their recovery analysis document explains that they believe the restructuring could achieve higher recoveries. But we may want them to explicitly state their view this should be a work-out for the record.

Also, given that the potential issues with their liquidation analysis (land/structure valuation, current assets) can change the outcome materially (suggesting liquidation is more appropriate), maybe it makes sense to send them a couple analytic confirmation questions today in parallel to drafting the memo.

From: [redacted]
Sent: Wednesday, December 22, 2010 5:05 PM
To: [redacted]
Cc: [redacted]
Subject: RE: follow up

[redacted]

Thank you very much for taking the time to walk us through the details of the proposed restructuring on the call yesterday. Could you please provide us with DOE's legal position regarding Tranche A, and the view you explained yesterday that the first payment preference for the investors' equity contribution does not constitute effective subordination of the DOE loan?

Thank you.
[redacted]

From: [redacted]
Sent: Tuesday, December 21, 2010 1:05 PM
To: [redacted]
Cc: [redacted]
Subject: RE: follow up

Find attached the recovery analysis as promised.

[redacted]

[redacted]
Director
Portfolio Management
Loan Guarantee Program Office

From: [redacted]
To: [redacted]
Sent: Mon Jan 03 22:42:33 2011
Subject: Re: Solyndra

[redacted] I will get back to you tomorrow. [redacted]

From: [redacted]
To: [redacted]
Cc: [redacted]
Sent: Mon Jan 03 21:24:45 2011
Subject: RE: Solyndra

[redacted]

I understand [redacted] is out today. I also believe you'll be looking at some, if not all, of these questions so I wanted to go ahead and forward this over to you. We are trying to work through the proposed Solyndra restructuring and had a few clarifying questions (see email and additions below). Could you take a look? I understand DOE wants to execute the revised loan agreement January 10, so your assistance in getting back to us quickly is appreciated.

Thanks again for your help. Let me know if you have any questions.

<u>In addition to the email below:</u>

1. What is the DOE approval process for changes to loan agreements (i.e., who approves such changes)? Was there a Credit Committee or Credit Review Board to review the proposal? Who ultimately is authorizing the revisions? Is there an associated action memo? Although we have a good sense of the approval process for new loans, we are not clear on the approval process for changes to those loans.
2. Why was the January 10 date selected for executing the revised loan documents? Are there implications if these changes are postponed?

From: [redacted]
Sent: [redacted]3, 2011 12:07 PM
To: [redacted]
Subject: Solyndra

[redacted]

Happy New Year! I wanted to follow up on a couple of questions related to the proposed Solyndra revisions.

1) Has DOE counsel opined on whether the proposal conforms with 1702 d(3) of the authorizing statute? I've provided the language below for reference. Could you send me DOE counsel's opinion on this question so that we can follow up with our folks?

    (3) SUBORDINATION.—The obligation shall be subject to the condition that the obligation is not subordinate to other financing.

2) Also, since the Term Sheet explicitly included all intellectual property, licenses, general intangibles and goodwill in the collateral package (item 20.v), I was somewhat confused as to how the IP was pledged to another

investor. At what point was that lien entered into? Was DOE aware of that lien prior to closing? Also, how does this conform with 1702 C ii of the statute:

> (C) TERMS AND CONDITIONS.—A guarantee agreement shall include such detailed terms and conditions as the Secretary determines appropriate to—
> (i) protect the interests of the United States in the case of default; and
> (ii) make available all the patents and technology necessary for any person selected, including the Secretary, to complete and operate the project.

From: [redacted]
Sent: Thursday, January 06, 2011 2:35 PM
To: [redacted]
Subject: RE: Solyndra

[redacted]

Thanks again for the call earlier this week. I wanted to follow up on DOE's legal views on the issue of subordination. Do you have something you could go ahead and send over?

Also, could you send over the legal definition of 'workout' that DOE is using in this analysis?

Thanks again.

From: [redacted]
Sent: [redacted]
To: [redacted]
Subject: RE: Solyndra

I would strongly prefer to keep this as small a group as possible. I thought this would be an informal discussion with you.

From: [redacted]
Sent: Tuesday, January 04, 2011 1:07 PM
To: [redacted]
Subject: RE: Solyndra

2:30 it is. We can use the dial in number below. Our GC folks will be joining [redacted] UST may also join since they have been in previous discussions.

BRIDGE NUMBER: [redacted]

CONFEREE PASSCODE: [redacted]

From: [redacted]
Sent: Tuesday, January 04, 2011 12:42 PM
To: [redacted]
Subject: RE: Solyndra

[redacted] We will call your office at 2:30

From: [redacted]
Sent: Tuesday, January 04, 2011 12:41 PM
To: [redacted]
Subject: RE: Solyndra

Works for me

[redacted]
Loan Guarantee Program
U.S. Department of Energy
1000 Independence Avenue SW

Washington, DC 20585
[redacted]
http://www.lgprogram.energy.gov

From: [redacted]
Sent: Tuesday, January 04, 2011 12:41 PM
To: [redacted]
Cc: [redacted]
Subject: RE: Solyndra

Ok by me – [redacted]

From: [redacted]
Sent: Tuesday, January 04, 2011 12:13 PM
To: [redacted]
Cc: [redacted]
Subject: RE: Solyndra

Could we do 2:30 instead?

From: [redacted]
Sent: Tuesday, January 04, 2011 12:07 PM
To: [redacted]
Cc: [redacted]
Subject: RE: Solyndra

[redacted] Would you be available to speak to ken and me at 3 PM today? Thnx

From: [redacted]
Sent: Monday, January 03, 2011 11:00 PM
To: [redacted]
Subject: Re: Solyndra

Thanks. And to clarify my question on the IP, the Term Sheet includes all IP, intangibles, and Goodwill in the collateral package. Was this changed in the final documentation or were there changes at a later point? I'm confused as to how DOE did not have the IP given the Term Sheet language.

From: [redacted]
To: [redacted]
Sent: Mon Jan 03 22:42:33 2011
Subject: Re: Solyndra

[redacted] I will get back to you tomorrow. [redacted]

From: [redacted]
To: [redacted]
Cc: [redacted]

Sent: Mon Jan 03 21:24:45 2011
Subject: RE: Solyndra

[redacted]

I understand [redacted] is out today. I also believe you'll be looking at some, if not all, of these questions so I wanted to go ahead and forward this over to you. We are trying to work through the proposed Solyndra restructuring and had a few clarifying questions (see email and additions below). Could you take a look? I understand DOE wants to execute the revised loan agreement January 10, so your assistance in getting back to us quickly is appreciated.

Thanks again for your help. Let me know if you have any questions.

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1. What is the DOE approval process for changes to loan agreements (i.e., who approves such changes)? Was there a Credit Committee or Credit Review Board to review the proposal? Who ultimately is authorizing the revisions? Is there an associated action memo? Although we have a good sense of the approval process for new loans, we are not clear on the approval process for changes to those loans.
2. Why was the January 10 date selected for executing the revised loan documents? Are there implications if these changes are postponed?

From: [redacted]
Sent: Monday, January 03, 2011 12:07 PM
To: [redacted]
Subject: Solyndra

[redacted]

Happy New Year! I wanted to follow up on a couple of questions related to the proposed Solyndra revisions.

1) Has DOE counsel opined on whether the proposal conforms with 1702 d(3) of the authorizing statute? I've provided the language below for reference. Could you send me DOE counsel's opinion on this question so that we can follow up with our folks?

    (3) SUBORDINATION.—The obligation shall be subject to the condition that the obligation is not subordinate to other financing.

2) Also, since the Term Sheet explicitly included all intellectual property, licenses, general intangibles and goodwill in the collateral package (item 20.v), I was somewhat confused as to how the IP was pledged to another investor. At what point was that lien entered into? Was DOE aware of that lien prior to closing? Also, how does this conform with 1702 C ii of the statute:

    (C) TERMS AND CONDITIONS.—A guarantee agreement shall include such detailed terms and conditions as the Secretary determines appropriate to—
    (i) protect the interests of the United States in the case of default; and
    (ii) have available all the patents and technology necessary for any person selected, including the Secretary, to complete and operate the project.

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[redacted]

From: [redacted]
Sent: Tuesday, January 04, 2011 2:20 PM
To: [redacted]
Subject: RE: Solyndra memo: COMMENTS BY 1:00 PLEASE

That's the question I have and what I need to confirm with DOE. I

From: [redacted]
Sent: Tuesday, January 04, 2011 2:19 PM
To: [redacted]
Subject: RE: Solyndra memo: COMMENTS BY 1:00 PLEASE

Why is the cost for building and land so much lower now-- $60 vs $380 in Fitch 8/09 analysis?

From: [redacted]
Sent: [redacted]
To: [redacted]
Subject: RE: Solyndra memo: COMMENTS BY 1:00 PLEASE

That works too; there seems to be any number of ways to show this is a bad idea.

From: [redacted] T.
Sent: Tuesday, January 04, 2011 2:08 PM
To: [redacted]
Subject: RE: Solyndra memo: COMMENTS BY 1:00 PLEASE

Can't we just say:

<u>Liquidation</u>
Estimated recoveries today: $319M
Claims: DOE 1st priority
Expected Loss: $460-319= $141M loss

Restructured
Most Optimistic DOE analysis: $300
Subtract $75M 1st priority
Available: $225M
Claims: Pari-passu with $75M ($150M+$75M = $225M) = $150M recovery for DOE.
Expected Loss: $385M principle plus deferred interest

From: [redacted]
Sent: Tuesday, January 04, 2011 1:56 PM
To: [redacted]
Subject: RE: Solyndra memo: COMMENTS BY 1:00 PLEASE

I've added a little module to the recovery Excel sheet [redacted] circulated yesterday that tries to get at [redacted] and [redacted] questions about what the 'return on' or impact of DOE's additional $75m is vs. the investors.

J:\CREDIT\Energy\Title 17\Solyndra\October 2010\Solyndra Liquidation Comparison v2.xlsx

It's imperfect, but I think the main message is that even based on DOE's assumptions, putting the remaining $75m of the DOE loan into Solyndra at this point only seems to improve recoveries by about $87 million. While this is a 110% improvement in recoveries in DOE's view, the "return" would be around 16% on the additional $75m. But the question is whether the additional absolute return ($12m) is worth putting an additional $75m in taxpayer dollars at risk.

Using Kelly's analysis, the additional $75m results in a 200% loss to the government.

Unfortunately, I don't have enough info now to assess the 'return' to the investors of their $75m. At first glance, their seniority seems to get them their $75m back and protect them from losing any more money, but it doesn't seem likely that they'd get much else back, assuming their recoveries on the second tranche for both DOE and investors are minimal (although minimal is better than zero for investors).

From: [redacted].
Sent: [redacted]ry 04, 2011 1:27 PM
To: [redacted]
Subject: RE: Solyndra memo: COMMENTS BY 1:00 PLEASE

Thanks. I'll add.

From: [redacted]
Sent: Tuesday, January 04, 2011 1:22 PM
To: [redacted] A [redacted]
Subject: RE: Solyndra memo: COMMENTS BY 1:00 PLEASE

I know we're under constraints to keep the memo to 1-page (or close), but think that the following blurb that [redacted] put together pulling from a past modification/workout exercise is worth incorporating into the memo before the recommendation.

I think this is a better framing, and allows us to delete the third option, which isn't really an option.

Background on why this is a modification, not a workout.
There are two major differences between modifications and work-outs. First, the primary purpose of workouts is cost avoidance, not the provision of additional subsidy to the borrower. OMB staff believe that the proposed restructuring would result in a cost to the USG, not a savings. Second, the effects of workouts on cash flow subsidy cost can be estimated for a portfolio of new loans or guarantees proposed in the President's budget or included in the baseline, and therefore these effects are required to be included in the expected cash flows of the initial subsidy estimate. Any differences between the estimated workout and the actual workout are captured in a reestimate and covered with permanent indefinite authority under FCRA.

From: [redacted]
Sent: Tuesday, January 04, 2011 1:08 PM
To: [redacted]
Subject: RE: Solyndra memo: COMMENTS BY 1:00 PLEASE

Credit crew comments are in the attached, layered on [redacted] (We were already halfway through when [redacted] opened the document, and didn't want to lose time).

I don't know that the last option is a viable one (require DOE to change terms), since OMB does not have authority to make decisions for the agency; we only have authority over the costs under FCRA, and coordination responsibilities.

One option might be to strike the third option, and work it into the first option (modification) as a pro that it would be captured in the cost if this is found legal, and a con on the second (work-out), as we would need to engage on the legal and policy issues either way.

From: [redacted]
Sent: Tuesday, January 04, 2011 12:36 PM
To: [redacted]
Subject: RE: Solyndra memo: COMMENTS BY 1:00 PLEASE

A few comments/questions attached.

From: [redacted]
Sent: Tuesday, January 04, 2011 12:06 PM
To: [redacted]
Subject: Solyndra memo: COMMENTS BY 1:00 PLEASE

This still needs more work, but we are scheduled to meet with [redacted] and [redacted] at 3:30. Please send me any edits by 1:00.

Thanks.

J:\CREDIT\Energy\Title 17\Solyndra\October 2010\Solyndra Restructuring.docx

DOCUMENT
W

[redacted]

From: [redacted]
Sent: Tuesday, January 11, 2011 3:43 PM
To: [redacted]
Subject: RE: Solyndra

I don't recall that this was the intent of the revisions to the Rule.

-----Original Message-----
From: [redacted]
Sent: Tuesday, January 11, 2011 3:39 PM
To: [redacted]
Subject: RE: Solyndra

I spoke today to [redacted] and [redacted] about the legal basis for a refinancing that includes subordination. They provided the following analysis, which I asked them and they have agreed to provide to us in writing, in the form of a preliminary draft of part of the presentation they plan to provide to the Secretary and OMB. They will also be reaching out to [redacted] to provide a revised version of their expected values analysis that addresses the questions she has outlined. I'll circulate a meeting request for sometime tomorrow so we can discuss next steps.

DOE's theory is similar to what we expected, except that it does not (as we had thought) rely on a specific determination that this is a workout scenario under A-11 and FCRA. Based on the present tense language and structure of the provision, they read the no subordination language as applying only at the time DOE makes the original guarantee, and not as a restriction on refinancing down the road that DOE believes is necessary to serve the government's interests. They argue that the provision is set forth in a section relating to the creation of the loan documents, and not in a later section regarding defaults that they believe to govern financial distress down the road. This argument is supported somewhat by a 2009 revision of their regulations in other respects, in which they indicate that the later section relates to the post-closing default scenario while this provision deals with "threshold" requirements at the loan stage. I believe their bottom line position to be that Congress did not clearly and expressly deprive the Secretary of the ability of a guarantor to address financial distress down the road by adopting commercially reasonable methods to protect the interests of the United States in the event of default (a purpose they point out is set forth in the default section). As a demonstration that this is a well recognized situation for agreeing to subordination in order to attract new money, they noted that had the company filed for bankruptcy as it was about to, the bankruptcy laws would have provided for new financing to be entitled to a senior position. (I have asked them for some information on the legislative history of the predecessor provision to this statute, but we don't expect it will shed any more light on the question.)

They agree that we need to understand the answers to [redacted]'s questions in order to ensure that their analysis is reasonable, and their folks will be reaching out to her.

DOCUMENT XYZ

[redacted]

From: [redacted]
Sent: Tuesday, January 11, 2011 4:44 PM
To: [redacted]
Subject: RE: Solyndra

And that Congress had no intent to govern the program with the statute.

-----Original Message-----
From: [redacted]
Sent: Tuesday, January 11, 2011 4:25 PM
To: [redacted]
Subject: RE: Solyndra

I think that's right.

Question: How do you all feel about DOE's argument that just because subordination is prohibited in the original loan doesn't mean DOE can't do it later, even if it costs money? It seems that basically DOE could modify to allow subordination on any loan, at any time, for any reason, if one were to push this to the extreme.

-----Original Message-----
From: [redacted]
Sent: Tuesday, January 11, 2011 3:55 PM
To: [redacted]
Subject: RE: Solyndra

I think there are a couple of points here:

1. Had 'the company' filed for bankruptcy, it would have been the parent company. DOE's loan is with the project company and as such would be bankruptcy remote. DOE could have taken action under the technical default provisions to avoid a bankruptcy and therefore, DOE's debt would not have been subjected to subordination to new debt at the parent level.
2. The statute and regulations require DOE to consult with DOJ in a payment default. If there was threat of bankruptcy, it might be worth asking DOE if they have consulted with the AG.

-----Original Message-----
From: [redacted]
Sent: Tuesday, January 11, 2011 3:39 PM
To: [redacted]
Subject: RE: Solyndra

I spoke today to [redacted] and [redacted] about the legal basis for a refinancing that includes subordination. They provided the following analysis, which I asked them and they have agreed to provide to us in writing, in the form of a preliminary draft of part of the presentation they plan to provide to the Secretary and OMB. They will also be reaching out to [redacted] to provide a revised version of their expected values analysis that addresses the questions she has outlined. I'll circulate a meeting request for sometime tomorrow so we can discuss next steps.

DOE's theory is similar to what we expected, except that it does not (as we had thought) rely on a specific determination that this is a workout scenario under A-11 and FCRA. Based on the present tense language and structure of the provision, they read the no subordination language as applying only at the time DOE makes the original guarantee, and not as a restriction on refinancing down the road that DOE believes is necessary to serve the government's interests. They argue that the provision is set forth in a section relating to the creation of the loan documents, and not in a later section regarding defaults that they believe to govern financial distress down the road. This argument is supported somewhat by a 2009 revision of their regulations in other respects, in which they indicate that the later section relates to the post-closing default scenario while this provision deals with "threshold" requirements at the loan stage. I believe their bottom line position to be that Congress did not clearly and expressly deprive the Secretary of the ability of a guarantor to address financial distress down the road by adopting commercially reasonable methods to protect the interests of the United States in the event of default (a purpose they point out is set forth in the default section). As a demonstration that this is a well recognized situation for agreeing to subordination in order to attract new money, they noted that had the company filed for bankruptcy as it was about to, the bankruptcy laws would have provided for new financing to be entitled to a senior position. (I have asked them for some information on the legislative history of the predecessor provision to this statute, but we don't expect it will shed any more light on the question.)

They agree that we need to understand the answers to [redacted]'s questions in order to ensure that their analysis is reasonable and their folks will be reaching out to her.

Document 57

[redacted]

From: [redacted]
Sent: [redacted] 31, 2011 1:39 PM
To: [redacted]
Cc:
Subject: Solyndra optics

Although the decision has already been made for OMB not to play an active role in determining what to do with Solyndra, the Director/S-1 meeting tomorrow might present an opportunity to flag to DOE at the highest level the stakes involved, for the Secretary to do as he sees fit (and be fully informed and accountable for the decision). Although optics are generally out of our lane, it may be worthwhile for the Director to privately make this point to the Secretary:

Given the PR and policy attention Solyndra has received since 2009, the optics of a Solyndra default will be bad whenever it occurs. While the company *may* avoid default with a restructuring, there is also a good chance it will not. <u>If Solyndra defaults down the road, the optics will arguably be worse later than they would be today</u>. At that point, additional funds have been put at risk, recoveries *may* be lower, and questions will be asked as to why the Administration made a bad investment, not just once (which could hopefully be explained as part of the challenge of supporting innovative technologies), but twice (which could easily be portrayed as bad judgment, or worse). In addition, the timing will likely coincide with the 2012 campaign season heating up, whereas a default today could be put in the context of (and perhaps even get some credit for) fiscal discipline / good government because the Administration would be limiting further taxpayer exposure, letting bad projects go, and could make public steps it is taking to learn lessons and improve / limit future lending.

I understood from the readout of the Friday meeting that Solyndra's prospects may have hit home for [redacted] on Friday. Perhaps she'd have an appetite for conveying this message.

Document 58

[redacted]

From: [redacted]
Sent: Thursday, February 03, 2011 7:01 PM
To: [redacted]
Subject: Re: Solyndra ntoe for Jeff

Looks good to me

From: [redacted]
To: [redacted]
Sent: Thu Feb 03 18:58:30 2011
Subject: RE: Solyndra ntoe for Jeff

One small but important change below.

From: [redacted]
Sent: Thursday, February 03, 2011 6:54 PM
To: [redacted]
Subject: RE: Solyndra ntoe for Jeff

See revisions.

Solyndra update: The DOE crew does not believe this constitutes a modification since under their read of Circular A-11, it would be considered a workout if the loan is in imminent default. Last week they were talking about it being in technical default, which is true, but in this call, they were adamant that the borrower is in imminent default, and thus is not a modification. They will send us the subsidy estimate cash flows tomorrow so our team can take a look. We will meet next week so that we can come to agreement on the restructuring issues and have a template for modifications vs. workouts in the future.

From: [redacted]
Sent: Thursday, February 03, 2011 6:50 PM
To: [redacted]
Subject: Solyndra ntoe for Jeff

Comments?

Solyndra update: The DOE crew does not want to do a modification since they would not have to if the loan is in imminent default. Last week they were talking about it being in technical default. It appears that they would take the harder line, than the modification. They will send us cash flows tomorrow so our team can take a look and estimate the modification. We will meet next week so that we can come to agreement on the restructuring issues and have a template.

From: [redacted]
To:
Subject: RE: Solyndra
Date: Thursday, February 10, 2011 6:06:56 PM

Frances, I'd be happy to join, if you don't mind. It may be educational for me....

-----Original Message-----
From: [redacted]
Sent: Thursday, February 10, 2011 5:54 PM
To: [redacted]
Subject: RE: Solyndra

[redacted]

Thanks for your quick response. Do you have some time tomorrow around 10:00AM?

[redacted]

-----Original Message-----
From [redacted]
Sent: Thursday, February 10, 2011 4:44 PM
To: [redacted]
Subject: RE: Solyndra

Hi [redacted]

I believe there is a gross misunderstanding of the outcome of the negotiated restructuring of the Solyndra obligation to DOE. Could you give me a call to discuss. Thanks.

[redacted]

[redacted]
Director,
Portfolio Management Division
Loan Programs Office
US Department of Energy
1000 Independence Avenue SW
Washington, DC 20585
[redacted]

From: [redacted]
Sent: Thursday, February 10, 2011 2:05 PM
To: [redacted]
Subject: Solyndra

Dear [redacted]

Treasury staff has learned from the Office of Management and Budget that the Department of Energy is close to implementing a set of adjustments to the Solyndra Loan Guarantee Agreement in response to Solyndra's financial condition. We understand that these adjustments may include subordination of Solyndra's $535 million reimbursement obligation to DOE and possibly the forgiveness of interest. Unless DOE has other authorities, these adjustments may require approval of the Department of Justice pursuant to 31 USC 3711 and 31 CFR Part 902. Unless other authorities exist, this statute rests with DOJ the authority to accept the compromise of a claim of the U.S. Government in those instances where the principal balance of a debt exceeds $100,000. Let me know if you need the name of a contact at DOJ.

Will you be referring the contemplated adjustment to DOJ or are there other authorities that DOE is using to compromise this debt?

Please let us know if the FFB can be of any assistance as you move forward. If you need to modify any FFB agreements, please let me know.

Sincerely,
[redacted]

Document 59

EXEC- 2011-001822

Department of Energy
Washington, DC 20585

February 18, 2011

MEMORANDUM FOR THE SECRETARY

FROM: JONATHAN M. SILVER
EXECUTIVE DIRECTOR OF THE LOAN PROGRAMS OFFICE

FRANCES NWACHUKU
DIRECTOR OF PORTFOLIO MANAGEMENT, LOAN PROGRAMS OFFICE

SUBJECT: **ACTION:** Concurrence for the U.S. Department of Energy ("DOE") to modify that Common Agreement dated September 2, 2009 (the "Original Common Agreement") by and among Solyndra Fab 2 LLC (the "Borrower"), DOE and U.S. Bank National Association (the "Collateral Agent")

ISSUE: Whether to (a) restructure Borrower's reimbursement obligations to DOE pursuant to the Original Common Agreement, and (b) as part of the restructuring, subordinate certain of Borrower's reimbursement obligations to DOE to the providers of distressed debt funding.

BACKGROUND: Borrower is developing a thin-film solar photovoltaic manufacturing facility in Fremont, California (the "Project"). Borrower obtained a $535,000,000 loan (the "FFB Loan") from the Federal Financing Bank (the "FFB") to provide construction financing for the Project and DOE guaranteed repayment of the FFB Loan pursuant to a guarantee issued September 2, 2009 (the "Guarantee"). The terms and conditions upon which DOE issued the Guarantee are set forth in the Original Common Agreement and include, among other things, (a) the Borrower's contractual obligation to reimburse DOE for guarantee payments made by DOE, and (b) remedies if Borrower defaults on such reimbursement obligations.

Several events of default relating to financial requirements have occurred under the Original Common Agreement. The Borrower has provided to DOE a restructured business plan and model, including restructured terms of payment of the Borrower's reimbursement obligations to DOE and new cash infusions from third party investors. The Loan Programs Office has reviewed and analyzed the Borrower's restructured business plan and model and has determined that there is a reasonable prospect that the Borrower will be able to make the restructured payments, as and when such payments become due under the restructured business plan and model. The Loan

Programs Office has carefully considered the circumstances leading to the Borrower's default and all reasonable responses to such default, including foreclosure on the collateral securing the Borrower's reimbursement obligations under the Original Common Agreement. Based on the Loan Programs Office's review of the Borrower's restructured business plan and model and DOE's responses to the Borrower's default, the Loan Programs Office has determined that restructuring the Borrower's reimbursement obligations to DOE as described below will yield the highest probable net benefit to the DOE by minimizing the DOE's loss on the Guaranteed Loan.

The Borrower's restructured business plan and model (the "Restructuring") contains the following elements:

The Restructuring contains the following elements:

(a) DOE's collateral package will be enhanced, as all assets of the Borrower's parent and its affiliates will be transferred to the Borrower and thereafter secure the Borrower's obligations to DOE and Third Party Lenders (defined below);

(b) The Borrower will obtain additional funding under a $75 million note ("Tranche A") issued to third party lenders, and will issue a $175 million note ("Tranche E") to certain third-party lenders that previously funded that amount to the Borrower's parent (collectively with the holders of Tranche A, the "Third-Party Lenders");

(c) The Borrower's existing $535 million reimbursement obligation to DOE will be amended to comprise a $150 million reimbursement obligation ("Tranche B") and a $385 million reimbursement obligation ("Tranche D");

(d) The Borrower will have the right to borrow an additional $75 million ("Tranche C") from the Third-Party Lenders on specified terms and conditions;

(e) Tranches A, B and C (the "Senior Facilities"), will constitute senior secured facilities on a *pari passu* basis in lien and payment priority, except that, for the first 2 years after closing of the restructuring, Tranche A (a new $75 million loan) will have payment priority from the proceeds of a foreclosure (if any) on the collateral securing the Borrower's payment obligations;

(f) Tranches D and E (the "Subordinate Facilities") will constitute subordinate secured facilities, secured on a *pari passu* basis, but with DOE's Tranche D having payment priority;

(g) The Senior Facilities will have certain lien and payment priority over the Subordinate Facilities; and

(h) Interest on each of the Senior and Subordinate Facilities will be capitalized for limited periods.

In order to effectuate the Restructuring DOE, the Borrower, the Collateral Agent and certain other parties would enter into an Amended and Restated Common Agreement (the "Restructured Common Agreement") and the documents and instruments specified therein (the "Restructuring Documents").

The Chief Counsel of the Loan Programs Office has reviewed the terms of the proposed restructuring, including the proposed subordination of certain of the Borrower's reimbursement obligations to DOE, and in consultation with the Office of the General Counsel has determined that the subordination is permissible under Title XVII of the Energy Policy Act of 2005.

Accordingly, the Loan Programs Office requests that you make the following approvals, ratifications, and authorizations:

1) Authorize the Executive Director of the Loan Programs Office, the Chief Operating Officer of the Loan Programs Office, and the Director of the Loan Guarantee Origination Division, Loan Programs Office, and the Director, Portfolio Management Division, Loan Programs Office (including any person acting as such Executive Director or Chief Operating Officer or Director), acting together or individually, (the "Delegates") to enter in the Restructuring Documents;
2) Authorize the Delegates to execute and deliver all of the Restructuring Documents to which DOE is a party and all other agreements, certificates, and instruments as are necessary or appropriate in connection with the issuance and administration of the Guarantee, all in form and substance satisfactory to such Delegate;
3) Authorize the Delegates to administer (including by executing and delivering other agreements, certificates and instruments) the Guarantee, the Restructuring Documents, and all other agreements, certificates, and instruments as are necessary or appropriate in connection with the Guarantee.

URGENCY: Authority to execute loan documents is needed for the closing of the transaction which is scheduled to occur on or about February 18, 2011.

RECOMMENDATION: That the Secretary approve each of the determinations, ratifications and authorizations set forth above.

APPROVED: Steven Chu DISAPPROVED: ___________ DATE: FEB 22 2011

CONCURRENCE:

Scott Harris ___________ Date: 2/18/11

Scott Blake Harris
General Counsel

Document 60

From: [redacted]
To:
Cc:
Subject: RE: Solyndra
Date: Tuesday, February 22, 2011 4:59:00 PM

Ok thnx

-----Original Message-----
From: [redacted]
Sent: [redacted]22, 2011 3:32 PM
To: [redacted]
Cc:
Subject: Solyndra

[redacted]

Below is a planned draft of an email to [redacted]

Hi [redacted]

We are done with review of the documentation for the Solyndra restructuring and are prepared to close. All parties are in possession of the execution copies of the documents. Where are you in your process?

[redacted]

[redacted]
Director,
Portfolio Management Division
Loan Programs Office
US Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

[redacted]

Document 61

From: [redacted]
To: Silver, Jonathan; [redacted]
Cc: [redacted]
Subject: Re: Solyndra
Date: Tuesday, February 22, 2011 8:20:01 PM

I have sent emails and placed calls to [redacted] as recent as this evening. Our most recent conversation concluded that a modification scoring was not required and we provided, as agreed, an early re-estimate under the assumption that a restructuring was the only reasonable classification of the process that we have undergone with Solyndra.

I intend to follow up again first thing tomorrow morning.

[redacted]

From: Silver, Jonathan
To: [redacted]
Cc: [redacted]
Sent: Tue Feb 22 19:36:45 2011
Subject: Re: Solyndra

Didn't know I was expected to do that. Thought you all had resolved it.

Jonathan Silver
Executive Director
Loan Programs
U.S. Department of Energy

[redacted]

From: [redacted]
To: Silver, Jonathan
Cc: [redacted]
Sent: Tue Feb 22 19:21:23 2011
Subject: Solyndra

Jonathan – Have you or someone at a senior DOE level confirmed (with OMB) that the restructuring is a "workout" and not a "modification"?

[redacted]
Loan Guarantee Program
U.S. Department of Energy
1000 Independence Avenue SW
Washington, DC 20585
[redacted]
http://www.lgprogram.energy.gov

Document 62

From: [redacted]
To: Silver, Jonathan; [redacted]
Cc: [redacted]
Subject: Re: Solyndra
Date: Tuesday, February 22, 2011 8:45:04 PM

Did [redacted] have any follow up conversations?

From: Silver, Jonathan
To: [redacted]
Cc: [redacted]
Sent: Tue Feb 22 19:36:45 2011
Subject: Re: Solyndra

Didn't know I was expected to do that. Thought you all had resolved it.

Jonathan Silver
Executive Director
Loan Programs
U.S. Department of Energy

[redacted]

From: [redacted]
To: Silver, Jonathan
Cc: [redacted]
Sent: Tue Feb 22 19:21:23 2011
Subject: Solyndra

Jonathan – Have you or someone at a senior DOE level confirmed (with OMB) that the restructuring is a "workout" and not a "modification"?

[redacted]
Loan Guarantee Program
U.S. Department of Energy
1000 Independence Avenue SW
Washington, DC 20585
[redacted]
http://www.lgprogram.energy.gov

Document 63

[redacted]

From: [redacted]
Sent: Wednesday, February 23, 2011 3:33 PM
To: [redacted]
Subject: RE: Treatment of Solyndra restructuring

Thank you [redacted]

From: [redacted]
Sent: Wednesday, February 23, 2011 1:55 PM
To: Silver, Jonathan; [redacted]
Cc: [redacted]
Subject: Treatment of Solyndra restructuring

Thank you for working with us to better understand the details of the Solyndra restructuring. Based on the information you have provided to support DOE's stated position that Solyndra is in "imminent default" and DOE's analysis that the restructuring would leave DOE in a better position if the borrower does ultimately default, OMB has determined that the restructuring constitutes a workout, rather than a modification, under OMB Circular A-11, Section 185.

In the future, to the extent that such circumstances occur in this or other DOE financings, DOE will be required to demonstrate that the borrower is in "imminent default" and provide reasonable analysis that any actions taken will produce a better return to the Government than those actions assumed in the baseline cashflows in order for the action to qualify as a workout, rather than as a modification.

Thanks again.

Regards,
[redacted]

[redacted]
Assistant Director for Budget
Office of Management and Budget
[redacted]

Document 64

[redacted]

From: [redacted]
Sent: Monday, June 27, 2011 8:21 AM
To: [redacted]
Subject: Briefing S-1at 9:30

Importance: High

[redacted]

Are you available to join me in briefing S-1 at 9:30 – in advance of his mtg with POTUS. Topics will likely include:

[redacted]

Solyndra (current status – in light of yesterday's WashPo article).

Thanks.

[redacted]

[redacted]

Senior Advisor, Loan Programs
U.S. Department of Energy
[redacted]

Document
65

– USATODAY.com

Opposing view: 'Perfect storm' sank Solyndra

By Daniel Poneman

Updated 9/13/2011 8:04 PM

The International Energy Agency projects that solar power will grow steadily, producing nearly a quarter of the world's electricity within four decades. Conservatively, that means more than $3 trillion worth of solar panels will need to be manufactured — a vast economic and employment opportunity to be seized by companies that succeed in this sector.

OUR VIEW: Should Uncle Sam play venture capitalist?

Our competitors know this, and are playing to win. Winning will require substantial investments. Last year, for example, the China Development Bank offered more than $30 billion in financing to Chinese solar manufacturers, about 20 times more than U.S.-backed loans to solar manufacturers.

Unfortunately, expanding production has coincided with short-term softening demand, a product of the banking crisis in Europe and its wider economic effects. The combination has had a dramatic effect on the price of solar cells, which has plummeted 42% in the past nine months. This has taken a serious toll on solar manufacturers everywhere, including the U.S.

This month, Solyndra , a California-based company, filed for bankruptcy. Solyndra had been named one of the world's 50 most innovative companies and reported sales growth of 40% to $140 million last year. In 2008, the company applied for a federal loan guarantee. It underwent years of rigorous internal and external review before being approved — before the perfect storm of deteriorating market conditions.

Government support has an important role to play in developing new industries and emerging technologies, where private financing is not sufficiently available to support investment at commercial scale.

USA TODAY OPINION

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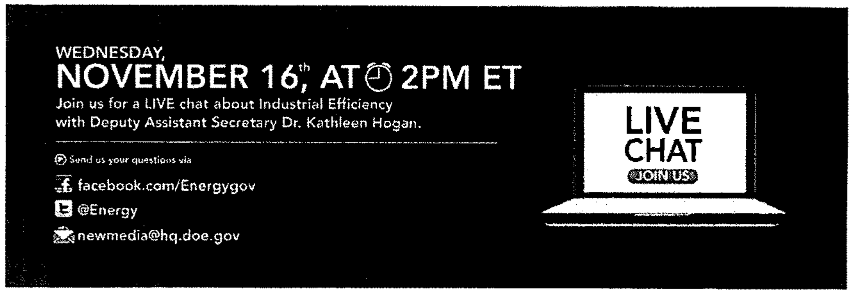
When it comes to clean energy, we have a choice to make. We can compete in the global marketplace — creating American jobs and selling American products — or we can buy the technologies of tomorrow from abroad.

Historically, our government has supported emerging industries, from transcontinental railroads to aviation to the microchip. These investments strengthened our nation and leveraged the private investments that drove our prosperity. In that spirit, our loan programs are today supporting a diverse portfolio of more than 40 companies that plan to employ 60,000 Americans and give us a chance to compete and succeed in the global clean energy race.

Now is not the time to stop investing in our nation's future.

Document 66



Home » Key Facts: Solyndra Solar

FLASHBACK: CONGRESSIONAL PRESSURE TO ACCELERATE LOAN PROGRAM

While some in Congress and the media are now alleging that Department of Energy rushed the application, as far back as 2007 and as recently as July 2010, Republicans in Congress were complaining about the slow pace of reviewing and approving loan applications. In fact, during Secretary Chu's 2009 confirmation hearings, Republicans in the Senate pressed Secretary Chu to make accelerating the loan program a priority.

April 2007 -- Representative Joe Barton Calls for "Renewed Commitment to Make This Program Move Forward." "I am glad to hear we are here to talk about what I consider to be a very important part of the Energy Policy Act. I think it is central to our discussions about climate change and reducing CO2 emissions. The very purpose of the loan guarantee program is to bridge the gap between the capital new alternative energy projects need to get built and the amount that investors are actually willing to invest and put their own capital at risk. So this is a program that we need to get moving. I hope that this hearing facilitates some clear thinking and some re-emphasis and renewed commitment to make this program move forward." - Rep. Joe Barton [Hearing before the House Committee on Energy and Commerce Subcommittee on Energy and Air Quality on the Implementation of EPACT 2005 Loan Guarentee Programs by the Department of Energy, April 24, 2007]

April 2007 -- Representative Dennis Hastert: "Get This Loan Guarantee Program Operational Soon." "But the bottom line is that we need to get this loan guarantee program operational soon Congress intended to have these loans guaranteed at a full 80 percent of the project cost, not to 80 percent of 80 percent that we are now hearing some spin. This full financing is essential for the future of energy innovation in this country. Title XVII provides the loan guarantees to get new technology like clean coal, carbon capture and sequestration, and the next generation nuclear and ethanol on the ground running and into the market. Not only do these technologies improve our energy security, but they will also improve our environment. But again, to get there, we need new technology; that is why title XVII is so important. Properly operated, the title XVII loan guarantees could bring these new technologies to market with benefits that all Americans are certain to realize." - Rep. Dennis Hastert [Hearing before the House Committee on Energy and Commerce Subcommittee on Energy and Air Quality on the Implementation of EPACT 2005 Loan Guarantee Programs by the Department of Energy, April 24, 2007]

Chu Confirmation Hearing: Senator Burr Complains about "Too Many Hurdles" to Loan Applicants. "Just recently Progress Energy in North Carolina announced two new plants in Florida that they would construct, and they made the statement that they think that they will seek to do these without DOE loan guarantees because they had run into too many hurdles with the program. One, it has been slow to get up and running and structurally in place. Now, all of a sudden, we are hearing companies that talk about it is problematic to go that route. We are on a time line that from a reliability standpoint, we have to start construction and we have to do it soon. Do you support the loan guarantee program, No 1?" - Sen. Richard Burr [Hearing to Consider the Nomination of Steven Chu to be Secretary Energy, Senate Committee on Energy and Natural Resources, January 13, 2009, http://www.gpo.gov/fdsys/pkg/CHRG-111shrg47253/html/CHRG-111shrg47253.htm]

Chu Confirmation Hearing: Senator Burr Calls Pace of Loan Program "Very Frustrating." "You have been asked about the loan program. That really needs to move forward. It is just very frustrating to see it be delayed as it is." - Sen. Richard Burr [Hearing to Consider the Nomination of Steven Chu to be Secretary Energy, Senate Committee on Energy and Natural Resources, January 13, 2009, http://www.gpo.gov/fdsys/pkg/CHRG-111shrg47253/html/CHRG-111shrg47253.htm]

July 2010 Budget Hearing – Representative Mike Simpson (R-ID) Complains that Just 6% of Loans Closed. "As you know, I am a big supporter of the loan guarantee program and believe it is an important tool to enable energy projects to access credit markets during a time when credit is extremely hard to obtain. I understand that the Recovery Act included \$4 billion in appropriations for loan guarantees for renewable energy projects, which I believe provides you with \$32-\$35 billion in additional authority, of which only 6% has been committed, correct?" - Rep. Mike Simpson [Hearing before the House Committee on the Budget, Questions Submitted by Congressman Mike Simpson, July 14, 2010]

July 2010 Budget Hearing – Representative Simpson (R-ID): "Get the Money Out the Door Quickly to Rapidly Create Jobs." "As I understand it, the goal of the ARRA funding particularly is to get the money out the door quickly to rapidly create jobs, and I am extremely concerned that very little of that funding has gone out. Are there an insufficient number of qualified projects applying? Could you please explain why DOE has been unable to obligate these funds more rapidly?" - Rep. Mike Simpson [Hearing before the House Committee on the Budget, Questions Submitted by Congressman mike Simpson, July 14, 2010]

Document 67

MEMORANDUM FOR THE GENERAL COUNSEL

FROM: SUSAN S. RICHARDSON
CHIEF COUNSEL
LOAN PROGRAMS OFFICE

SUBJECT: SOLYNDRA RESTRUCTURING

DATE: FEBRUARY 15, 2011

FACTS:

The Department of Energy ("DOE") has issued a guarantee (the "Guarantee") of repayment by Solyndra Fab 2, LLC (the "Borrower") of a $535 million loan (the "Guaranteed Loan") made by the Federal Financing Bank. The proceeds of the Guaranteed Loan are being used to finance the construction of a solar photovoltaic ("PV") panel fabrication facility located in Fremont California (the "Project"). Construction of the Project is scheduled to be complete on or about June 30, 2011.

The Guarantee and related documents obligate DOE to make scheduled payments of principal and interest on the Guaranteed Loan if the Borrower fails to make those payments. DOE and the Borrower have entered into a Common Agreement (the "Loan Guarantee Agreement") that contains the terms and conditions pursuant to which DOE issued the Guarantee and includes, among other things (a) the Borrower's contractual obligation to reimburse DOE for guarantee payments made by DOE, which obligation is secured by a first lien on the Borrower's assets and (b) customary remedies for default on the Borrower's obligations under the Loan Guarantee Agreement. These rights are in addition to DOE's rights of subrogation under applicable law.

A default relating to a financial requirement has occurred under the Loan Guarantee Agreement. When that default occurred, on December 1, 2010, $95 million of the Guaranteed Loan Commitment remained to be advanced. DOE has considered the circumstances leading to the Borrower's default and all reasonable responses to the default, including foreclosure on its collateral. Based on the analysis of the Director, Portfolio Management Division of the Loan Programs Office ("Director, PMD"), DOE has determined that a restructuring of the Borrower's obligations under the Loan Guarantee Agreement (the "Restructuring") will yield the highest probable net benefit to the Federal Government by minimizing the Federal Government's potential loss on the Guaranteed Loan. In light of the financial analysis, and the parties' agreement to negotiate in good faith the definitive Restructuring documentation, DOE has continued to permit advances under the Guaranteed Loan, enabling Project construction to continue pending closing of the Restructuring. Absent continued funding of the Guaranteed Loan, the Borrower has indicated that it would file for reorganization under Chapter 11 of the Bankruptcy Code or liquidation under Chapter 7 of the Bankrupcty Code, impeding or preventing Project completion. Given the Borrower's limited operations in the PV space, the Director, PMD believes that a Chapter 11 filing would likely lead to a liquidation.

The Restructuring contains the following elements:

(a) DOE's collateral package will be enhanced, as all assets of the Borrower's parent and its affiliates will be transferred to the Borrower and thereafter secure the Borrower's obligations to DOE and Third Party Lenders (defined below);

(b) The Borrower will obtain additional funding under a $75 million note ("Tranche A") issued to third party lenders, and will issue a $175 million note ("Tranche E") to certain third-party lenders that previously funded that amount to the Borrower's parent (collectively with the holders of Tranche A, the "Third-Party Lenders");

(c) The Borrower's existing $535 million reimbursement obligation to DOE will be amended to comprise a $150 million reimbursement obligation ("Tranche B") and a $385 million reimbursement obligation ("Tranche D");

~~(d) The Borrower will have the right to borrow an additional $75 million~~ ("Tranche C") from the Third-Party Lenders on specified terms and conditions;

(e) Tranches A, B and C (the "Senior Facilities"), will constitute senior secured facilities on a *pari passu* basis in lien and payment priority, except that, for the first 2 years after closing of the restructuring, Tranche A (a new $75 million loan) will have payment priority from the proceeds of a foreclosure (if any) on the collateral securing the Borrower's payment obligations;

(f) Tranches D and E (the "Subordinate Facilities") will constitute subordinate secured facilities, secured on a *pari passu* basis, but with DOE's Tranche D having payment priority;

(g) The Senior Facilities will have certain lien and payment priority over the Subordinate Facilities; and

(h) Interest on each of the Senior and Subordinate Facilities will be capitalized for limited periods.

Therefore, under the Restructuring (i) for the first two years following closing of the Restructuring, the Borrower's reimbursement obligations to DOE for Tranches B and D ($535 million principal amount, in aggregate) will be subordinate in payment priority to the Borrower's obligations to the Third-Party Lenders for Tranche A ($75 million principal amount) in a liquidation only, and (ii) the Borrower's reimbursement obligations to DOE for Tranche D ($385 million principal amount) will be subordinate in lien and payment priority to the Borrower's obligations to the Third-Party Lenders for Tranches A and C ($150 million principal amount in new loans) until repayment in full.

ISSUE:

Whether the proposed subordination of certain of the Borrower's reimbursement obligations to DOE is consistent with Subsection 1702(d)(3) of Title XVII. Subsection 1702(d)(3) provides that "[t]he [guaranteed] obligation shall be subject to the condition that the obligation is not subordinate to other financing".

SHORT ANSWER:

The proposed subordination is permitted under Title XVII. The subordination condition contained in Subsection 1702(d)(3) is, by its terms, applicable only as a condition precedent to the issuance of a loan guarantee. It is not a continuing obligation or restriction on the authority of the Secretary; and subordination in the context of the proposed Restructuring will further the express statutory intent that the Secretary seek to maximize the prospects of repayment of borrowers' obligations (as well as the technology and job preservation goals of Title XVII).

ANALYSIS:

Title XVII

Title XVII of the Energy Policy Act of 2005, as amended, (42 U.S.C. 16511-16514) ("Title XVII") authorizes DOE to make loan guarantees for specified categories of energy projects in accordance with Section 1702 (Terms and Conditions). As set forth in the Preamble to the original Final Rule issued under Title XVII, one of the principal goals of the guarantee program authorized by Section 1703 of Title XVII is to encourage the commercial use in the United States of new or significantly improved energy-related technologies. (See "Summary".) One of the principal goals of the American Reinvestment and Recovery Act of 2009, P.L. 111-5, which added Section 1705 to Title XVII, is to preserve and create jobs and promote economic recovery. (Section 3(a)(1).)

The Guarantee qualified under both Sections 1705 and 1703. It was issued under Section 1705, but the Borrower was required, as a matter of policy and by contract, to comply with Section 1703 and the Final Rule. The policies of both 1703 and 1705 are furthered by the Guarantee transaction and the proposed Restructuring.

Section 1702

In setting out the terms and conditions for loan guarantees, Section 1702 is organized to reflect the life cycle of loan guarantees, from origination to default to foreclosure on collateral. More particularly, Section 1702 is subdivided roughly as follows:

- Subsections 1702(b) – (f) set forth threshold requirements for the issuance of loan guarantees;

- Subsection 1702(g) sets forth the rights and obligations of DOE and the holders of a guaranteed loan in the event of default; and
- Subsections 1702(h) and (i) relate to DOE's ongoing administration of the loan guarantee program.

Section 1702(b) – (f) - Loan Origination Provisions

Subsections 1702(b)-(f) relate to the issuance of loan guarantees. While only Section 1702(d)(3) is directly at issue, it is worth noting that each of Sections 1702(b) (Specific Appropriation or Contribution), (c) (Amount), (e) (Interest Rate) and (f) (Term) describe either predicates to the issuance of a loan guarantee or characteristics of the debt that must, expressly or implicitly, be satisfied at the time of issuance.

Section 1702(d) (Repayment) has three subparts, including subpart (3). Read together, they require the Secretary to determine, prior to issuance of a loan guarantee, that there is a reasonable prospect of repayment of the loan; that the aggregate available funding is sufficient to achieve project completion; and that the guaranteed obligation is not subordinate to other financing.

The requirements of these subsections reflect a Congressional intent that guaranteed loans be structured at the outset to maximize the probability that the project will reach completion and the debt will be repaid in accordance with its terms (as well as ensuring the funding of adequate reserves against default).

Section 1702(g) - Rights of DOE and the Holder of a Loan Guarantee After a Default

Subsection 1702(g) addresses events and circumstances that may occur after issuance of a loan guarantee, setting out the authority and obligations of DOE and the holder upon a default of the guaranteed loan. Read together, the provisions express an intention to afford to the Secretary, in a distressed situation, broad authority to take action that will protect and maximize the interests of the United States. That authority ranges from agreement to forbearance for the benefit of the borrower (Section 1702(g)(1)(C)) to the authority, after payment under the loan guarantee, to elect either to take control of the project or to permit the borrower to continue to pursue the purposes of the project if that is in the public interest (Section 1702(g)(2)(A)).

The Subordination Restriction in Section 1702(d)(3) Is a Condition Precedent to the Issuance of a Loan Guarantee and Not a Continuing Obligation Restricting Restructuring Options

Subsection 1702(d)(3) provides that"[t]he [guaranteed] obligation shall be subject to the condition that the obligation is not subordinate to other financing."

Both by reason of its placement within the statutory scheme, and the plain meaning of the words, we read Section 1702(d)(3) as a condition precedent to the issuance of the loan guarantee. We do not believe it can reasonably be read either as a requirement that the guaranteed loan may never be subordinated, or as a restriction on the authority of the Secretary following the issuance of a loan guarantee. Commercial loans routinely are subject to conditions precedent that must be satisfied prior to the advance of funds by the lender. Once such a condition precedent has been satisfied (or waived), it has no continuing legal effect. By its plain meaning, and in the context of customary commercial practice, the word "condition" in Subsection 1702(d)(3) can logically be read as such a condition precedent to issuance of a guaranteed loan. This reading of the provision is reinforced by the use of the word "is," which we view as confirming the intent that the condition be satisfied at a single point in time.[1]

In addition to the plain meaning of the words, and their placement in the statute, we believe our reading is consistent with the policies embodied in the statute. Beyond the relatively few explicit terms and conditions that must be satisfied in connection with the issuance of a guarantee, Section 1702 gives the Secretary broad authority to determine the terms and conditions of loan guarantees. It also provides for rights and powers that are designed to ensure both flexibility and superior legal authority in the case of a distressed loan. Emphasizing the importance of Secretarial discretion, Subsection 1702(g)(2)(C) provides that the loan guarantee agreement "shall contain such detailed terms and conditions *as the Secretary determines appropriate* to protect the United States in a default." (Emphasis added.)

A continuing prohibition on subordination would, in our view, be inconsistent with the statutory scheme as it would preclude the use of a common restructuring strategy for a financially distressed borrower. Investors are unlikely to make an equity investment in a distressed company on commercially acceptable terms. Accordingly, a loan restructuring is the typical means of obtaining additional funding for a distressed company. A fundamental principle of restructuring is that new loans have payment and lien priority over existing loans – without such priority, few, if any, lenders would be willing to extend a loan in distressed circumstances. Accordingly, in a situation where a financially troubled borrower needs fresh capital to ensure its survival, a senior creditor typically is

[1] It is worth noting that Section 19 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 USC 5919), which created a predecessor DOE loan guarantee program entitled "Loan Guarantees for Alternative Fuel Demonstration Facilities" contained similar, but not identical, subordination language. Section 19(c)(4) of that act provides that "(c) [t]he Administrator...shall guarantee or make a commitment to guarantee any obligation...only if ....(4) the obligation is subject to the condition that it not be subordinated to any other financing." In context (including the use of the word condition), we read the predecessor language as having the same effect as the Title XVII provision. However, the words "not be subordinated" arguably could be more susceptible to an interpretation that they have continuing effect. While not dispositive, the change to "is not subordinate" suggests an intent to clarify the language in a manner that reinforces our reading.

faced with a choice of providing an additional loan itself, subordinating to a lender that provides the needed capital and proceeding either to foreclosure or a bankruptcy filing.

CONCLUSION:

On the current facts, the Loan Programs Office has determined that the proposed restructuring offers the best prospect of eventual repayment in full of the Borrower's obligations under the Loan Guarantee Agreement, and is demonstrably preferable to a liquidation of the Borrower. In light of that determination, we conclude that the proposed subordination of the Borrower's obligations to DOE is consistent with both the text and the purposes of Title XVII. Indeed, a refusal to amend the Loan Guarantee Agreement to effect the proposed Restructuring, which likely would lead to a Chapter 11 filing by the Borrower and possible liquidation, could be considered inconsistent with both the specific mandate of Section 1702(g)(2)(C) (to include in the guarantee agreement terms and conditions appropriate to protect the interests of the United States in the case of default) and the overall scheme of Title XVII, which gives the Secretary the authority and tools necessary to protect the interests of the United States and to maximize the prospect of repayment of guaranteed loans. Moreover, by maximizing the prospect that the Borrower will complete the Project and continue as a going concern, the proposed Restructuring furthers the statutory policies of promoting the commercialization of innovative energy technologies and preserving jobs.[2]

[2] A question has been raised as to where the line should be drawn between origination and financial default in determining whether subordination may be agreed to under under Title XVII. We do not believe it is necessary (or appropriate) to draw such a line in this memorandum. We do believe, however, that it is consistent with the statutory scheme to conclude that the Secretary has the authority to make such a determination in connection with specific loan guarantee transactions, consistent with the statutory purposes of fostering the commercialization of innovative energy technologies and preserving jobs, while protecting the interests of the United States and seeking to maximize the prospects of repayment of guaranteed obligations.

Document 68

[redacted]

From: [redacted]
Sent: Wednesday, December 08, 2010 3:24 PM
To: [redacted]
Cc:
Subject: RE: Meeting with [redacted] Solyndra

Yes.

[redacted]
Portfolio Management
Loan Guarantee Program Office
US Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

[redacted]

-----Original Message-----
From: [redacted]
Sent: Wednesday, December 08, 2010 3:08 PM
To: [redacted]
Cc:
Subject: RE: Meeting with [redacted] Solyndra

Can you guys do this? If not I will go on my own and try to set up larger group later.

-----Original Message-----
From: [redacted]
Sent: Wednesday, December 08, 2010 3:06 PM
To: [redacted]
Cc:
Subject: RE: Meeting with [redacted] Solyndra
Importance: High

Just talked to him. He can do it at 3:30.

-----Original Message-----
From: [redacted]
Sent: Wednesday, December 08, 2010 2:51 PM
To: [redacted]
Cc: [redacted]
Subject: Meeting with [redacted] /Solyndra
Importance: High

[redacted] We have a serious problem at Solyndra and need to brief [redacted] as soon as possible. Could you set up a meeting with the folks on this e-mail (plus, I assume [redacted] would want [redacted] in the meeting). Thank you

[redacted]
Chief Counsel, Office of Loan Programs

Document 69

[redacted]

From: [redacted]
Sent: Monday, August 31, 2009 4:50 PM
To: [redacted]
Cc: [redacted]
Subject: FW: Solyndra Update

[redacted]: we should discuss this with you early tomorrow morning.

From: [redacted]
Sent: Monday, August 31, 2009 4:27 PM
To: [redacted]
Cc: [redacted]
Subject: RE: Solyndra Update

I would prefer that the announcement be postponed. The BRD credit crew is out on leave this week, as is [redacted]. This is the first loan guarantee and we should have a full review with all hands on deck to make sure we get it right. Furthermore, the announcement this week would require us to have a waiver to the requirement in the rule that 30 days elapse from when the final credit rating was submitted, setting a bad precedent.

That said, we have only one item left that I am aware of, but it is not clear how the information would impact the credit subsidy calculation (CSC).

Our outstanding request to DOE is for field performance data to back up engineering claims made in the proposal documents.

Solyndra claims to have a pricing advantage based on performance and lower costs of installation (sometimes referred to as balance of plant). Recent developments in the solar market, in particular, pricing pressure from China from silicon wafer plants scheduled to come on line (and that also may or may not be due to dumping; see articles below), raise concerns about how strong Solyndra's position will be in the face of rising competition. If the engineering claims can be backed up with field data that is consistent with claims, I think we would accept DOE's CSC; but a lot of times field performance is not quite up to the engineering claims, in which case we might want to notch the credit rating down (or viewed conversely, increase our estimate of risk).

See:
China Racing Ahead of U.S. in the Drive to Go Solar
http://www.nytimes.com/2009/08/25/business/energy-environment/25solar.html?scp=1&sq=solar%20china&st=cse
And
Chinese Solar Firm Revises Price Remark
http://www.nytimes.com/2009/08/27/business/energy-environment/27panel.html?scp=3&sq=solar%20china&st=cse
and
As Prices Slump, Solar Industry Suffers
http://greeninc.blogs.nytimes.com/2009/08/13/as-prices-slump-solar-industry-suffers/?scp=6&sq=solar%20china&st=cse

More Sun for Less: Solar Panels Drop in Price
http://www.nytimes.com/2009/08/27/business/energy-environment/27solar.html?scp=6&sq=solar%20energy&st=cse

-----Original Message-----
From: [redacted]
Sent: Monday, August 31, 2009 3:59 PM
To: [redacted]
Subject: FW: Solyndra Update

What should we tell [redacted] on our review status?

-----Original Message-----
From: [redacted]
Sent: Monday, August 31, 2009 3:23 PM
To: [redacted]
Cc: [redacted]
Subject: FW: Solyndra Update

[redacted], [redacted], [redacted]:

As you guys may know, the VP is set to make a Solyndra announcement on Friday. We know that OMB and DoE are still working on finalizing credit issues, and wanted to see where that was in the process (if there is anything we need to push DoE in speeding along, or conversely if there is anything we can help speed along on the OMB side). Below is an email from DoE on their latest thoughts about where things stand, and I think they are still waiting on the final list of questions / issues from OMB to which they will need to respond.

Can you let us know where things currently stand, and ETA on completion of the credit review process?

[redacted]

-----Original Message-----
From: [redacted]
Sent: Monday, August 31, 2009 3:05 PM
To: [redacted]
Subject: FW: Solyndra Update

See below

We are walking a fine line with Solyndra needing to begin notifying investors to fly in for the Friday event, but this OMB piece not being final.

Our concern on the press end is that this leaks out before the OMB portion is cooked - if there is any way to accelerate, would give a lot of peace of mind/flexibility on that front.

The final step will be the loan closing which will happen on Thursday regardless - but my understanding is that that's pretty much a given - it's the leaking out before OMB is finished that could leave us in an awkward place.

-----Original Message-----
From: [redacted]
Sent: Friday, August 28, 2009 10:08 AM
To: [redacted]
Cc: [redacted]
Subject: RE: Solyndra Update

On the OMB side, from our Credit Policy Director

"We still have one outstanding question from our initial meeting Tuesday (DOE has not responded--I need more information from [redacted] and Solyndra).
We have also not received the final set of questions/issues from OMB to which DOE will need to respond. After OMB review, and any changes are made to the credit subsidy cash flows, OMB would essentially pre-approve that calculation (formal approval comes in the form of the apportionment which occurs after S2 or S1 approve commitment of the loan amount and subsidy rate)."

OMB is fully aware of the Friday timeline. The DOE team is hoping to receive the final OMB questions/issues today so that they can be quickly reviewed/responded in full so that we can complete the outstanding process requirements.

[redacted]

Document 70

S-1 1 ds1.htm REGISTRATION STATEMENT ON FORM S-1

Table of Contents

As filed with the Securities and Exchange Commission on December 18, 2009

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
Under
The Securities Act of 1933

Solyndra, Inc.
(Exact name of Registrant as specified in its charter)

Delaware	3674	41-2175583
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

47700 Kato Road
Fremont, California 94538
510-440-2400
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Dr. Christian M. Gronet
Chief Executive Officer
Solyndra, Inc.
47700 Kato Road
Fremont, California 94538
510-440-2400
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

John A. Fore Michael S. Russell Wilson Sonsini Goodrich & Rosati Professional Corporation 650 Page Mill Road Palo Alto, California 94304 Telephone: 650-493-9300 Facsimile: 650-493-6811	Benjamin H. Schwartz Acting General Counsel Solyndra, Inc. 47700 Kato Road Fremont, California 94538 Telephone: 510-440-2400 Facsimile: 510-440-2625	Patrick A. Pohlen Andrew S. Williamson Latham & Watkins LLP 140 Scott Drive Menlo Park, California 94025 Telephone: 650-328-4600 Facsimile: 650-463-2600

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐ Accelerated filer ☐
Non-accelerated filer ☒ (Do not check if a smaller reporting company) Smaller reporting company ☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of	Proposed Maximum	Amount of

Securities to be Registered	Aggregate Offering Price(1)	Registration Fee
Common Stock, $0.00001 par value	$300,000,000	$16,740

(1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933. Includes offering price of shares that the underwriters have the right to purchase to cover over-allotments, if any.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission acting pursuant to said Section 8(a) may determine.

Table of Contents

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS (Subject to Completion)
Issued December 18, 2009

Shares

SOLYNDRA™

SOLYNDRA, INC.

COMMON STOCK

Solyndra, Inc. is offering shares of its common stock. This is our initial public offering and no public market currently exists for our shares. We anticipate that the initial public offering price will be between $ and $ per share.

We have applied to have our common stock approved for listing on under the symbol "SOLY."

Investing in our common stock involves risks. See "Risk Factors" beginning on page 11.

PRICE $ A SHARE

	Price to Public	Underwriting Discounts and Commissions	Proceeds to Solyndra
Per Share	$	$	$
Total	$	$	$

We have granted the underwriters the right to purchase up to an additional shares of common stock to cover over-allotments.

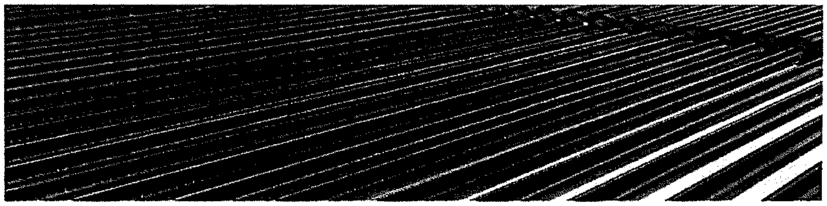
Argonaut Ventures I, L.L.C., or Argonaut, which together with its affiliates beneficially owns approximately 35.7% of our outstanding common stock on an as-converted basis, has the right to purchase from us up to 15% of the aggregate number of shares offered in this offering at the initial price to the public, but is under no obligation to purchase any shares. Any shares purchased by Argonaut will be purchased directly from us and will not be a part of the underwritten offering. Steven R. Mitchell, a member of our board of directors, is a managing director of the manager of Argonaut.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

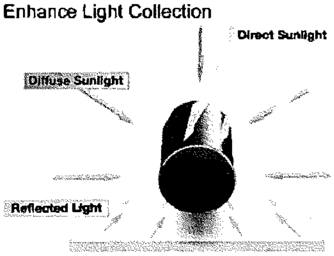
The underwriters expect to deliver the shares to purchasers on , 2010.

Goldman, Sachs & Co. **Morgan Stanley**

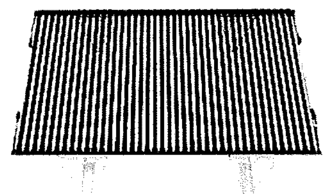
, 2010



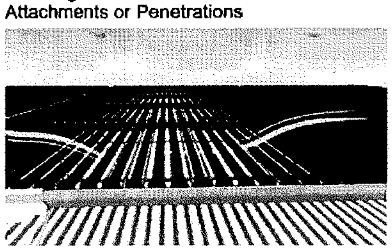
Cylindrical Photovoltaic Modules Enhance Light Collection



Our Product Is a Panel, with 40 Modules Spaced Apart, and Mounts

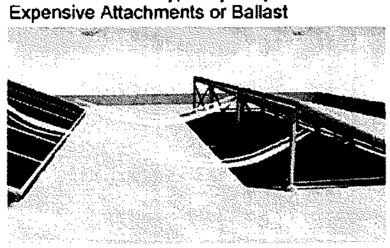


Wind Blows Through Solyndra Panels Enabling Low-Cost Installation without Attachments or Penetrations



Solyndra

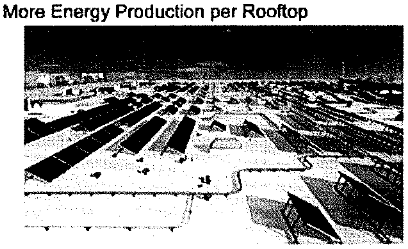
Flat Plate Panels Typically Require Expensive Attachments or Ballast



Conventional Flat Plate Panels

Solyndra Enables Greater Rooftop Coverage and More Energy Production per Rooftop

Solyndra



Conventional Flat Plate Panels

Table of Contents

Commercial Rooftops Represent a Vast and Underutilized Opportunity for the Generation of Solar Electricity

Table of Contents

Solyndra Delivers Simple, Low-Cost Installations

TABLE OF CONTENTS

You should rely only on the information contained in this prospectus and in any free writing prospectus we may authorize to be delivered or made available to you. We have not authorized anyone to provide you with information different from that contained in this prospectus or any such free writing prospectus. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information in this prospectus may only be accurate as of the date on the front cover of this prospectus, regardless of the time of delivery of this prospectus or any sale of shares of our common stock.

Until , 2010 (25 days after the commencement of this offering), all dealers that buy, sell or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

For investors outside the United States: Neither we nor any of the underwriters have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside of the United States.

The term "Solyndra," a stylized "Solyndra," the Solyndra "O", "Omnifacial" and the term "The New Shape of Solar" and other trademarks or service marks of Solyndra, Inc. appearing in this prospectus are the property of Solyndra, Inc. This prospectus contains additional trade names, trademarks and service marks of other companies. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply relationships with, or endorsement or sponsorship of us by, these other companies.

Table of Contents

PROSPECTUS SUMMARY

This summary highlights information described elsewhere in this prospectus but does not contain all of the information needed for making an investment decision. Therefore read this entire prospectus carefully, especially the "Risk Factors" section beginning on page 11 and our consolidated financial statements and the related notes appearing elsewhere in this prospectus, before making an investment decision.

Overview

Commercial rooftops represent a vast and underutilized resource for the generation of solar electricity. We have pioneered a photovoltaic system featuring proprietary cylindrical modules that we believe can enable the lowest cost of electricity on commercial rooftops by delivering the lowest total system costs per watt and the highest kilowatt hour production per rooftop for typical installations. We are able to significantly reduce the cost of installation, which is a substantial component of the total system cost, by eliminating expensive mounting hardware and significantly reducing the amount of labor required when mounting conventional flat plate photovoltaic systems. We believe that the differentiated benefits of our photovoltaic systems, together with our planned expansion of production, manufacturing process improvements and product enhancements, will enable us by 2012 to deliver photovoltaic systems for commercial rooftops that produce electricity at rates that are competitive with the retail price of electricity in key markets on a non-subsidized basis.

Our photovoltaic systems, which are comprised of panels and mounts, enhance sunlight collection by capturing direct, diffuse and reflected sunlight across a 360-degree photovoltaic surface. Unlike conventional panels that typically need to be tilted to achieve effective energy generation, the cylindrical shape of our modules allows our systems to achieve effective energy generation when mounted horizontally. Horizontal mounting allows our panels to be spaced significantly closer together than conventional panels on a typical rooftop, thereby enabling greater rooftop coverage and enhanced energy production over the system's lifetime. The cylindrical shape allows modules to be spaced apart within our panels so that wind can blow through our panels, thus eliminating the need for the expensive mounting hardware and ballast typically required to secure conventional flat plate panels against uplift from the wind. As a result, our customers can achieve significantly reduced labor, hardware, design and other balance of system costs, which account for a substantial portion of the total installed cost of a conventional flat plate photovoltaic system, while maximizing the amount of electricity generated for a typical rooftop installation.

We commenced commercial shipments of our photovoltaic systems in July 2008 and have increased our sales volume and revenue every quarter since that date. We sold 17.2 megawatts, or MW, of panels in the nine months ended October 3, 2009, compared to 1.6 MW for the fiscal year ended January 3, 2009. For the nine months ended October 3, 2009, our revenue was $58.8 million, compared to $6.0 million for the fiscal year ended January 3, 2009. Our panels have been deployed in over 100 commercial installations internationally and across the United States. We primarily sell our photovoltaic systems to value-added resellers, including system integrators and roofing materials manufacturers, which resell our systems to various system owners, including third-party investors, enterprises such as manufacturers, wholesaler-distributors and big-box retailers, government entities and utility companies. Our customers include Alwitra GmbH, Carlisle Syntec Incorporated, Geckologic GmbH, Phoenix Solar AG, Premier Solar Systems Pvt Ltd., Solar Power, Inc., Sunconnex B.V., Sun System S.p.A. and USE Umwelt Sonne Energie GmbH. As of the date of this prospectus, we have framework agreements with system integrators and roofing materials manufacturers outlining general terms for the delivery of up to 865 MW of our photovoltaic systems by the end 2013.

We manufacture our solar panels in a highly automated plant where we perform all operations required to process commodity materials into the final product. We intend to significantly expand our production capacity through a combination of additional production facilities and equipment, manufacturing process improvements and product enhancements in order to reduce our per-watt production costs and meet demand for our systems. Our first manufacturing facility, which we refer to as Fab 1, had an annualized production run rate of 45 MW during our fiscal month ended December 5, 2009. We are in the process of expanding our production capacity at Fab 1 and expect to reach an annualized production run rate of 110 MW by the fourth fiscal quarter of 2010, assuming achievement of minimum product development objectives and planned manufacturing process improvements. We are further expanding our production capacity with the addition of a second manufacturing facility, which we refer to as Fab 2. We are in the construction stage of the first of two planned phases for Fab 2, which we refer to as Phase I. We expect Phase I to have an annualized production run rate of 250 MW by the end of the first half of 2012, assuming achievement of minimum product development objectives and planned manufacturing process improvements. We expect the first production output from Phase I to occur in the first quarter of 2011. We are funding the costs of Phase I with the proceeds of a prior equity financing and a $535 million loan facility guaranteed by the U.S. Department of Energy, or the DOE. Borrowings under this facility mature in 2016 and accrue interest at a rate per annum fixed at the time of disbursement and equal to the sum of a treasury rate index plus 37.5 basis points (2.838% as of October 3, 2009). This loan facility was the first guaranteed by the DOE under its loan guarantee program for innovative clean technologies.

We intend to use the proceeds of this offering to finance a portion of the costs of the second phase of Fab 2, which we refer to as Phase II. We believe that Phase II represents a significant opportunity to further expand our production capacity and reduce our costs of manufacturing. When the construction and production ramp of both phases of Fab 2 are complete, we expect Fab 2 to have an annualized production run rate of 500 MW, assuming achievement of minimum product development objectives and planned manufacturing process improvements. We estimate that the costs for Phase II will be approximately $642 million, which amount includes building expansion and improvements, manufacturing equipment, certain sales, marketing and other start-up costs, and a contingency reserve of approximately $53 million. On September 11, 2009, we applied for a second loan guarantee from the DOE, in the amount of approximately $469 million, to partially fund Phase II. If we are unable to obtain the DOE guaranteed loan in whole or in part, we intend to fund any financing shortfall with some combination of the proceeds of this offering, cash flows from operations, debt financing and additional equity financing.

Commercial Rooftop Photovoltaic Market Opportunity

Based on market data from Navigant Consulting, Freedonia Group and Ecofys, we estimate that there are approximately 11 billion square meters of commercial rooftop area worldwide. Commercial rooftop systems are installed where power is consumed, which avoids the significant transmission capital expenditures associated with centralized electricity generation systems, reduces transmission congestion during periods of peak demand and reduces the energy losses to the end users associated with transmission and distribution of electricity from centralized large-scale electric plants. According to the National Renewable Energy Laboratory, or NREL, cumulative rooftop photovoltaic system installations in the United States alone are projected to grow from 733 MW in 2007 to 7,492 MW in 2015, representing a compound annual growth rate of 34%.

In the commercial rooftop solar market, several key factors influence what type of photovoltaic system will be used. First, system owners, such as third-party investors and enterprises that purchase photovoltaic systems to install on their own rooftops, generally seek the highest return possible from a photovoltaic system. The highest return is achieved by minimizing the levelized cost of electricity per kilowatt hour, or LCOE, which is the ratio of a system's total life cycle cost to its total lifetime energy output. Second, building owners typically seek to limit rooftop impact in order to comply with a rooftop's warranty requirements and structural limitations. Third, system integrators, which often have significant influence on purchase decisions, are motivated by their desire to enhance their own productivity and perform more project installations in a given year.

The commercial rooftop photovoltaic market to date primarily has consisted of flat plate panels using crystalline silicon or thin film technologies, which we refer to as conventional panels. These conventional approaches present several fundamental challenges which have, to date, increased the cost of commercial rooftop photovoltaic systems and limited the addressable market. These challenges include:

- ***Light collection.*** Conventional panels typically need to be tilted using expensive mounting hardware to improve the capture of direct light, creating shadows that can reduce and, in some cases, shut down the output of neighboring panels. Therefore, conventional panels typically are widely spaced to avoid shading other panels, reducing the surface area that can be covered by this type of rooftop photovoltaic system.
- ***Orientation.*** Conventional panels typically need to be oriented on a directional axis such as North-South for optimal performance, which often differs from the directional axis of the building and its rooftop, further limiting rooftop coverage and reducing total energy production per rooftop.
- ***Installation Time and Cost.*** Installing conventional panels on commercial rooftops typically takes weeks to complete and requires the use of expensive mounting hardware, involving steps such as rooftop preparation and penetration, assembly of mounting racks and installation of panels at the correct tilt and axis orientation.
- ***Wind.*** Conventional photovoltaic systems typically require ballast or penetrating rooftop attachments to counter uplift from wind. The weight of the panels, ballast and mounting system may exceed the weight limitations of many commercial rooftops.

These factors have limited the penetration of the addressable commercial rooftop market by manufacturers of conventional panels, as photovoltaic system owners have struggled to minimize LCOE and preserve the integrity of building rooftops, while system integrators have struggled to minimize the cost and time to install systems.

Our Solution

We believe that our photovoltaic systems address many of the challenges facing system owners and system integrators that have limited the penetration of the commercial rooftop market in the past. Specifically, our solution is designed to reduce LCOE and preserve the integrity of building rooftops, while reducing the cost and time to install systems. Key benefits of our photovoltaic systems include:

- ***Low levelized cost of electricity.*** We believe that our photovoltaic systems will allow system owners to achieve the lowest LCOE by delivering low installed costs, increased energy output and low lifetime costs for typical commercial rooftop installations. Our unique product design helps our system owners minimize installed cost per watt by offering significant savings on balance of system costs, including labor. Our photovoltaic systems are also designed to generate significantly more solar electricity per rooftop than conventional panel photovoltaic systems, as our system design enables greater rooftop coverage and the highest energy production per rooftop over the system lifetime for typical installations. This increased electricity production per rooftop also has

Table of Contents

the benefit of spreading fixed costs for certain operational and maintenance expenses over a larger system, resulting in a lower lifetime operations and maintenance cost per kilowatt hour. Our design provides benefits relating to lifetime roof replacement and repair costs, where the speed with which our systems can be removed and then reinstalled reduces the amount of electricity that is lost due to downtime.

- ***Minimal impact to building rooftop.*** Our photovoltaic systems minimize rooftop impact by avoiding rooftop penetrations associated with conventional panel photovoltaic systems. Our photovoltaic systems also weigh less than conventional panel photovoltaic systems, enabling the installation of our photovoltaic systems on rooftops that would not otherwise support the weight of a conventional panel photovoltaic system.
- ***Significant installation benefits.*** Our photovoltaic systems can be installed more quickly and more cost-effectively than conventional panel photovoltaic systems. Due to the relative ease of installation of our systems, we believe that system integrators, roofing materials manufacturers and the subcontractors that they employ to install our photovoltaic systems will be able to significantly increase the productivity of their workforces, enabling them to perform more installations in a given year with fewer labor expenditures. Further, because our rooftop coverage benefits enable greater power generation per rooftop, we believe that system integrators and roofing materials manufacturers generally can generate more revenue per project by installing our systems.

Our Strategy

Our goal is to deliver by 2012 photovoltaic systems for commercial rooftops that are competitive with the retail price of electricity in key markets on a non-subsidized basis. We believe that the achievement of this goal in any given market will result in substantial additional demand for our photovoltaic systems in that market. We intend to continue to pursue the following strategies to achieve this goal:

- ***Expand production capacity.*** In order to meet expected demand for our systems, we intend to significantly expand our production capacity through the expansion of capacity at Fab 1 and the addition of Fab 2, as well as through manufacturing process improvements and product enhancements.
- ***Reduce per-watt manufacturing costs.*** We intend to continue to reduce our per-watt manufacturing costs by expanding capacity and increasing the throughput of our production lines, improving yields and raising nameplate panel power ratings.
- ***Target key customers.*** We currently allocate the sale of the majority of our photovoltaic systems to a select number of value-added resellers with broad geographic reach and the capacity to purchase large volumes of our systems. In addition, we plan to continue to strategically target the sale of our photovoltaic systems to value-added resellers for which we believe we offer the most differentiated value proposition.
- ***Expand roofing materials manufacturer sales channel.*** We plan to develop additional strategic relationships with leading global manufacturers of reflective roofing materials, thereby expanding an important sales channel for our photovoltaic systems. Our systems are easy for roofers to install and, when installed together with a new, reflective "cool" roof, can provide a unique combination of building energy efficiency and solar electricity production.
- ***Support customer project financing.*** We intend to support customer project financing by strategically aligning our products with key government programs that provide financial incentives, export credit and project finance.

Table of Contents

- ***Continue to explore new markets where we can leverage our innovative product offering.*** We plan to continue to explore new geographies and product applications where we believe our product offers a compelling value proposition. For example, we are exploring the integration of our products into the top of sheltered horticulture structures, such as greenhouses used in large-scale commercial agriculture.

Corporate Information

Our company was incorporated in Delaware in May 2005 as Gronet Technologies, Inc. In January 2006, our company was renamed Solyndra, Inc. Our principal executive offices are located at 47700 Kato Road, Fremont, California 94538, and our telephone number is 510-440-2400. Our website address is www.solyndra.com. Information contained on our website is not incorporated by reference into this prospectus, and you should not consider information contained on our website to be part of this prospectus.

Except where the context requires otherwise, we use the terms the "Company," "Solyndra," "we," "us" and "our" in this prospectus to refer to Solyndra, Inc., a Delaware corporation, and, where appropriate, its subsidiaries.

Table of Contents

THE OFFERING

Common stock offered by us	shares (or shares if the underwriters exercise their over-allotment option in full).
Common stock to be outstanding after this offering	shares (or shares if the underwriters exercise their over-allotment option in full).
Use of proceeds	We estimate that our net proceeds from the sale of the common stock that we are offering will be approximately $ million, assuming an initial public offering price of $ per share, which is the midpoint of the range listed on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds to us from this offering to fund costs of Phase II of Fab 2 and any remaining balance for general corporate purposes, including working capital, repayment of amounts, if any, drawn under our revolving loan facility with Argonaut Ventures I, L.L.C., or Argonaut, and additional capital expenditures. We may also use a portion of our net proceeds to fund acquisitions of complementary businesses, products or technologies. See the "Use of Proceeds" section of this prospectus for more information.
Proposed symbol	"SOLY"
Risk factors	See the "Risk Factors" section beginning on page 11 of this prospectus for a discussion of factors that you should carefully consider before deciding to invest in our common stock.

Argonaut, which together with its affiliates beneficially owns approximately 35.7% of our outstanding common stock on an as-converted basis, has the right to purchase from us up to 15% of the aggregate number of shares offered in this offering at the initial price to the public, but is under no obligation to purchase any shares. Any shares purchased by Argonaut will be purchased directly from us and will not be a part of the underwritten offering. Steven R. Mitchell, a member of our board of directors, is a managing director of the manager of Argonaut.

The number of shares of common stock that will be outstanding after this offering is based on 241,333,149 number of shares outstanding at October 3, 2009, and excludes:

- 25,316,966 shares of common stock issuable upon the exercise of options outstanding at October 3, 2009, at a weighted-average exercise price of $1.66 per share;
- 26,638,290 shares of common stock issuable upon the exercise of warrants outstanding at October 3, 2009, at a weighted-average exercise price of $5.99 per share; and

Table of Contents

- 6,196,679 shares of our common stock reserved for future issuance under our 2005 Amended and Restated Equity Incentive Plan.

Unless otherwise indicated, all information in this prospectus assumes:

- an initial public offering price of $ per share, which is the midpoint of the range listed on the cover page of this prospectus;
- the conversion of all outstanding shares of preferred stock into an aggregate of 226,527,933 shares of common stock and the related conversion of all outstanding preferred stock warrants to common stock warrants upon the closing of this offering;
- no exercise by the underwriters of their right to purchase up to   shares of common stock from us to cover over-allotments; and
- the filing of our amended and restated certificate of incorporation upon the closing of this offering.

Table of Contents

SUMMARY HISTORICAL FINANCIAL AND OPERATING DATA

The following table presents a summary of our historical financial and operating data for the periods and at the dates indicated. The consolidated statements of operations data for the fiscal years ended December 30, 2006, December 29, 2007 and January 3, 2009 are derived from our audited consolidated financial statements included elsewhere in this prospectus. The consolidated statements of operations data for the nine months ended September 27, 2008 and October 3, 2009 and the consolidated balance sheet data as of October 3, 2009 are derived from our unaudited consolidated financial statements included elsewhere in this prospectus. We have prepared the unaudited consolidated financial data on the same basis as the audited consolidated financial statements and, in our opinion, included all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of the information set forth therein. We use the other operating data presented to help us evaluate growth trends, establish budgets, ensure the effectiveness of our sales and marketing efforts and assess operational efficiencies. Our historical financial and operating results for any prior period are not necessarily indicative of results to be expected in any future period, and our results for any interim period are not necessarily indicative of results for a full fiscal year.

The information presented below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited and unaudited consolidated financial statements and related notes, each included elsewhere in this prospectus.

	Fiscal Years Ended			Nine Months Ended	
	December 30, 2006	December 29, 2007	January 3, 2009	September 27, 2008	October 3, 2009
	(in thousands, except per share data)				
Consolidated Statements of Operations Data:					
Revenue	$ –	$ –	$ 6,005	$ 1,501	$ 58,814
Cost of revenue(1)	–	–	44,435	21,395	108,321
Gross profit/(loss)	–	–	(38,430)	(19,894)	(49,507)
Research and development(1)	19,927	85,859	125,499	93,425	61,632
Sales and marketing(1)	574	2,677	4,838	3,276	5,905
General and administrative(1)	5,829	23,279	21,221	16,805	10,633
Asset impairment charges	–	–	31,610	31,610	–
Loss from operations	(26,330)	(111,815)	(221,598)	(165,010)	(127,677)
Interest expense	(494)	(6,906)	(12,444)	(10,770)	(807)
Interest income	1,184	2,829	1,870	1,742	131
Other income/(expense), net	(1,532)	1,764	107	(5,810)	8,592
Net loss	$ (27,172)	$ (114,128)	$(232,065)	$ (179,848)	$(119,761)
Deemed dividend on preferred stock	–	–	(10,452)	–	–
Net loss attributable to common stockholders	$ (27,172)	$ (114,128)	$(242,517)	$ (179,848)	$(119,761)
Net loss per share (basic and diluted)(2)	$ (6.69)	$ (16.55)	$ (23.85)	$ (18.33)	$ (9.48)
Weighted-average common shares (basic and diluted)(2)	4,063	6,898	10,167	9,810	12,629
Pro forma loss per share (basic and diluted)(2)			$ (2.64)		$ (0.70)
Weighted-average common shares used in pro forma calculations (basic and diluted) (2)			91,986		174,179

Table of Contents

	As of October 3, 2009		
	Actual	Pro Forma(3)	Pro Forma As Adjusted(4)
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash, cash equivalents and short-term investments	$ 45,307	$ 45,367	$
Restricted cash(5)	165,400	165,400	
Working capital	8,085	8,145	
Property, plant and equipment, net	303,502	303,502	
Total assets	589,519	589,579	
Total long-term debt	21,380	21,380	
Redeemable convertible preferred stock	961,315	—	
Total stockholders' equity (deficit)	(482,650)	479,466	

	Fiscal Year Ended	Nine Months Ended	
	January 3, 2009	September 27, 2008	October 3, 2009
Other Operating Data:			
Megawatts produced(6)	1.8	0.6	17.9
Megawatts sold(7)	1.6	0.4	17.2
Annualized production run rate (in megawatts)(8)	7.8	4.1	40.2
Average nameplate panel power rating (in watts)(9)	164	160	178

(1) Includes stock-based compensation as follows:

	Fiscal Years Ended			Nine Months Ended	
	December 30, 2006	December 29, 2007	January 3, 2009	September 27, 2008	October 3, 2009
			(in thousands)		
Cost of revenue	$ –	$ –	$ 564	$ 212	$ 1,266
Research and development	26	118	1,744	992	2,485
Sales and marketing	2	7	131	54	305
General and administrative	84	100	1,136	808	1,402
Total	$ 112	$ 225	$ 3,575	$ 2,066	$ 5,458

(2) See Note 17 to the Notes to Consolidated Financial Statements for an explanation of the method used to calculate basic and diluted net shares used to calculate net loss per share and pro forma loss per share.

(3) Reflects (i) the conversion of all outstanding shares of preferred stock into 226,527,933 shares of common stock and the related conversion of all outstanding preferred stock warrants to common stock warrants upon the closing of this offering; and (ii) the repayment of a note by a stockholder.

(4) Reflects the pro forma adjustments described in (3) above and the sale of shares of our common stock by us in this offering at an assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us in connection with the offering. A $1.00 increase or decrease in the assumed initial public offering price of $ per share of common stock would increase or decrease cash, cash equivalents and short-term investments by $ million, working capital by $ million, total assets by $ million and total stockholders' equity (deficit) by $ million, assuming the number of

Table of Contents

shares offered by us, as shown on the cover of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us in connection with the offering. The pro forma as adjusted information discussed above is illustrative only and will adjust based on the actual public offering price and other terms of this offering determined at pricing.

(5) As of October 3, 2009, restricted cash consists of certificates of deposit held by a bank as collateral for outstanding letters of credit. Restricted cash also included $160.0 million of cash deposited in a bank account in connection with the DOE guaranteed loan facility. Pursuant to the terms of our DOE guaranteed loan facility, use of cash held in this account is limited to funding the costs of Phase I of Fab 2.

(6) Megawatts produced equals the aggregate nameplate panel power ratings of panels we produced during the period presented. Nameplate panel power rating is expressed in watts per panel and represents the watt-peak capacity of photovoltaic panels measured under standard test conditions for our panels.

(7) Megawatts sold equals the aggregate nameplate panel power ratings of panels we sold during the period presented.

(8) Annualized production run rate is expressed in megawatts and equals the aggregate nameplate panel power ratings of the panels we produced in our most recent fiscal month within the period presented, multiplied by 12.

(9) Average nameplate panel power rating is expressed in watts and equals the megawatts produced during the period presented divided by the number of panels produced during that period.

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the following information, together with the other information in this prospectus, before deciding whether to buy shares of our common stock. If any of the following risks occur, our business, financial condition and results of operations could be materially and adversely affected, the trading price of our common stock could decline and you may lose all or a part of your investment.

Risks Related to Our Business

Our future success depends on our ability to increase our production capacity by completing expansion of our first manufacturing facility, developing additional manufacturing facilities, including our second manufacturing facility, and increasing our production throughput and yield.

Our future success depends on our ability to significantly increase our production capacity through facility expansion and increased production throughput and yield in a cost-effective and efficient manner, mainly through the expansion of our first manufacturing facility, which we refer to as Fab 1, and through construction of additional manufacturing facilities, including our second manufacturing facility, which we refer to as Fab 2. Our ability to complete the expansion of Fab 1 and the planning, construction and equipping of both phases of Fab 2 and additional manufacturing facilities in the future are subject to significant risk and uncertainty, including:

- the build-out of the first phase of Fab 2, which we refer to as Phase I, is being financed by a U.S. Department of Energy, or the DOE, guaranteed loan facility, which requires us to remain in compliance with numerous financial and operational covenants in order to draw funds under this loan facility, compliance with some of which are beyond our control;
- the build-out of any manufacturing facilities will be subject to the risks inherent in the development and construction of new facilities, including risks of delays and cost overruns as a result of a number of factors, many of which may be out of our control, such as delays in government approvals, burdensome permit conditions and delays in the delivery of manufacturing equipment and subsystems that we manufacture or obtain from suppliers;
- we may be unable to achieve the production throughput and yields necessary to achieve our target annualized production run rate at our current and future manufacturing facilities;
- the additional capital needed in order to finance the costs of constructing and equipping the second phase of Fab 2, which we refer to as Phase II, and any additional facilities, including the $469 million DOE loan guarantee for which we have applied, may not be available on reasonable terms, or at all;
- our custom-built equipment may take longer and cost more to engineer and build than expected and may never operate as required to meet our production plans;
- we may be required to depend on third-party relationships in the development and operation of additional production capacity, which may subject us to risks that such third parties do not fulfill their obligations to us under our arrangements with them; and
- we may fail to execute our expansion plans effectively.

If we are unable to successfully complete expansion of Fab 1 and develop, construct and successfully operate Fab 2 and any additional manufacturing facilities in the future, we may be unable to scale our business to the extent necessary to improve our results of operations and achieve profitability. Moreover, even if we are successful in continuing to expand our production capacity as planned, we may not be able to generate customer demand for our photovoltaic systems at the increased production levels and may not be able to generate sufficient revenue to achieve or maintain profitability. As we build additional manufacturing facilities, our fixed costs will increase. If the demand for our systems or our production output decreases, we may not be able to spread a significant amount of our fixed costs over the production volume, thereby increasing our per unit fixed cost, which would have a negative impact on our financial condition and results of operations.

Our business is based on a new technology, and if our photovoltaic systems or manufacturing processes fail to achieve the performance and cost metrics that we expect, we may be unable to develop demand for our systems and generate sufficient revenue to support our operations.

Our use of copper indium gallium diselenide, or CIGS, thin film technology on a cylindrical module is a new technology in commercial scale production. As a result of our use of this new technology, we may experience significant challenges as we seek to expand our production capacity and output and scale our operations to support large-scale commercial manufacturing of photovoltaic systems. The manufacture of our solar modules is a highly complex process and minor deviations in the manufacturing process can cause substantial decreases in yield or throughput and, in some cases, cause production to be suspended or yield no output. Our business plan and long-term growth strategy assume that we will be able to achieve certain milestones and metrics in terms of throughput, uniformity of cell efficiencies, yield, encapsulation, packaging, cost and other production parameters in order to achieve our targeted production capacity. For example, our ability to expand from our current annualized production run rate at Fab 1, which was 45 MW during our fiscal month ended December 5, 2009, to our estimated 110 MW annualized production run rate by the fourth fiscal quarter of 2010, depends on our ability to achieve certain minimum product development objectives and planned manufacturing process improvements. We cannot assure you that we will achieve these product development objectives, process improvements or other milestones or metrics or that our technology will prove to be commercially viable. If we are unable to achieve our targets on time and within our planned budget, then we may not be able to generate adequate demand for our systems, and our business, financial condition and results of operations could be harmed. Even if we are able to achieve our target metrics as we expand the production capacity at Fab 1, we may be unable to replicate these metrics in Fab 2 or in other facilities in the future. If we are unable to replicate our production facilities and achieve and sustain improved operating metrics as we expand our production facilities, our production capacity could be substantially constrained, our manufacturing costs per watt could increase, and we could lose customers, any of which could harm our business, financial condition and results of operations.

Further, we may experience operational problems with our technology after its commercial introduction that could adversely impact our revenue or delay or prevent us from becoming profitable. We only commenced field testing of our first solar modules in August 2006 and, to date, Fab 1 has produced less than 30 MW of output. As a result, our thin film technology and photovoltaic systems do not have a sufficient operating history to confirm how they will perform over their estimated 25-year useful life. For example, although the hermetic seal that we use on our solar modules has been subjected to extensive testing by us, if it does not perform as expected, the CIGS thin film material used in our solar modules could be subject to moisture degradation, which would decrease the reliability and performance of our solar panels. In addition, under real-world operating conditions, a typical photovoltaic system operates outside of standard test conditions for much of the time, and the conversion efficiencies of solar panels generally decrease when operating outside standard test conditions. Real-world conditions that can affect lifetime electricity output include the location and design of a photovoltaic system, insolation, soiling and weather conditions such as temperature and snow. If our thin film technology and photovoltaic systems perform below expectations or have unexpected reliability problems, we may be unable to gain or retain customers and could face substantial penalties and warranty expense.

Table of Contents

We have incurred significant net losses since our inception and our ability to achieve or sustain a positive gross margin and profitability depends on our ability to significantly increase our production capacity and reduce our manufacturing cost per watt faster than our average selling prices decrease.

We have incurred significant net losses since our inception, including a net loss of $27.2 million in 2006, $114.1 million in 2007, $232.1 million in 2008 and $119.8 million in the first nine months of fiscal 2009, and we had an accumulated deficit of $505.0 million at October 3, 2009. We expect to continue to incur significant operating and net losses and negative cash flow from operations for the foreseeable future. Moreover, we expect that average selling prices of our photovoltaic systems will continue to decline until we offer our products at a price per watt that is comparable to conventional energy sources and alternative distributed generation technologies. The success of our business depends on our ability to significantly increase our production capacity, including the build-out of Phase I of Fab 2, and significantly reduce our manufacturing cost per watt. If we fail to achieve these objectives and reduce our manufacturing cost per watt faster than our average selling prices decrease, our business will be materially adversely impacted.

We will need to raise significant additional capital in order to continue to grow our business and fund our operations.

We will need to raise significant additional capital to fund our planned expansion of our manufacturing facilities and to grow our business. We do not know what forms of financing, if any, will be available to us for this planned expansion. If financing is not available on acceptable terms, if and when needed, our ability to fund our operations, further develop and expand our manufacturing operations and sales and marketing functions, develop and enhance our products, respond to unanticipated events, or otherwise respond to competitive pressures would be significantly limited. In any such event, our business, financial condition and results of operations could be harmed, and we may be unable to continue our operations.

In particular, a key component of our expansion plan is the construction and build-out of Fab 2. We estimate that the cost, which is comprised of the total capital required for the land, buildings, improvements, manufacturing equipment and certain sales, marketing and other start-up costs, for Phase I and Phase II of Fab 2 will total approximately $1.38 billion. Although we have already secured funding for Phase I with a DOE guaranteed loan facility and a prior round of equity financing, we still need financing for Phase II. We estimate the cost of Phase II will be approximately $642 million. On September 11, 2009, we applied for a second loan guarantee from the DOE, in the amount of approximately $469 million, to partially fund Phase II. If our application is approved, we intend to fund Phase II with the proceeds from the loan and this offering. Although the DOE determined on November 4, 2009 that our initial application was complete, and we submitted the second part of the application on November 17, 2009, there is no guarantee that the DOE will approve our application in the full amount requested or at all.

Even if the DOE determines to offer a loan guarantee for Phase II, we will have to negotiate the terms and conditions of the loan guarantee with the DOE and the underlying loan with the Federal Financing Bank. Accordingly, we cannot assure you of the timing for closing the planned financing for Phase II, and such financing may not be available at the time we would like to commence construction. Any delays in the approval of our application or the negotiation of the guarantee and underlying loan could have a material adverse impact on our ability to complete Phase II in a timely manner and would increase the ultimate construction costs for Phase II.

If we do not receive a guaranteed loan under this program of approximately $469 million, we intend to fund any financing shortfall with some combination of the proceeds of this offering, cash flow from operations, debt financing and additional equity financing. These funding sources, however, may not be available in sufficient amounts at the time needed, or on favorable terms to us, for the construction

Table of Contents

of Phase II. If we are not able to complete Fab 2 as planned, we may not be able to grow our business, realize the benefits of economies of scale or satisfy our customer requirements. If we are required to raise additional capital through future equity issuances, our existing equity holders could experience substantial dilution. If we are required to raise additional debt financing, we may be subject to restrictive covenants that may limit our ability to conduct our business.

Our photovoltaic systems may not achieve broader market acceptance, which would prevent us from increasing our revenue and market share.

The initial price of our solar panels is significantly higher than the initial price of solar panels with the same nameplate panel power rating offered by the majority of our competitors. As a result, certain system owners who focus more on the up-front price of solar panels than on achieving the lowest levelized cost of electricity per kilowatt hour, or LCOE, which is the ratio of a system's total life cycle cost to its total lifetime energy output, may choose the product offerings of those competitors that have a lower initial panel purchase price. If we fail to effectively demonstrate to system owners the LCOE value proposition of our systems, we may fail to achieve broader market acceptance of our systems, which would have an adverse impact on our ability to increase our revenue, gain market share and achieve and sustain profitability.

Our ability to achieve broader market acceptance for our photovoltaic systems will be impacted by a number of other factors, including:

- whether system owners will adopt our CIGS thin film technology in a cylindrical module, which is a new technology with a limited history with respect to reliability and performance;
- whether system owners will be willing to purchase photovoltaic systems with an expected 25-year lifespan from us given our limited operating history;
- the ability of prospective system owners to obtain long-term financing for our photovoltaic systems on acceptable terms or at all;
- our ability to produce photovoltaic systems that compete favorably against other photovoltaic systems on the basis of price, quality and performance;
- our ability to produce photovoltaic systems that compete favorably against conventional energy sources and alternative distributed generation technologies, such as wind and biomass, on the basis of price, quality and performance; and
- our ability to develop and maintain successful relationships with our customers and suppliers.

Our financial condition and results of operations are likely to fluctuate in future periods.

Our financial condition and results of operations have fluctuated significantly in the past and may continue to fluctuate from quarter to quarter in the future due to a variety of factors, many of which are beyond our control, including:

- fluctuations in currency exchange rates relative to the U.S. dollar, given that a majority of our revenue is currently denominated in Euro;
- the timing of shipments, which may depend on many factors such as availability of inventory and logistics or product quality or performance issues;
- the ability of our customers to pay the purchase price for our systems in a timely fashion;
- delays or cancellations of photovoltaic installations, including as a result of our customers' inability to obtain financing;
- fluctuations in our research and development expense, including periodic increases associated with the pre-production qualification of additional tools as we expand our production capacity;

Table of Contents

- delays or greater than anticipated expenses associated with the construction of Fab 2;
- weaker than anticipated demand for our photovoltaic systems due to changes in government subsidies and policies supporting renewable energy or other factors;
- seasonal trends and construction cycles of photovoltaic systems;
- unanticipated expenses associated with changes in governmental regulations and environmental, health and safety requirements; and
- general market conditions.

Fluctuations in our operating results from period to period could cause our stock price to decline, give rise to short-term liquidity issues and may impact our ability to achieve and maintain profitability or cause other unanticipated issues.

Our limited operating history makes it difficult to evaluate our current business and future prospects.

We have only been in existence since 2005, and much of our growth has occurred in recent periods. Fab 1 has only been producing commercial quantities of our photovoltaic systems since July 2008 and we only recently began construction of Phase I of Fab 2. Our limited operating history makes it difficult to evaluate our current business and our future prospects. We have encountered and will continue to encounter risks and difficulties frequently experienced by growing companies in rapidly changing industries, including increased expenses as we continue to grow our business. If we do not manage these risks and overcome these difficulties successfully, our business will suffer.

Our efforts to achieve broader market acceptance for our photovoltaic systems and to expand beyond our existing markets may never succeed, which would adversely impact our ability to generate additional revenue or become profitable. Therefore, our recent growth trajectory may not provide an accurate representation of the market dynamics we may be exposed to in the future, making it difficult to evaluate our future prospects.

Our substantial indebtedness could adversely affect our financial condition and prevent us from fulfilling our obligations.

As of October 3, 2009, our total indebtedness was approximately $21.4 million and we anticipate incurring a total of $535 million under the DOE guaranteed loan facility by the time we have completed Phase I of Fab 2. We currently estimate that the construction of Phase II of Fab 2 will cost approximately $642 million, and we anticipate that we will incur a significant amount of additional indebtedness to finance a portion of Phase II. If we undertake additional expansion beyond Fab 2, we anticipate that we may incur significant additional indebtedness. Our substantial indebtedness could have important consequences, including:

- requiring us to generate a significant amount of cash flow from operations to service the payment of principal and interest on our indebtedness, thereby reducing our ability to use our cash flow to fund our operations, capital expenditures and future business opportunities;
- limiting our ability to obtain additional financing for working capital, capital expenditures, debt service requirements, acquisitions and general corporate or other purposes;
- increasing our vulnerability to general economic and industry conditions that may adversely affect our ability to repay any indebtedness and comply with applicable covenants, including financial covenants contained in our DOE guaranteed loan facility; and
- limiting our ability to adjust to changing market conditions and placing us at a competitive disadvantage compared to our competitors who have greater capital resources.

Table of Contents

If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to reduce or delay capital expenditures, sell assets, seek additional capital or restructure or refinance our indebtedness. These alternative measures may not be successful and may not permit us to meet our scheduled debt service obligations. Failure to pay our indebtedness on time would constitute an event of default under the agreements governing our indebtedness, which would allow our lenders to accelerate the obligations and seek other remedies against us.

We will need to meet certain funding conditions in order to draw funds under our $535 million DOE guaranteed loan facility and we are also subject to a number of affirmative, negative and financial covenants under this facility.

The financing agreements with the Federal Financing Bank and the DOE governing our $535 million loan facility require us to meet certain funding conditions related to the development and construction of Phase I and specific performance milestones related to Fab 1. Our failure to meet any of these conditions to funding could result in our inability to access funds under this loan facility.

In addition, our DOE guaranteed loan facility contains various affirmative, negative and financial covenants. The failure to comply with any of these covenants, or the occurrence of a change of control of us, would result in a default under this loan facility. If a default occurs, all of the outstanding obligations under this loan facility could become immediately due and payable and could result in a default and acceleration of any other outstanding debt. The existence of such a default could also preclude us from borrowing any remaining unfunded portion of the DOE guaranteed loan facility, and the DOE could exercise its remedies under the financing agreements governing the loan facility, including foreclosing on the assets of Phase I and requiring us to contribute the full amount of our $198 million equity contribution to the extent that such equity contribution has not yet been applied to the cost of developing and constructing Phase I. A default under this loan facility, which could result from events beyond our control, if not cured or waived, would have a material adverse effect on us.

There are significant risks associated with the planning, construction and completion of Fab 2, which may cause budget overruns or delays in the completion of the project.

The scheduled completion dates for Fab 2 and the budgeted costs necessary to complete construction assume that there are no material unforeseen or unexpected difficulties or delays. Construction, equipment or staffing problems or difficulties in obtaining financing or any of the requisite licenses, permits or authorizations from regulatory authorities could delay the construction or commencement of operations or otherwise affect the design and features of Fab 2. Such delays or other unexpected difficulties could involve additional costs and result in a delay in the scheduled expansion of Fab 2. Failure to complete Fab 2 within budget or on schedule may harm our financial condition and results of operations.

If we have any cost overruns in connection with the development and construction of Phase I and we do not generate positive future cash flow sufficient to fund those cost overruns, we may need to raise additional capital in order to meet our obligations.

Phase I has an estimated cost of $733 million, including a contingency reserve of approximately $65 million, which we intend to fund with the proceeds of our $535 million DOE guaranteed loan facility and with $198 million of the proceeds of a previously completed private placement of our preferred stock. To the extent that the development and cost of construction of Phase I exceeds $733 million, we will be obligated to fund any such excess costs until the requirements of project completion have been satisfied. In addition, we have an obligation starting in our fourth fiscal quarter of 2010 to establish an additional $30 million reserve for cost overruns. As a result, if we do not have sufficient funds or cash

Table of Contents

flow to fund this $30 million reserve or any other excess costs, we will be required to raise additional capital to meet our obligations and to complete the construction of Phase I. Any such financing may not be available on acceptable terms, or at all, if and when needed.

If potential purchasers of our photovoltaic systems are unable to secure financing on acceptable terms, we could experience a reduction in the demand for our photovoltaic systems.

Many purchasers of photovoltaic systems depend on debt financing to purchase a system. The limited use of CIGS thin film technologies at commercial scale, coupled with our limited operating history, could result in lenders refusing to provide the financing necessary to purchase our photovoltaic systems on favorable terms, or at all. Moreover, even if lenders are willing to finance the purchase of our photovoltaic systems, an increase in interest rates could make it difficult for owners to secure the financing necessary to purchase a photovoltaic system on favorable terms, or at all. In addition, we believe that a significant percentage of owners purchase photovoltaic systems as an investment, funding the initial capital expenditure through a combination of equity and debt. Difficulties in obtaining financing for our photovoltaic systems on favorable terms, or increases in interest rates, could lower an investor's return on investment in our photovoltaic system, or make alternative photovoltaic systems or other investments more attractive relative to our photovoltaic systems. Any of these events could result in reduced demand for our systems, which could have a material adverse effect on our financial condition and results of operations.

A drop in the retail price of electricity derived from the utility grid or from alternative energy sources, or our inability to deliver photovoltaic systems that compete with the price of retail electricity on a non-subsidized basis, may harm our business, financial condition and results of operations.

We believe that a customer's decision to purchase our photovoltaic systems is to a significant degree driven by the relative cost of electricity generated by our systems compared to the applicable retail price of electricity from the utility grid and the cost of other renewable energy sources, including photovoltaic electricity delivered by our competitors. Decreases in the retail prices of electricity from the utility grid or from other renewable energy sources would make it more difficult for our photovoltaic systems to be competitive and could harm our business, financial condition and results of operations. The approval of the construction of a significant number of power generation plants, including nuclear, coal, natural gas or power plants utilizing other renewable energy technologies, and the approval of the construction of additional electric transmission and distribution lines, could reduce the price of electricity, thereby making the purchase of our systems less economically attractive. The ability of energy conservation technologies and public initiatives to reduce electricity consumption could also lead to a reduction in the price of electricity, which would also undermine the attractiveness of photovoltaic systems. Moreover, technological developments by our competitors in the solar power industry could allow them to offer customers electricity at costs lower than those that can be achieved from our photovoltaic systems, which could result in reduced demand for our systems.

In addition, we may be unable to deliver photovoltaic systems for the commercial rooftop market that produce electricity at rates that are competitive with the price of retail electricity on a non-subsidized basis. If this were to occur, we will remain at a competitive disadvantage with other electricity providers and may be unable to attract new customers or retain existing customers, which could harm our business, financial condition and results of operations.

The reduction or elimination of government subsidies and economic incentives for on-grid solar electricity applications could reduce demand for photovoltaic systems and harm our business.

The market for on-grid applications, where solar power is used to supplement a customer's electricity purchased from the utility network or sold to a utility under tariff, depends in large part on the

Table of Contents

availability and size of government and economic incentives that vary by geographic market. Because our sales are into the on-grid market, the reduction, elimination or expiration of government subsidies and economic incentives for on-grid solar electricity may result in the diminished competitiveness of solar electricity relative to conventional and non-solar renewable sources of electricity, and could harm the growth of the solar electricity industry and our business.

Today, the cost of solar power exceeds retail electricity rates. As a result, federal, state and local government bodies in many countries, most notably Canada, France, Germany, Greece, Italy, Japan, Portugal, South Korea, Spain and the United States, have provided incentives in the form of feed-in tariffs, rebates, tax credits and other incentives to end users, distributors, system integrators and manufacturers of photovoltaic systems to promote the use of solar electricity in on-grid applications and to reduce dependency on other forms of energy. Many of these government incentives expire, phase out over time, terminate upon the exhaustion of the allocated funding or require renewal by the applicable authority. Reductions in, or eliminations or expirations of, governmental incentives could result in decreased demand for and lower revenue from our photovoltaic systems.

For example, Germany has been a strong supporter of photovoltaic products and systems. However, the German Renewable Energy Law, or the EEG, was modified as of January 1, 2009 by the German government and feed-in tariffs were significantly reduced compared with the former legislation. German subsidies decline at a rate of between 8.0% and 10.0%, based on the type of photovoltaic system, instead of between 5.0% and 6.5% per year prior to the effective date of the amendment to the EEG. The rate of decrease is subject to change based upon the overall market growth. The next review of German feed-in tariffs is scheduled for 2012. However, an earlier adjustment is possible following the recent election of a new government. If the German government reduces or eliminates the subsidies under the EEG, demand for photovoltaic products could significantly decline in Germany.

The U.S. government has adopted various incentives, including a 30% federal investment tax credit available to businesses in the United States for the installation of photovoltaic systems. In October 2008, the U.S. Congress extended the 30% federal investment tax credit for both residential and commercial solar installations for eight years, through December 31, 2016. In early 2009, legislation was enacted that creates a new program, through the Department of the Treasury, which provides grants equal to 30% of the cost of solar installations that are placed in service during 2009 and 2010 or that begin construction prior to January 1, 2011 and are placed in service by January 1, 2017. This grant is available in lieu of receiving the 30% federal investment tax credit and, unlike the 30% federal investment tax credit, can be currently utilized even if the recipient does not have federal income tax liability. Although the current legislative and regulatory environment in the United States provides significant incentives for the adoption of solar photovoltaic electricity, changes in these laws or regulations could have a significant adverse impact on the solar photovoltaic industry and our business.

Currently, an advantageous regulatory policy in certain states allows customers to interconnect their photovoltaic systems to the utility grid and offset their electricity purchases with excess solar electricity generation, which is known as net metering. In the absence of net metering regulation, utilities may purchase excess solar electricity at a reduced rate or not at all, thereby diminishing photovoltaic system economics for the system owner. Our ability to sell photovoltaic systems may be adversely impacted by the failure to expand net metering regulations in states which have implemented it, the failure to adopt net metering where it is not currently in place, or any limitation in the number of customer interconnections that utilities are required to allow. Net metering and other operational policies in California or other markets could also limit the amount of photovoltaic systems installed there.

Belgium has several incentive schemes that vary by region, scope and subsidy mechanisms. For example, the Flanders region of Belgium utilizes green certificate remunerations, which in 2009 allowed photovoltaic system owners rebates of 450 Euros/MWh per year for 20 years, with no size limit on projects. These green certificates also allow the photovoltaic system owner to consume or sell the

Table of Contents

electricity generated by the photovoltaic system. In 2010, the payment terms for these green certificates will drop to 350 Euros/MWh, and will drop by an additional 20 Euros every year going forward. As these green certificate subsidies and other similar subsidies decline in Belgium, demand could decline and revenue from this region could decline.

In Ontario, Canada, a new feed-in-tariff program was introduced in September 2009 and replaced the Renewable Energy Standard Offer Program as the primary subsidy program for future renewable energy projects. In order to participate in the Ontario feed-in-tariff program, certain provisions relating to minimum required domestic content and land use restrictions for solar installations must be satisfied. As these rules are currently written, we satisfy the initial domestic content requirements but may be unable to fully satisfy such rules (in particular domestic content requirement rules that are currently scheduled to take effect at the end of 2010) and thus qualify for the Ontario feed-in-tariff. In the event the Ontario domestic content rules are not sufficiently modified, our ability to participate in the Ontario feed-in-tariff program for future projects will be substantially reduced and possibly eliminated, and thus our ability to pursue an expansion strategy in Ontario, Canada would be adversely affected.

Most of our manufacturing equipment is customized, and either we manufacture the equipment ourselves or provide our designs to third-party equipment manufacturers. If we are unable to manufacture our equipment for the costs we have budgeted or if our manufacturing equipment fails, we could experience cost overruns, delays in our expansion plans or disruptions in production and may be unable to satisfy customer demand.

Most of our manufacturing equipment is customized for our production facilities based on designs or specifications that we use either to manufacture the equipment ourselves or provide to third-party equipment manufacturers. As we scale our equipment manufacturing operations, we may be unable to build the equipment for the costs that we have budgeted, which could result in incremental costs. In addition, the equipment that we have built so far and that we intend to continue building has a limited operating history and could fail to perform to specifications or have a shorter than expected operating life. In such cases, we may be forced to redesign, repair or replace this equipment earlier than anticipated which would result in incremental and unexpected equipment costs that could be substantial. If any piece of equipment fails or is damaged, production throughout a facility could be interrupted, and we could be unable to produce enough photovoltaic systems to satisfy customer demand, which in turn could lead to loss of market share and damage to our reputation and customer relationships.

Our sales are based on purchase orders with our customers, both under the terms of framework agreements and on a standalone basis. If customers choose not to place purchase orders for our photovoltaic systems, it would reduce our net sales, which could lead to excess inventory and unabsorbed overhead costs. In addition, we may be forced to lower our prices to generate sales, which would negatively affect our operating results.

Sales to our customers are made on a purchase order basis, both under the terms of framework agreements and on a standalone basis. Our existing framework agreements set forth volume and price expectations over a number of years, but they generally do not result in a firm purchase commitment until a purchase order is issued. The timing of placing these orders and the amounts of these orders are often at our customers' discretion and our ability to convert the preliminary volume expectations contained in our framework agreements into revenue will depend on a number of factors, including the financial condition of our customers and the availability of capital to finance solar projects as well as government subsidy programs for our photovoltaic systems. If our customers cancel, reduce, postpone or fail to make anticipated orders, it would result in the delay or loss of expected sales without allowing us sufficient time to reduce, or delay the incurrence of, our corresponding inventory and operating expenses. Moreover, to reduce our excess inventory, we may be forced to lower the selling prices of our photovoltaic systems, which would result in lower revenue and have an adverse impact on our operating results.

Table of Contents

Problems with product delivery delays or performance could subject us to substantial penalties under our customer agreements, which could harm our business and results of operations.

Our customers may require protections in the form of price reductions, rescheduling of deliveries and similar arrangements that allow them to require us to deliver additional solar panels or reimburse them for losses they suffer as a result of our late delivery or failure to meet agreed upon performance specifications. Delays in delivery of our photovoltaic systems, unexpected performance problems in electricity generation or other events could cause us to fail to meet these contractual commitments, resulting in unanticipated revenue and earnings losses and financial penalties. Failure to meet these commitments could be caused by delays in obtaining necessary materials used in our production process, defects in material or workmanship or unexpected problems in our manufacturing process. The occurrence of any of these events could harm our business and results of operations.

Problems with product quality or product performance may cause us to incur warranty expenses and may damage our market reputation and cause our revenue to decline.

Consistent with standard practice in the solar industry, the duration of our photovoltaic system warranties is lengthy. We provide a limited warranty for defects in materials and workmanship of our panels under normal use and service conditions for five years following the installation of our photovoltaic systems. We also warrant to the owner of our photovoltaic systems that panels, when installed in accordance with our agreed-upon specifications, will have a minimum peak power output under standard test conditions of at least 90% of their initial nameplate panel power rating during the first 10 years following their installation and a minimum peak power output under standard test conditions of at least 80% of their initial nameplate panel power rating during the following 15 years. Due to the long warranty period, we bear the risk of warranty claims long after we have shipped product and recognized revenue.

Because of the limited operating history of our photovoltaic systems, we have been required to make assumptions and apply judgments, based on accelerated life cycle testing conducted to measure performance and reliability, regarding a number of factors, including our anticipated rate of warranty claims, the durability and reliability of our systems and the performance of our hermetic seal in isolating our active solar cell materials from moisture. Our assumptions could prove to be materially different from the actual performance of our systems, causing us to incur substantial expense to repair or replace defective photovoltaic systems in the future. Any widespread product failures may damage our market reputation and cause our revenue to decline.

We may be unable to sustain our growth or manage the expansion of our operations effectively and implement effective controls and procedures.

We have only been in existence since 2005, and much of our growth has occurred in recent periods. We intend to continue to expand our business significantly, including through the expansion of the production capacity at Fab 1 and the development and construction of Fab 2. To manage the expansion of our operations, we will be required to improve our operational and financial systems, procedures and controls and expand, train and manage our growing employee base. Our management will also be required to maintain and expand our relationships with customers, suppliers and other third parties and attract new customers and suppliers, as well as to manage multiple locations. In addition, our current and planned operations, personnel, systems and internal procedures and controls might be inadequate to support our future growth, which would require us to make additional investment in our infrastructure. We may not be able to successfully improve our information and control systems to a level necessary to manage our growth, and we may discover deficiencies in existing systems and controls that we may not be able to remediate in an efficient or timely manner. If we cannot sustain our growth or manage our growth effectively, we may be unable to take advantage of market opportunities, execute our

Table of Contents

business strategies or respond to competitive pressures, and our business, financial condition and results of operations could be harmed. Moreover, we will need to enhance and improve our existing internal control over financial reporting, particularly as we transition from a private to a public company. If we are unable to establish and maintain effective internal controls, our ability to accurately and timely report our financial position, results of operations or cash flows could be impaired, which could result in restatements of our consolidated financial statements or other material effects on our business, reputation, financial condition, results of operations or liquidity.

Our dependence on third-party suppliers for raw materials used in our photovoltaic systems could increase our manufacturing costs.

We may enter into long-term contracts with suppliers in order to ensure adequate supply of certain of the raw materials used in our photovoltaic systems. For example, we have negotiated a multi-year, binding contract directly with a glass supplier for the glass utilized in manufacturing our photovoltaic systems. Under these supply agreements, we may be required to purchase a specified quantity of materials at fixed prices, in some cases subject to upward inflation-related adjustments over a period of several years. We also may be required to make substantial prepayments to suppliers against future deliveries. These types of "take or pay" agreements allow suppliers to invoice us for a percentage of the full purchase price of materials we are under contract to purchase each year, whether or not we actually order the required volume. If for any reason we fail to order the required annual volume under these types of agreements or similar agreements, the resulting monetary damages could harm our business and results of operations. Additionally, long-term contractual commitments also expose us to specific counterparty risk, which can be magnified when dealing with suppliers without a long, stable production and financial history. For example, if one or more of our contractual counterparties is unable or unwilling to provide us with the contracted amount of materials, we could be required to obtain those materials in the spot market, which could be unavailable at that time, or only available at prices in excess of our contracted prices. In addition, in the event any such supplier experiences financial difficulties, it may be difficult or impossible, or may require substantial time and expense, for us to recover any or all of our prepayments.

If we fail to manage distribution of our products properly, or if our value-added resellers' financial condition or operations weaken, our revenue could be adversely affected.

We market and sell our photovoltaic systems directly through value-added resellers, such as large system integrators and roofing materials manufacturers. In order for us to maintain or increase our revenue, we must effectively manage our relationships with value-added resellers.

Several factors could result in disruption of or changes in our distribution model, which could materially harm our revenue, including the following:

- we do not have exclusive arrangements with our value-added resellers, which may lead them to offer competing products that could reduce our sales;
- our value-added resellers may demand that we absorb a greater share of the risks that their customers may ask them to bear, for example by seeking to return products if they are unable to complete projects with the ultimate system owners or obtain long-term financing; and
- our value-added resellers may have insufficient financial resources and may not be able to withstand changes and challenges in business conditions.

In addition, we depend on our value-added resellers to comply with applicable regulatory requirements in the jurisdictions in which they operate. Their failure to do so could have a material adverse effect on our business, and subject us to sanctions by the applicable governmental authority.

Table of Contents

If we are unable to maintain our existing relationships and develop new relationships with value-added resellers, our revenue may be impacted negatively.

We allocate the sale of our photovoltaic systems to key value-added resellers that we believe will allow us to maximize revenue in the future, even if the price at which such sales occur is not the highest price we could currently obtain. We believe that these value-added resellers are industry leaders that will offer us expanded access to segments of the commercial rooftop market. There is intense competition for relationships with value-added resellers, and even if we can establish these relationships, such relationships may not generate significant revenue or may not continue to be in effect for any specific period of time. Although we have previously allocated sales of our photovoltaic systems to these value-added resellers, we cannot assure you that sales to these value-added resellers will increase in the future commensurate with the expected increases in our production capacity. If these relationships fail to materialize as expected, we could suffer delays in product deployment, our revenue could fail to grow or even decrease, and we could fail to achieve widespread adoption of our photovoltaic systems.

We intend to continue to pursue business relationships with key value-added resellers to accelerate the sale and marketing of our photovoltaic systems. To the extent that we are unsuccessful in developing new relationships or maintaining our existing relationships, our future revenue and operating results could be impacted negatively.

We are exposed to the credit risk of some of our customers, as well as credit exposures in weakened markets, which could adversely impact our financial condition and operating results.

Most of our sales to customers are on credit, with typical payment terms ranging from 30 to 60 days. We expect demand for customer financing to continue. During periods of economic downturn in the global economy, our exposure to credit risks from our customers increases. Although we have programs in place to monitor and mitigate the associated risks, such programs may not be effective in reducing our credit risks. In the event of non-payment by one or more of our customers, our business could be materially adversely affected. Additionally, to the extent that the recent turmoil in the credit markets makes it more difficult for customers to obtain credit, our product sales could be adversely impacted, which in turn could have a material adverse impact on our financial condition and operating results.

We face intense competition.

The solar electricity and renewable energy industries are both highly competitive and continually evolving as participants strive to distinguish themselves within their markets and compete with the larger electric power industry. We believe that our main sources of competition are crystalline silicon photovoltaic systems manufacturers and other thin film photovoltaic systems manufacturers.

Within the solar industry, we face competition from crystalline silicon photovoltaic cell and panel manufacturers, including BP Solar International Inc., General Electric Company, Sanyo North America Corporation, Sharp Electronics Corporation, SolarWorld AG, SunPower Corporation, Yingli Green Energy Holding Company Limited and Suntech Power Holdings Co., Ltd. The thin film component of the industry is largely made up of a broad mix of technology platforms at various stages of development, and consists of a large and growing number of medium- and small-sized companies. Competition from thin film photovoltaic system manufacturers includes First Solar, Inc. and United Solar Ovonic, LLC, and several crystalline silicon manufacturers who are developing thin film technologies. In addition, several emerging companies are pursuing a variety of methods to make CIGS-based thin film solar products and possibly compete in the commercial rooftop segment. These companies include AVANCIS GmbH & Co. KG, Honda Soltec Co., Ltd., MiaSolé, NanoSolar, Inc., Showa Shell Solar K.K. and Würth Solar GmbH & Co. We may also face competition from semiconductor equipment manufacturers, semiconductor manufacturers or their customers, several of which have already entered the solar photovoltaic market.

Table of Contents

Some of our existing and potential competitors have substantially greater financial, technical, manufacturing and other resources than we do. The greater size of some of our competitors may provide them with a competitive advantage because they can realize economies of scale and purchase certain raw materials at lower prices. As a result of their greater size, some of our competitors may be able to devote more resources to the research, development, promotion and sale of their products or respond more quickly to evolving industry standards and changes in market conditions than we can. A number of our competitors also have greater brand name recognition, more established distribution networks and larger customer bases. In addition, a number of our competitors have well-established relationships with our current and potential customers and have extensive knowledge of our target markets.

As photovoltaic system manufacturers expand their operations and the supply of silicon increases, the corresponding increase in the global supply of solar photovoltaic products may cause substantial downward pressure on the prices of photovoltaic systems, resulting in lower revenue.

Even if demand for photovoltaic systems continues to grow, the rapid expansion plans of many photovoltaic systems manufacturers could create periods where photovoltaic system supply exceeds demand. In addition, we believe that the significant increase in the supply, and the resulting significant decrease in cost, of silicon will result in substantial reductions in the manufacturing cost of crystalline silicon based photovoltaic systems and lead to pricing pressures on photovoltaic systems and potential oversupply.

If confronted with such downward pricing pressures, our competitors could decide to reduce the sales price of their photovoltaic systems, even below their manufacturing cost, to generate sales. As a result, we might be forced to reduce the sales prices of our systems, which, absent a commensurate increase in our manufacturing efficiency and production output or decrease in our manufacturing costs, could result in lower revenue, harm our financial condition and results of operations and prevent us from achieving profitability.

The success of our business depends on the continuing contributions of our key personnel and our ability to attract and retain new qualified employees in a competitive labor market.

We have attracted a highly skilled management team and specialized workforce, including scientists, engineers, researchers and manufacturing and marketing professionals. If we were to lose the services of any of our executive officers or key employees, particularly Dr. Christian Gronet, our founder and Chief Executive Officer, our business could be harmed. With the exception of Dr. Gronet, we do not carry key person life insurance on any of our senior management or other key personnel.

Our future success depends, to a significant extent, on our ability to attract, train and retain technical personnel. Recruiting and retaining capable personnel, particularly those with expertise in the solar power industry, thin film technology, CIGS and manufacturing processes, is vital to our success. Competition for personnel is intense, and qualified technical personnel are likely to remain a limited resource for the foreseeable future. Locating candidates with the appropriate qualifications can be costly and difficult. We may not be able to hire the necessary personnel to implement our business strategy given our anticipated hiring needs, or we may need to provide higher compensation or more training to our personnel than we currently anticipate. Moreover, any employee, including our officers, can terminate his or her relationship with us at any time. If we are unable to replace critical employees in a timely manner, or at all, our business may suffer.

If we fail to protect our intellectual property rights adequately, our competitive position may be undermined.

Our ability to compete effectively against competing solar power technologies will depend, in part, on our ability to protect our current and future proprietary technology, product designs and

Table of Contents

manufacturing processes by obtaining, maintaining and enforcing our intellectual property rights through a combination of patents, copyrights, trademarks and trade secrets and also through unfair competition laws. We may not be able to obtain, maintain or enforce adequately our intellectual property and may need to defend against infringement or misappropriation claims, either of which could materially harm our business and prospects. We face numerous risks relating to our intellectual property rights, including:

- our pending U.S. and foreign patent applications may not result in issued patents, and the claims in our issued patents may not be sufficiently broad to prevent others from developing or using technology similar to ours or in developing, using, manufacturing, marketing or selling products similar to ours;
- given the costs of obtaining patents, we may choose not to file patent applications or not to maintain issued patents for certain innovations that later turn out to be important, or we may choose not to obtain foreign patent protection at all or in certain foreign countries, which later turn out to be important markets for us;
- we have no issued patents in any foreign jurisdictions and, even if our pending or future patent applications result in the issuance of foreign patents, the laws of some foreign jurisdictions do not protect intellectual property rights to the same extent as laws in the United States, and we may encounter difficulties in protecting and defending our rights in such foreign jurisdictions;
- our patents and other intellectual property rights may not be sufficient to deter infringement or misappropriation of our intellectual property rights by others;
- third parties may design around our patented technologies, independently develop substantially equivalent proprietary information, products and techniques or otherwise gain access to our proprietary information;
- third parties may seek to challenge or invalidate our patents, and if they are successful, the claims in our patents may be narrowed or our patents may be invalidated or rendered unenforceable;
- we may have to participate in proceedings such as interference, cancellation or opposition, before the U.S. Patent and Trademark Office, or before foreign patent and trademark offices, with respect to our patents, patent applications, trademarks or trademark applications or those of others, and these actions may result in substantial costs to us as well as a diversion of management attention;
- we may need to enforce our intellectual property rights against third parties for infringement or misappropriation or defend our intellectual property rights through lawsuits, which can result in significant costs and diversion of management resources, and we may not be successful in those lawsuits or obtain adequate remedies for any infringement or misappropriation that occurs;
- while we rely on trade secret protection to protect our interests in proprietary know-how and processes for which patents are difficult to obtain or enforce, we may not be able to protect our trade secrets adequately; and
- the contractual provisions on which we rely to protect our trade secrets and proprietary information, such as our confidentiality and non-disclosure agreements with our employees, consultants and other third parties, may be breached, and our trade secrets and proprietary information may be disclosed to competitors, strategic third parties and the public, or others may independently develop technology equivalent to our trade secrets and proprietary information.

We may be exposed to infringement or misappropriation claims by third parties, which, if determined adversely to us, could cause us to pay significant damage awards or prohibit us from the manufacture and sale of our photovoltaic systems or the use of our technology.

In recent years, there has been significant litigation involving patents and other intellectual property rights in many technology-related industries. There may be patents or patent applications in the United

Table of Contents

States or other countries that are pertinent to our systems or business of which we are not aware. The technology that we incorporate into and use to develop and manufacture our current and future products may be subject to claims that they infringe the patents or proprietary rights of others. The success of our business will depend on our ability to develop new technologies without infringing or misappropriating the proprietary rights of others. Third parties may allege that we infringe patents, trademarks or copyrights, or that we have misappropriated trade secrets, and they could have significantly more resources to devote to any resulting enforcement actions. These allegations could result in significant costs and diversion of the attention of management.

If a claim were brought against us, and we are found to infringe a third party's intellectual property rights, we could be required to pay substantial damages, including treble damages if it is determined that we have willfully infringed such rights, or be enjoined from using the technology deemed to be infringing or using, making or selling products deemed to be infringing. If we have supplied infringing products or technology to any of our customers, we may be obligated to indemnify those customers for damages they may be required to pay to the patent holder and for any losses they may sustain as a result of the infringement. In addition, we may need to attempt to license the intellectual property rights from the patent holder or spend time and money to design around or avoid the intellectual property. Any such license may not be available on reasonable terms, or at all, and our efforts to design around or avoid the intellectual property may be unsuccessful. Regardless of the outcome, litigation can be very costly and can divert management's efforts. Protracted litigation could also result in our customers or potential customers deferring or limiting their purchase or use of our systems until resolution of such litigation. An adverse determination may subject us to significant liabilities and disrupt our business.

Existing regulations and changes to such regulations concerning the electric utility industry may present technical, regulatory and economic barriers to the purchase and use of photovoltaic systems, which may significantly reduce demand for our photovoltaic systems.

The market for electricity generation products is heavily influenced by federal, state, local and foreign government regulations and policies concerning the electric utility industry, as well as internal policies and regulations promulgated by electric utilities. These regulations and policies often relate to electricity pricing and technical interconnection of customer-owned electricity generation. In the United States and in a number of other countries, these regulations and policies are being modified and may continue to be modified. Customer purchases of, or further investment in the research and development of, alternative energy sources, including photovoltaic technology, could be deterred by these regulations and policies, which could result in a significant reduction in the potential demand for our photovoltaic systems. For example, utility companies commonly charge fees to larger, industrial customers for disconnecting from the electric grid or for having the capacity to use power from the electric grid for back-up purposes. These fees could increase the cost to our customers of using our systems and make them less desirable, thereby harming our business, prospects, financial condition and results of operations. In addition, electricity generated by photovoltaic systems mostly competes with expensive peak-hour electricity from the electric grid, rather than the less expensive average price of electricity. Modifications to the peak hour pricing policies of utilities, such as to a flat rate, would require photovoltaic systems to achieve lower prices in order to compete with the price of electricity from the electric grid.

Our photovoltaic systems and their installation will be subject to oversight and regulation in accordance with national, state and local laws and ordinances relating to building codes, safety, environmental protection, utility interconnection and metering and related matters. It is difficult to track the requirements of individual governmental authorities and design equipment to comply with the varying standards. Any new government regulations or utility policies pertaining to our systems may result in significant additional expenses to us and our customers and distributors and their customers and, as a result, could cause a significant reduction in demand for our systems.

Table of Contents

Compliance with environmental regulations can be expensive, and noncompliance with these regulations may result in potentially significant monetary damages and penalties and adverse publicity.

Our operations involve the use, handling, generation, processing, storage, transportation and disposal of hazardous materials and are subject to extensive environmental laws and regulations at the national, state, local and international level. Such environmental laws and regulations include those governing the discharge of pollutants into the air and water, the use, management and disposal of hazardous materials and wastes, the cleanup of contaminated sites and occupational health and safety. We have incurred, and will continue to incur, costs in complying with these laws and regulations. Any failure by us to control the use of or generation of, limit exposure to, or to restrict adequately the discharge or disposal of, hazardous substances or wastes or to otherwise comply with the complex, technical environmental laws and regulations governing our activities could subject us to potentially significant monetary damages and penalties, criminal proceedings, third-party property damage or personal injury claims, natural resource damage claims, cleanup costs or other costs, or restrictions or suspensions of our business operations. In addition, under some foreign, federal and state statutes and regulations governing liability for releases of hazardous substances or wastes to the environment, a governmental agency or private party may seek recovery of response costs or damages from generators of the hazardous substances or operators of property where releases of hazardous substances have occurred or are ongoing, even if such party was not responsible for the release or otherwise at fault. Also, federal, state or international environmental laws and regulations may ban or restrict the availability and use of certain hazardous or toxic raw materials, such as cadmium, that are or may be used in producing our systems, or placing on the market products that contain certain hazardous or toxic materials in concentrations or amounts that exceed allowable limits, and substitute materials may be more costly or unsatisfactory in performance. Federal, state or international environmental laws and regulations may require us in the future to collect our products from system owners for recycling or disposal at the end of their life cycle and the costs associated with such product take-back requirements could be material to our financial condition or results of operations. While we are not aware of any outstanding, material environmental claims, liabilities or obligations, future developments such as the implementation of new, more stringent laws and regulations, more aggressive enforcement policies, or the discovery of unknown environmental conditions associated with our current or past operations or properties may require expenditures that could harm our business, financial condition or results of operations. Any noncompliance with or incurrence of liability under environmental laws may subject us to adverse publicity, damage our reputation and competitive position and adversely affect sales of our systems.

Compliance with occupational safety and health requirements and best practices can be costly, and noncompliance with such requirements may result in potentially significant monetary penalties and adverse publicity.

Our manufacturing operations and research and development activities involve the use of mechanical equipment and hazardous chemicals, which involve a risk of potential injury to our employees. These operations are subject to regulation under the U.S. Occupational Safety and Health Act. If we fail to comply with these regulations, or if an employee injury occurs, we may be required to pay substantial penalties, incur significant capital expenditures, suspend or limit production or cease operations. Also, any such violations, employee injuries or failure to comply with industry best practices may subject us to adverse publicity, damage our reputation and competitive position and adversely affect sales of our systems.

Product liability claims against us could result in adverse publicity and potentially significant monetary damages.

Like other retailers, distributors and manufacturers of products that are used by consumers, we face an inherent risk of exposure to product liability claims in the event that the use of the photovoltaic systems we sell results in injury to consumers or our customers. Because our photovoltaic systems are

Table of Contents

electricity producing devices, it is possible that consumers or our customers could be injured or killed by our systems, whether by product malfunctions, defects, improper installation or other causes. In addition, since we have a limited operating history and the products we are selling incorporate new technologies and use new installation methods, we cannot predict whether or not product liability claims will be brought against us in the future or the effect of any resulting adverse publicity on our business. We rely on our general liability insurance to cover product liability claims and have not obtained separate product liability insurance. The successful assertion of product liability claims against us could result in potentially significant monetary damages, and if our insurance protection is inadequate to cover these claims, we could be required to make significant payments. Also, any product liability claims and any adverse outcomes with respect thereto may subject us to adverse publicity, damage our reputation and competitive position and adversely affect sales of our systems.

We have significant international activities, which subject us to a number of risks.

We expect that revenue from customers outside of the United States will continue to represent a substantial portion of our total revenue for the foreseeable future, and we may seek to establish manufacturing facilities in international locations. Risks inherent to international operations include the following:

- multiple, conflicting and changing laws and regulations, including export and import restrictions, tax laws and regulations, environmental regulations, labor laws and other government requirements, approvals, permits and licenses;
- difficulties in enforcing agreements in foreign legal systems;
- difficulties and costs in staffing and managing foreign operations;
- difficulties and costs in recruiting and retaining individuals skilled in international business operations;
- financial risks, such as longer sales and payment cycles and greater difficulty collecting accounts receivable;
- fluctuations in currency exchange rates relative to the U.S. dollar;
- inability to obtain, maintain or enforce intellectual property rights;
- changes in general economic and political conditions in the countries in which we operate, including changes in government incentives relating to solar electricity;
- risk of nationalization of private enterprises; and
- political and economic instability, including wars, acts of terrorism, political unrest, boycotts, curtailments of trade and other business restrictions.

Doing business in foreign markets requires us to be able to respond to rapid changes in market conditions in these countries. The success of our business will depend, in part, on our ability to succeed in differing legal, regulatory, economic, social and political environments. We may not be able to develop and implement policies and strategies that will be effective in each location where we do business.

Fluctuations in foreign currency exchange rates could decrease our revenue or increase our expenses.

We expect that a substantial portion of our total revenue for the foreseeable future will be generated outside the United States. We presently have currency exposure arising from both sales and purchases denominated in foreign currencies. For example, for the nine months ended October 3, 2009, 66% of our revenue was denominated in Euro and our revenue benefited from a strong Euro. We are exposed to the risk of a decrease in the value of these foreign currencies relative to the U.S. dollar, which would decrease our total revenue. Changes in exchange rates between foreign currencies and the U.S. dollar may harm our operating results. For example, if these foreign currencies appreciate against the U.S. dollar, it will make it more expensive in terms of U.S. dollars to purchase inventory or pay expenses with foreign currencies. In addition, currency devaluation can result in a loss to us if we hold deposits of that currency. An increase in the value of the U.S. dollar relative to foreign currencies could make our systems more expensive for our international customers, which we typically expect to purchase our photovoltaic systems in U.S. dollars, than locally manufactured products, thus potentially leading to a reduction in our sales. Furthermore, many of our competitors are foreign companies that could benefit from such a currency fluctuation, making it more difficult for us to compete with those companies. The forward contracts we from time to time use to protect against the foreign currency exchange rate risk inherent in our equipment purchases denominated in currencies other than the U.S. dollar may not adequately cover our exposure.

Our ability to use our net operating losses to offset future taxable income may be subject to certain limitations.

In general, under Section 382 of the Internal Revenue Code of 1986, as amended, or the Internal Revenue Code, a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its pre-change net operating losses, or NOLs, to offset future taxable income. Our existing NOLs may be subject to limitations arising from previous ownership changes, and if we undergo an ownership change in connection with or after this offering, our ability to utilize NOLs could be further limited by Section 382 of the Internal Revenue Code. Future changes in our stock ownership, some of which are beyond our control, could result in an ownership change under Section 382 of the Internal Revenue Code. Furthermore, our ability to utilize NOLs of any companies that we may acquire in the future may be subject to limitations. For these reasons, in the event we experienced a change of control, we may not be able to utilize a material portion of the NOLs reflected on our balance sheet, even if we attain profitability.

Our business could be adversely affected by seasonal trends and construction cycles.

We may be subject to industry-specific seasonal fluctuations in the future, particularly in climates that experience colder weather during the winter months, such as Belgium, Canada, Germany and the United States. There are various reasons for seasonality fluctuations, mostly related to economic incentives and weather patterns. For example, in European countries with feed-in tariffs, the construction of photovoltaic systems may be concentrated during the second half of the calendar year, largely due to the annual reduction of the applicable minimum feed-in tariff and the fact that the coldest winter months are January through March. In the United States, customers will sometimes make purchasing decisions towards the end of the year in order to take advantage of tax credits or for budgetary reasons. In addition, construction levels are typically slower in colder months. Accordingly, our business and quarterly results of operations could be affected by seasonal fluctuations in the future.

Our headquarters and other facilities are located in an active earthquake zone, and an earthquake or other types of natural disasters or resource shortages could disrupt and harm our results of operations.

We conduct our operations in the San Francisco Bay Area in an active earthquake zone. In addition, California from time to time has experienced shortages of water, electric power and natural gas. The occurrence of a natural disaster, such as an earthquake, drought, flood or localized extended outages of critical utilities or transportation systems, or any critical resource shortages, could cause a significant interruption in our business, damage or destroy our facilities, manufacturing equipment or inventory and cause us to incur significant costs, any of which could harm our business, financial condition and results of operations. The insurance we maintain against fires, earthquakes and other natural disasters may not be adequate to cover our losses in any particular case.

Table of Contents

Risks Related to This Offering and to Our Common Stock

Our share price may be volatile and you may be unable to sell your shares at or above the initial public offering price.

The initial public offering price for our shares will be determined by negotiations between us and representatives of the underwriters and may not be indicative of prices that will prevail in the trading market. The market price of shares of our common stock could be subject to wide fluctuations in response to many risk factors listed in this section, and others beyond our control, including:

- delays or other changes in our expansion plans;
- actual or anticipated fluctuations in our financial condition and operating results;
- our cash and short-term investment position;
- actual or anticipated fluctuations in our growth rate relative to our competitors;
- actual or anticipated fluctuations in our competitors' operating results or changes in their growth rate;
- announcements of technological innovations or new products by us or our competitors;
- adverse announcements regarding product performance;
- reductions in the retail price of electricity;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- additions or losses of customers;
- additions or departures of key personnel;
- competition from existing products or new products that may emerge;
- the failure of securities analysts to cover our common stock after this offering or updates or changes in financial estimates or recommendations by securities analysts;
- the inability to meet the financial estimates of securities analysts who follow our common stock;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- disputes or other developments related to our intellectual property rights, including litigation, and our ability to obtain and maintain patent protection for our technologies;
- changes in laws, regulations and policies applicable to our business and products, particularly those relating to government incentives for on-grid solar electricity applications;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us or our stockholders;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- general market conditions in our industry and the industries of our customers; and
- general economic and market conditions.

Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and

Table of Contents

market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of shares of our common stock. If the market price of shares of our common stock after this offering does not exceed the initial public offering price, you may not realize any return on your investment in us and may lose some or all of your investment. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

No public market currently exists for our common stock, and an active trading market may not develop or be sustained following this offering.

Prior to this offering, there has been no public market for our common stock. Although we have applied to have our common stock listed on , an active public trading market for our common stock may not develop or, if it develops, may not be sustained after this offering. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable. The lack of an active market may also reduce the fair market value of your shares. An inactive market may also impair our ability to raise capital to continue to fund operations and may impair our ability to acquire other companies or technologies by using our shares as consideration.

Public investors will experience immediate and substantial dilution as a result of this offering.

The initial public offering price will be substantially higher than the net tangible book value per share of shares of our common stock immediately following this offering. Therefore, if you purchase common stock in this offering, you will experience immediate and substantial dilution of your investment. Based upon the issuance and sale of shares of common stock by us at an assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), you will incur immediate dilution of approximately $ in the net tangible book value per share if you purchase shares of our common stock in this offering.

We also have approximately outstanding stock options and warrants to purchase common stock with exercise prices that are below the assumed initial public offering price of the common stock. To the extent that these options and warrants are exercised, you will experience further dilution. For further information, see the "Dilution" section of this prospectus.

A significant portion of our total outstanding shares of common stock is restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our common stock to drop significantly.

Sales of a substantial number of shares of our common stock in the public market could occur at any time following this offering, subject to certain securities law restrictions and the terms of contractual lock-up agreements. Sales of shares of our common stock, or the perception in the market that the holders of a large number of shares of common stock intend to sell shares, could reduce the market price of our common stock. After this offering, we will have outstanding shares of common stock. Of these shares, if Argonaut Ventures I, L.L.C., or Argonaut, were to purchase all of the shares it has the right to purchase, shares are or will be currently restricted from transfer under securities laws or pursuant to lock-up agreements described in the "Underwriting" and "Certain Relationships and Related Party Transactions" sections of this prospectus, but will be able to be resold after the offering as described in the "Shares Eligible for Future Sale" section of this prospectus. As of October 3, 2009, our three largest stockholders beneficially own 56.9% of our outstanding common stock, as calculated on an as-converted basis. If one or more of them were to sell a substantial portion of the shares they hold, the market price of our common stock could decline.

Table of Contents

Moreover, after this offering, holders of an aggregate of shares of our common stock will have rights, subject to certain conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. If such rights are exercised, once we register these shares, they can be freely sold in the public market, subject, if applicable, to the lock-up agreements described in the "Underwriting" section of this prospectus.

After this offering, we intend to register approximately shares of common stock that we have issued or may issue under our equity plans. Once we register these shares, they can be freely sold in the public market upon issuance and once vested, subject, if applicable, to the lock-up agreements described in the "Underwriting" section of this prospectus.

If securities or industry analysts do not publish research or publish misleading or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. If no or few securities or industry analysts commence coverage of our company, the trading price and liquidity for our stock could be negatively impacted. In the event we obtain securities or industry analyst coverage, if one or more of the analysts who covers us downgrades our stock or publishes misleading or unfavorable research about our business, our stock price would likely decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which could cause our stock price or trading volume to decline.

Our directors, officers and principal stockholders will continue to have substantial control over us after this offering, which may limit our stockholders' ability to influence corporate matters and delay or prevent a third party from acquiring control over us.

Upon completion of this offering, if Argonaut were to purchase all of the shares it has the right to purchase, our directors, officers and existing stockholders who hold at least 5% of our stock will beneficially own, in the aggregate, approximately % of our outstanding common stock, compared to % represented by the shares sold in this offering, assuming no exercise of the underwriters' over-allotment option. As of October 3, 2009, our three largest stockholders beneficially own 56.9% of our outstanding common stock, as calculated on an as-converted basis. As a result, these stockholders will be able to exercise influence over all matters requiring stockholder approval, including the election of directors and approval of corporate transactions, such as a merger or other sale of our company or its assets. This concentration of ownership will limit your ability to influence corporate matters and could delay or prevent a third party from acquiring control over us. For information regarding the ownership of our outstanding stock by our executive officers and directors and their affiliates, please see the section titled "Principal Stockholders."

If Argonaut purchases all of the shares that it has the right to purchase, it would reduce the available public float for our shares.

Argonaut, which together with its affiliates beneficially owns approximately 35.7% of our outstanding common stock on an as-converted basis, has the right to purchase from us up to 15% of the aggregate number of shares offered in this offering at the initial price to the public, but is under no obligation to purchase any shares. If Argonaut were to purchase all of these shares, Argonaut would beneficially own approximately % of our outstanding common stock after this offering and our directors, officers and existing stockholders who hold at least 5% of our stock would beneficially own, in the aggregate, approximately % of our outstanding common stock after this offering, based on shares of common stock outstanding after this offering, assuming no exercise of the underwriters over-allotment option.

Table of Contents

If Argonaut purchases all or a portion of the shares it has the right to purchase, such purchase would reduce the available public float for our shares because Argonaut would be restricted from selling the shares by restrictions under applicable securities laws and contractual lock-up provisions. As a result, any purchase of shares by Argonaut may reduce the liquidity of our common stock relative to what it would have been had these shares been purchased by investors that were not affiliated with us.

We will incur increased costs and our management will face increased demands as a result of operating as a public company.

We have never operated as a public company. As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, as well as related rules implemented by the U.S. Securities and Exchange Commission, or the SEC, and , impose various requirements on public companies. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect these rules and regulations to make it more expensive for us to maintain director and officer liability insurance. As a result, it may be more difficult for us to attract and retain qualified individuals to serve on our board of director or as our executive officers.

In addition, the Sarbanes-Oxley Act requires, among other things, that we maintain effective internal control over financial reporting and disclosure controls and procedures. In particular, we must perform system and process evaluation and testing of our internal control over financial reporting to allow management and our independent registered public accounting firm to report on the effectiveness of our internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. Our compliance with Section 404 will require that we incur substantial accounting expense and expend significant management time on compliance-related issues. We will need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge. Moreover, if we are not able to comply with the requirements of Section 404 in a timely manner, our stock price could decline, and we could face sanctions, delisting or investigations by , or other material effects on our business, reputation, results of operations, financial condition or liquidity.

Our management will have broad discretion over the use of the proceeds we receive in this offering and might not apply the proceeds in ways that increase the value of your investment.

Our management will have broad discretion to use the net proceeds from this offering, and you will be relying on the judgment of our management regarding the application of these proceeds. Our management might not apply the net proceeds of this offering in ways that increase the value of your investment. We intend to use the net proceeds from this offering to fund costs of Phase II of Fab 2 and any remaining balance for general corporate purposes, including for working capital, repayment of amounts, if any, drawn under our existing revolving loan facility with Argonaut and additional capital expenditures. We may also use a portion of our net proceeds to fund acquisitions of complementary businesses, products or technologies. We have not allocated these net proceeds for any specific purposes. Our management might not be able to yield a significant return, if any, on any investment of these net proceeds. You will not have the opportunity to influence our decisions on how the net proceeds from this offering are used.

Because we do not intend to pay dividends on our common stock, stockholders will benefit from an investment in our common stock only if it appreciates in value.

We have never declared or paid any cash dividends on our common stock. We anticipate that we will retain our future earnings, if any, to support our operations and to finance the growth and

Table of Contents

development of our business and do not expect to pay cash dividends in the foreseeable future. As a result, the success of an investment in our common stock will depend upon appreciation in the value of our common stock. There is no guarantee that our common stock will appreciate in value or even maintain its current price. Investors seeking cash dividends should not invest in our common stock.

Anti-takeover provisions in our charter documents and Delaware law could discourage, delay or prevent a change in control of our company and may affect the trading price of our common stock.

Our amended and restated certificate of incorporation and bylaws to be effective upon the closing of this offering will contain provisions that could have the effect of rendering more difficult or discouraging an acquisition deemed undesirable by our board of directors. Our corporate governance documents will include the following provisions:

- authorizing blank check preferred stock, which could be issued with voting, liquidation, dividend and other rights superior to our common stock;
- limiting the liability of, and providing indemnification to, our directors and officers;
- limiting the ability of our stockholders to call and bring business before special meetings and to take action by written consent in lieu of a meeting;
- requiring advance notice of stockholder proposals for business to be conducted at meetings of our stockholders and for nominations of candidates for election to our board of directors;
- establishing a classified board of directors, as a result of which the successors to the directors whose terms have expired will be elected to serve from the time of election and qualification until the third annual meeting following their election;
- requiring that directors only be removed from office for cause; and
- limiting the determination of the number of directors on our board and the filling of vacancies or newly created seats on the board to our board of directors then in office.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the Delaware General Corporation Law, which prevents some stockholders holding more than 15% of our outstanding common stock from engaging in certain business combinations without the prior approval of our board of directors or the holders of substantially all of our outstanding common stock.

These provisions of our charter documents and Delaware law, alone or together, could delay or deter hostile takeovers and changes in control or changes in our management. Any provision of our amended and restated certificate of incorporation or bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock. Even in the absence of a takeover attempt, the existence of these provisions may adversely affect the prevailing market price of our common stock if they are viewed as discouraging takeover attempts in the future.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This prospectus includes forward-looking statements. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations and financial position, business strategy and plans and our objectives for future operations, are forward-looking statements. The words "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "expect" and similar expressions are intended to identify forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in the "Risk Factors" section of this prospectus. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Before investing in our common stock, investors should be aware that the occurrence of the risks, uncertainties and events described in the section entitled "Risk Factors" and elsewhere in this prospectus could have a material adverse effect on our business, results of operations and financial condition.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations.

This prospectus also contains statistical data and estimates, including those relating to market size and growth rates of the markets in which we participate, that we obtained from industry publications and reports generated by the California Renewable Energy Transmission Initiative, the Database of State Incentives for Renewables & Efficiency, Ecofys, Euromonitor, Freedonia Group, iSuppli, the National Renewable Energy Laboratory, Navigant Consulting, Navigant Consulting PV Services, New Energy Finance, the U.S. Energy Information Administration and Solarbuzz. These data and estimates involve a number of assumptions and limitations, and you are cautioned not to give undue weight to them. These publications typically indicate that they have obtained their information from sources they believe to be reliable, but do not guarantee the accuracy and completeness of their information. Although we have assessed the information in the publications and found it to be reasonable and believe the publications are reliable, we have not independently verified their data and, accordingly, we cannot guarantee their accuracy or completeness. In addition, projections, assumptions and estimates of the future performance of the industries in which we operate and the markets we serve are necessarily subject to a high degree of uncertainty and risk.

Document

71

1213

To: [redacted]
Subject: RE: DOE Loan Guarantees status update

The story made it onto the WSJ, as well.

http://www.greentechmedia.com/articles/read/how-does-the-u.s.-taxpayer-make-out-in-the-solyndra-affair/

http://online.wsj.com/article/SB10001424052748704629804575324831312703468.html?mod=googlenews_wsj

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From: [redacted]
Sent: Wednesday, June 23, 2010 9:32 AM
To: [redacted]
Cc: [redacted]
Subject: Re: DOE Loan Guarantees status update

A couple of minor nits:

1. It might be worth reading some of the press on Solyndra (e.g., Silicon Valley Mercury New, Greentech Media). Some are already indicating this is a black eye for the Administration. There's not a lot of substance yet, but there may be some fall out (letters, correspondence).

2. On [redacted] there are two points: [redacted]

From: [redacted]
To: [redacted]
Cc: [redacted]
Sent: Wed Jun 23 08:30:41 2010
Subject: RE: DOE Loan Guarantees status update

Great update – I have no comments. Send to [redacted] when ready (subject to others' comments).

Thanks.

From: [redacted]
Sent: Tuesday, June 22, 2010 11:20 PM
To: [redacted]
Cc: [redacted]
Subject: DOE Loan Guarantees status update

In light of [redacted] request (via [redacted] earlier this evening, below are some updates on T17, from our weekly call this Monday, as well as various developments over the course of the week. I don't have my notes with me, but will update the running to-do list tomorrow morning in anticipation of update meeting with [redacted] Let me know if you have any feedback on this and if you'd like me to send this up.

Current Loans:

- Solyndra: has canceled its much anticipated $300m IPO, and has instead raised less capital from its existing shareholders, in the form of debt. Although it has been explained as a function of market conditions, it is something of a black eye for the company. It does however temporarily alleviate some of the cash burn

1214

concerns we've raised in the past. The challenges Solyndra is having should be used to insist that DOE ramp up its monitoring function immediately; if DOE does not stay on top of this project, it risks becoming embarrassing given the high profile S-1, POTUS and VPOTUS events over the past year.

Closings (Gate 3):

[redacted]

Pending Gate 2's:

[redacted]

Current Conditional Commitments Updates:

[redacted]

[redacted]

Other [redacted]

[redacted]
Program Examiner
Energy Branch
Office of Management & Budget

Tel: [redacted]
Email: [redacted]

Document

72

[redacted]

From: [redacted]
Sent: Thursday, February 10, 2011 2:05 PM
To: [redacted]
Subject: Solyndra

Dear [redacted]

Treasury staff has learned from the Office of Management and Budget that the Department of Energy is close to implementing a set of adjustments to the Solyndra Loan Guarantee Agreement in response to Solyndra's financial condition. We understand that these adjustments may include subordination of Solyndra's $535 million reimbursement obligation to DOE and possibly the forgiveness of interest. Unless DOE has other authorities, these adjustments may require approval of the Department of Justice pursuant to 31 USC 3711 and 31 CFR Part 902. Unless other authorities exist, this statute rests with DOJ the authority to accept the compromise of a claim of the U.S. Government in those instances where the principal balance of a debt exceeds $100,000. Let me know if you need the name of a contact at DOJ.

Will you be referring the contemplated adjustment to DOJ or are there other authorities that DOE is using to compromise this debt?

Please let us know if the FFB can be of any assistance as you move forward. If you need to modify any FFB agreements, please let me know.

Sincerely,
[redacted]

Document 73

From: [redacted]
To: [redacted]
Cc:
Subject: CRB Presentation
Date: Monday, December 15, 2008 11:19:46 AM
Attachments: Three Highest Priorities 12.16.08.doc
Importance: High

[redacted]

Attached is the draft presentation for the CRB tomorrow that provides an update on Solyndra, Front-End and Nuclear. Let me know if you have additional information that should be included - or changes.

Thanks!

[redacted]

TITLE XVII LOAN GUARANTEE PROGRAM
THREE HIGHEST PRIORITIES THROUGH JANUARY 15, 2008

I. PRESENTATION OF THE SOLYNDRA PROJECT TO THE CRB FOR APPROVAL BY JANUARY 15TH.

Due Diligence: Proceeding on schedule. LGPO and GC will meet with Solyndra and its associated advisors on December 17-18 to discuss and negotiate terms and conditions.

Independent Engineer: On December 22nd, the independent engineer will provide the LGPO with an outline of their engineering report and will also identify issues. A draft engineering report is expected the week of January 5th.

Marketing Consultant: will not be available through "sources sought" by January but the LGPO has obtained two "off the shelf" studies which will be sufficient for the CRB including an European study and a domestic study. We will make the independent marketing consultant study a condition precedent (CP) to ultimate closing. The same will be the case for the NEPA FONSI report, a CP to closing. 542

Outside Counsel: Outside counsel is on-board as of December 11th.

Term Sheet Template: has not been agreed with GC which is an integral part of the approval documentation and forms the basis of the final negotiations with the client.

II. FRONT END NUCLEAR RECOMMENDATION TO THE CRB BY JANUARY 15TH.

Independent Engineer: LGPO staff travelled to OakRidge December 9-12 to launch the independent engineer study for both USEC and AREVA.

NEPA: A DOE NEPA regulation (10 CFR Part 1021, Section 216) report is required for the Front End Solicitation due to the oversubscription of a limited allocation available among the applicants. The LGPO NEPA staff assures that this report can be completed by January 15th without the necessity for any outside assistance.

Programmatic Counsel: GC support is required to assist in the due diligence process. Specifically, assistance is required to review the completed Part II submissions as well as structuring issues. LGPO will provide GC Friday December 5, 2008 with a recommended list for programmatic counsel as well as a proposed scope of work. This effort must be handled on a programmatic basis, there is insufficient time to handle this through the "sources sought" process. Programmatic counsel must be identified and on board within the week of December 15, 2008 latest to meet the January 15th schedule and can be funded by the LGPO or the GC office. 543

III. NUCLEAR POWER FACILITIES RECOMMENDATION TO THE CRB BY JANUARY 15TH TO PROCEED ON DUE DILIGENCE FOR A SELECTED NUMBER OF THE APPLICANTS.

Status of Applications: Part II applications are due on Friday December 19th. To date, the LGPO has received one Part II application. LGPO will commence work on the Part IIs on a rolling basis as they are received.

Programmatic Consultants: Since approval is being sought to proceed with due diligence only, there is not the need for programmatic consultants with the exception of the need for GC involvement and support.

Programmatic Counsel: GC support is required to assist in the evaluation of the Part II applications. Particular nuclear experience is desired and therefore, this requirement must be serviced by some form of programmatic counsel funded either by the LGPO or the GC office. This issue must be resolved within the week of December 15, 2008 latest to meet the January 15th schedule.

544

Document

74

[redacted]

From: [redacted]
Sent: Thursday, August 20, 2009 4:35 PM
To: [redacted]
Cc:
Subject: RE: Solyndra: Responses to Credit Analysis Questions

[redacted] -- I think that you have overlooked the major factor in the response regarding the model artifact that might point to a potential liquidity issue in September 2011. That is, for this period of time the Project has not yet reached Project Completion, as defined in the agreements. Liquidity at the Project level is simply not relevant during this period, as the duty for the parent to deliver a completed Project still applies, and the parent guarantee is to meet all cost overruns until Project Completion has been achieved. This would include any operational shortfalls during that period. By the time Project Completion will be declared, the project will have accumulated some $123 million in cash ($60 million of which will be in a debt service reserve account).

Project costs as defined in the Rules explicitly include "costs of design, engineering, startup, commissioning and shakedown." Until the declaration of Project Completion, the project remains in the startup, commissioning and shakedown phase, and therefore under the parent guarantee. You will recall that the documents also require a prefunding of a facility in support of that guarantee of $30 million over and above the budgeted project cost (which itself includes overrun contingencies of over $65 million). There is no need for establishing some separate temporary "liquidity facility" between the parent and project to meet an imagined need during the pre-completion phase that would not otherwise covered by the negotiated deal.

After investing over $1 billion in cash equity at the parent and project levels, the equity investors will simply not permit any potential projected short term liquidity shortfall to prevent reaching Project Completion.

Note also that there are essentially no working capital requirements at the project level. Production materials are funneled through the parent, and not held at the project company. Finished inventory is immediately forwarded to and inventoried at the parent. The project company does have responsibility for direct purchase of some minor amounts of material and for payment of utilities. These are all budgeted for and accounted for in the model as operational costs.

[redacted]
Loan Guarantee Program
Department of Energy
[redacted]

-----Original Message-----
From: [redacted]
Sent: Thursday, August 20, 2009 3:28 PM
To: [redacted]
Subject: FW: Solyndra: Responses to Credit Analysis Questions

[redacted]

Thanks for requesting the additional information. I would like your analysis of the materials presented.

In order to move this forward, I think we have the following next steps:

1. I will look at the property tax information against the issue raised by RW Beck in January.

2. We can adjust the income tax assumption to 30%. The result should be de minimus, but we should use that assumption from PWC.

3. The issue of Working Capital remains unresolved. First, it seems clear that the cost overrun equity commitment would support cost overruns and ineligible project costs. However, the issue is cash balances, not cost. John seems to agree that the model runs out of cash in Sept. 2011 even in the base case without any stress. This is a liquidity issue. Secondly, given the implications above, it is difficult to assume in a default scenario that any other entity would be able to assume management of the project company without any working capital. As a practical matter, this is not feasible and leads to questions of ability to run the project company as a stand alone entity. Finally, how can we advance a project that hasn't funded working capital requirements nor seems to have any provision for funding working capital requirements and that generates a working capital shortfall of $50M when working capital assumptions are entered into the model? This is a serious issue we need to resolve as a credit matter. It also simply won't stand up to review by oversight bodies. Are there provision in the agreements that provide access to working capital provided by the parent (e.g., a liquidity facility)? I don't think the cost overrun commitment accomplishes this, but perhaps an inter-company line of credit would.

4. We still do not have a lender case. In order to move forward, I have gone ahead and built one. I will send it under separate cover. I need you to confirm it and to include it in the due diligence update. Moving forward, the deal team needs to provide this case. Notwithstanding the working captal issue above, the lender case supports the conclusions you've made and addresses the LGPO policy requirement of having a lender case.

Thanks.

-----Original Message-----
From: [redacted]
Sent: Thursday, August 20, 2009 2:24 PM
To: [redacted]
Cc: [redacted]
Subject: Solyndra: Responses to Credit Analysis Questions

[redacted]

In response to questions related to the credit analysis of the Solyndra Fab 2 project, we have prepared the responses below.

The current Solyndra Fab 2 Base Case Projections have changed since the original model was presented, and the DOE Loan Origination team, Fitch Ratings and RW Beck have reviewed the updated model. The terms of the Project Sales Agreement require that Solyndra, Inc. purchase 100% of the output of the Project as it comes off the manufacturing line; hence, "Inventory" is now assumed to be zero. Consequently, working capital requirements for the project are modest, and for modeling purposes the Accounts Receivable and Accounts Payable are set at a net zero.

Solyndra is informed that testing the Base Case under stress conditions results in essentially nil cash at Fab 2 in September 2011, and any assumption of a delay in collecting Accounts Receivable from Solyndra would be an unbudgeted cash drain on the Solyndra Fab 2 Project, potentially resulting in a cost overrun. This analysis is correct assuming that the Project has not otherwise come in under budget elsewhere and that none of the Project's budgeted contingency was available to pay for this cost overrun. However, it should be noted that September 2011 falls well before Fab 2 has achieved "Project Completion," which is forecast to occur in April 2012. Project Completion as defined by the Common Agreement includes factors related to Physical Completion, Operational Completion and Financial Completion.

DOE bargained for a 100% Solyndra, Inc. guarantee to pay for any cost overruns beyond the $733 million Project Cost prior to Project Completion, and further requires Solyndra, Inc. to pre-fund a restricted cash account of $30 million to cover any potential cost overruns. The Base Case Projections show that Fab 2 will have accumulated approximately $123 million of cash at the time of Project Completion when Solyndra, Inc.'s guarantee would be released. Of the $123 million of cash at Fab 2, approximately $60 million funds the full Debt Service Reserve Account. No cash dividends can be made until certain milestones are achieved after Project Completion, which assures the liquidity of the Project. Solyndra believes that it has included all of the Project Costs that it reasonably anticipates in the $733 million budget.

Additionally, considering the magnitude of the import of Fab 2 to Solyndra, Inc.'s business and the substantial equity commitment made by Solyndra, Inc. to the Project, there exist tremendous incentives for Solyndra, Inc. to ensure a successful Project.

Solyndra has modeled a 25% income tax rate for Solyndra Fab 2 so that the Project can pay for the income tax that its activities engender.

Solyndra believes that it will pay a 25% effective income tax rate on a consolidated basis for its worldwide operations, and Solyndra assumes this rate in all of its forecasts. At the request of DOE, Solyndra's auditors, PricewaterhouseCoopers provided an opinion dated August 6, 2009 that states that a range of 24%-30% was appropriate for Solyndra, Inc., which Solyndra believes substantiates its estimate of 25%. Due to the operating losses forecast for Solyndra Fab 2 during its initial ramp of commercial production, the Base Case Projections indicate that Fab 2 will not have a tax liability until its NOL's have been exhausted in June 2012. The Base Case Projections as submitted to DOE are fully-functional, and changing the income tax rate from Solyndra's estimate of 25% to the high-end of the reasonable range (30%) as indicated by PwC reveals only a modest impact to the Project. Cash balances at Fab 2 in June 2012 are forecast to be approximately $136 million, including an approximately $60 million debt service reserve account. Any change to the income tax rate has no material impact on the Project's liquidity. The impact of a 30% income tax rate assumption is only seen in a minor reduction of 0.1 to the Debt Service Coverage Ratios, as noted below

At the lowest Debt Service Coverage Ratios period calculated for the year 2015, the Base Case Projections show that only $81 million of the FFB loans remain outstanding and Fab 2 will have generated in excess of $500 million of cash. A liquidation of Fab 2 at the end of 2015 would generate substantially more than $81 million (according to the analysis performed by Fitch Rating). At this low point, Fab 2 is forecast to generate 160% of the required cash to make debt payments. Hence, Solyndra concludes that DOE enjoys a very secure position at this point in time even with a 30% income tax rate. While Solyndra believes that a 25% income tax rate is appropriate, a summary analysis of the effects of a 30% income tax rate is attached for DOE's consideration.

The Base Case Projections include all property taxes. The property tax is combined with a number of Facilities-related expenses in the worksheet named "Model Assumptions" in the Base Case Projections. A scan of Row 146 reveals episodic spikes in Facilities costs, which correlate to the underlying property tax assumptions. A copy of the detailed line item assumptions that comprise the Facilities budget is attached for DOE's consideration. Specific line items related to property tax are highlighted in green color (please see Rows 102, 105,
106 and 134 in the "Facilities Budget" file). A summary review of this Facilities Budget worksheet will review that property tax is modeled in significant detail.

Please contact me to discuss any questions you may have related to the foregoing. Thank you.

Regards,

[redacted]

****

[redacted]

SOLYNDRA, INC.

47700 Kato Road

Fremont, CA 94538

[redacted]

www.solyndra.com

Document

75

[redacted]

From: [redacted]
Sent: Wednesday, February 23, 2011 3:33 PM
To: [redacted]
Subject: RE: Treatment of Solyndra restructuring

Thank you [redacted]

From: [redacted]
Sent: Wednesday, February 23, 2011 1:55 PM
To: Silver, Jonathan; [redacted]
Cc: [redacted]
Subject: Treatment of Solyndra restructuring

Thank you for working with us to better understand the details of the Solyndra restructuring. Based on the information you have provided to support DOE's stated position that Solyndra is in "imminent default" and DOE's analysis that the restructuring would leave DOE in a better position if the borrower does ultimately default, OMB has determined that the restructuring constitutes a workout, rather than a modification, under OMB Circular A-11, Section 185.

In the future, to the extent that such circumstances occur in this or other DOE financings, DOE will be required to demonstrate that the borrower is in "imminent default" and provide reasonable analysis that any actions taken will produce a better return to the Government than those actions assumed in the baseline cashflows in order for the action to qualify as a workout, rather than as a modification.

Thanks again.

Regards,
[redacted]

[redacted]
Assistant Director for Budget
Office of Management and Budget
[redacted]

Document 76

Loan Programs Office

U.S. Department of Energy

JANUARY 2011

Recovery Analysis under Forced Liquidation Scenario

➢DOE assessed the value of its recovery under the following three situations:

- Forced liquidation in December 2010 of the collateral securing existing loan. Such liquidation would be based on a sale of assets.
- Forced liquidation after completion of the project (the proceeds from the restructured loan will be sufficient to achieve project completion). Such liquidation would be of the Solyndra entities as a going concern.
- Performance of the project under the Consolidation Plan (which includes the restructured loans).

Recovery Analysis under Forced Liquidation Scenario

- Recovery on DOE's collateral in December 2010 in a forced liquidation was estimated at between [redacted]
- Estimated recovery rate of between [redacted]
- Liquidation analysis follows:

	Original Cost	Liquidation %	Liquidation Value
Building	[redacted]		
Land (2 parcels)			
Equipment			
Cash (Pre-funded equity)			
Total			

Recovery Analysis Under Going Concern Analysis

- Forced liquidation after completion of the project provides the following results:
  - Based on a low multiple of [redacted] DOE obtained a conservative enterprise ~~value~~ of [redacted] in 2011 assuming a projected ~~EBITDA~~ of [redacted] in 2012, the recovery rate to DOE would be ~~between~~ [redacted]
  - At a more appropriate ~~level~~ of [redacted] (still lower than its peer, Evergreen), and an associated value of [redacted] the recovery rate would be [redacted]

Recovery Analysis Under Going Concern Analysis

- The two largest US-based publicly traded solar manufacturing companies, First Solar and Sun Power, are currently valued at [redacted] and [redacted] respectively. Evergreen Solar, Inc. a still unprofitable, smaller, and weaker player in the market is currently valued at about 25 [redacted]
- Appropriate valuation of the Borrower as a going concern dictates the use of forward trading multiples for PV companies and to look at what other thin-film PV manufacturers are willing to invest in order to construct new capacity Permits DOE to liquidate the project as a going concern (i.e., sale of equity interests in the borrower).
- Given the prevailing range of [redacted] EBITDA range used for DOE's analysis would appear conservative and appropriate.

Document 77

Hogan Lovells

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November 10, 2011

The Honorable Henry A. Waxman
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Re: Energy Policy Act of 2005 Section 1702 Interpretation

Dear Congressman Waxman:

The letter responds to the request made by your staff to provide you with my views concerning the interpretation of Section 1702 of the Energy Policy Act of 2005, focusing specifically on the question of whether Section 1702 of the Act gives the Department of Energy ("DOE") the authority to subordinate a guaranteed loan to other debt incurred by a project in a post-default, restructuring situation. In particular, I was asked to comment on whether the February 15, 2011, opinion of Susan Richardson, Chief Counsel of the Loan Programs Office, entitled Solyndra Restructuring (hereafter referred to as the "Opinion") is supported by the statute.

As I explained to your staff in connection with responding to this request, I have no confidential information about the facts of the Solyndra loan guarantee, and I have not had access to the Solyndra loan guarantee documents. My knowledge of the matter comes from what has been publicly reported. In addition, while I have represented several clients in DOE loan and loan guarantee matters, I have not had occasion previously to consider the question of DOE's authority to subordinate a guaranteed loan in a restructuring. Finally, as I also explained to your staff, Susan Richardson is someone whom I know. I have not, however, discussed the Committee's request for my views or the substance of what follows with Ms. Richardson or anyone else at DOE.

I have concluded that the Opinion is supported both by the statute and by DOE's interpretation of Section 1702 as reflected in 10 CFR Part 609, the regulations governing the loan guarantee program, and the associated rulemaking proceedings. (It is noteworthy that the initial rulemaking was concluded during the prior Administration, and I believe that the subsequent amendments were also concluded before the Solyndra loan restructuring issues arose.) The Opinion is also supported by commercial practice with respect to the restructuring of loans that are in default.

Starting with the statute itself, Section 1702(d)(3) states: "The obligation shall be subject to the condition that the obligation is not subordinate to other financing." Had Congress sought to prohibit subordination of a guaranteed obligation at any time, under any circumstances, one might expect the provision to be phrased in more definitive terms, such as: "The obligation shall not be subordinated to other financing." Three aspects of Section 1702(d)(3) suggest that Congress had a more limited intent. First, Section

1703(d)(3) is presented as one of three conditions that must be met prior to the issuance of a loan guarantee. The three conditions are presented as determinations the Secretary must make before issuing the loan guarantee. This is reinforced by the phrasing "the obligation is not subordinate to other financing." The use of the present tense "is" suggests a requirement at a particular point in time, i.e., the point at which the guarantee is issued. Finally, I agree with the Opinion that the use of the term "condition" as it appears in the context of Section 1702(d)(3) is reasonably understood to refer to a "condition precedent," that is a condition that must be met prior to issuance of the guarantee.

I find it significant that DOE plainly understood Section 1702(d)(3) in this light when it undertook the rulemaking to implement the loan guarantee program in 2007. In 10 CFR 609.10(d), DOE set out a long list of requirements that DOE must ensure are satisfied "[p]rior to the execution of a Loan Guarantee Agreement," that is, conditions precedent. Included in that list were the statutory requirements set out Section 1703(d)(1), (d)(2) and – of interest here – (d)(3). Following the structure of the statute, the rule used the present tense "is," describing the required condition as: "Any Guaranteed Obligation is not subordinate to any loan or other debt obligation. . . ." 10 CFR 609.10(d)(13).[1] A requirement that must be satisfied as a condition precedent to the issuance of a loan guarantee is not necessarily a requirement that must prevail regardless of what occurs thereafter, and neither the statute nor the regulations elsewhere state that the non-subordination requirement must be met at all times.

DOE repeated this understanding of the statute as distinguishing between what is required before a loan guarantee is issued and what requirements apply in the event of default in a 2009 rulemaking amending 10 CFR Part 609: "section 1702(d) addresses certain threshold requirements that must be met before the guaranty is made; and section 1702(g) addresses the Secretary's rights in the event of default of the loan." 74 Fed. Reg. 63544, 63545 (2009). DOE went on to note that the structure of the statute "key[ed] its particular provisions to the sequence of stages that are foreseeable in the loan guarantee relationship." Id. It is noteworthy that Section 1702(g), which deals with default, does not contain language prohibiting subordination.

Two other aspects of DOE's loan guarantee rulemaking provide indirect support for the conclusion that the non-subordination requirement, which clearly must be met before a loan guarantee is issued, does not prohibit DOE from agreeing to subordination if the borrower defaults and a loan must be restructured. The regulations provide that, where the loan guarantee agreement or any applicable intercreditor agreement so provides, in the event of default, a lender and the Secretary may agree to a workout strategy and/or a plan of liquidation. 10 CFR 609.15(h). There are no limitations in that provision on what a workout strategy might include. In particular, the rule does not preclude subordination of the guaranteed debt as a component of a workout strategy.

Finally, it is significant in my analysis that, in amending the loan guarantee rules in 2009, DOE eliminated a restriction that would have required it to hold a first lien position on all assets of a project receiving a loan guarantee. In making that change, DOE explained that its "original reading of the statue was in tension with the financing structure of many commercial transactions in the energy sector," involving for example ownership by tenancy-in-common or co-lenders or co-guarantors – commercial structures that some who had planned to apply for loan guarantees needed to employ if their projects were to go forward. DOE concluded that the statute did not strictly require the first lien requirement and that imposing a restriction that was not consistent with commercial practices would have had the effect of

[1] As originally adopted in 2007, 10 CFR 609.10(d)(13) also required that DOE have a first lien on all project assets. That requirement was removed in 2009, as discussed below.

limiting the ability of the loan guarantee program to serve its intended purposes. 74 Fed. Reg. at 63545-46.

Likewise here, interpreting the statute to prohibit subordination of the guaranteed debt, even where additional new money is necessary as part of an effort to reduce the losses associated with a default, would not be consistent with commercial practice. A lender providing additional funding to a transaction already in default routinely insists that its debt be superior to earlier incurred debt because such later debt is being incurred at a point at which it has become apparent that the risk associated with a project is higher than anticipated at the time of the original financing and neither the existing lenders nor the equity has elected to provide the additional funds. Given this commercial expectation that, in a default situation, earlier incurred debt would expect to be subordinate to later incurred debt, had DOE reached any other conclusion about its authority under Section 1702, it would have sharply constrained DOE's ability to undertake any meaningful restructuring of guaranteed loans, a result that would likely increase taxpayer risk from projects that run into unexpected financial difficulties. While in the case of Solyndra, even the additional money injected into the project as a result of the restructuring proved to be insufficient to save the project, one would expect that in other cases, an infusion of additional debt could help to rescue a project and thereby protect taxpayer interests.

In short, I conclude from the statute, the loan guarantee regulations, and DOE's prior interpretations of Section 1702 that, had it expressly considered the question of its authority to subordinate its guaranteed debt in a post-default restructuring before the Solyndra default situation arose, DOE likely would have reached the same conclusion reflected in the Opinion, and that its conclusion is legally supported.

I hope the foregoing analysis is helpful to you in your deliberations.

Very truly yours,

Mary Anne Sullivan

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Partner
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D 202/637-3695

Document

78

From: [redacted]
To: [redacted]
Cc: [redacted]
Sent: Wed Sep 02 14:54:16 2009
Subject: RE: Solyndra

Hello all,

OMB has found no problems with the subsidy cost model submitted by DOE this morning. We're ok with signing off on the estimate of [redacted] We are assuming that for accounting purposes that you prefer to send the apportionment request through the system to us. Let me know if your understanding is different.

Thanks to all for their hard work on this, including [redacted] during his annual leave.

[redacted]

Mr. STEARNS. Mr. Secretary, also, I would echo the ranking member's comments. But I would say, in conclusion, that after listening to you for almost 3 ½, almost 4 hours, you seemed to fail to monitor the loan guarantee program; failed to heed the warning sign of the Treasury Department, OMB, and even your own legal counsel; you ignored subsequent Solyndra bankruptcy predictions 2 years by your staff; you disregarded the ongoing possibility that you should have got Department of Justice's opinion. The legal opinion you got in an email is really not credible.

And I think even most Members on both of sides agree, Mr. Green pointed out, from Texas, that illegal subordination of taxpayers to two hedge funds I think shows a high degree of mismanagement and ineptitude. And I would think, under the circumstances, that it could have been done a lot better.

Don't you feel, in retrospect, that this was poorly managed?

Mr. CHU. I think, as I look back at the events and at the time and what did we know and when we knew it, decisions were made—competent decisions were made by the people in the loan program.

And, again, going back, this is very important, that the United States be supporting these innovative technologies. The wisdom of Congress in that bill supported that. And, again, they acknowledged that there were risks in supporting innovative companies and innovative projects, and that is why there was this large loan loss reserve that was set aside and appropriated. That money could have been appropriated for other things.

Mr. STEARNS. Well, I will conclude by saying, I don't know how many loan risks of a half a billion dollars we can afford to lose as taxpayers.

And, with that, the subcommittee is adjourned.

[Whereupon, at 3:35 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

Energy & Commerce Committee
Subcommittee on Oversight and Investigations
Hearing: The Solyndra Failure: Views from DOE Secretary Chu
November 17, 2011
The Honorable Michael C. Burgess Opening Statement

This hearing is one in a long line of hearings this year which started out as a simple and straightforward inquiry by this committee to the Department of Energy into how a brand new program which we authorized was being run. It was bread and butter congressional oversight and no one at the time could have imagined that a simple request to find out how DOE determined who received funds from the loan guarantee program could turn into an inquiry into how DOE mismanaged and ultimate lost over half a billion dollars in taxpayer funds.

And that's what this all comes down to. Under Secretary Chu's leadership, the Department of Energy was run like a private venture capital firm, and the taxpayers were left holding the bag. Except that a government agency has no business acting like a venture capital firm. Venture capitalists know what they are doing, and know what's at stake. What's at stake is <u>their own money.</u> If a venture capitalist makes a bad bet, he loses income, he loses his investment. If the bureaucrats at the Department of Energy make a bad bet, they retain their salary, they go home like any other day, and they come to work the next day having incurred no real consequences.

The government is not a venture capital firm, and the people who work in DC have no business acting like it is. But that's not even the worst part of this whole story. As we all know at this point, Solyndra was the White House's poster child for the "green" revolution it intended to push with its failed stimulus package. At every turn, Secretary Chu, his people at DOE, and the leadership at the White House, expedited decisions that career staff at DOE and OMB repeatedly said they were uncomfortable rushing.

They rushed the decision to grant the loan so that the Vice President and the Secretary could make their appearance in September 2009. They rushed their decisions in the Spring of 2010 so that the President could visit Solyndra's facility. And when they saw that all of their mismanagement had caught up to them, and that Solyndra was going to fail and layoff its employees, they rushed to keep the story under wraps, imploring the company to hold off any announcements on the layoffs until after the 2010 midterm elections.

But Secretary Chu didn't become a pseudo-Venture Capitalist on his own. Clearly the White House had its hand in directing this Department to make these decisions, and to make them fast. Who was ultimately making these calls? We have seen over and over again that Valerie Jarrett, Carl Browner, Ron Klain, and Rahm Emmanuel had keen interests in pushing the Solyndra loan guarantee forward. Who was the real puppet master calling the shots on this program? Whose door should the taxpayers be beating down asking where their money is? With the white House releasing only a handful of documents, despite a congressional subpoena requiring them to produce <u>all</u> documents, one wonders what it will take to get these answers. I hope this committee pursues these questions with earnest until the White House finally cooperates.

Secretary Chu's Department of Energy has been an utter failure at protecting taxpayer money. The American people gave control of the House of Representatives to the Republican Party exactly because they knew the kind of oversight that we are pursuing today was never done under Nancy Pelosi's watch.

It's time this Administration was held accountable for its failures. Today I hope we get some answers.

QUESTIONS FROM CHAIRMAN CLIFF STEARNS

Q1. You stated in your prepared remarks, "Congress established Section 1703 and 1705 loan guarantee programs as well as the [ATVM] program, all of which provide support to cutting edge clean energy industries that involve technology and market risks. In so doing, Congress appropriated nearly $10 billion to cover potential losses in our total loan portfolio." Chairman Emeritus Barton and Rep. Pompeo noted that this $10 billion was not in fact designed to cover loan losses.

a. Were the twelve solar generation projects with long term power purchase agreements included in the portfolio to offset the risk of the manufacturing start-ups like Solyndra? Is it your position that these projects could not have secured adequate private capital without the loan guarantees?

b. Do the utilities that have contracted for the power generated by these projects pay for the transmission costs or are they covered by the terms of the loan guarantee? How does this affect the utilities' ratemaking?

c. Please further elaborate on your claim that the $10 billion in total credit subsidy appropriations was a loan loss reserve fund. How were credit subsidy costs explained to you? Please provide any related briefing materials. How did this understanding factor into DOE's decision making?

d. Please explain the current status of the $10 billion in funding, and how it has been allocated or appropriated.

A1a-d. The Department of Energy's (DOE) solar generation projects were not included in the portfolio to offset the risk of the solar manufacturing companies. While DOE was conscious of the benefits—both credit and non-credit—of a diversified portfolio, our effort was designed to fulfill Congress's legislative intent as stated in the American Recovery and Reinvestment Act (ARRA). When adding Section 1705 to the Energy Policy Act of 2005 (EPAct) through ARRA, Congress directed agencies to invest appropriated funds "as quickly as possible consistent with prudent management" and set an outside date of September 30, 2011 for the issuance of loan guarantees and commencement of construction by the projects (ARRA, Section 3). Accordingly, we were required to prioritize projects by their ability to reach financial closing and commence construction within the timeframe set by Congress.

DOE does not believe that these projects would have moved forward as quickly, and many would not have moved forward at all, without loan guarantees. Several factors, including the long term nature of the financing required, the size of projects, the limited capacity of the credit markets, and the economic terms on which commercial financing, if available at all, would have been provided limited these projects' ability to secure private capital. That result would have been inconsistent with the Congressional intent of ARRA.

Transmission costs are determined individually for each project. Generally, however, the project is responsible for construction of interconnection facilities, and, if required, transmission facilities to the point of interconnection with the grid. The costs of such construction would be eligible project costs, borne pro rata by project equity and proceeds of the guaranteed loan. The cost of transmission from the interconnection point, including construction costs of transmission facilities, would generally be borne by the utility. As such, state Public Utility Commissions and the Federal Energy Regulatory Commission (FERC) are responsible for rate-making and determining exactly how such costs are taken into account.

Congress explicitly outlined the intended purpose of credit subsidy costs in the Federal Credit Reform Act of 1990 (FCRA). FCRA requires DOE to compute the estimated long term "cost" of each loan or loan guarantee—that is, the discounted net present value of payments to and from the Government under the loan or loan guarantee, excluding administrative costs. Such payments would include: disbursements, payments of principal and interest net of defaults, recoveries, claim payments on guaranteed and direct loans to cover defaults, and any recoveries from default. In other words, this computation estimates the potential cost to the government of the direct or guaranteed loan, and in that way can be thought of as similar to a loan loss reserve for each loan.

Although commercial financial institutions loan loss reserves are not the same as a credit subsidy cost under FCRA, the purpose of the credit subsidy is analogous to a loan loss reserve for a given loan in that it accounts for, and is intended to ensure that resources are available to cover projected losses associated with the loan. A key difference between the private sector concept of a loan loss reserve and that of the credit subsidy cost under the Section 1705 program is that loan loss reserves are usually pooled to support a portfolio consistent with various requirements, whereas the credit subsidy is the estimated cost of each specific loan, based on that loan's specific characteristics. The projected credit subsidy cost of a loan guarantee was not expressly taken into account in our decision-making under Section 1705, except to ensure that we had adequate appropriated funds available to pay such costs. The factors taken into account in computing the credit subsidy cost, however, are directly related to the creditworthiness and level of risk of the project. Those factors were, of course, taken into account in our decision-making. We have already provided the Secretary's briefing materials in connection with Solyndra for review by the Committee and we have not identified to date any additional briefing materials on this specific subject.

Finally, regarding the current status of the $10 billion in funding, as of March 7, 2012, $5,142,100,000 has been obligated to pay the credit subsidy costs of ATVM loans and section 1705 loan guarantees.

Q2. In discussing the model referenced in one email from a DOE staffer that stated, "The issue of working capital remains unresolved...the model runs out of cash in September 2011, even in the base case without any stress," you noted, "It wasn't predicting bankruptcy of the company. It was predicting a cash-flow issue that, upon further analysis, did not appear and, in fact, did not appear in reality." Several other emails show that there were concerns that DOE was only looking at the project and not evaluating the health of the parent company.

a. Now that it is clear that the health of the parent companies, not the projects, is what caused Solyndra and Beacon to declare bankruptcy, are there concerns about the type and scope of due diligence conducted prior to the loans being approved?

b. Please indicate which of the loan guarantee projects project finance arrangements are.

c. In addition to Solyndra, please list any loan guarantee that has been restructured, modified, or amended in any way after closing, and explain how these loan guarantees were amended and why.

A2a-c. DOE is satisfied with the type and scope of diligence performed prior to approval of loan guarantees. Our due diligence encompassed each entity that would have material obligations to DOE or to the project, including, where applicable, project sponsors and parent companies. We note also that our diligence does not stop at approval—it continues through the issuance of the loan guarantee and the disbursement of loan proceeds. In addition, DOE monitors the companies and their markets during the term of the loan, in an effort to spot trouble early, when more options exist for both the company and the lenders.

It is important to reiterate that leading financial institutions who share credit exposure with the Loan Programs Office (LPO) in the Financial Institution Partnership Program (FIPP) program and experienced the LPO's underwriting and due diligence processes have concluded that these processes are on par with, if not more rigorous than their own. In addition, an independent review recently conducted by former Assistant Secretary of the Treasury for Financial Stability, Herbert

Allison, to assess the current overall health of the LPO portfolio concluded on January 31, 2012, estimates that the long-term cost of the outstanding portfolio, including both Title 17 and ATVM loans, is $2.7 billion, roughly $200 million lower than Department's most recent estimate.

Below is a list of Title XVII projects that have project finance arrangements. The projects marked with an asterisk have some characteristics of project financing and some characteristics of corporate financing:

Abengoa Biomass*
Abengoa Mojave
Abengoa Solana
Abound*
Agua Caliente
Antelope Valley
Brightsource
Cogentrix Alamosa
California Valley Solar Ranch
Kahuku
Poet*
Record Hill
Sempra Mesquite
SWIP/Great Basin
Solar Reserve Tonopah
U.S. Geothermal
Amp
Blue Mountain
Desert Sun
Genesis
Granite
Ormat
Shepherd's Flat

To ensure that we have a common understanding of the term "project financing arrangements", DOE notes that project finance generally refers to the long-term, limited recourse, debt financing of infrastructure projects. The borrower is usually a special purpose entity (SPE) that can only engage in the business of the relevant project. Principal and interest payments on the loan are made solely from cash flows generated by the SPE. The loans are usually structured with recourse to the SPE's assets and limited or no recourse to the sponsor/parent. Project finance transactions often (but not always) have an agreement in place in which a credit-worthy third party agrees to purchase all of the output of the project for a specified price for at least the term of the loan.

In the course of monitoring our loan guarantees, DOE has agreed to minor amendments to the loan guarantee documentation for several projects. These amendments include items such as clarifications, typographical corrections, changes of equity holders that have no impact on the credit quality of the equity holders, extensions of first advance deadlines, and adjustments to procedural details.

Besides Solyndra, the only project for which DOE has agreed to substantive amendments is Beacon's Stephentown project. Those amendments strengthened DOE's protections through increased requirements for funding of the debt service reserve and guarantee of the reserve by the sponsor.

As a result of the recent auction of the assets of Beacon, including the Stephentown project, DOE has entered into modified debt arrangements with the Stephentown project company. As of closing of the auction sale, the project company is owned by an affiliate of Rockland Capital. Under the modified arrangements, the project company issued a $25 million promissory note to DOE, which will be paid on terms reasonably similar to the terms of the prior agreements with Beacon.

Q3. While responding to comments made about former DOE CFO, Steve Isakowitz, telling

Committee staff that he did not remember DOE validating any assumptions about the Chinese market before approving the Solyndra loan, you stated, "I personally did not do it, but I am sure my loan people have done many market surveys."

a. Please provide any market surveys conducted by DOE staff prior to issuing the Solyndra loan. Please also provide any documents or analyses validating assumptions about the Chinese market.

A3a. DOE has previously produced to the committee copies of all market studies and reports prepared in connection with the Solyndra transaction. Those reports and studies are: Independent Market Consultant's Report Solyndra Fab 2 Manufacturing Facility, by R.W.Beck, dated April 4, 2009 and Independent Market Advisory Services, DOE Loan Program, Solyndra, Inc., by Navigant, dated February 22, 2010. If the Committee requires re-production of these reports, DOE can provide copies of each under separate cover.

Q4. In responding to Chairman Stearns' question about whether you were aware of other situations where taxpayers have been subordinated to outside commercial loans, you stated that "OPIC and Ex-IM have, in some cases, subordinated loans."

a. At the time DOE was restructuring the Solyndra loan guarantee in late 2010 and early 2011, did you ask whether the government had ever subordinated its interest in a loan guarantee agreement? If so, please include any examples you were shown—OPIC,Ex-IM, or otherwise—of taxpayers being subordinated to private entities.

A4a. DOE's primary focus, when considering the potential restructuring of the loan guarantee to Solyndra, was on our authority under Title XVII of EPAct to agree to subordination in the context of the Solyndra restructuring. We were generally aware of other government agencies taking actions in connection with troubled or defaulted loans that subordinated government interests. However, we considered the paramount question to be DOE's own legal authority, and our analysis of the best interests of the government and taxpayers in the case of Solyndra, not the authorities or actions of other government agencies.

Q5. In response to Ranking Member DeGette's question about whether you were "aware of any contact by someone from the White House to anybody in the DOE...asking them to take an unusual action relating to the loan guarantee or to the restructuring?" you stated, "No, I am aware of no communication from White House to Department of Energy saying to make the loan or to restructure."

Later in the hearing, when asked by Rep. Blackburn whether there was "any communication between DOE and the White House about the restructuring and the subordination of that loan?" you stated, "Certainly at the time that we were discussing this, I was aware of no communication whatsoever with the White House." Rep. Blackburn followed up by asking, "Are you are of any communication now?" to which you answered, "I was made aware of it yesterday." You then agreed to provide us with the information relating to that communication. Please provide the Committee with the names of individuals from DOE and the White House who were involved in such communications as well as the actual communications.

Further, Rep. Blackburn asked, "Did the White House approve or sign off on in any way...the restructuring and the subordination of this loan?" After some apparent confusion about the question, you eventually responded, "Well, as I said before, the OMB looked, knew what we were doing, and they went ahead and said, they said – they did not say, no, you cannot do this." When asked, "Anybody in the White House other than OMB?" you responded, "There may have been other opinions, and we can get that information back to you." Please provide the other opinions provided by individuals in the White House other than OMB. Please also provide all such communications between DOE and OMB.

One email exchange in particular, as well as your testimony, indicates that the White House was more involved in these decisions than they have publicly professed. On August 12, 2011, around the time a second restructuring was being considered, Heather Zichal sent an email to Nancy Ann DeParle and Melody Barnes, which states, "[B]ack in the fall of 2010 we had to restructure the deal. At that time, WH (our shop, OMB, NEC) reluctantly went with DOE's course of action to embrace restructuring." Zichal goes on to assert, "I have a commitment on the process from doe that no final decisions about next steps can be made without first getting signoff from the WH."

a. Do you maintain that you had no communications with anyone from the White House? These are high-level officials in the White House. Who at DOE was communicating with them and why were you not aware of it? Please provide all related documents and communications. Please also explain to us why you believe you were not informed of such conversations.

A5a. Secretary Chu did not receive any instructions from the White House to take or not to take any action related to Solyndra. More specifically, at no time did the White House direct the Secretary or the Department to restructure or not to restructure Solyndra's loan guarantee obligation, or to amend any term of the restructuring. As Secretary Chu stated in his testimony, and as the 192,000 pages of documents produced to the Committee reflect, the decision to restructure Solyndra's loan guarantee obligation was "the responsibility of the Department of Energy" and was not driven by any White House involvement. Again, at no time did White House officials direct the Department to take or not to take any action relating to the proposed restructuring. On the contrary, the decision to restructure Solyndra's loan guarantee in February 2011 – like the decision to issue a conditional commitment in March 2009 and to finalize the loan guarantee in September 2009 – was made by the Secretary on the merits to advance the goals of ARRA and Title XVII of EPAct 2005 and to secure the maximum possible benefit to the American people.

Q6. Throughout the hearing, you repeatedly asserted that you just recently learned that someone at DOE told Solyndra to delay the announcement of layoffs until after the midterm elections in November 2010.

a. Who from DOE told Solyndra employees to delay the announcement? Did anyone from DOE discuss this issue with anyone from the Executive Office of the President? Did anyone from the Executive Office of the President discuss this issue with anyone from Solyndra?

b. Please provide all documents and communications relating in any way to this request. Please make arrangements to have any individuals at DOE interviewed by Committee staff as soon as possible.

A6a-b. DOE has referred this matter to the Department's Inspector General, and has not learned the outcome of any resulting inquiry. DOE would be willing to brief the Committee on the results of any such inquiry when it has been completed.

Q.7 In response to Chairman Emeritus Barton's question about when DOE General Counsel, Scott Harris, told you that subordinating taxpayer interests did not violate the Energy Policy Act of 2005, you stated, "This was in a discussion as we were discussing whether we should subordinate or not, and it had to do with restructuring, and so before we could even think of subordinating in a restructuring, we had to make sure that it was legal." When told that the decision to subordinate had been made prior to the legal memorandum accepting subordination being drafted, you stated, "I would not know that, but it certainly would not be the way we do things in business, the way we do things in the Department of Energy. One has to first decide whether what are the legal bounds." Knowing now that Susan Richardson first communicated with Scott Harris after the agreement to subordinate was made with Solyndra's investors and prior to analyzing the subordination provision in the Energy Policy Act of 2005, what steps are you taking to ensure that this process is not followed for future decisions of this magnitude?

A7. Any assertion that DOE decided to restructure Solyndra's obligation "before determining the legal bounds" applicable to that action is false. There were, of necessity, substantial discussions of the potential terms of a restructuring in advance of the final determination by the Secretary to authorize the restructuring. Absent such discussion, and a non-binding agreement reached among the parties on the proposed terms of a restructuring, it would have been difficult—and potentially fruitless—to engage in the detailed analysis undertaken by DOE of both the merits, and legality, of the proposed restructuring.

DOE did not, however, enter into any binding agreement to restructure the loan until after the Secretary approved the restructuring on February 22, 2011. This agreement also came only after the Department engaged in a thorough analysis of whether doing so would be in the taxpayers' best interests and whether DOE had authority to do so under applicable law. Specifically, as the documents produced to the Committee make clear, career officials in LPO, including the office's chief counsel, as well as attorneys in DOE's Office of General Counsel, reviewed the matter and concluded that the restructuring was permitted under Title XVII of EPAct, as amended, 42 U.S.C. §§ 16511-16514. Only after this review was complete did the Secretary authorize the proposed Solyndra restructuring.

Q8. Rep. Griffith highlighted section 1702(g)(4)(A) of the Energy Policy Act of 2005, which states, "If the borrower defaults on an obligation, the Secretary shall notify the Attorney General of that default." He pointed to several documents noting that on December 1, 2010, Solyndra defaulted on a financial requirement in the agreement and that $95 million of the guaranteed loan commitment had yet be advanced. In response to Rep. Griffith's question about whether you notified the Attorney general in accordance with the law, you stated, "I will get back to you on that." Did DOE notify the Attorney General when Solyndra defaulted on December 1, 2010?

A8. In December 2010, Solyndra breached a covenant; it did not fail to make a required payment of principal or interest on the guaranteed loan. Neither Title XVII nor the Final Rule requires notice to the Attorney General in such circumstances. As such, the Attorney General was not notified.

Section 1702 (g)(4)(A) of Title XVII requires that the Attorney General be notified if the borrower defaults on an obligation. In context, it is clear that the "default" contemplated by Section 1702(g) (captioned DEFAULTS) is a default in payment on the guaranteed obligation. Sections 1702(g) (1)-(2) relate to payment on the guarantee (which can only be due if there has been a default in payment on the loan) and its consequences. Section 1702(g)(4), captioned "ACTIONS BY THE ATTORNEY GENERAL," has two parts: subsection (A) requires notice to the Attorney General of a default and subsection (B), captioned "RECOVERY," provides that on "notification, the Attorney General shall take such action as is appropriate to recover the unpaid principal and interest due" on the obligation. (Emphasis added.) If there has been no default in payment, as was the case in Solyndra, there is no basis for taking such action, and no requirement to provide notice.

This practice is also consistent with DOE's regulations. On October 23, 2007, after notice and comment, DOE issued a Final Rule that codifies the interpretation of Section 1702(g) explained here. The Final Rule requires notification to the Attorney General if the "Borrower has defaulted in the making of required payments of principal or interest on any portion of a Guaranteed Obligation" and has not cured the default within any applicable grace period. 10 CFR Parts 609.15(a) and (c). The Final Rule distinguishes a

Borrower default that results from "a breach of one or more of the terms and conditions of the Loan Guarantee Agreement" or other loan documents (10 CFR, part 609.15(b)), and its potential consequences. The Final Rule does not require notification to the Attorney General in the case of such a breach.

Q9. Rep. Murphy asked you about one email from an OMB staffer in June 2010—after Solyndra cancelled its IPO—that suggested DOE had yet to ramp up its monitoring function immediately. You responded, "I was told that by that time, we were monitoring the loans, but we had – I'm not really sure of the exact timing, but we had one – Solyndra was our first loan, and we then established a loan monitoring program, which has consistently been made more robust as time progressed." You mentioned several of these changes throughout the hearing, including the establishment of an independent monitoring office. Ranking Member DeGette asked you to supplement your testimony within 30 days and provide the Committee with a summary of the changes that you have made internally to improve your oversight and administration. You replied, "I would be delighted." Please provide us with that summary and specify which changes have been made based on DOE's experiences with Solyndra and Beacon Power.

A9. LPO has expanded its Portfolio Management Division (PMD) to ensure its ability to actively monitor loan and loan guarantee transactions, restructure transactions as necessary, and maximize recoveries to the U.S. taxpayer. PMD has three functional groups—Asset Monitoring and Supervision, Credit Review & Compliance, and Special Assets & Loan Administration— that are accountable for the various risks involved in loan and loan guarantee transactions.

Processes and systems to support proactive monitoring, loan administration, compliance, reporting, and resolution include, among other things:

- Monitoring Policies and Procedures
- QuickSilver custom portfolio management software system
- Davis-Bacon Act compliance mechanism
- Mechanisms for managing troubled assets
- Mechanisms for responding to external inquiries and oversight
- Credit Review and Compliance framework
- Periodic reports to provide timely warning of significant events

- Early warning system (for transactions that require heightened attention)
- Default list
- Impaired assets list

PMD is held accountable through rigorous internal and external reviews, which include:

- Internal Credit Review as well as Compliance Quarterly Evaluations
- Analysis of periodic PMD reports by DOE, the Risk Committee, LPO and PMD senior management
- OIG Examinations and GAO Audits
- Annual DOE audit by KPMG

In addition, former Assistant Secretary of the Treasury for Financial Stability Herbert Allison has reviewed DOE's Loan Guarantee Program and provided a report (enclosed here), dated January 31, 2012, on the current status, credit characteristics, and risk of loss of DOE's portfolio of loans. While the report confirms that DOE's overall portfolio of loans is expected to perform well, it also includes a number of recommendations on how to improve the management of the loan program and ongoing monitoring of the loan portfolio. DOE is reviewing those recommendations to determine the best way to use them to further strengthen the program.

Q10. Based on numerous emails reviewed by the Committee, it is apparent that one of Solyndra's strategies to obtain additional capital was to have government buildings purchase their panels. Rep. Burgess discussed the fact that Jonathan Silver connected former Solyndra CEO, Chris Gronet, with Bob Peck, Commissioner of Public Buildings at GSA, asking him to meet with Solyndra and that he would "personally appreciate it." You responded that "this is the first time I've been made aware of this.

a. Do you think that it is appropriate for the head of the Loan Programs Office (LPO) to contact potential purchasers—either inside or outside of the federal government—on behalf of one particular struggling loan guarantee recipient? Has Silver or anyone else from the LPO contacted DOD or GSA on behalf of other loan guarantee recipients? If so, please provide the Committee with these communications.

A10a. DOE regularly provides businesses, industries, universities and other stakeholders with information on the programmatic and financial resources of the Department as well as our local, state, and federal partners. DOE furthers its mission by facilitating these stakeholders' efforts to address the economic, energy, and environmental challenges confronting the United States. DOE has no control over the General Service Administration's purchasing decisions. In addition, any entity seeking to obtain a GSA contract to supply goods or services must follow all applicable rules, policy and procedures set out in the Federal Acquisition Regulation (FAR), the principal set of rules in the Federal Acquisition Regulation System and the Defense Federal Acquisition Regulation Supplement, issued pursuant to Office of Federal Procurement Policy Act of 1974. As the FAR's Statement of Guiding Principles for the Federal Acquisition System lays out, its purpose is to promoting competition, minimize administrative operating costs, and conduct business with integrity, fairness, and openness while fulfilling the public policy objectives of the United States (48 CFR 1.102). At this time, DOE is unaware of any additional contact between any LPO official and DOD or GSA on behalf of a loan guarantee recipient. LPO officials did have contact with DOD officials in the course of the LPO's evaluation of an application for a loan guarantee for a project that involved the installation of solar rooftop panels on privatized housing for military personnel. No loan guarantee was issued for that project, and, to the best of DOE's knowledge, the contact was made solely for purposes of completing the LPO's underwriting analysis. If the Department identifies additional examples, we will work to provide that information to the Committee.

Q11. Rep. Blackburn discussed DOE's observer on Solyndra's board, who was appointed as a condition of the restructuring agreement. After stating that you did not approve the choice of the board observer, you agreed to provide information about who actually made the decision and to whom at DOE the board observer reported. Please provide that information.

A11. DOE's right to have a Board observer was set forth in Solyndra's restructuring agreement. It was therefore part of the overall transaction approved by the Loan Programs Office management and, ultimately, the Secretary. No specific individual was formally designated for the role. As the restructuring agreement was managed by the Portfolio Management Division, the role was filled by Portfolio Management Division staff, under the direction of the Director of Portfolio Management.

Q12. In discussing several members' requests to provide information relating to other loans that are in trouble, you stated, "We believe that most of the loans are in good shape" and that you "believe the majority of the portfolio seems to be in good shape...a large majority." Please provide documentation regarding the financial position of the companies in the loan guarantee program to support your claims.

A12. Former Assistant Secretary of the Treasury for Financial Stability Herbert Allison reviewed DOE's Loan Guarantee Programs and provided a report on the current status, credit characteristics, and risk of loss of DOE's portfolio of loans.

When funding the programs, Congress appropriated nearly $10 billion to cover estimated subsidy costs in our total loan portfolio, thereby acknowledging the inherent risks of funding new and innovative technologies and also ensuring that those risks are properly accounted for in the budget. While the portfolio includes loans to a range of projects — from the world's largest solar and wind installations to geothermal power plants — with different levels of risk, the Allison report found that DOE has been judicious in balancing these risks. Using the methodology required by FCRA, the report re-estimated the level of credit subsidy necessary for the portfolio and calculated a credit subsidy cost of $2.7 billion on the outstanding portfolio, $200 million less than DOE's most recent estimate. While this estimate unavoidably depend on many assumptions and will fluctuate over time, the vast majority of loan guarantee recipients are expected to pay the loans back in full, on time, and with interest.

The report also noted that DOE is not a "passive bystander;" that is, DOE has the ability to reduce or mitigate risk in the portfolio over time and has "robust tools" for protecting itself from elective risk. These tools include strong covenants in all loan commitments issued after mid-2010 that allow DOE to control the amount of additional risk it assumes. DOE agrees that it must be an active manager continuously monitoring projects, their market environments, and other identified risks to seize all opportunities to minimize exposure to loss.

Finally, the report also includes a number of recommendations on how to improve the management of the Department's loan program and ongoing monitoring of the loan portfolio. DOE is reviewing the recommendations to determine the best way to use them to further strengthen the program. A copy of the report is submitted for the record.

Report of the Independent Consultant's Review with Respect to the Department of Energy Loan and Loan Guarantee Portfolio

January 31, 2012

TABLE OF CONTENTS

I. INTRODUCTION

A. The White House Mandate

The Chief of Staff of the White House requested that Herbert Allison review the Department of Energy's ("DOE") loan and loan guarantee programs for alternative energy projects and provide:

> (1) A report on the current status, credit characteristics, and risk of loss of DOE's portfolio of loans and loan guarantees provided to support alternative energy projects (hereinafter, "the Portfolio");
>
> (2) Recommendations for enhancing the monitoring, management, and oversight of DOE's loan and loan guarantee programs, and
>
> (3) Recommendations pertaining to early warning systems to identify and mitigate potential problems with individual loans or loan guarantees.

Mr. Allison was asked to complete the White House's mandate (the "Review") in 60 days once a team of independent advisers was assembled to assist in performing the work. Mr. Allison and the advisers collectively are referred to throughout this report as "the Independent Consultant."

B. The Portfolio

DOE operates two programs that provide loans or loan guarantees to support clean energy projects. The Title XVII program, established under the authority of Title XVII of the Energy Policy Act of 2005 ("EPAct") and the American Recovery and Reinvestment Act of 2009 ("ARRA"), provides loan guarantees for loans made to support certain types of clean energy projects. The Advanced Technology Vehicle Manufacturing program ("ATVM") was established by the Energy Independence and Security Act of 2007 ("EISA") to make direct loans to manufacturers of advanced technology vehicles. (Hereinafter, the Title XVII and ATVM programs are collectively referred to as "the Programs.")

The Independent Consultant conducted an evaluation of the Portfolio as of November 28, 2011. In total, 30 loans were evaluated, of which 25 were closed under the Title XVII Program and five were closed under ATVM (collectively, the "Evaluated Loans"). In general, the Evaluated Loans were structured as funding commitments, with limited or, in many cases, no funds drawn under the loans at closing. Borrowers have the ability to draw under the loans from time to time to fund specific project costs ("Eligible Costs") provided that they meet certain conditions precedent that vary among the individual loans.

To facilitate evaluation, the Independent Consultant grouped the Portfolio into three broad categories, each consisting of a distinctive project type and loan structure.

Utility-Linked Loans. The first category includes loan guarantees supporting utility-linked projects for the generation or transmission of alternative sources of energy (the "Utility-Linked Loans"). The Portfolio includes 20 Utility-Linked Loans.

Non-Utility-Linked Loans. The second category includes cellulosic ethanol projects, solar manufacturing companies, and small, start-up automotive manufacturing companies that comprise the non-utility-linked projects (the "Non-Utility-Linked Loans"). These loans on average are smaller than the Utility-Linked Loans and bear greater risk. The Programs include eight Non-Utility-Linked Loans, excluding loans made to Solyndra Inc. ("Solyndra") and Beacon Power Corporation ("Beacon"), which are both in bankruptcy.

Ford and Nissan Loans. The third category comprises the loans made to Ford Motor Company ("Ford") and Nissan North America, Inc. ("Nissan") (the "Ford and Nissan Loans"). The Ford and Nissan Loans are made to established corporate credits with structures typical of traditional secured corporate loans.

Table 1: *Summary of the Evaluated Loans as of November 28, 2011*

	Number	Total Loan Amount	MM Amount Drawn	% Drawn
By Category				
Utility-Linked Loans	20	14,404	3,143	22%
Non-Utility-Linked Loans	8	2,010	556	28%
Ford and Nissan Loans	2	7,355	4,598	63%
Total	30	$23,769	$8,299	35%

C. Evaluation of the Portfolio

The Independent Consultant was directed by the White House Chief of Staff to report on the current status of DOE's portfolio. The Independent Consultant reviewed detailed information about each project and formed its own view of the project's current status.

To evaluate the Portfolio, the Independent Consultant used two methodologies, detailed in the Report, that have distinctly different purposes.

The first is the "FCRA Methodology," which the DOE must use for budgeting purposes to comply with the Federal Credit Reform Act of 1990 ("FCRA"). It calculates the "Credit Subsidy Cost" that is budgeted to cover the risk of estimated shortfalls in payments from each loan. The Credit Subsidy Cost estimated by the DOE for each loan reflects DOE's assessment of each loan's credit quality.

The FCRA Methodology focuses on default risk and associated rates of recovery. These default and recovery rates are based on broad industry data provided by the rating agencies and therefore are not representative of a portfolio of loans like those held by the DOE. For budgeting purposes, the FCRA Methodology estimates only the present value of the expected credit loss from the loan. This present value is a central estimate that assumes that the credit loss is accurate. It does not account for the possibility that the actual loss may be higher or lower than the estimate. If the eventual actual loss exceeds the Credit Subsidy Cost, that incremental loss is absorbed by the taxpayers pursuant to the permanent, indefinite budget authority under FCRA.

This budgeting approach is applied to the federal government's broad and diverse portfolio of loans and guarantees established through many programs that were created for a variety of purposes. In view of this diversity, variations over time in the individual estimates for each program tend to offset each other, thereby making FCRA's use of a central estimate for each program an appropriate mechanism for budgeting purposes.

The second methodology for evaluating the Portfolio, the "FMV Methodology," is used in the capital markets to estimate the reduction from the loan's face value that would result in a "fair market value" for the loan, that is, the price at which investors would receive what they believe to be an acceptable rate of return. The FMV Methodology is based on market data for the most comparable bonds and loans that exist in the market. It takes into consideration certain variables, such as liquidity, concentration, reinvestment, and other market risks, for which an investor would expect to be compensated through a discount in price. However, those risks do not apply to the government as long as it intends to hold the loans and guarantees for the long term.

Notwithstanding the differences in purpose of these two methods, the Independent Consultant believes it is beneficial to use the FMV Methodology in addition to the FCRA Methodology in assessing and evaluating the Portfolio and in developing recommendations regarding management, governance, and reporting described in the Report. The FMV Methodology provides additional insight into the future marketability of these loans and guarantees, into the financial incentives that sponsors and other parties have to invest in these projects, and into ways that DOE should manage the Programs to protect and enhance value to taxpayers over time.

Neither the FCRA Methodology nor the FMV Methodology can predict the eventual realized loss associated with any loan or with the Portfolio as a whole. The eventual loss will be the product of many factors, some unique to a particular loan, which the FCRA Methodology and the FMV Methodology can neither capture nor forecast today.

Furthermore, the present value estimates of cost under either the FCRA Methodology or the FMV Methodology fluctuate materially with changes in assumed long-term interest rates. For instance, if long-term interest rates on U.S. Treasuries were to rise significantly from today's historic lows, the Credit Subsidy Cost estimate as calculated under the FCRA Methodology, all other factors unchanged, would decline substantially.

Additionally, these methodologies assume that DOE is a passive bystander unable to act to reduce or mitigate risk in the Portfolio over time. To the contrary, DOE has robust tools for protecting itself against taking on elective risk. Since the middle of 2010, all new commitments for loans and guarantees contain strong covenants that give DOE powerful tools to control the amount of additional risk it assumes. For instance, if projects do not meet covenants, DOE can elect to withhold funds or to require more protections and/or equity participation to compensate in part for additional risk. If it elected not to fund projects that are failing to meet covenants, it would potentially reduce the projected loss in the Portfolio.

In fact, there will be many such funding thresholds ahead, and DOE will therefore have many opportunities to protect itself against taking on elective risk. Currently, actual loan and guarantee amounts are only about one-third of total commitments, and almost half of the currently drawn amounts of Portfolio commitments are to Ford, rated by the Independent Consultant as investment grade.

As stated on page 31, DOE's latest re-estimate of credit subsidy for the Portfolio totals $2.9 billion. The Independent Consultant's comparable valuation applying the FCRA Methodology is $2.7 billion.

As described in greater detail on pages 33-35, the FMV Methodology, which calculates a different form of risk as described in the Report, estimates that investors would currently price the Portfolio at a discount to aggregate par value ranging from $5.0 billion to $6.8 billion.

The FCRA and FMV estimates are calculated for the full $23.4 billion of loan commitments. As noted above, only a third of the commitments are funded and some may never be funded, in full or in part, if some projects fail to meet requirements of their loan agreements, in which cases the estimates of credit subsidy would decline.

The FCRA and FMV projections of potential losses in the Portfolio unavoidably depend on many assumptions and will fluctuate over time. More important to the ultimate performance of the Portfolio will be DOE's management of it going forward. DOE must be an active manager continuously monitoring the projects, their market environments, and other identified risks to the Portfolio and seizing opportunities to contain taxpayers' exposure to loss.

D. <u>Current Management and Governance</u>

The White House Chief of Staff asked the Independent Consultant to provide recommendations for enhancing the monitoring, management and oversight of DOE's loan and loan guarantee programs.

The DOE's Loan Programs Office ("LPO") that directly manages the Programs combines several operational divisions (including Title XVII origination, portfolio management, credit, technology, and ATVM origination) with control divisions (credit and compliance). Some key positions in LPO are either vacant or staffed by acting heads and rely heavily on consultants and contractors.

Three committees oversee the Programs. Two consist of LPO staff members as well as managers from other departments within DOE.

The Independent Consultant identified several opportunities to strengthen the management of the program and enhance both the independence and the expertise of oversight functions. The main recommendations related to management and oversight are summarized below:

Strengthen management

- DOE should assure long-term funding for its management and oversight of the Portfolio. Fees from borrowers will not be sufficient to cover these expenses once origination ceases. Compared to the potential for greater losses if the Portfolio is not managed closely and competently, the cost of adequate management and oversight will be small.

- DOE should fill key positions in management as soon as practicable.

- DOE should clarify authorities and accountabilities of managers. Lines of authority are not sufficiently clear. Delegation of authority should be more specific regarding the actions each organization may take and the limits of that authority.

Give more definition to key Program goals

- DOE should develop explicit objectives and standards of performance for managing the Portfolio during the construction phase of the projects and beyond.

- The Title XVII program's statutory standard of "reasonable prospect of repayment" is vague. DOE should provide clear guidance regarding the meaning of "reasonable prospect of repayment" so that the financial goal for managers is unambiguous.

- DOE should better define the desired balance between policy goals and financial goals.

Create independent risk management

- DOE should create a position of Chief Risk Officer ("CRO") to lead a Risk Management unit housing all DOE functions dedicated to monitoring the Programs, including the current Credit and Compliance functions. Significant risk decisions by LPO should be subject to prior concurrence of the CRO.

- The Risk Management unit should be separate from and independent of LPO. These two units should have different reporting lines to senior DOE management.

- Once the independent Risk Management department is established, DOE should abolish the Credit and Risk Committees.

Refine DOE oversight boards

- The role of the Credit Review Board ("CRB") should be broadened to include overseeing "enterprise" risks including credit, compliance, accounting, operational integrity, reporting, and protection of DOE's interests in defaults and bankruptcies.

- DOE should establish an interagency oversight board to review the Programs' governance and to advise the Secretary about broad policy, control and performance issues. This board could be modeled on similar boards overseeing other U.S. government loan programs.

Proactively protect the taxpayers' interest

- DOE should aggressively strengthen its position as lender or guarantor in cases where borrowers seek relief from requirements in the loan agreements. Given the novelty, complexity and scale of the projects and the exacting covenants in their loan structures, the Independent Consultant believes that many projects are likely to seek such relief at some point during the term of the DOE loan or loan guarantee.

- To strengthen its ability to protect the taxpayers' interest, DOE should define the tools it will use (e.g., seeking equity interests and stronger loan covenants) as well as the financial and policy goals it will pursue in negotiating with borrowers.

Reporting to the public

- DOE should implement a comprehensive communications plan, including a more robust website, to provide timely information to the public on the performance of the Program.

E. Early Warning System

The White House Chief of Staff requested that the Independent Consultant develop recommendations pertaining to early warning systems to identify and mitigate potential problems with individual loans or guarantees.

DOE should implement a comprehensive and consolidated Management Information Reporting System ("MIRS") that includes three categories of information:

- Trends affecting the markets and the regulatory environments in which the borrowers operate;

- The Status of every loan, borrower, contractor and offtake party that can affect each project; and

- The internal performance of the LPO and the Programs.

Senior managers, LPO, and Risk Management should jointly design the MIRS to be a shared resource for decision-making and performance measurement. The MIRS, if well designed and actively utilized, will prompt early action to manage emerging risks.

II. APPOINTMENT OF THE INDEPENDENT CONSULTANT AND TEAM; ASSIGNED TASKS; METHODOLOGY

A. Assigned Tasks and Deadlines

The Chief of Staff of the White House requested that Mr. Allison conduct a review of the current state of the Portfolio to be completed on or before January 28, 2012. Solely to provide funding for the Review, the Independent Consultant's work was conducted pursuant to written contracts with DOE. These contracts provided DOE with absolutely no rights to control, direct, or influence the Review, nor has DOE done so. Moreover, other than directing the tasks to be performed, the White House Chief of Staff did not control, direct, or influence the Review, nor did any other member of the executive branch.

As the White House Chief of Staff requested, the Review addresses three areas:

> (1) Analysis of the current state of the closed loan and guarantee portfolio under the Section 1703, Section 1705 and ATVM programs as of November 28, 2011;
>
> (2) Recommendations for enhancement to the Programs, if warranted and practical, to ensure effective monitoring and management of the current loan and guarantee portfolio; and
>
> (3) Recommendations, if needed, pertaining to early-warning systems to identify and mitigate potential concerns on a timely basis.

As part of the first task, the White House Chief of Staff requested that the Independent Consultant review and evaluate each Portfolio loan and loan guarantee to determine its current status, credit characteristics, and risk of loss. The Independent Consultant was requested to develop a risk rating and evaluation system for the Portfolio that is consistent with private sector best practices and to use that system to stratify the Portfolio by risk of default and loss.

The White House Chief of Staff requested as part of the second task that the Independent Consultant review the current Portfolio management practices, including governance and monitoring standards, with a particular focus on identifying opportunities to enhance the ongoing DOE monitoring activities.

As part of the third task, the White House Chief of Staff asked the Independent Consultant to develop and recommend an early warning system for identifying loans and/or guarantees to place on a watch list and to provide appropriate reporting mechanisms.

B. Qualifications of the Independent Consultant

Mr. Allison has served in a number of senior positions in the public and private sectors. Most recently, he was the Assistant Secretary of the Treasury for Financial Stability. He was named as President and Chief Executive Officer of Fannie Mae after Fannie Mae was placed into conservatorship. Mr. Allison formerly was the Chairman, President and Chief Executive Officer of TIAA-CREF from 2002 until his retirement in 2008.

Mr. Allison conducted a comprehensive search for a financial firm and for a law firm to assist him in the Review and exercised his sole and independent judgment in choosing the advisers. Mr. Allison identified fifteen law firms and approximately half a dozen financial advisory firms. The principal selection criteria were institutional capacity, knowledge and experience in project finance and corporate finance, experience with U.S. government programs and procedures, and the absence of conflicts of interest.

After careful review, Mr. Allison selected and engaged Greenhill & Co., LLC, an investment bank, and Arnold & Porter LLP, a law firm. Mr. Allison also selected David Johnson, an experienced corporate finance executive, who previously served as Chief Financial Officer of Fannie Mae (after that company was placed into conservatorship by the U.S. government) and also served in the same capacity at Hartford Financial Services Group, and Cendant Corporation, to advise him. Each adviser was required to meet requirements for expertise and to comply with applicable standards, policies, and regulations prohibiting conflicts of interest.

Mr. Allison coordinated, supervised, and approved the work of the retained professional advisers and is solely responsible for the contents of the Report. The Report was specifically prepared at the request of the White House Chief of Staff and should not be relied upon by any other person.

C. <u>The Independent Consultant's Methodology and Guiding Principles</u>

The Independent Consultant exercised complete and absolute discretion in planning and carrying out the Review and in defining the information requested from DOE and other parties, subject to the limitations set forth in Section X of the Report.

In order to perform the assigned tasks within the sixty-day review period, the Independent Consultant developed and executed a work plan, including an analysis of voluminous documentation, and a targeted set of interviews of DOE and other U.S. Government personnel.

Documentation reviewed included, but was not limited to, the underlying legal and financial documentation of the loans and loan guarantees in the Portfolio, current and former DOE procedures and policies relating to the Programs, reports from the independent consultants to DOE, interagency presentations, rating agency reports, and information regarding the current status of each credit in the Portfolio. With respect to each credit, a standardized list of documents was requested and obtained.

DOE personnel were cooperative and responsive to the requests of the Independent Consultant. The Independent Consultant did not request documents from other agencies, given the time constraints.

The Independent Consultant developed loan valuation methodologies described more fully below and, relying on the documentation provided by DOE, conducted an extensive and iterative review of every credit in the Portfolio, including updated information about the operational and financial performance of the projects or manufacturing facilities underlying each credit.

The Independent Consultant also met on several occasions with DOE officials and with employees of a DOE contractor involved in the Programs to discuss policies, procedures, assessment of risk in the Portfolio, and views of specific credits and technologies. The Independent Consultant met with the Secretary of Energy ("the Secretary"), Deputy Secretary of Energy ("the Deputy Secretary"), DOE Inspector General, the Senior Advisor to the Secretary, the former head of LPO, the former Senior Advisor to the LPO Executive Director, and more than fifty DOE employees, contractors, and consultants. In addition, the Independent Consultant spoke with officials of the Department of the Treasury ("Treasury") and the Office of Management and Budget ("OMB") to develop an understanding of those agencies' respective roles in the Programs. A full list of the government officials and other individuals with whom the Independent Consultant met during the Review and a descriptive overview of materials received from DOE are set forth in Appendices B and C.

The Independent Consultant considered the relevant statutory and regulatory framework of the Programs. The Independent Consultant also reviewed DOE's management, governance, and information-reporting systems relating to the Portfolio, including recent changes directed by the Secretary.

The Independent Consultant adopted several guiding principles in conducting the Review. First, in keeping with the scope of the assignment, the Independent Consultant neither assessed nor formed any conclusions regarding national energy policy or other policy considerations. In addition, in order to encourage open discussion, the Independent Consultant interviewed current and former U.S. government officials with the understanding that while the Independent Consultant would consider and incorporate into the Report as deemed appropriate the views they expressed, the Report would not attribute these views to any particular individual. The Independent Consultant made clear that it would not in any way become involved in, or attempt to influence, DOE decision-making relating to the Portfolio, and the Independent Consultant did not do so. Finally, the Independent Consultant shared a draft of the Report with DOE and the White House shortly before its issuance to assure factual accuracy. To the extent DOE or the White House provided factual clarifications, that information is included in the Report.

In view of the strict deadline for completing the Report, the Independent Consultant evaluated only those loans and loan guarantees in the Portfolio that had closed as of November 28, 2011, although the Report incorporates information provided through the date of the Report. The Independent Consultant did not evaluate the loans to Solyndra and Beacon, which filed for Chapter 11 bankruptcy protection in October 2011 and November 2011, respectively.

While DOE continues to modify its loan monitoring and governance procedures, the Independent Consultant's description of DOE monitoring and governance procedures, and the recommendations for improvement, are based on the review of the documents, interviews, and other information made available as of the date of the issuance of the Report. The Independent Consultant, in the time allowed to prepare this Report, was unable to assess the effectiveness of DOE's recent changes in its loan monitoring and governance procedures.

In reviewing the Portfolio, the Independent Consultant did not consult subject matter and market forecast experts for the various projects and technologies because it would have taken several weeks to identify experts in each of these areas, to screen them for conflicts of interest, and to move them through the U.S. government approval process necessary to engage them as subcontractors to the Independent Consultant. The Independent Consultant concluded that given the limitation of the Review to a sixty-day period, these practical constraints would have prevented these subject matter experts from contributing substantially and in a timely manner to the Review. However, the Independent Consultant did have access to information prepared by experts that DOE provided in response to the Independent Consultant's requests.

The Independent Consultant was provided access to confidential or proprietary business, technical, and financial information belonging to the U.S. government or other entities, subject to confidentiality agreements including but not limited to DOE plans, policies, reports, studies, financial plans, internal data protected by the Privacy Act of 1974 (5 U.S.C. § 552a), data which have not been released or otherwise made available to the public, information relating to the Title XVII or ATVM programs, applications submitted to DOE, and other information submitted in response to solicitations made under the Title XVII or ATVM programs. The Independent Consultant has not disclosed any such confidential or proprietary information in the Report. In addition, the Independent Consultant has not disclosed information on individual credits in the Portfolio because of contractual confidentiality agreements binding the Independent Consultant and DOE.

III. ANALYSIS OF THE CURRENT STATE OF THE PORTFOLIO: LOAN EVALUATION AND STRATIFICATION BY RISK OF DEFAULT AND LOSS

To analyze the Portfolio's current status, the Independent Consultant reviewed the legal and regulatory framework of the Programs to understand how the Portfolio took shape. The Independent Consultant also reviewed the financial structures of the projects the Programs supported. With that background, the Independent Consultant performed the Review requested by the White House Chief of Staff.

A. Legal and Regulatory Factors That Shaped the Portfolio

i. Statutory basis and implementing regulations

DOE operates two programs that provide loans, loan guarantees, or grants to support clean energy projects. The Title XVII program, established under the authority of Title XVII of the EPAct, which was enacted in August 2005, provides loan guarantees for loans made to support certain types of clean energy projects under Section 1703 of the EPAct. The Title XVII program was modified in 2009 by ARRA, enacted in February 2009, which added Section 1705 of the EPAct. The addition of the Section 1705 program included an appropriation of funds that allowed DOE to pay the Credit Subsidy Cost of certain loan guarantees. Prior to ARRA, under the Section 1703 program, the recipients of Title XVII loan guarantees were required to pay the Credit Subsidy Cost, unless Congress appropriated funds for such costs, which it did not do until 2009.[1] DOE issued a first set of regulations governing the Title XVII program in October 2007 (10 C.F.R. Part 609), and released modifications to these regulations in 2009.[2]

The second DOE loan program, the ATVM program, was established by Section 136 of EISA, enacted in January 2008. Section 136 authorized DOE to create the ATVM program and to make a total of up to $25 billion in direct loans to manufacturers of advanced technology vehicles ("ATVs"), which are vehicles meeting certain specified fuel economy standards, or their associated components, that have their manufacturing facilities in the U.S. DOE released the regulations governing the ATVM program in November 2008.[3]

A separate but related program supporting clean energy projects was the cash grant program established by Treasury under Section 1603 of the ARRA (as amended by Section 707 of the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010). Under this program, Treasury could provide grants to persons and entities that either (1) placed certain types of alternative energy properties into service during 2009, 2010, and 2011 or (2) began construction of a specified energy property in 2009, 2010, or 2011.[4] Eligible alternative energy properties included wind facilities, closed-loop or open-loop biomass facilities, geothermal facilities, and equipment to produce, distribute, or use energy derived from alternative sources such as solar, geothermal, wind, fuel cells, or microturbines. Treasury was authorized to make grants in an amount up to 30 percent of the basis of the funded property as a substitute for the equivalent tax credits the projects' owners would have eventually received for making these investments.[5] Several of the projects receiving loans or loan guarantees under the Programs have applied for or received grants from Treasury under Section 1603, certain of the proceeds of which must be used to pay down a portion of the DOE-guaranteed loan, thereby reducing the DOE's overall exposure.

ii. Factors shaping the development of the Portfolio

The requirements and limitations that the statutes and regulations impose on the Programs shaped the development of the Portfolio in several ways. As summarized below, the legal constraints caused DOE to create a portfolio that consisted of:

- Innovative alternative energy projects employing technologies that had not reached commercial maturity and involved more risk than is typical for project and corporate debt financing;
- Loans and loan guarantees but, except in one case, no form of equity investment;
- Credits that DOE determined to meet statutory criteria of "reasonable prospect of repayment" and "financial viability";
- Credits of long tenor, approaching thirty years in some cases; and
- In the case of the Section 1705 credits, loans and loan guarantees that were required to close by the statutory deadline of September 30, 2011.

In addition:

- The fees that could be charged under the Programs were below market; and
- The solicitation process limited the pipeline of projects because it depended upon project sponsors proactively submitting proposals to DOE.

The effect of each of these factors on DOE's development of the Portfolio was as follows:

- The statutes and regulations require the Programs to support innovative projects employing technologies that have not yet reached commercial maturity.

DOE implemented the Programs to fulfill a perceived need for public programs to provide financing to alternative energy projects that had achieved deployment of a pilot facility but had not yet diffused, commercialized, and scaled-up the new technology. Both DOE and private observers of the alternative energy industry believed that many projects at this stage of development stalled or ended for lack of funding that would have been available for technologies that had proven their viability in one or more commercial-scale installations. Because both the Title XVII and the ATVM programs focus on providing support to projects involving innovative technologies that needed support to become commercialized and diffused through the marketplace, the supported projects inherently involve higher degrees of risk and uncertainty than projects that are typically financed in the banking and securities markets.

The EPAct focuses DOE's support on innovative, not-yet-commercial technologies. The EPAct requires that the loan guarantees made under the Title XVII program be awarded to projects that "employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued."[6] The EPAct specifies that the types of projects eligible for loan guarantees included renewable energy systems; advanced fossil energy technology; advanced nuclear energy facilities; efficient electrical generation, transmission, and distribution technologies; efficient end-use energy technologies; and production facilities for fuel efficient vehicles, including hybrid and advanced diesel vehicles.[7]

Like the Title XVII program, ATVM is intended to support innovative technologies, specifically, those that improve automobile fuel efficiency. In the case of ATVM, DOE is authorized to make direct loans to automobile manufacturers and component suppliers to establish, reequip, or expand a facility located in the U.S. to manufacture "qualifying" ATVs and "qualifying" components for ATVs, or to perform engineering integration in the U.S. of qualifying ATVs and qualifying components.[8] ATVM was expanded in 2009 to include manufacturers of "ultra efficient vehicles" -- vehicles with a fuel efficiency of at least 75 miles per gallon.[9]

- The statutes and regulations specify the form of the support DOE could provide under the Programs, but are silent as to whether that support can include taking an equity stake in a project as consideration for the loans or loan guarantees.

The EPAct limits DOE to making loan guarantees under the Title XVII program with appropriated funds, and does not authorize DOE to use appropriated funds to purchase equity in a company. The EPAct and implementing regulations are silent as to whether DOE could take equity in consideration for its loan guarantees, for waiving covenants or as part of a loan workout.

ATVM differs from the Title XVII program in that the ATVM program provides direct grants and loans of federal funds, rather than loan guarantees, to the borrowers. Like the Title XVII implementing regulations, the ATVM implementing regulations are silent regarding the ability of DOE to take equity positions in borrowers or underlying projects.

- The statutes and regulations require the Programs to support projects that, in DOE's judgment, promise "a reasonable prospect of repayment" in the case of the Title XVII program and involve a "financially viable" borrower in the case of ATVM.

Under the Title XVII program, DOE is authorized to grant loan guarantees only in cases in which the Secretary determines there is a "reasonable prospect of repayment" of the guaranteed loan.[10] Neither the EPAct nor the Title XVII program's implementing regulations define the term "reasonable prospect of repayment."

An applicant for an ATVM loan is required to show, among other factors, that it would be "financially viable" in the absence of any additional federal funding for the proposed project.[11] Under the regulations, DOE determines whether a manufacturer is "financially viable" based on a review of financial metrics enumerated in the ATVM implementing regulations, such as the applicant's debt-to-equity ratio as of the date of the loan application, the applicant's earnings before interest, taxes, depreciation, and amortization ("EBITDA") for the applicant's most recent fiscal year prior to the date of the loan application, and the applicant's debt-to-EBITDA ratio as of the date of the loan application.[12]

- The statutes provide for long-duration loans and loan guarantees.

The EPAct contemplates guarantees for long-term obligations in the Title XVII program; the term of the underlying loan guaranteed by DOE could be up to the lesser of 30 years or 90 percent of the projected useful lifetime of the physical asset financed by the loan.[13] DOE can make loans under ATVM with a term equal to the lesser of the projected life (in years) of the eligible project or 25 years.[14]

The fact that Title XVII guaranteed loans can have terms of up to 30 years and ATVM loans can have terms of up to 25 years means that many of DOE's commitments are of long duration. DOE will be responsible for managing the Portfolio for many years into the future, and this fact influences the Report's later recommendations with respect to management and governance.

- The statutes imposed certain deadlines on DOE's ability to make loans and loan guarantees.

Under the Title XVII program, projects receiving loan guarantees under Section 1705 were required to commence construction no later than September 30, 2011.[15] In addition, Section 1705 also included a sunset provision, under which DOE's authority to make loan guarantees under the Section 1705 authority expired on September 30, 2011.[16] Because ARRA was enacted in February 2009, DOE had less than three years to identify eligible projects, negotiate loan guarantee documentation, and close the transactions under its Section 1705 authority. Given the long lead times typical for innovative energy projects, this provision effectively limited the pool of potential projects to those that had progressed in conceptualization and development to the point where sponsors could complete the lengthy DOE application and negotiation process by September 30, 2011.

- The fees that could be charged under the Programs were below market.

The governing statutes set the fees that DOE could charge loan and loan guarantee recipients under the Programs. The EPAct provides that DOE can charge fees no higher than "sufficient to cover applicable administrative expenses" under the Title XVII program.[17] Under the ATVM program, DOE can charge for administrative costs up to $100,000 or 10 basis points of the loan.[18] These fees are higher for origination -- for which there are a number of administrative expenses -- than for the monitoring process. These provisions constrain the funding for monitoring and oversight.

- The solicitation process limited the pipeline of projects because it depended upon project sponsors proactively submitting proposals to DOE.

After the passage of the EPAct in 2005, DOE made an early decision to source loans for the Title XVII program through a formal solicitation process. DOE thereby limited itself to considering only projects submitted in response to the solicitation.

IV. SUMMARY OF THE INDEPENDENT CONSULTANT'S EVALUATION OF THE PORTFOLIO -- DESCRIPTION OF THE EVALUATED LOANS

The Independent Consultant conducted an evaluation of the closed loan and loan guarantee Portfolio under the Programs as of November 28, 2011. In total, there were 30 Evaluated Loans, of which 25 were closed under the Section 1705 portion of the Title XVII Program and five were closed under the ATVM program. As noted above, the Independent Consultant did not evaluate the loans to Solyndra and Beacon. Total exposure to Solyndra and Beacon as of November 28, 2011, was $567 million.

In general, the Evaluated Loans under the Programs were structured as funding commitments with limited, or in many cases, no funds drawn under the loan at closing. Borrowers have the ability to draw under the loans from time to time to fund the Eligible Costs provided that they meet certain conditions precedent that vary among the individual loans.

The 30 Evaluated Loans total $23.77 billion. As of November 28, 2011, $8.30 billion of proceeds or 35 percent of total funds committed had been drawn under the Evaluated Loans. Of the $23.77 billion in Evaluated Loans, $22.66 billion represents DOE's aggregate commitment, reflecting the fact that loans made under the Financial Institution Partnership Program ("FIPP")[19] are only up to 80 percent guaranteed.

The Independent Consultant grouped the Programs into three broad categories with each category representing a different project type and loan structure. The first category, the Utility-Linked Loans, all have a project finance structure, which is a common method of financing the construction of a long-lived asset, typically a discrete infrastructure asset such as a power plant. A more detailed description of project finance funding structures follows. The Utility-Linked Loans represent the greatest number of loans and loan guarantees under the Programs and the greatest aggregate commitment.

The second category comprises the Non-Utility-Linked Loans and includes cellulosic ethanol projects, solar manufacturing companies, and small, start-up automotive manufacturing companies. The Non-Utility-Linked Loan structures combine some elements of project finance loan structures and some elements of traditional corporate loan structures.

The third category comprises the Ford and Nissan Loans. The Ford and Nissan Loans were made to established corporate credits with loan structures typical of traditional secured corporate debt.

Utility-Linked Loans. The Portfolio includes 20 Utility-Linked Loans totaling $14.40 billion, of which $13.30 billion represents the DOE's aggregate commitment, taking into account the fact that the FIPP loans are only partially guaranteed. As of November 28, 2011, $3.15 billion of proceeds, or 22 percent of total Utility-Linked Loans funds committed, had been drawn. The Utility-Linked Loans category includes solar, wind, and geothermal generation, and electrical transmission projects.

Non-Utility-Linked Loans. The Portfolio includes eight Non-Utility-Linked Loans, excluding loans made to Solyndra and Beacon. The Non-Utility-Linked Loans represent aggregate DOE commitments of $2.01 billion. As of November 28, 2011, $556 million of proceeds, or 28 percent of total Non-Utility-Linked funds committed, had been drawn.

Ford and Nissan Loans. The Ford and Nissan Loans represent aggregate DOE commitments of $7.36 billion. As of November 28, 2011, $4.60 billion of proceeds, or 63 percent, of total Ford and Nissan funds committed, had been drawn.

A. Characteristics of the Utility-Linked Loans

The Utility-Linked Loans are all structured as project financings. In addition, certain of the Non-Utility-Linked Loans incorporate many project-financing elements.

Unlike corporate financings, which typically support the consolidated assets of a corporation, a project financing supports the development and operation of a specific asset and relies on the cash generated by that asset alone for its repayment.

The borrower in a project financing is typically a special purpose project company whose only asset is the project itself. The project company is in turn owned by one or more project sponsors, which fund equity contributions that, along with the debt raised in the project financing, pay for the construction of the project. The project financing is structured such that the project loan is non-recourse to the project sponsors, meaning the lenders must look only to the project company and its assets for repayment. However, as described below, the various parties to and documentation supporting a project financing often provide certain forms of credit support to help ensure repayment in the event that the construction or operation of the project does not go as planned. The key parties and contracts in a project financing are listed below.

Project Company. The project company acts as the borrower in the project financing and owns the assets of the project.

Project Sponsor. The project sponsor owns the project company and funds equity contributions, which along with the debt raised in the project financing are anticipated to pay for the construction of the project. If the project sponsor is not rated investment grade, it typically provides a letter of credit to the project company to guarantee the funding of its equity commitment. The project sponsor often commits to fund a certain level of cost overruns in addition to the amount of its base equity commitment.

Engineering, Procurement, and Construction Contractor. The engineering, procurement and construction ("EPC") contractor agrees to design the project, procure necessary components and materials, and construct the project. Under a "full-wrap" EPC contract, the EPC contractor is legally and financially bound to deliver the finished project by a certain date and at a certain cost. Alternatively, some projects do not enter into a full-wrap EPC contract, but rather into separate agreements for engineering services, procurement of components and/or construction.

Operations and Maintenance Service Provider. The operations and maintenance ("O&M") service provider is responsible for the day-to-day operations of the project following the completion of construction. The O&M service provider often guarantees it will meet certain performance levels or face financial penalties.

Project Offtaker. The project offtaker agrees to purchase the output of the project for an extended period of time. The offtake agreement is intended to provide stable and predictable cash flow to repay the project loan. In the specific context of the Utility-Linked Loans, the output is typically electric power sold to an investment grade utility under a power purchase agreement ("PPA") for an extended period of time (20-30 years).

Credit Agreement. The credit agreement between the project company and the project lenders governs the extension and repayment of the project loan. The key terms and provisions in the credit agreement that provide protection to the lender and guarantor include:

- Provisions granting a security interest in all project assets and contracts;
- Conditions precedent to initial funding and each subsequent draw request (for example, a certification by the borrower that it has sufficient funds available to complete the project);
- Interest, costs, and fees paid to the lender;
- Representations and warranties (for example, stating that the borrower has complied with relevant laws, has the right to pledge its assets as collateral, etc.);
- Covenants (for example, agreements not to incur additional indebtedness except under certain circumstances, not to make expenditures in excess of budgets except under certain circumstances, etc.);
- Provisions for mandatory prepayments under certain circumstances (using, for example, proceeds from a Section 1603 cash grant, proceeds from performance liquidated damages received from the EPC contractor, etc.); and
- Provisions requiring the funding of debt service and maintenance reserve accounts.

Appendix E provides a more comprehensive and detailed list of the key documents typically included in a project financing.

B. Characteristics of the Non-Utility-Linked Loans

The Non-Utility-Linked Loans fall into three sub-categories, based on the type of project or company to which the loan has been committed.

Cellulosic Ethanol Project Loans. The loans to the cellulosic ethanol projects are structured effectively as project financings, with a special purpose project company, an EPC contract, a parent completion and performance guarantee, and offtake agreements for the cellulosic ethanol production. As such, lenders benefit from structural protections in the construction phase that are largely similar to those that support the Utility-Linked Loans. However, unlike the Utility-Linked Loans, these projects have offtake agreements with affiliates of the project company and project sponsors rather than fixed-price agreements with a utility as is typical of Utility-Linked Loans.

Automotive Manufacturing Company Loans. These loans are provided to small start-up automotive manufacturing companies. Unlike the project financings, the loans have not been made to special purpose entities but rather are supported by the general corporate credit of the borrower. In all cases, the loans are secured by substantially all of the assets of the borrower and benefit from financial covenants. The borrowers can draw on the loans periodically provided certain milestones are met. Repayment of the loans is contingent on the borrower successfully executing its business plan.

Solar Manufacturing Company Loans. The solar manufacturing loans are to early-stage companies engaged in the business of manufacturing components for solar energy generation. The loans are supported by the general corporate credit of the borrower. In all cases, the loans are secured. Many of the loans have not yet funded or have only funded partially. In most of the solar manufacturing loans, the equity investor assumes the initial start-up risk before any portion of the DOE guaranteed loan is funded. The loan documents provide additional protection to the DOE in the form of conditions precedent that must be met at various stages prior to advances under the loans. These conditions precedent include:

- A certain amount of incremental equity contributions have been funded;
- Certain contract milestones (*e.g.*, for sale of the product) have been met;
- The latest milestone for gross profit margin milestone has been reached;
- The most recent required report from an independent engineer and/or market consultant has been provided and is acceptable;
- Permits to construct the current stage of the project have been received; and
- The borrower can demonstrate that sufficient funds are available to continue and complete construction.

If the companies do not meet the prescribed conditions precedent, the DOE is not obligated to advance additional funds to the borrower.

C. Characteristics of the Ford and Nissan Loans

The Ford and Nissan Loans resemble traditional corporate loans made to mature companies. The loans are supported by the general corporate credit of the borrower and the loan documentation contains customary loan covenants. In the case of Ford, the DOE guaranteed loan is split into two tranches: one secured by a junior lien on all the collateral pledged under Ford's senior secured credit agreement and the other secured by a first lien on the assets purchased using the proceeds of both tranches. The Nissan loan is also required by statute to be secured by assets purchased with loan proceeds.

V. SUMMARY OF THE INDEPENDENT CONSULTANT'S EVALUATION OF THE PORTFOLIO -- RANKING OF THE EVALUATED LOANS

A. Introduction

The first step taken by the Independent Consultant to evaluate the Portfolio was to assess the risk of each loan. The second step was to rank the loans relative to each other according to their assessed risk. The third step was to translate those rankings into numerical scores that in turn were translated into credit ratings such as "BBB," "BB," and "CCC+," which are meant to be fair approximations of the debt ratings independent rating agencies would assign to the transactions as of the date of the Report. Each transaction's specific letter rating was used by the Independent Consultant as an input to its own evaluation of the Portfolio.

The Ford and Nissan Loans were not included in the ranking exercise because they are established corporate credits with current external credit ratings. As such, the Independent Consultant relied upon independent ratings from credit rating agencies. The Ford loans were rated in accordance with Ford's senior secured credit ratings. The Nissan loan was rated in accordance with its corporate credit rating.

DOE does not require borrowers to provide updated credit ratings on completed transactions. Therefore, the Independent Consultant performed a credit ranking and rating exercise with respect to the guaranteed loan transactions that closed before November 28, 2011 as a first step to conducting the evaluation of the Portfolio. The Independent Consultant did not rank loans made to Beacon and Solyndra.

B. Assessing the Credit Risk of Utility-Linked and Non-Utility-Linked Loans

In assessing the credit risk of each Utility-Linked and Non-Utility-Linked Loan, the Independent Consultant used nine fundamental categories of credit quality (the "Nine Criteria") listed below. Details regarding each of these criteria are provided in Appendix D.

- Project Sponsor;
- Technology;
- Capital Structure;
- Market and Off-take;
- Project Completion;
- Operation Cost and Performance;
- Infrastructure;
- Legal; and

- Legislative and Regulatory.

The Independent Consultant assigned each credit a numerical value ranging from 0 to 5 for each of the Nine Criteria, with 5 being the strongest, and then applied criteria weightings ("the Criteria Weightings") to the Nine Criteria in order to generate an overall numerical score for each transaction.

DOE used a similar approach to risk assessment using the Nine Criteria and a weighting methodology in its underwriting process for Utility-Linked Loans and most of the Non-Utility-Linked Loans. The Independent Consultant used the same Nine Criteria as did DOE because, in the opinion of the Independent Consultant, they comprise the salient factors for evaluating the credits and are substantially similar to the criteria that would be employed by private sector credit analysts for these types of loans. Areas where the Independent Consultant departed from the DOE's methodology are detailed below.

The Criteria Weightings applied to each category are summarized below. Bold figures indicate the departures from DOE's weightings of the criteria. Where weightings in one category are increased, the weightings of the other categories are decreased *pro rata*.

Table 2: *Criteria Weightings Applied to Each of the Nine Criteria*

	Utility-Linked	Non-Utility-Linked		
		Solar Manufacturing	Automotive Manufacturing	Cellulosic Ethanol
# of Projects	20	1	1	2
Project Sponsor	15.0%	13.2%	13.2%	12.5%
Technology	15.0%	13.2%	13.2%	12.5%
Capital Structure	15.0%	13.2%	13.2%	12.5%
Market and Off-Take	15.0%	**25.0%**	**25.0%**	12.5%
Project Construction	10.0%	8.8%	8.8%	8.3%
Operating Cost and Performance	10.0%	8.8%	8.8%	8.3%
Infrastructure	5.0%	4.4%	4.4%	4.2%
Legal	5.0%	4.4%	4.4%	4.2%
Legislative and Regulatory	10.0%	8.8%	8.8%	**25.0%**
Total	100.0%	100.0%	100.0%	100.0%

The Independent Consultant considered currently available information in determining the strengths and risks of each credit and attempted to evaluate the loans in a consistent manner. All transactions were evaluated as of the same point in time, in line with the Independent Consultant's intention to apply a consistent approach to evaluation across the Portfolio.

Utility-Linked Loans. The Independent Consultant relied upon the Nine Criteria for each of the Utility-Linked Loans, consistent with DOE's methodology. Criteria Weightings (across the Nine Criteria) were not altered from the weightings used by DOE. In three cases, DOE factored in specific incremental criteria. In these cases, the Independent Consultant concluded that these factors were already captured in the Nine Criteria. As a result, it did not amend the Criteria Weightings.

Non-Utility-Linked Loans. The Independent Consultant relied upon the Nine Criteria to assess each of the solar manufacturing and cellulosic ethanol loans, consistent with DOE's methodology. The Independent Consultant also used the Nine Criteria in assessing each of the automotive manufacturing loans (excluding Ford and Nissan), a departure from DOE's approach to evaluating those loans. In these cases, DOE relied on projected financial ratios as a measure of credit quality. The Independent Consultant believes that the Nine Criteria better measure the credit quality of the early-stage auto manufacturing companies than do projected financials that rely on many assumptions.

In ranking the solar manufacturing loans, the Independent Consultant assumed that the borrower had met all conditions precedent and that DOE had made its first advance under each loan. The Independent Consultant believes that these are reasonable assumptions in evaluating the risk of the loans given that, if a solar manufacturing company does not meet certain conditions precedent, no funding of the loan will occur and DOE will have no exposure under the loan guarantee.

With respect to the Criteria Weightings used to assess the credit of the Non-Utility-Linked Loans, the Independent Consultant departed from DOE's approach. For the solar manufacturing loans, the Independent Consultant increased the Criteria Weightings related to market exposure. The Independent Consultant believes that market-related risk is especially significant for the solar manufacturing companies and that this risk had increased since the loans were originated. Criteria Weightings related to legislative and regulatory risk were increased for the cellulosic ethanol loans. The Independent Consultant determined that the legislative- and regulatory-related risk is especially significant for these loans, given the projects' reliance on the Renewable Fuel Standards ("RFS") mandate.

DOE did not have Criteria Weightings for the small, start-up automotive manufacturing loans, as DOE did not use the Nine Criteria to evaluate those loans. The Independent Consultant believes that the same Criteria Weightings applied to the solar manufacturing companies were appropriate for the small automotive manufacturing companies, with market-related risk being the most significant.

C. Ranking the Evaluated Loans According to Credit Risk

Once the Independent Consultant had assigned numerical scores based on the assessment methodology above, the Independent Consultant ranked the loans in order of their numerical ratings from high to low. Based on the Independent Consultant's experience with project financings, it considered the most credit-worthy transactions (those with the highest numerical scores) to be of low investment-grade credit quality (BBB) and the least creditworthy to be sufficiently risky to have equity-like investment characteristics. For the purposes of the evaluation, the Independent Consultant assumed that the weakest credit in the Portfolio would have a CC rating.

The evaluation process used a standard, consistent credit evaluation methodology to evaluate each transaction in the Utility-Linked and Non-Utility-Linked Loan portfolios from a credit perspective and then compared the transactions with one another. The objective was to establish a list that ranked the relative credit quality of the loans from highest to lowest.

The Independent Consultant translated each numerical score into a letter rating, with the top credits rated at the BBB level, down to the weakest credits, which were rated at the CC level. The table below was developed by the Independent Consultant and shows how numerical scores were translated to letter ratings at each discrete rating level. The DOE used a similar translation approach. However, DOE's translation of numerical scores into letter ratings was based on a different scale.

Table 3: *Mapping of Numerical Ranking to Letter Rating*

Mapping of Numerical Rating to Letter Rating			
Numerical Rating			Letter Rating
Low	–	High	
4.75	–	5.00	BBB+
4.50	–	4.75	BBB
4.25	–	4.50	BBB-
4.00	–	4.25	BB+
3.75	–	4.00	BB
3.50	–	3.75	BB-
3.25	–	3.50	B+
3.00	–	3.25	B
2.75	–	3.00	B-
2.50	–	2.75	CCC+
2.25	–	2.50	CCC
2.00	–	2.25	CCC-
1.75	–	2.00	CC+
1.50	–	1.75	CC
1.25	–	1.50	CC-
1.00	–	1.25	C
0.00	–	1.00	D

This risk rating and credit rating assignment exercise resulted in 17 of the credits receiving ratings that were either higher or lower than those assigned by DOE.

VI. THE INDEPENDENT CONSULTANT'S EVALUATION OF THE PORTFOLIO

A. Overview of the Independent Consultant's Evaluation Methodologies

Once the Independent Consultant had assessed the credit risk of each project and assigned a letter rating to each, the Independent Consultant used two distinct and non-comparable methodologies to quantify risk associated with the Portfolio: the FCRA Methodology and the FMV Methodology. The methods differ substantially from each other and are used for different purposes, as discussed below.

Notwithstanding their differences in method and purpose, the Independent Consultant believes it is beneficial to use both the FMV Methodology and the FCRA Methodology for assessing and evaluating the Portfolio and for developing recommendations regarding management, governance, and reporting. The FMV Methodology provides additional insight into the future marketability of these loans and guarantees, the financial incentives that sponsors and other parties have to invest in these projects, and the ways that DOE should manage the Programs to protect and enhance value to taxpayers over time.

The FCRA Methodology. The first methodology involved the calculation of credit subsidy costs for each loan in the Portfolio in accordance with FCRA. For credit programs that administer full or partial loan guarantees (such as the Programs), FCRA defines the cost of these programs as the estimated long-term cost to the government on a net present value basis, excluding administrative costs. An amount equal to this long-term cost is budgeted to cover the risk of estimated shortfalls in loan repayments and, as described previously, is referred to as the Credit Subsidy Cost. Prior to entering into a Loan Guarantee, the DOE is required to receive either an appropriation for the Credit Subsidy Cost or a cash payment of such cost directly from the applicant. DOE is also required each year to re-estimate the Credit Subsidy Cost for each loan that has had a disbursement. The Credit Subsidy Cost estimated by the DOE for each loan reflects DOE's assessment of each loan's credit quality. The Independent Consultant relied upon its own assessment of credit quality, using the ratings that were applied to each loan in the Portfolio, to develop its estimate of Credit Subsidy Cost. A summary of FCRA and how the Independent Consultant used this approach is detailed in the following section. .

The FMV Methodology. The second methodology involved the calculation of an estimated "fair market" value ("FMV") for each loan in the Portfolio in a manner that the Independent Consultant believes would be used by parties buying similar loans in the market. Because the interest rates on the Evaluated Loans are set at or very near the Treasury's concurrent borrowing rates, the interest rates are significantly below market rates for comparable commercial loans. The FMV Methodology estimates the amount of discount to face value that investors would require in order to receive an acceptable total return. The Independent Consultant relied upon its assessment of credit quality, using the ratings that it applied to each loan in the Portfolio, to develop its own estimate of a fair market value discount for each loan. A summary of the FMV Methodology and how the Independent Consultant used this approach is detailed below.

Neither the FCRA Methodology nor the FMV Methodology can be used to predict the eventual realized loss associated with any loan or loan guarantee or the Portfolio as a whole. The eventual loss will depend upon the outcomes of many factors, some unique to certain loans, that the FCRA Methodology and the FMV Methodology are not designed to capture and that cannot be predicted with confidence today. Furthermore, the present value estimates under either the FCRA Methodology or the FMV Methodology fluctuate substantially with changes in discount rates that are functions of assumed long-term interest rates. For instance, if long-term interest rates on U.S. Treasuries were to rise significantly from today's historic lows, the Credit Subsidy Cost estimate as calculated under the FCRA Methodology, all other factors unchanged, would decline substantially.

B. <u>Description of the FCRA Methodology</u>

Prior to entering into a loan guarantee, DOE is required to receive either an appropriation for the Credit Subsidy Cost or a cash payment of such cost directly from the applicant. In consultation with OMB and a third-party consultant contracted by DOE, LPO has developed a Credit Subsidy Cost estimation methodology that emulates the method used by OMB.

This Credit Subsidy Cost relies on a methodology developed in conjunction with OMB to determine the net present value of cash flows to and from the government resulting from either a direct loan from the government, or a government guarantee of a third-party loan. The model requires three inputs:

- Project credit rating
- Expected recovery rate in the event of a default
- Project principal and interest payment schedule

For direct government loans, the model applies a cumulative default rate to each scheduled principal and interest payment to produce a forecasted default amount. The default payments for a guaranteed loan are calculated by applying the historical default data for loans of that age and rating to the appropriate remaining principal balances. The default rates used are based on default data provided by Moody's and Standard & Poor's ("S&P"). The default curves applied to a particular project correspond to the project's credit rating, which is a letter credit rating determined by DOE, with input from OMB, based on a comprehensive risk rating methodology which takes into account all of the due diligence and analysis performed by DOE through the underwriting process. The letter credit rating is an approximation of the rating that would be assigned by a third-party credit rating agency.

The model then applies an expected recovery rate to the estimated defaulted cash flows. The expected recovery rate is the percentage of principal estimated to be recovered in the event of a default. That recovery rate is adjusted up or down by LPO, with input from OMB, taking account of project-specific risk factors.

The application of the default rates and expected recovery rates to the appropriate loan balance yields a forecast of cash flows to and from the government over the life of the loan. Those expected cash flows are then discounted using OMB's Credit Subsidy Calculator (CSC2). The CSC2 discounts the cash flows at relevant Treasury rates. The sum of the discounted cash flows, net of disbursements for direct loans, is the Credit Subsidy Cost, which is expressed as a dollar amount. That dollar amount is then divided by the obligation amount, equal to the sum of all disbursements, to arrive at the Credit Subsidy Rate, which is expressed as a percentage.

C. Valuation Using the FCRA Methodology

The Independent Consultant considered the results of the FCRA analysis under two cases, one based on DOE's credit ratings for each loan as of early December 2011, and one based on the Independent Consultant's credit ratings for each loan.

DOE Annual Re-Estimate. The credit subsidies for each loan drawn as of September 30, 2011 were re-estimated by DOE as part of its normal annual budgeting process. Each loan subject to a re-estimate received a new letter rating from DOE that in turn was used as an input in the FCRA methodology to re-estimate its credit subsidy in early December 2011. If a re-estimate was not required for a loan because no funds had been drawn as of September 30, 2011, its credit subsidy at obligation was used.

Independent Consultant's Modified Credit Subsidy Calculation. The Independent Consultant asked DOE's third-party consultant (with DOE's acknowledgement) to recalculate the Credit Subsidy Cost for each of the 17 loans for which the Independent Consultant's credit rating differed from DOE's credit rating. All other inputs to the FCRA Methodology remained unchanged.

In its re-estimate of the Credit Subsidy Cost using the FCRA Methodology, the Independent Consultant did not make any changes to the recovery rate assumptions used by DOE. The Independent Consultant understands that the determination of a recovery rate for each loan resulted from subjective analysis and discussion between DOE and OMB on a loan-by-loan basis. The assumed recovery rate has a substantial effect on the Credit Subsidy Cost calculation. The Independent Consultant ran sensitivities on a small sample of the loans, re-estimating the Credit Subsidy Cost for recovery rates both above and below those chosen by DOE. The results of the sensitivity analysis using the small sample confirmed that changes to the recovery rate could have a meaningful impact on the credit subsidy calculation.

In order for the Independent Consultant to determine a recovery rate for each loan, the Independent Consultant would need to commission an appraisal of each of the underlying assets securing the loan. For the purposes of this report, the Independent Consultant did not have the time or budget to commission appraisals for each asset securing each loan in the Portfolio.

D. Results of Valuation Using the FCRA Methodology

Utility-Linked Loans. The Utility-Linked Loans portfolio comprises 20 loan guarantees with an aggregate principal value of $14.4 billion.

The initial Credit Subsidy Cost DOE calculated under the FCRA Methodology of each particular loan closed totaled $1.491 billion at the time of closure.

The Independent Consultant's re-evaluation of each Utility-Linked Loan's credit rating resulted in ten loans receiving ratings different from those assigned by DOE, some of which were lower and some of which were higher by one to two credit rating categories.

The factors that resulted in changed ratings varied among the loans, but in general included the Independent Consultant's independent views on the following factors:

- Financial strength and creditworthiness of project parties;
- Legal and regulatory changes since the loans closed;
- Technological and operational risks (based upon the projects' independent engineer reports); and
- Project progress to date.

In certain cases, the Independent Consultant's views on these factors were more positive and in other cases they were more negative than DOE's views. Overall, the Independent Consultant's reevaluation of the Utility-Linked Loan portfolio's creditworthiness resulted in a modestly lower average rating than had been assigned by DOE. Updated Credit Subsidy Costs for Utility-Linked Loans calculated using the FCRA methodology with DOE's credit ratings as of December 11, 2011 totaled $1.551 billion. Updated Credit Subsidy Costs calculated using the FCRA methodology with the Independent Consultant's credit ratings totaled $1.696 billion, a nine percent increase to DOE's FCRA re-estimate.

Non-Utility-Linked Loans. The Non-Utility-Linked Loans portfolio comprises eight loan guarantees with an aggregate principal value of $2 billion.

The initial Credit Subsidy Cost DOE calculated under the FCRA Methodology totaled $479 million at the time each particular loan closed.

The Independent Consultant's reevaluation of each loan's credit rating resulted in six loans receiving ratings different from those assigned by DOE, all of which were lower by one to three credit rating categories.

The factors that resulted in changed ratings varied among the loans, but in general included the Independent Consultant's independent views (which in certain cases were more positive and in certain cases more negative than DOE's views) on the following factors:

- Changes to market related risks; and
- Project progress to date.

Overall, the Independent Consultant's reevaluation of the Non-Utility-Linked Loans portfolio's creditworthiness resulted in a lower average rating than had been assigned by DOE. Updated Credit Subsidy Costs calculated using the FCRA methodology with DOE's credit ratings as of December 11, 2011 totaled $640 million. Updated Credit Subsidy Costs calculated using the FCRA methodology with the Independent Consultant's credit ratings totaled $820 million, a 28 percent increase to DOE's FCRA re-estimate.

Ford and Nissan Loans. The Ford and Nissan loans have an aggregate principal value of $7.4 billion.

The initial Credit Subsidy Cost DOE calculated under the FCRA Methodology totaled $3.0 billion at the time the DOE made its loan commitments in 2009.

The Independent Consultant evaluated the existing credit ratings of Ford and Nissan, as well as information regarding the security package and ranking of the loans in each company's capital structure. The Independent Consultant raised the rating on the Ford loans by four categories from DOE's rating at re-estimation. The Nissan loan was left unchanged from DOE's rating at re-estimation.

Overall, the Independent Consultant's reevaluation of the Ford and Nissan portfolio's creditworthiness resulted in a higher average credit rating than had been assigned by DOE. Updated Credit Subsidy Costs calculated using the FCRA methodology with DOE's credit ratings as of December 11, 2011 totaled $753 million. Updated Credit Subsidy Costs calculated using the FCRA methodology with the Independent Consultant's credit ratings totaled $166 million, a 78 percent decrease to DOE's FCRA re-estimate of credit loss.

Table 4: *Results of the FCRA Methodology Calculations*

Portfolio	Total Principal	Total Principal + Capitalized Interest	At Origination Credit Subsidy Calculation		At Re-Estimate Credit Subsidy Calculation		Independent Consultant Modified Credit Subsidy Calculation	
			Credit Subsidy %	Implied Credit Subsidy Cost	Credit Subsidy %	Implied Credit Subsidy Cost	Credit Subsidy %	Implied Credit Subsidy Cost
In $ millions								
[illegible]	14,073	14,404	11.5%	1,491	12.0%	1,551	13.1%	1,696
[illegible]	1,972	2,010	24.3%	479	12.5%	640	41.6%	830
Ford and Nissan Loans	7,355	7,355	41.4%	3,045	10.2%	753	2.3%	166
Total	$23,400	$23,769	22.5%	$5,016	13.2%	$2,944	12.0%	$2,692

E. Characteristics of the FCRA Methodology

While the valuation of any long-term loan is necessarily an estimate, the Independent Consultant notes that the Portfolio has several characteristics that make it particularly challenging to value:

- Many of the projects employ novel technology and/or involve significant scale-up risk;

- The loans have tenors that are longer than those typically found in the marketplace, and therefore a small change in discount rates results in a relatively large change in valuation; and

- Many of the loans are to projects still in a construction phase, during which they have not yet demonstrated their capability to perform.

The FCRA Methodology requires an assessment of credit quality that is determined in part through an analysis of the financial forecasts associated with each loan. These forecasts are subject to numerous assumptions and actual results may differ materially from the forecasts. Furthermore, the projects are complex and fundamentally difficult to forecast. Inherent in the nature of the Programs is the financing of innovative projects at an earlier stage than that at which they would have been able to attract financing in the private market.

The FCRA Methodology focuses only on default risk and associated rates of recovery. It relies upon an assumed default rate for each loan that varies by credit rating (with lower rated loans having a higher risk of default) and time horizon (with payments further into the future having a higher risk of defaulting) and an assumed recovery rate in the event of such a default. Thus, the FCRA Methodology estimates only the present value of the expected credit loss from the loan. It assumes that that forecast is correct and does not account for the possibility that the actual loss may be higher or lower than the estimate. If the eventual actual loss exceeds the Credit Subsidy Cost, that incremental loss is absorbed by the taxpayer pursuant to the permanent, indefinite budget authority under FCRA.

The resulting estimate of defaulted cash flows, offset by associated recoveries, is discounted at the government's cost of funds (*i.e.*, a risk-free rate) to arrive at the Credit Subsidy Cost. It is important to note that the default rates are based on historical data compiled by the rating agencies over several decades, and therefore are not reflective of the specific nature of the loan guarantees in the Portfolio (*e.g.*, the particular industries involved, the unique degree of technology and scale-up risk, the illiquid nature of the loans from a trading perspective, and the longer than typical tenor for credits of these ratings).

As a result of these characteristics, the results from the legally required FCRA Methodology do not reflect the discounts from the loans' face values that investors would demand to bear the full set of risks involved in this particular Portfolio.

To be clear, while the results of the FCRA Methodology represent reasonable estimates of the expected credit cost of the loan guarantee at the current time, this valuation methodology, like the FMV Methodology discussed below, cannot be relied upon as a predictor of the eventual performance of the Portfolio.

F. Valuation Using the FMV Methodology

The Independent Consultant also conducted a fair market valuation of the Portfolio. To do so, the Independent Consultant assigned a range of discount rates to the estimated cash flows of each loan based on:

- Yields on the bonds of similarly rated issuers, adjusted for the particular characteristics and lack of liquidity of each loan;
- The Independent Consultant's independent credit rating for each loan (described above); and
- The anticipated weighted average life of each loan.

Each loan's DOE-estimated principal and interest payment schedule (provided to the Independent Consultant in early December 2011) was discounted using the assigned yield range that was developed based on yields for similarly-rated utility and industrial bonds as of January 2012, adjusted to reflect the Independent Consultant's experience with the market for project finance credit. In general, approximately 100 additional basis points were added to the market-observed yields to reflect differences between the loans in the Portfolio and the loans and bonds for which publicly available yield data could be obtained. Those differences include:

- Complexity of the projects and their loan documentation;
- Reduced trading liquidity; and
- The repayment pattern of the loan (*i.e.*, some major investors, such as insurance companies, prefer loans with a single maturity date rather than loans that gradually repay).

To reflect the speculative nature of the projects in the lower ratings categories, the Independent Consultant widened the range of yields applied as the loans' ratings declined, starting at a one percent range for the highest ratings category and expanding to a five percent range for the lowest ratings category.

The resulting range of present values of each loan was deducted from the loan's principal amount to arrive at an estimate of the range of economic values of the loan guarantee. Because the interest rates on the Evaluated Loans are set at or very near the Treasury's borrowing rate, those interest rates are significantly below market rates for comparable commercial loans. For an investor to earn a market rate of return from these loans, the investor would have to purchase them at a significant discount to their face value.

The yields for Ford were based on a combination of yield data on Ford's publicly traded debt as of January 2012. The yields for Nissan were based on similarly rated industrial bond indices.

The table below summarizes the range of yields applied to credits at each rating level.

Table 5: *Range of Yields Applied to Credits at Each Rating Level*

Letter Rating	FMV Discount Rate Low	–	High
BBB+ BBB	6.5%	–	7.5%
BBB-	7.0%	–	9.0%
BB+ BB BB-	8.5%	–	11.5%
B+ B B-	9.5%	–	13.5%
CCC+ CCC CCC-	12.5%	–	17.5%
CC+ CC CC-	Case by Case Basis		
C	Case by Case Basis		
D	Not Applicable		

G. Valuation Results Using the FMV Methodology

Utility-Linked Loans. The Independent Consultant's fair market value analysis resulted in an aggregate discount of $3.5 billion to $5.0 billion to the total principal amount of the loans.

Non-Utility-Linked Loans. The Independent Consultant's fair market value analysis resulted in an aggregate discount of $707 million to $858 million to the total principal amount of the loans.

Ford and Nissan Loans. The Independent Consultant's fair market value analysis resulted in an aggregate discount of $716 million to $1.021 billion to the total principal amount of the loans.

The results of the Independent Consultant's fair market valuation methodology are summarized below.

Table 6: *Results of the FMV Methodology Calculation*

Portfolio	Total Principal	Total Principal + Capitalized Interest	Independent Consultant Fair Market Value	
			Implied Discount Rate	Implied Discount [illegible]
($ millions)				
Utility-Linked Loans	14,073	14,404	3,547	4,961
Non-Utility-Linked Loans	1,972	2,010	707	858
[illegible] Loans	7,355	7,355	716	1,021
Total	$23,400	$23,769	$4,970	$6,839

H. Characteristics of the FMV Methodology

The Independent Consultant notes that the purpose and calculation of the FMV Methodology differ from those of the FCRA Methodology. The Independent Consultant attributes this difference to the fact that the FCRA Methodology and the FMV Methodology measure different sets of risks.

The FMV Methodology is based on the returns that investors are observed to demand in the market at a specific point in time for bearing risks similar to those present in the Portfolio. As such, it reflects the full range of risks for which investors would demand to be compensated in a private market transaction at the time the analysis was conducted. That range of risks includes not only the risks described previously in the section on Characteristics of the FCRA Valuation Methodology (Section VI(E)), but additional risks, among which are:

- The risk that the estimate of credit loss may prove to be incorrect;
- The concentration risk in the Portfolio (see Section I, below);
- The reinvestment risk (the risk either that an investment may terminate earlier than its stated tenor and the rate of return for available alternative investments may be less than the rate of return of the original investment, or the risk that income from an investment can only be invested at a rate of return less than that offered by the original investment);
- The liquidity risk pertaining to the unusual nature of the loans in the Programs; and
- Other market risks for which an investor would expect to be compensated with additional price discount but which the government, uniquely, does not confront.

In addition, the FMV Methodology is based on market data for the most comparable bonds and loans that exist in the market. However, the distinctive characteristics of the loans in the Portfolio limit the comparability of the available market data to these loans. Furthermore, the market data fluctuate on a daily basis, making any valuation representative of only a single point in time.

The aggregate results of the FCRA Methodology represent reasonable estimates of the discount to face value that investors would require to purchase the Portfolio in the open market. However, as with the FCRA Methodology, the FMV Methodology cannot be relied upon to predict the eventual performance of the Portfolio.

I. **Portfolio Concentration Risk**

In evaluating the Portfolio, the Independent Consultant noted several risk exposures that span several loans. These include:

- Exposure to the price of photovoltaic ("PV") panels. The seven PV generation projects will benefit if their cost to acquire panels decreases but the three PV manufacturing projects will not benefit if competitors' prices decrease.

- State renewable power standards. Almost all the Utility-Linked Loans are supported by power purchase agreements from utilities seeking to satisfy state mandates to source large portions of their power from renewable sources. These loans are exposed to the credit of these utilities and to the continuation of their regulatory requirements to source this type of power even if its price is higher than power from alternatives.

- First Solar and Abengoa. At least three projects rely on First Solar, Inc. to produce their solar panels and three projects rely on the Spanish company Abengoa as their sponsor.

- RFS. Two projects rely on the Environmental Protection Agency's RFS2 cellulosic ethanol mandates to establish a market for their product.

VII. MONITORING AND GOVERNANCE OF THE PROGRAMS

The second task that the Chief of Staff assigned to the Independent Consultant was to make:

Recommendations for enhancement to the Programs, if warranted and practical, to ensure effective monitoring and management of the current loan and guarantee portfolio.

A. Statutes and regulations

The EPAct contains few requirements for monitoring and supervision of loan guarantees DOE granted under the Title XVII program. The monitoring and oversight language of the EPAct and implementing regulations is limited to clauses requiring recipients of guarantees to keep records and to provide access by the Secretary to the records to facilitate audit and governing actions for DOE to take in the event a borrower defaults on the underlying loan.[20]

The EISA does not provide any requirements regarding governance and monitoring of loans after closing. The ATVM program regulations require parties to an ATVM transaction to maintain records of the transaction and allow DOE access to any relevant records for the purpose of audit or examination.[21]

Neither the statutes nor the regulations governing the Programs specify internal or external oversight or reporting requirements. The statutes and regulations do not specify the types or frequency of audits or examinations DOE must perform, the specific events that should trigger an audit or examination, or other guidance related to oversight and monitoring of DOE loans or loan guarantees.

B. LPO monitoring and governance infrastructure as of October 2011

i. LPO structure

LPO, which manages the Programs, most recently codified the structure and management of the Title XVII program as it operated in October 2011 and the structure and management of the ATVM program in November 2009. LPO is headed by a single Executive Director who reports directly to the Secretary.[22] The LPO Executive Director "serves under the broad guidance of the Secretary of Energy."[23]

LPO analyzes and assembles the documentation that the Secretary uses to determine which projects receive loan guarantees under the Title XVII program and loans or grants under the ATVM program. LPO is also responsible (subject to the oversight described below) for the management of the Portfolio after these transactions have closed.

LPO is divided into several divisions responsible for specific aspects of the origination and monitoring/oversight processes:

The Loan Guarantee Origination Division ("LGPO-OD") is responsible for the origination and underwriting of guaranteed obligations under the Title XVII program. The LGPO-OD is responsible for moving projects through the application reviews, and for processing and overseeing detailed due diligence. It is also responsible for developing and negotiating terms and conditions associated with the guaranteed obligation, developing and negotiating closing documentation, recommending approvals and rejections of loans and ultimately closing the loan guarantee.[24]

The ATVM Division is responsible for the origination of loans under the ATVM program, performing the due diligence, negotiation, and closings associated with ATVM loans, and making recommendations on loan decisions.

The Technical and Project Management Division ("TPMD") is responsible for providing technical analysis and input to the Title XVII and ATVM origination divisions. It supervises the work of independent engineers and technical experts retained to assist in the origination process.[25]

The Credit Division is responsible for performing the Credit Subsidy Cost estimation during the origination process for both the Title XVII and the ATVM programs. It generally implements, administers, and updates the credit policies and risk evaluation methodologies that LPO uses during origination and management of transactions.[26] The Credit Division also performs credit risk assessments and maintains the credit subsidy cash flow model that the Programs use to estimate the Credit Subsidy Cost of a loan or loan guarantee.[27] The Credit Division submits the Credit Subsidy Costs it calculates to OMB for approval.[28]

The Portfolio Management Division ("PMD") is responsible for managing Title XVII and ATVM transactions once they have received their first disbursement (*i.e.*, once the origination process is complete). This includes monitoring projects through the construction period, checking adherence to repayment schedules and loan covenants, and monitoring legal and regulatory activities. Some of the more important responsibilities described in the Programs' policies and procedures include:

- Managing the large number of post-closing decisions required over the life of a loan or guarantee. These include whether to authorize disbursements, modify or amend the terms of the transaction, waive the transaction terms, and in some instances, pursue workout or foreclosure. Even a transaction requiring no modifications or amendments can require monthly evaluations over time to determine whether conditions precedent had been met before the next tranche of loan proceeds was released to the borrower.

- Reviewing and re-rating projects periodically, in conjunction with the Credit Division, to update the risks associated with a project and enable LPO to update the valuation of the Portfolio on an ongoing basis for FCRA compliance.

- Administering the periodic reporting system for all projects, producing weekly, quarterly, semi-annual and annual reports on the status of Portfolio projects, both individually and as a group. The frequency, detail and distribution of the reports vary based on project status.

In carrying out its responsibilities, LPO's policies and procedures call for PMD to make a determination of whether a credit action or a development pertaining to a borrower is "material." LPO policies do not define what constitutes a "material" amendment or waiver. PMD personnel stated that the standard they use to determine whether an amendment or a waiver is material is whether the change involves DOE taking on additional risk. Other examples of material changes or credit actions include restructuring, pursuing foreclosure in the event of a default, and the disposition of assets.[29] This determination dictates whether a particular borrower or credit action will be scrutinized by the Risk Committee, the CRB, or the Secretary.

Another significant responsibility of PMD is managing a Watch List of projects that it has identified as higher risk (for reasons such as a breach of a covenant, falling behind schedule, or presence in an industry or market sector experiencing challenging market conditions). Projects on the Watch List are subject to heightened scrutiny. Among other responsibilities, LPO's policies and procedures call for PMD to review and reevaluate Watch List project risk ratings monthly and to hold weekly calls with Watch List borrowers.

LPO is currently staffed by 92 full-time equivalent employees, who are spread among the various divisions within LPO. In addition, LPO uses over 60 full-time contractors as consultants on different aspects of the program. The current LPO Executive Director holds that position in an acting capacity.

ii. Internal DOE oversight of the Programs and the LPO

There are several committees involved in overseeing credit transactions and the LPO. The Credit Committee is responsible for independently reviewing proposed loans and loan guarantees based on the information provided to it by the Title XVII and ATVM origination divisions, and making recommendations to the LPO Executive Director about whether the Executive Director should recommend to the CRB approval of the loans or loan guarantees to the borrower.[30]

The Credit Committee is chaired by DOE's Acting Chief Financial Officer. The other members of the Credit Committee are the PMD Director, LPO's Chief Counsel (non-voting), and three senior officials selected by the committee's chairperson.

The CRB is responsible for making the final recommendation to the Secretary about whether to provide a loan or loan guarantee to the borrower.[31] According to the DOE Title XVII Policies and Procedures, the CRB "serves a management and oversight function that is similar to that of a transaction approval group within an investment bank or commercial bank."[32] The CRB reports to the Secretary, who makes the final decision about whether to proceed with a transaction. The CRB fulfills this role for both the Title XVII and ATVM programs; the Programs do not have their own, separate CRBs.[33] The CRB is governed by the CRB Charter, most recently revised in December 2011.

The CRB consists of eight members and includes both political appointees and senior-level staff. Several of the CRB members have backgrounds in business, finance, and technology. The Deputy Secretary chairs the CRB.[34] The CRB's other members include the Under Secretary of Energy, the Under Secretary of Energy for Science, the DOE's Chief Financial Officer ("CFO"), the Chief of Staff to the Secretary, the Senior Advisor to the Secretary of Energy (for Financial Matters), the DOE General Counsel, and other DOE employees appointed by the Secretary.[35]

iii. Recent changes to the Programs' management, monitoring, and governance

The Secretary directed a number of changes in management, monitoring, and governance of the Programs and the Portfolio during the Review. These changes are described below.

Structural Changes. The Secretary recently expanded the role of the CRB to include participating in monitoring transactions that have closed, and directed the creation of a new committee to oversee management of the Portfolio.

The CRB is now responsible for reviewing and making recommendations to the Secretary concerning decisions to be taken throughout the life of a loan, such as material modifications to transaction agreements, initial disbursements, and any disbursements to companies on the Watch List.

At the Secretary's direction, the DOE has also recently added a Risk Committee to the oversight and monitoring process. The Risk Committee is "intended to play a broad role in oversight of portfolio management" and to ensure that "the CRB and Secretary are appropriately informed respecting the portfolio as a whole, including significant or material actions or events affecting individual portfolio assets."[36] The Secretary has also charged the Risk Committee to work with LPO staff and company management "to understand the credit conditions in each loan" and to "review often rapidly changing external market conditions that bear on portfolio companies."[37] The Risk Committee's roles and responsibilities are specified in a Risk Committee Charter dated December 20, 2011.

The Risk Committee consists of at least seven members and is led by the chair of the Credit Committee. The other members of the Risk Committee include the PMD Director, the LPO Chief Counsel, the LPO Director of Credit, the Director of the LPO TPMD, the Director of the LPO Management Operations Division, and two members of the CRB, appointed by the Secretary to serve on the Risk Committee.[38] Therefore, each member of the Risk Committee is either a member of LPO or of the CRB. DOE also plans to include industry program experts as *ex officio* non-voting members.[39]

Both the Risk Committee and the CRB seek to make decisions by consensus. However, these bodies are permitted to make decisions by majority vote.[40]

Strengthening of the Disbursement Process. Approval of disbursement requests for DOE loans or loan guarantees requires multiple reviews. For a first disbursement or a disbursement to a project on the Watch List, these reviews can include PMD, the Risk Committee, the CRB, and the Secretary, before DOE approves the disbursement.

The Secretary has recently required DOE to take additional steps in determining whether to authorize a disbursement. These new processes include (1) increasing the use of internal DOE resources where the Department has technical and market expertise (such as in solar, biofuels and electric vehicles), (2) using consultants during the post-financial-close monitoring that are different from those used during the origination phase, and (3) engaging informal networks of industry participants and investors to gain additional market intelligence.[41]

Stricter Oversight of Watch List Projects and Material Changes to Projects. As part of the Secretary's enhancements to transaction monitoring, senior DOE leadership receives weekly briefings on Watch List transactions.[42] The Risk Committee also reviews projects on the Watch List weekly.[43] Finally, the CRB gives additional scrutiny to transactions on the Watch List in its regular monthly reviews of the Portfolio.[44] The Secretary has directed that he be informed of all major transactions involving Watch List companies that can affect company performance, including changing market conditions or changes in the competitive marketplace, and will review all material loan amendments, modifications and disbursements for companies on the Watch List, as well as initial disbursements.

Additional Review of Credit Subsidy Model Calculations. The Risk Committee and the CRB will review the inputs to the periodic recalculation of a loan or loan guarantee's Credit Subsidy Cost (as required by FCRA) and will include input from outside consultants in making these reviews.

LPO personnel informed the Independent Consultant that implementation of these revisions to the Programs and development of additional processes is ongoing.

VIII. RECOMMENDATIONS FOR STRENGTHENING THE PROGRAMS' MANAGEMENT AND OVERSIGHT

The White House Chief of Staff requested that the Independent Consultant review the current Portfolio management practices, including governance and monitoring standards, with a particular focus on identifying opportunities to enhance ongoing DOE monitoring activities.

A. Provide Long-Term Funding for the Programs

Because the Programs will extend up to thirty years, DOE must assure adequate funding to manage and oversee the Programs on a long-term basis.

Now that the September 30, 2011 deadline for new Section 1705 lending has passed, the focus of LPO appropriately has shifted from originating loans and guarantees toward managing the Portfolio.

This crucial activity will require staffing LPO for a long period because the Portfolio's loans and guarantees have maturity dates extending up to 30 years. Throughout the life of the Programs, issues affecting the Portfolio's value will continually arise and important decisions affecting the interests of taxpayers will have to be made. The pioneering nature of the projects' technologies heightens the importance of expertise and continuity among the managers and professionals in LPO and other supporting areas. Furthermore, successfully managing this Portfolio will take the commitment of experts with long-term perspectives. That will be best accomplished if employees are confident that LPO will be adequately funded. Therefore, taking steps in the near future to assure continued, adequate funding for managing, staffing and overseeing the Programs is critical to recruiting and retaining the talented personnel needed to administer the Programs.

Fees payable by borrowers in connection with origination and monitoring loans and loan guarantees are used to cover administrative expenses. DOE cannot unilaterally increase the fees on loans already in place. It is possible that, in the near term, additional fees will be received from the closing of pending applications. However, over the next several years, the total amount of fee income to DOE will decline when originations cease. Therefore, adequately funding the management and administration of the Programs will depend on obtaining additional budgeted and appropriated funds in the future.

The funds for operating the Programs are small relative both to the size of the Portfolio and to the potential reduction in loan repayments if the Portfolio is not actively and effectively managed over time.

B. Fill Key Positions in Management with Experienced Professionals

DOE should create a balanced mix of managers in LPO, including some who have experience in managing government programs and others with substantial private sector experience and skill in project management and finance.

Today, some key positions in LPO are occupied by acting directors relying on outside contractors to augment their expertise. At least one manager is acting head of several departments. The Acting Executive Director of LPO is an interim appointment and the position of Director of Credit is vacant.

The DOE has tried to fill those positions with permanent employees without success to date. The Independent Consultant believes that, by adopting the recommendations in this section of the Report, the DOE should be better able to fill the vacant positions with permanent, highly qualified individuals.

C. Clarify Authorities and Accountabilities of Managers

DOE should assign authorities for decision-making only to individual managers and never to committees where collective responsibility can obscure individual accountability.

The Secretary has ultimate authority over the Programs and accountability for their results. Delegated authorities for taking day-to-day actions and approving recommendations are distributed formally and informally among various executives and committees. For example, the CRB, rather than an individual officer, currently is authorized to approve recommendations to the Secretary. Although job descriptions and committee charters describe the authorities of each, managers and employees have indicated that, in practice, lines of authority have been less clear and the framework of management and governance is still evolving.

Delegation of authority should be more specific regarding the kinds of permitted actions each manager in the chain of command may take and any limitations on that authority. For example, the LPO Executive Director can bypass the CRB and take a matter directly to the Secretary for approval if, in the LPO Executive Director's judgment, the matter is urgent. The definition of "urgent" is left to the discretion of the LPO Executive Director. Another example is the authorization of the LPO Executive Director to handle "routine" waivers of covenants (for instance, when meeting a covenant will be delayed by a few days); all other waivers must have approval of the Secretary. That authorization seems imprecise and too restrictive; allowing the LPO Executive Director to approve some kinds of non-routine waivers up to a certain dollar limit could enhance timely decision-making and relieve the Secretary from having to decide matters that will not materially affect the Portfolio's value. Delegating such authority, however, requires clear policies to guide decisions by those assigned responsibility.

D. Establish and Effectively Communicate Clear Goals for Management

DOE should develop explicit objectives and standards of performance for managing the Portfolio during the construction phase of the projects and beyond.

Many challenging decisions will have to be made throughout construction and operation of the projects, such as whether to waive covenants of loan agreements for projects that are lagging their benchmarks, timetables or operating standards. The Title XVII program's statutory goal of "reasonable prospect of repayment" is vague and must be clarified so that managers can make decisions and recommendations within their authorities quickly and with confidence. DOE should provide clear guidance regarding the desired balance between meeting policy objectives and managing recoveries.

E. Proactively Protect the Taxpayers' Interest

DOE should continually look for ways to strengthen its position as lender or guarantor without compromising the success of a project and the incentives of sponsors and counterparties to support that project.

In a positive development for taxpayers, LPO increased the number and rigor of the covenants and conditions precedent to funding construction in many of the projects it closed after mid-2010. These actions underscore both the importance and the feasibility of utilizing available protections in contracts at all project stages to mitigate risks to taxpayers.

The novelty, complexity and scale of the projects, coupled with the exacting covenants in their loan structures, likely will cause many projects to seek relief from some requirements in the loan agreements. In such cases, to strengthen its position as lender or guarantor, DOE might insist that sponsors issue warrants to DOE to purchase shares in return for waivers or extensions of covenants.

So that it can act both in a timely and consistent manner, DOE should establish written, clearly articulated policies governing the means it can use (for instance, are warrants to purchase shares an acceptable form of compensation?) and the financial and programmatic policy goals it will pursue in negotiations with borrowers.

DOE should assure that in addition to professional staff, LPO continues to retain independent outside experts in engineering, project finance, and other relevant disciplines to advise it on an ongoing basis.

F. Engage in Long-Range Strategic Planning for the Programs

DOE faces strategic choices as it determines how to manage the Portfolio over the life of the Programs.

Once projects have completed construction and begun commercial operation in the next several years, management of the Portfolio will require fewer resources but will still need continuous, expert oversight. This oversight is critical because future changes in projects and markets will precipitate adjustments to terms of loans and create new opportunities to sustain or enhance protections for taxpayers.

As it determines how to manage the Portfolio over the life of the loans, DOE can choose among several possible strategies. They include:

- Continuing to manage the Portfolio through a streamlined LPO, staffed with highly-qualified permanent employees;
- Outsourcing part or all of the day-to-day management of the Portfolio while maintaining robust monitoring and oversight. Financial institutions that currently

handle servicing and/or trustee work for commercial lenders (particularly in securitizations) could be retained to handle a substantial portion of current LPO activities once projects achieve operating maturity; and

- Selling or otherwise disposing part or all of the Portfolio over time. Once the projects supporting the borrowings are operating successfully, they should be more attractive to commercial investors than they are in the development phase.

One or more of these strategies might require enabling legislation.

G. Improve Reporting to the Public

DOE should provide clearer, broader information to the public on the progress and performance of the Programs and the Portfolio.

DOE should provide robust, regular reporting in accordance with a comprehensive communications plan including but not limited to a more informative, dedicated website. Of course, these disclosures must not violate the confidentiality of loan agreements and of proprietary information.

DOE already provides considerable information about the Programs, projects, guarantees committed and currently extended, and recent developments, but that information is dispersed across several Internet platforms and embedded alongside information from other programs. It should be consolidated and presented more clearly and comprehensibly to the public.

The information currently reported to the public should be supplemented by updates, at least quarterly, on amounts (and changes in amounts) of estimated credit subsidy to the aggregate Portfolio and its major components, using the FCRA Methodology as well as a "fair market value" method.

H. Strengthen and Restructure Internal Oversight of the Programs

DOE should create a new Risk Management department encompassing all DOE functions that monitor LPO and should appoint a highly experienced Chief Risk Officer ("CRO") to head it. DOE should also reorganize oversight of the Program.

From the inception of the Programs, successive Secretaries have recognized the importance of establishing checks and balances to the activities of LPO so that the Programs benefit from independent perspectives, broader expertise and separation of control functions from the operations they monitor.

The Credit Division, largely reliant on contractors and consultants, evaluates exposures to loan losses and advises on credit decisions and loan structures. The Credit Review, Compliance, and Reporting subdivision of PMD focuses on adherence to laws, regulations and DOE policies in decision-making and operation of LPO. The Credit Division and PMD's Credit Review, Compliance, and Reporting subdivision now reside within LPO.

To enhance the independence of the oversight function, DOE should create a new Risk Management department, headed by an experienced CRO, to house all DOE functions dedicated to monitoring LPO, and including those of the Credit Division and the Credit Review, Compliance, and Reporting subdivision.

The functions of the Risk Management department should include: assigning and regularly updating LPO's risk ratings and related evaluations of all loans and guaranties; representing DOE in developing credit subsidy calculations under the supervision of OMB; regularly reviewing and verifying reporting and record-keeping throughout LPO; supporting LPO and the CRB with independent analysis and advice; assessing operating systems and processes of LPO; and monitoring developments in energy markets as well as federal and state initiatives that could impact the Portfolio.

The charters of the Risk Management and LPO departments should require that significant decisions by LPO have prior concurrence of the CRO. Conversely, the CRO must be accountable for keeping LPO informed of Risk Management's findings in a timely manner. In cases where the CRO and the Executive Director of LPO differ on an issue within Risk Management's purview, they should jointly consult with the Secretary, who has the ultimate decision-making responsibility.

Risk Management's main role should be informing and advising LPO concerning actual and potential risks to the Portfolio. That role should not impinge on the authority and accountability of LPO for the performance of the Portfolio, but instead should add value by contributing independent expertise in evaluating risk. This "check and balance" should help produce broad, objective analyses of the Programs' goals, methods, risks and performance.

Senior managers within Risk Management should attend the regular meetings of LPO managers to assure continual communication and mutual understanding.

To bolster the independence of Risk Management from LPO, the two departments should have separate reporting lines to senior management. For example, the CRO could report to the CFO or to the Deputy Secretary, whereas the Executive Director of LPO reports directly to the Secretary.

DOE has created several committees to advise on credit decisions. The Credit Committee has focused mainly on credit risks in loans as they are originated and initially funded. Its role going forward, now that originations have ceased in the 1705 program, is unclear.

The recently formed Risk Committee is intended to play a role in general oversight of ongoing Portfolio management. The Credit Committee and the Risk Committee are both advisory and are charged to make recommendations to the LPO Executive Director, the CRB, and the Secretary for action.

The CRB, as noted earlier in the Report, has a function "similar to that of a board of directors of a banking organization." Its tasks include reviewing and approving policies, establishing standards for risk assumption, and recommending approval of transactions to the Secretary. It is chaired by the Deputy Secretary and is composed of senior DOE officials.

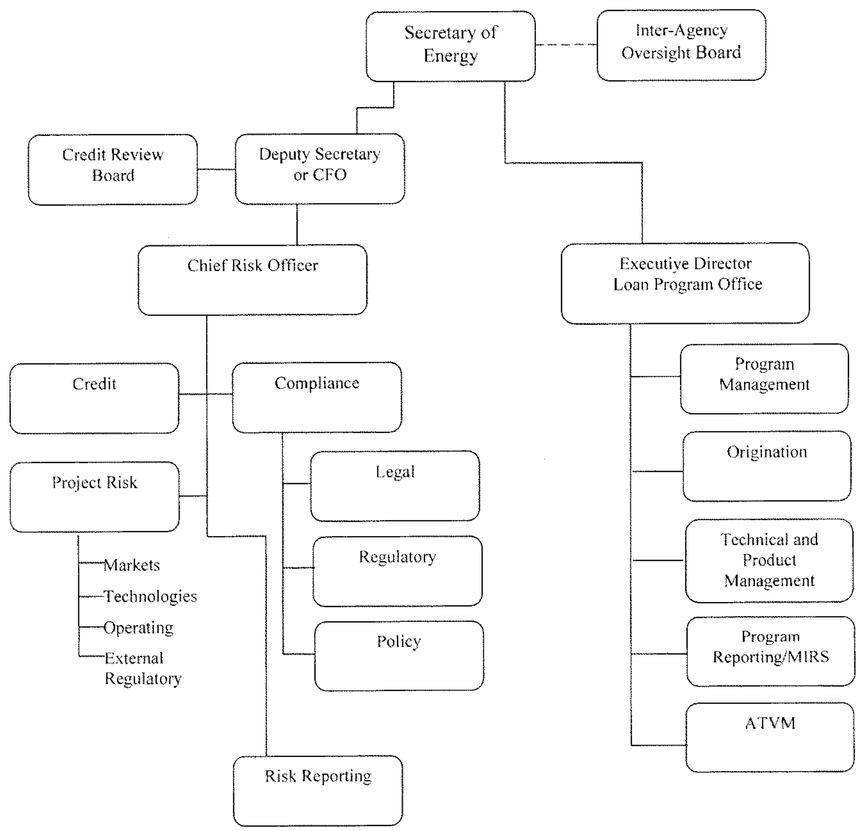
Although in the last six months DOE has significantly enhanced oversight of its credit exposures, the new structure involves multiple committees with overlapping memberships and, in some instances, without full independence from LPO. For instance, the membership of the Risk Committee overlaps those of the Credit Committee, the CRB, and LPO. Several managers in DOE believe that the existence of these multiple committees has slowed decision-making and caused uncertainty about how to navigate proposals toward decisions.

To clarify responsibilities, assure timely decision-making and reduce burdens on committee members, the Credit Committee and the Risk Committees should be abolished. Checks and balances will be more robust and applied more continuously by an independent Risk Management department that continually engages with the LPO and has authority to contest decisions and recommendations by LPO before they are implemented.

The CRB should continue to provide senior, independent oversight. Its role should be broadened to include overseeing "enterprise" risks including credit, compliance, accounting, operational integrity, reporting, and protecting DOE's interests in defaults and bankruptcies.

DOE should include in the CRB's membership some career-level experts from other government agencies with considerable expertise in matters pertaining to LPO's activities, including project finance and governance.

Figure 1: **Proposed Structure of Program Management & Oversight**



I. Establish External Oversight

Overall governance of the Programs would benefit from access to senior government officials of other departments and agencies who have knowledge of proven "best practices" across credit programs government-wide.

Laws enabling some major lending or capital programs in other areas of government include a requirement for interagency, advisory oversight of their governance. The Export-Import Bank's board includes the Secretary of Commerce and the U.S. Trade Representative, *ex officio*. The Overseas Private Investment Corporation ("OPIC") board includes representatives from six other federal agencies, including the Office of the U.S. Trade Representative, the Agency for International Development, and the Department of Labor. The statute establishing the Troubled Assets Relief Program ("TARP") mandated independent, monthly oversight by a Financial Stability Oversight Board chaired by the Chairman of the Board of Governors of the Federal Reserve System and including the Secretary of the Treasury, the Secretary of the Department of Housing and Urban Development, the Chairman of the Securities and Exchange Commission, and the Director of the Federal Housing Finance Agency. Those boards advise on broad policy, control and performance issues.

The Secretary could emulate that legally mandated "best practice" of other loan programs by creating a similarly constituted board to advise him on policy matters. Membership could include, at the under secretary or equivalent level, representatives from Treasury, OMB and at least two other federal departments or independent agencies that extend complex credit (for example, the Export-Import Bank, the Department of Agriculture, the Department of Transportation, or OPIC). The charter of the proposed interagency committee should clearly articulate the roles of the members and the overall role of the committee.

The multi-agency advisory board would benefit from additional members with private sector expertise in industries relevant to the Programs, such as electrical utilities, banking and venture capital. There are precedents for including private-sector representatives on advisory boards of federal agencies. For example, eight of the 15 members of the OPIC board come from the private sector.

Independent of the establishment of a multi-agency advisory board, the roles of the Treasury and OMB, which now interact with DOE on the Programs, should be clarified.

IX. THE ESTABLISHMENT OF A COMPREHENSIVE EARLY WARNING SYSTEM

The third task that the Chief of Staff assigned to the Independent Consultant was to make:

Recommendations, if needed, pertaining to early-warning systems to identify and mitigate potential concerns on a timely basis.

The Title XVII and ATVM statutes and implementing regulations do not specifically require DOE to maintain an "early warning system" to identify potentially troubled loans or loan guarantees and take mitigating actions.

The principal "early warning system" currently in place is DOE's process for identifying projects to be placed on the Watch List and subsequently monitoring their condition.

The Independent Consultant recommends that DOE: (i) develop a comprehensive management information system to provide key decision makers with information needed to make timely and informed decisions on an ongoing basis; (ii) establish a protocol for timely reporting of critical information; and (iii) incorporate lessons learned into policies, procedures, reporting, and decision-making.

A. Create a Comprehensive Management Information Reporting System

The early warning system should provide key decision makers with information needed to make timely and informed decisions. It should be built upon a Management Information Reporting System that highlights trends potentially affecting the creditworthiness of loans and guarantees, and that tracks progress toward addressing those trends.

The system and the reports it generates should: provide early notice of potential issues and problems bearing on the value of the Portfolio; focus management's attention and priorities on the most important factors determining performance; and furnish a basis for management decision-making and for communicating the Programs' status to senior officers of DOE and oversight bodies.

The reports should include a section covering external conditions affecting the Programs, such as trends in markets where the borrowers operate. Those trends should include changes in prevailing pricing, market shares of borrowers and key competitors, and products and technologies. This overview should also identify any prospective federal or state legislation that could affect subsidies and regulations influencing supply and demand for clean energy.

Another section of the reports should contain updates on every loan and borrower and on the overall condition of the Portfolio, highlighting:

- Variations from the project's expected performance that, if continued, could result in breaching loan covenants;

- Management's plans and timetables for correcting those variations, and progress to date;
- Changes in the management of projects;
- Changes in the performance and financial condition of EPC contractors, O&M providers; and suppliers that are responsible for completing the project, fulfilling performance guarantees or making payments required by off-take agreements;
- Trends in the Credit Subsidy Cost of the loan and in any other accepted measures of exposure to loss; and
- The overall condition of the Portfolio, including trends in Credit Subsidy Cost and in the incidence of significant waivers or modifications of loan covenants.

A third section of the reports should address the internal performance of LPO and the Programs, including:

- Compliance with DOE policies;
- Efficiency of LPO's operations;
- Trends in filling vacant positions;
- Turnover of managers and professionals;
- Progress against overall milestones and goals of the Programs;
- Progress of plans to reduce or mitigate risk in the Portfolio; and
- Performance in responding to findings of the Inspector General of DOE and the Government Accountability Office, to Congressional letters, and to inquiries from the public.

B. <u>Establish a Protocol for Timely Reporting of Critical Information</u>

LPO should have policies and accountabilities for timely reporting of significant events to senior management of DOE, to oversight bodies and to departments or officials outside DOE with a need to know.

LPO management should be evaluated in part on whether the focus and content of its reporting are informative and have proven effective in anticipating, preventing, or correcting identified deficiencies.

C. <u>Incorporate Lessons Learned Into Policies, Procedures, Reporting, and Decision-Making</u>

LPO should use the information it collects as part of the early warning system to inform future decisions regarding the Portfolio, including those related to disbursements, waivers, and amendments.

The policies, procedures, and information reported by the early warning system should appropriately be modified to incorporate these lessons learned.

X. LIMITATIONS OF THE REPORT

As part of this assessment and review, the Independent Consultant's work was affected by the limitations arising out of the Independent Consultant's unique status and the circumstances under which the Report was prepared.

- *Compressed Time Period for Review.* The Report was prepared over a sixty-day period beginning on November 28, 2011. Because of this abbreviated time period, the Independent Consultant's work plan necessarily omitted activities that might have provided further insights, such as a more detailed examination of each loan's performance and of the financial, operational, regulatory, and market demand risks facing each loan applicant; screening, retaining and consulting with subject matter experts regarding the promise and limitations of some of the cutting-edge technologies involved in utility-linked and in manufacturing projects; and more extensive examination of the loan origination and monitoring processes and practices that DOE followed for each of the loans. The Independent Consultant designed and executed a work plan and methodologies calculated to produce comprehensive, independent conclusions based on available facts.

- *Scope of Review.* Due to the limitations inherent in the scope of and time period allotted for the Independent Consultant's review of the Portfolio requested by the White House as noted above, the Independent Consultant was unable to fully obtain, and the Report does not contain, all of the information that may be required to evaluate any of the borrowers, other project participants, loans, assets, projects or other persons referenced in the Report. The Independent Consultant did not conduct any appraisals of any assets or liabilities of any of the borrowers or other project participants referred to in the Report. The Independent Consultant has assumed and relied upon the accuracy and completeness of information publicly available, supplied or otherwise made available regarding the Portfolio and the borrowers and other project participants for the purposes of the Report.

- *Current Status of the Projects and Portfolio.* The Report is necessarily based on financial, economic, market and other conditions as in effect on, and the information made available to the Independent Consultant as of, the date of the Report. It should be understood that subsequent developments will affect the analysis contained in the Report. Actual outcomes may differ materially from the evaluations provided in the Report.

- *Inherent Subjectivity of Judgments.* The Independent Consultant applied widely recognized financial models, financial analysis methods, principles of legal analysis, and available knowledge of the energy industry and of the financial markets to value and assess the risk profile of each loan in the Portfolio. The Independent Consultant also constructed customized methods of evaluation of the Portfolio to take account of the many distinctive contingencies embedded in the contracts, construction and offtake phases, technologies and markets of the individual projects in the Portfolio. The Independent Consultant also drew upon knowledge of best commercial practices in making recommendations for improvements in management, governance, an early warning system, and reporting. Throughout the Report, the Independent Consultant has stated the methodologies, assumptions, and, where appropriate, uncertainties underlying the analysis. Reaching the conclusions set forth in the Report nevertheless and necessarily involved exercising a significant degree of subjective judgment.

- *Limits of Financial Models.* The Independent Consultant identified several Portfolio characteristics that make it particularly challenging to value, including the fact that many of the projects employ novel technology and/or involve significant scale-up risk, the loans have longer terms than those typically found in the marketplace, and therefore a small change in discount rates results in a relatively large change in valuation, and many of the loans are to projects still in the construction phase, which is riskier and harder to evaluate than is the operations phase.

- *Lack of Investigative Authority.* The Independent Consultant did not have subpoena authority or any other legal means to compel the production of documents and information from government agencies or from third parties. The Independent Consultant made requests for documents, interviews with relevant officials, and demonstrations of information technology tools used by DOE in connection with its monitoring of the Portfolio. While DOE provided substantial information and technical assistance in response to these requests, the Independent Consultant was not able to assess the extent of, or to require certification of, DOE's compliance with these requests, and did not have access to any form of legal compulsion to require additional assistance. Similarly, the Independent Consultant did not have legal authority to obtain access to confidential information of any of the participants in the various loan transactions, including the applicants, project sponsors, EPC contractors, O&M contractors, and offtaking utilities.

- *Existence of Concurrent Investigations.* Various other investigations and reviews were proceeding at the same time as the Review.

- *Review Based on a Single Point in Time.* The Independent Consultant performed the Review based on a snapshot of the Programs' operations at the time of the Review. At the same time as the Independent Consultant was undertaking the Review, the Secretary was implementing important changes to the Programs. Due to their nascency, the Independent Consultant has not seen the results of those changes or assessed their effectiveness. In fulfilling the mandate from the White House Chief of Staff, the Independent Consultant regarded the Review as an opportunity to recommend lasting changes in the Programs' structure and operation.

XI. ACKNOWLEDGEMENTS

The Independent Consultant wishes to acknowledge and thank the officials of DOE and other government departments for their openness, cooperation, and assistance during the Review.

APPENDICES

Appendices--Table of Contents

Appendix A

Glossary of Terms

ARRA	American Recovery and Reinvestment Act of 2009
ATV	Advanced Technology Vehicle
ATVM	Advanced Technology Vehicle Manufacturing
Beacon	Beacon Power Corporation
CFO	Chief Financial Officer
CRB	Credit Review Board
CRO	Chief Risk Officer
Credit Subsidy Cost	Estimated long-term cost to the government on a net present value basis of a loan or loan guarantee
Criteria Weightings	Weightings given by the Independent Consultant to the Nine Criteria
CSC2	Credit subsidy calculator developed by OMB
Deputy Secretary	Deputy Secretary of Energy
DOE	Department of Energy
DSCR	Debt Service Coverage Ratio
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortization
EISA	Energy Independence and Security Act of 2007
Eligible Costs	Project costs that borrowers may fund with loan proceeds under the Programs
EPAct	Energy Policy Act of 2005
EPC	Engineering, Procurement, and Construction
Evaluated Loans	The 30 loans and loan guarantees that the Independent Consultant evaluated in the Report
FCRA	Federal Credit Reform Act of 1990

FCRA Methodology	Models used by DOE and OMB to establish credit subsidies as part of the government budget
FIPP	Financial Institution Partnership Program
FMV	Fair market value
FMV Methodology	A methodology the Independent Consultant used to evaluate the Portfolio
Ford	Ford Motor Company
Ford and Nissan Loans	Loans made to Ford Motor Company and Nissan North America, Inc.
LDs	Liquidated Damages
LGPO-OD	Loan Guarantee Origination Division (for Title XVII program loan guarantees)
LPO	Loan Programs Office
MIRS	Management Information Reporting System
Nine Criteria	Criteria the Independent Consultant used to evaluate the credit risk of each loan
Nissan	Nissan North America, Inc.
Non-Utility-Linked Loans	Loans and loan guarantees to projects not linked to a utility, including cellulosic ethanol projects, solar manufacturing companies, and small, start-up automotive manufacturing companies
O&M	Operations and Maintenance
OMB	Office of Management and Budget
OPIC	Overseas Private Investment Corporation
PMD	Portfolio Management Division
Portfolio	The portfolio of loans and loan guarantees issued by DOE under the Programs
PPA	Power Purchase Agreement
Programs	The Title XVII loan guarantee program and the ATVM loan and grant program
PV	Photovoltaic

Review	The review the Department of Energy's ("DOE") loan and loan guarantee programs for alternative energy projects undertaken by Herbert Allison at the request of the Chief of Staff of the White House
RFS	Renewable Fuel Standard
S&P	Standard & Poor's
Secretary	Secretary of Energy
Solyndra	Solyndra Inc.
TARP	Troubled Asset Relief Program
TPMD	Technical and Project Management Division
Treasury	U.S. Department of the Treasury
Utility-Linked Loans	Loans and loan guarantees to utility-linked projects for the generation or transmission of alternative sources of energy

Appendix B

Types of Documents Provided to the Independent Consultant by DOE

1. Policies and Procedures for the Title XVII and ATVM Programs
2. Loan Programs Office Governance Narrative
3. Loan Application, Closing and Post-Closing Monitoring Materials
4. Loan Documentation, including Credit Ratings and Credit Subsidy Calculations
5. Consultant Reports, Project Plan Timetables and Financial Projections
6. Loan Agreement Amendments, Waivers, and Modifications
7. Interagency Correspondence, Memoranda and Reports

Appendix C

Index of Meetings of the Independent Consultant

The Independent Consultant met with the individuals listed below, individually or in groups, on the stated dates.

U.S. Department of Energy

November 28, 2011

Steven Chu, *Secretary, Department of Energy*
Daniel B. Poneman, *Deputy Secretary and Chief Operating Officer, Office of the Deputy Secretary, Department of Energy*
Richard Kauffman, *Senior Advisor to the Secretary of Energy, Department of Energy*
Brandon Hurlbut, *Chief of Staff, Office of the Secretary, Department of Energy*

December 1, 2011

Richard Kauffman
Sean A. Lev, *Acting General Counsel and Deputy General Counsel for Environment and Nuclear Counsel, Office of the General Counsel, Department of Energy*
David G. Franz, *Loan Guarantee Program Director, LPO, and Acting Program Director, ATVM, Department of Energy*
Susan S. Richardson, *Chief Counsel, LPO, Department of Energy*
Frances I. Nwachuku, *Director, Projects and Portfolio Management, LPO, Department of Energy*
Dong Kwun Kim, *Chief Engineer, Technical and Project Management Division, LPO, Department of Energy*
Kimberly J. Heimert, *Attorney Advisor, LPO, Department of Energy*
Douglas Schultz, *Program Manager, Financial Institution Partnership Program and Senior Investment Officer, LPO, Department of Energy*
Jonathan Levy, *Deputy Assistant Secretary for the House, Congressional & Intergovernmental Affairs, Office of the Deputy Secretary, Department of Energy*
Jim McCrea, *Financial Consultant, LPO, Department of Energy*

December 13, 2011

Richard Kauffman
David G. Franz
Susan S. Richardson
Frances I. Nwachuku
Dong Kwun Kim
Robert Marcum, *Deputy Director, Portfolio Management Division, LPO, Department of Energy*
Kimberly J. Heimert
Jim McCrea

December 14, 2011

Jonathan Silver, *Former Executive Director, LPO, Department of Energy*
David A. Wilson, *Partner, Thompson Hine LLP*
John D. Adams, *Partner, McGuireWoods LLP*

December 14, 2011

Richard Kauffman
Dong Kwun Kim
Todd A. Shrader, *Director, Fossil Energy, Technical and Project Management Division, LPO, Department of Energy*
Kimberly J. Heimert
Scott Stephens, *Solar Manufacturing Project Manager, LPO, Department of Energy*
Robin Sampson, *Physical Scientist, LPO, Department of Energy*
Dr. Ramamoorthy Ramesh, *Sunshot Director, Office of Solar Energy Technologies Program, Department of Energy*
Minh Sy. Le, *Deputy Solar Energy Technologies Program Manager, Office of Solar Energy Technologies Program, Department of Energy*
Dr. Ranga Pitchumani, *Concentrating Solar Power Program Lead, Office of Solar Energy Technologies Program, Department of Energy*
Joseph W. Stekli, *Engineer, Concentrating Solar Power Program, Office of Solar Energy Technologies Program, Department of Energy*

December 16, 2011

Kimberly J. Heimert
Anthony Curcio, *Chief Operating Officer, Summit Consulting, LLC*
Brian Oakley, *Director, Scully Capital Services, Inc.*

December 20, 2011

Gregory H. Friedman, *Inspector General, Office of the Inspector General, Department of Energy*
John R. Hartman, *Office of the Inspector General, Department of Energy*
Deal teams on all transactions and senior LPO management

December 28, 2011 (Teleconference)

Susan S. Richardson
Frances I. Nwachuku
Robert Marcum
Kimberly J. Heimert

January 9-10, 2012

Richard Kauffman
Nick Whitcomb, *Acting Director, ATVM, Department of Energy*
Susan S. Richardson

Frances I. Nwachuku
Dong Kwun Kim
Robert Marcum
Douglas Schultz
Todd A. Shrader
Kimberley Heimert
Jason Gerbsman, *Supervisory Program & Management Analyst, ATVM, Department of Energy*
Jim McCrea
Morgan Wright
Brian Oakley

January 20, 2012

Richard Kauffman
Brandon Hurlbut
Morgan Wright

U.S. Office of Management and Budget

December 2, 2011

Jeffrey D. Zients, *Deputy Director for Management and Federal Chief Performance Officer, Office of the Director, Office of Management and Budget*
Boris Bershteyn, *General Counsel, Office of Management and Budget*
Courtney Timberlake, *Assistant Director, Budget Review, Office of Management and Budget*

U.S. Department of the Treasury

December 15, 2011

George Wheeler Madison, *General Counsel, Department of the Treasury*
Christian A. Wiedeman, *Deputy General Counsel, Department of the Treasury*
Mary John Miller, *Assistant Secretary, Assistant Secretary for Financial Markets and Under Secretary for Domestic Finance-Designate, Office of Domestic Finance, Department of the Treasury*
Gary Grippo, *Deputy Assistant Secretary, Deputy Assistant Secretary for Government Financing Policy, Office of Financial Markets, Department of the Treasury*
Judson Jaffe, *Environment and Energy, Office of International Affairs, Department of the Treasury*

Summit Consulting, LLC

December 19, 2011

Anthony Curcio
Brian Oakley
Scott Burroughs, *Senior Consultant, Summit Consulting, LLC*

Appendix D

Details of the Nine Credit-Ranking Criteria (the "Nine Criteria")

- Project Sponsor
  - Financial strength
  - Experience and track record in developing similar projects
  - Commitment to project (*e.g.*, as evidenced by parent guarantees of obligations, overrun commitments, completion guarantees, etc.)
  - Strategic value of project to sponsor
  - Quality / experience of management team
- Technology
  - Technology track record (*i.e.*, is the project based on an established technology, an emerging technology, or is it the first of its kind?)
  - Engineering and design (*e.g.*, modularity, flexibility)
  - Scale-up risk
  - Technology guarantees from sponsor or suppliers
  - Issues raised in independent engineer reports, and project's response
  - Special provisions in project documents (*e.g.*, provision of an equipment performance reserve or similar arrangement)
  - Financial strength and experience of those providing the technology
- Capital Structure
  - Ratio of debt and equity to total project costs
  - Forecast debt service coverage ratio ("DSCR") (including sensitivity to adverse changes in the financial model)
  - Tenor of loan(s)
  - Interest rate exposure
  - Funding profile of debt versus equity
  - Restricted payments provisions (*i.e.*, Limitations on equity distributions)
  - Debt service and operating reserves
  - Strength of conditions precedent to funding (including due diligence provisions)
- Market and Off-take
  - Certainty of sale of output (*i.e.*, is a buyer committed to buy the project's output for an extended time period corresponding to the tenor of the loan?)
  - Counterparty financial strength
  - Termination provisions
  - Competitiveness (*i.e.*, is the cost of the power delivered by the project higher than prevailing market rates, and how likely would the offtaker be to terminate the contract if given the opportunity?)
  - Ability to replace offtaker on similar or superior terms
  - Statutory support for off-take agreement (such as state Renewable Portfolio Standards) and degree of public support

- Project Completion
    - Experience and track record of contractor and other vendors
    - Financial strength of contractor and other vendors
    - Project timeline, including relative to milestones in project documents
    - Availability of equipment and labor
    - Protection from cost overruns (*e.g.*, contactor guarantees, fixed-price terms, overrun commitments from sponsor)
    - Status of permitting and regulatory approvals (necessary for completion of the project)
    - EPC contract terms (force majeure, acceptance testing, consequences of performance that is short of specifications)
    - Site condition
    - For projects under construction, any issues reported and the proposed response
    - Amount of contingency for cost overruns and change orders included in the project budget
    - Strength of sponsor completion guarantee
- Operation Cost and Performance
    - Predictability of operating costs (often a function of the maturity / experience with the technology)
    - Expected reliability of project equipment
    - O&M contract terms (*e.g.*, fee arrangements, availability guarantees, etc)
    - Financial strength and experience (particularly with project technology) of O&M contractor
    - Provisions in project documents (*e.g.*, O&M and/or maintenance reserves and their position in the cash flow waterfall)
- Infrastructure
    - General accessibility of site for construction and operations
    - Access to market (*e.g.*, transmission interconnection plans, need for transmission upgrades, schedule to complete, progress to date)
    - Availability of required resources (*e.g.*, process water, geothermal resource)
- Legal
    - Contractual framework (security interest, structure of cash flow waterfall, etc)
    - Intellectual property factors (particularly with respect to novel technology)
    - Site control
    - Organization (*e.g.*, Limitations on activities of the project entity, independent directors, etc.)
- Legislative and Regulatory
    - State and local political support
    - Risk of regulatory changes and protections for lenders
    - International trade law considerations

Appendix E

Key Documents in a Project Financing

Credit Agreement. The credit agreement between the project company and the project lenders governs the extension and repayment of the project loan. Project loans typically provide for a construction period, during which the loan may be drawn in installments to fund construction, and an amortization period, in which the project makes repayments of principal and interest. Payments are usually made quarterly. The payment schedule is often customized to the specific project's projections; for example, it may call for larger payments during seasonally stronger quarters and lower repayments in seasonally weaker quarters.

The repayment schedule (and indirectly, therefore, the size of the loan) is typically designed to meet a targeted DSCR. The DSCR is the ratio of available cash flow to required debt payments (principal and interest) over a given period of time. A higher DSCR represents a greater "cushion" against adverse changes in the project's financial performance. In addition, the final repayment is typically scheduled to occur prior to the end of the offtake agreement, providing a "tail" or cushion in the event that the loan becomes delinquent and requires more time than expected for repayment.

Other key terms in the credit agreement include:

- Conditions precedent to initial funding;
- Conditions precedent to each subsequent draw of funds from the loan facility (for example, a certification by the borrower that it has sufficient funds available to complete the project);
- Interest, costs, and fees;
- Representations and warranties (for example, stating that the borrower has complied with relevant laws, has the right to pledge its assets as collateral, etc.);
- Covenants (for example, agreements not to incur additional indebtedness except under certain circumstances, not to make expenditures in excess of budgets except under certain circumstances, etc.); and
- Provisions for mandatory prepayments under certain circumstances (for example, using proceeds from a Section 1603 cash grant, proceeds from performance liquidated damages received from the EPC contractor as described below, etc.).

These terms generally provide protection to the lender and guarantor (the government).

The credit agreement also requires the borrower to pay for an independent engineer selected by the lender to review and comment on the design of the project, the project's projections and technical aspects of the project documents. The independent engineer also monitors progress during the construction period for the benefit of the project lenders, and provides input regarding the satisfaction of technical conditions precedent to requests for advances under the loan agreement.

Collateral Agency and Accounts Agreement and the Security Agreements. The collateral agency and accounts agreement and the security agreements together provide for the pledge of the assets constituting the project (generally, real property, equity interests in the project owned by the project sponsor and personal property, including contract rights and deposit accounts) and for the priority of entitlements to such assets in the event of a default.

The collateral agency and accounts agreement also contains provisions directing the flow of funds (the "cash flow waterfall") from revenues derived from the project to specified accounts and interest holders, and provides security to the lenders that the funds will be applied to protect the lender's priority and the continued operation of the project through the term of the loan. Such provisions include establishment and operation of reserve accounts for debt service, operations and maintenance and/or major maintenance, restricted payments provisions (i.e., under what conditions the project can distribute cash to its owners), and events of default and consequences of such events of default.

The cash flow waterfall varies depending on the nature of the project, but may include the following accounts (in an order of seniority usually similar to the following):

- Operating account, providing for the payment of expenses associated with operations of the project;

- Debt service payment account, providing for the payment of project loan principal and interest;

- Operating reserve account, providing a cushion to pay for day-to-day operating expenses in the event of an adverse change in the project's financial performance or a business interruption;

- Major maintenance reserve account, providing for cash to pre-fund infrequent, periodic, substantial cash needs for scheduled maintenance activities such as major overhauls;

- Debt service reserve account, analogous to the operating reserve.account but for the protection of the project's ability to meet its principal and interest payments on the project loan in the event that an operating problem (or other event) either reduces the cash flow of the asset or prevents the operation of the project for a period of time; and

- Restricted payments account, from which distributions to the project's sponsor may be paid provided certain conditions are met.

Cash flow proceeds through the waterfall in order of the accounts; for example, if the debt service reserve account is not fully funded, no cash flows to the restricted payments account until the funding is fully restored.

EPC Contract. The EPC contract in a project financing is often a "full wrap" contract in which the contractor agrees to deliver to the project company a finished asset with certain guaranteed performance characteristics by a certain date at a fixed price. The consequence of a failure to do so on the part of the contractor is usually the payment of liquidated damages ("LDs") to the project.

The EPC may provide for LDs in a number of circumstances. These may include:

- Delay LDs, typically on a daily basis, for failure to complete construction by the guaranteed date;
- Capacity LDs, in the event that the finished project is not capable of the production capacity for which it was designed; and
- Performance LDs, in the event that the project fails to produce at least a certain level of output over a specified time period.

LDs may be subject to a cap, both in total and for specific causes. Capacity LD provisions are generally designed to "buy down" the project loan to restore the DSCR to its intended level. Delay and performance LD provisions are generally designed to at least cover LDs that the borrower itself may owe to the PPA counterparty (as described below) and to cover the cost of interest on the loan for the period of the delay.

The EPC contractor also provides warranties with respect to project hardware and its design and installation services. There may also be separate (and typically longer) warranties with respect to specific components of the project, either from the EPC contractor or directly from the original equipment manufacturer.

The obligations of the EPC contractor are typically guaranteed by the contractor's parent company.

As an alternative to the "full wrap" contract described above, some projects elect to effectively act as their own general contractor and to contract separately with multiple parties for the various materials and services required to construct the project. These agreements often have terms similar to a full wrap contract (e.g., fixed prices, performance guarantees) but extend only to the scope of the individual agreement, not to the project as a whole.

O&M Services Agreement. The O&M services agreement provides for a service provider to operate the asset on behalf of the project company in return for a fee. The service provider is often an affiliate of the project sponsor or, in some cases, of the EPC contractor. The O&M services agreement typically provides for the service provider to provide staffing, operation, preventive and scheduled maintenance, spare parts management, and other support services to the project.

The terms of the O&M services agreement may include performance guarantees (e.g., that the asset will be available for production for a guaranteed minimum percentage of possible production hours). There are typically bonus and penalty provisions associated with such guarantees (often effectively placing the service provider's fee at risk).

The O&M services contractor's parent often guarantees its obligations under the agreement.

Offtake Agreement. The offtake agreement provides for the sale of the project's output, typically for a period of time that extends beyond the expected final maturity of the project loan.

In the context of the DOE Loan Guarantee Program, the most common type of offtake agreement is a PPA under which the output of a generating facility is sold to a utility.

In general, terms of a PPA include:

- Amount of power to be sold, including:
    - A base contract quantity;
    - A guaranteed minimum to be delivered; and
    - The amount the utility is required to purchase;
- Price, which may be fixed, escalate, or adjust based on the time of day the power is delivered;
- Curtailment provisions (under which the utility is temporarily relieved of its obligation to purchase the power);
- A schedule for project development, including a guaranteed date by which the project will be commercially operational;
- Penalties, usually in the form of LDs, for failure to meet schedule milestones or output targets; and
- Events of default under which the PPA may be terminated.

The creditworthiness of the PPA counterparty is considered key in evaluating credit risk of the project in light of the importance of its ability to meet its purchase obligation over an extended period of time to support repayment of the project loan.

Appendix F

Statement of Conflicts

Herbert Allison

Mr. Allison made all required disclosures to the Contracting Officer of DOE. It was determined that Mr. Allison had no conflicts that would constrain his full participation in the Review.

David Johnson

In engaging Mr. Johnson, Mr. Allison required that Mr. Johnson have no conflicts of interest that would impair his independence or limit, in any way, his ability to render objective and impartial advice to Mr. Allison. In addition, DOE's contracting rules and regulations contain specific requirements governing organizational conflicts. To this end, Mr. Johnson has advised that he made all required disclosures, made all necessary representations, and has taken all necessary steps, as required by Mr. Allison and the Contracting Officer of DOE.

Greenhill & Co., LLC

In engaging Greenhill & Co., LLC ("Greenhill"), Mr. Allison required that Greenhill have no institutional conflicts of interest that would impair its independence or limit, in any way, its ability to render objective and impartial advice to Mr. Allison. In addition, DOE's contracting rules and regulations contain specific requirements governing organizational conflicts. To this end, Greenhill has advised that it made all required disclosures, made all necessary representations, and has taken all necessary steps, as required by Mr. Allison and the Contracting Officer of DOE.

Arnold & Porter LLP

In engaging Arnold & Porter LLP ("Arnold & Porter"), Mr. Allison required that Arnold & Porter have no institutional conflicts of interest that would impair its independence or limit, in any way, its ability to render objective and impartial advice to Mr. Allison. In addition, DOE's contracting rules and regulations contain specific requirements governing organizational conflicts. To this end, Arnold & Porter has advised that it made all required disclosures, made all necessary representations, and has taken all necessary steps, as required by Mr. Allison and the Contracting Officer of DOE.

ENDNOTES

[1] *See* Energy Policy Act of 2005 ("EPAct"), Pub. L. No. 109-58, § 1702(b), 119 Stat. 594, 1117-18 (2005).

[2] *See* Loan Guarantees for Projects That Employ Innovative Technologies, 72 Fed. Reg. 60,116 (Oct. 23, 2007) (to be codified at 10 C.F.R. pt. 609); Loan Guarantees for Projects That Employ Innovative Technologies, 74 Fed. Reg. 63,544, 63,545 (Dec. 4, 2009) (to be codified at 10 C.F.R. pt. 609).

[3] *See* Advanced Technology Vehicles Manufacturing Incentive Program, 73 Fed. Reg. 66,721 (Nov. 12, 2008) (to be codified at 10 C.F.R. pt. 611).

[4] *See* American Recovery and Reinvestment Act of 2009 ("ARRA") Pub. L. 111-5, § 1603(a), 123 Stat. 115, 364 (2009).

[5] *Id.* § 1603(b)(1), (2).

[6] *See* EPAct § 1703(a)(2).

[7] *Id.* § 1703(b).

[8] *See* Energy Independence and Security Act of 2007 ("EISA"), Pub. L. No. 110-140, § 136 (b), (d), 121 Stat. 1492, 1515-16 (2007).

[9] *See* Energy and Water Development and Related Agencies Appropriations Act of 2010, Pub. L. No. 111-85, § 312, 123 Stat. 2845, 2874-75 (2009).

[10] *See* EPAct § 1702(d)(1).

[11] *See* EISA § 136(d)(3).

[12] *See* 10 C.F.R. § 611.100(c) (2008).

[13] *See* EPAct § 1702(f).

[14] *See* EISA § 136(d)(4)(B).

[15] *See* ARRA § 406.

[16] *Id.*

[17] *See* EPAct § 1702(h).

[18] *See* EISA §136(f).

[19] DOE established the FIPP as part of its implementation of the section 1705 loan guarantee program. Under the FIPP, a financial institution or a group of financial institutions serving as lenders to alternative energy projects (the "Lender" or, in the case of a group of financial institutions, the "Lead Lender") applied to DOE for loan guarantees under the section 1705 program. *See* LOAN GUARANTEE PROGRAMS OFFICE, DEP'T OF ENERGY, LOAN GUARANTEE SOLICITATION ANNOUNCEMENT, FEDERAL LOAN GUARANTEES FOR COMMERCIAL TECHNOLOGY RENEWABLE ENERGY GENERATION PROJECTS UNDER THE FINANCIAL INSTITUTION PARTNERSHIP PROGRAM 6 (October 7, 2009). The Lender or Lead Lender was responsible for developing the financial structure of the project and for applying for the loan guarantee on behalf of the project

sponsors or developers. *Id.* at 7. The FIPP program further required Lenders to share a "significant amount," at least 20 percent, of the risk of the guaranteed loan on a pari passu basis (i.e., having equal treatment or equal rights of repayment). *See id.* at 7; EPAct § 1702(c).

[20] *See* EPAct § 1702(g); 10 C.F.R. §§ 609.17(a)(1), (2); 609.10(d)(18).

[21] *See* 10 C.F.R. § 611.109 (2008).

[22] *See* LOAN PROGRAMS OFFICE, DEP'T OF ENERGY, TITLE XVII POLICIES AND PROCEDURES 3 (October 2011).

[23] DOE POSITION DESCRIPTION OF EXECUTIVE DIRECTOR, LOAN PROGRAMS OFFICE, ES-301-00.

[24] *See* LOAN PROGRAMS OFFICE, DEP'T OF ENERGY, TITLE XVII POLICIES AND PROCEDURES 3 (October 2011).

[25] *Id.* at 3-4.

[26] *Id.* at 4; ADVANCED TECHNOLOGY VEHICLE MANUFACTURING LOAN PROGRAM OFFICE, DEP'T OF ENERGY, ATVM POLICIES AND PROCEDURES, SEC. V.3.3 AT 42-44 (2010).

[27] *See* LOAN PROGRAMS OFFICE, DEP'T OF ENERGY, TITLE XVII POLICIES AND PROCEDURES 4 (October 2011).

[28] *Id.* at 162.

[29] *See* LOAN PROGRAMS OFFICE, DEP'T OF ENERGY, RISK COMMITTEE CHARTER 3 (2011).

[30] *See* LOAN PROGRAMS OFFICE, DEP'T OF ENERGY, TITLE XVII POLICIES AND PROCEDURES 5 (October 2011).

[31] *See* LOAN PROGRAMS OFFICE, DEP'T OF ENERGY, TITLE XVII POLICIES AND PROCEDURES 5 (October 2011).

[32] *Id.*

[33] *See* DEP'T OF ENERGY, CREDIT REVIEW BOARD CHARTER ¶ 1 (December 2011).

[34] *Id.* ¶ 2.

[35] *Id.* ¶¶ 2-3.

[36] *See* LOAN PROGRAMS OFFICE, DEP'T OF ENERGY, LPO RISK COMMITTEE CHARTER 1 (2011).

[37] *See* Memorandum from Secretary of Energy Steven Chu to White House Chief of Staff William M. Daley (Dec. 13, 2011) ("Secretary Chu Memo").

[38] *See* LOAN PROGRAMS OFFICE, DEP'T OF ENERGY, RISK COMMITTEE CHARTER 1 (2011).

[39] *See* Secretary Chu Memo.

[40] *See* LOAN PROGRAMS OFFICE, DEP'T OF ENERGY, RISK COMMITTEE CHARTER 2 (2011); Dep't of Energy, Credit Review Board Charter ¶ 4 (2011).

[41] *See* Secretary Chu Memo.

[42] *Id.*

[43] *Id.*

[44] *Id.*

EXEC- 2011-001822

Department of Energy
Washington, DC 20585

February 18, 2011

MEMORANDUM FOR THE SECRETARY

FROM: JONATHAN M. SILVER
EXECUTIVE DIRECTOR OF THE LOAN PROGRAMS OFFICE

FRANCES NWACHUKU
DIRECTOR OF PORTFOLIO MANAGEMENT, LOAN PROGRAMS OFFICE

SUBJECT: **ACTION:** Concurrence for the U.S. Department of Energy ("DOE") to modify that Common Agreement dated September 2, 2009 (the "Original Common Agreement") by and among Solyndra Fab 2 LLC (the "Borrower"), DOE and U.S. Bank National Association (the "Collateral Agent")

ISSUE: Whether to (a) restructure Borrower's reimbursement obligations to DOE pursuant to the Original Common Agreement, and (b) as part of the restructuring, subordinate certain of Borrower's reimbursement obligations to DOE to the providers of distressed debt funding.

BACKGROUND: Borrower is developing a thin-film solar photovoltaic manufacturing facility in Fremont, California (the "Project"). Borrower obtained a $535,000,000 loan (the "FFB Loan") from the Federal Financing Bank (the "FFB") to provide construction financing for the Project and DOE guaranteed repayment of the FFB Loan pursuant to a guarantee issued September 2, 2009 (the "Guarantee"). The terms and conditions upon which DOE issued the Guarantee are set forth in the Original Common Agreement and include, among other things, (a) the Borrower's contractual obligation to reimburse DOE for guarantee payments made by DOE, and (b) remedies if Borrower defaults on such reimbursement obligations.

Several events of default relating to financial requirements have occurred under the Original Common Agreement. The Borrower has provided to DOE a restructured business plan and model, including restructured terms of payment of the Borrower's reimbursement obligations to DOE and new cash infusions from third party investors. The Loan Programs Office has reviewed and analyzed the Borrower's restructured business plan and model and has determined that there is a reasonable prospect that the Borrower will be able to make the restructured payments, as and when such payments become due under the restructured business plan and model. The Loan

Programs Office has carefully considered the circumstances leading to the Borrower's default and all reasonable responses to such default, including foreclosure on the collateral securing the Borrower's reimbursement obligations under the Original Common Agreement. Based on the Loan Programs Office's review of the Borrower's restructured business plan and model and DOE's responses to the Borrower's default, the Loan Programs Office has determined that restructuring the Borrower's reimbursement obligations to DOE as described below will yield the highest probable net benefit to the DOE by minimizing the DOE's loss on the Guaranteed Loan.

The Borrower's restructured business plan and model (the "Restructuring") contains the following elements:

The Restructuring contains the following elements:

(a) DOE's collateral package will be enhanced, as all assets of the Borrower's parent and its affiliates will be transferred to the Borrower and thereafter secure the Borrower's obligations to DOE and Third Party Lenders (defined below);

(b) The Borrower will obtain additional funding under a $75 million note ("Tranche A") issued to third party lenders, and will issue a $175 million note ("Tranche E") to certain third-party lenders that previously funded that amount to the Borrower's parent (collectively with the holders of Tranche A, the "Third-Party Lenders");

(c) The Borrower's existing $535 million reimbursement obligation to DOE will be amended to comprise a $150 million reimbursement obligation ("Tranche B") and a $385 million reimbursement obligation ("Tranche D");

(d) The Borrower will have the right to borrow an additional $75 million ("Tranche C") from the Third-Party Lenders on specified terms and conditions;

(e) Tranches A, B and C (the "Senior Facilities"), will constitute senior secured facilities on a *pari passu* basis in lien and payment priority, except that, for the first 2 years after closing of the restructuring, Tranche A (a new $75 million loan) will have payment priority from the proceeds of a foreclosure (if any) on the collateral securing the Borrower's payment obligations;

(f) Tranches D and E (the "Subordinate Facilities") will constitute subordinate secured facilities, secured on a *pari passu* basis, but with DOE's Tranche D having payment priority;

(g) The Senior Facilities will have certain lien and payment priority over the Subordinate Facilities; and

(h) Interest on each of the Senior and Subordinate Facilities will be capitalized for limited periods.

In order to effectuate the Restructuring DOE, the Borrower, the Collateral Agent and certain other parties would enter into an Amended and Restated Common Agreement (the "Restructured Common Agreement") and the documents and instruments specified therein (the "Restructuring Documents").

The Chief Counsel of the Loan Programs Office has reviewed the terms of the proposed restructuring, including the proposed subordination of certain of the Borrower's reimbursement obligations to DOE, and in consultation with the Office of the General Counsel has determined that the subordination is permissible under Title XVII of the Energy Policy Act of 2005.

Accordingly, the Loan Programs Office requests that you make the following approvals, ratifications, and authorizations:

1) Authorize the Executive Director of the Loan Programs Office, the Chief Operating Officer of the Loan Programs Office, and the Director of the Loan Guarantee Origination Division, Loan Programs Office, and the Director, Portfolio Management Division, Loan Programs Office (including any person acting as such Executive Director or Chief Operating Officer or Director), acting together or individually, (the "Delegates") to enter in the Restructuring Documents;
2) Authorize the Delegates to execute and deliver all of the Restructuring Documents to which DOE is a party and all other agreements, certificates, and instruments as are necessary or appropriate in connection with the issuance and administration of the Guarantee, all in form and substance satisfactory to such Delegate;
3) Authorize the Delegates to administer (including by executing and delivering other agreements, certificates and instruments) the Guarantee, the Restructuring Documents, and all other agreements, certificates, and instruments as are necessary or appropriate in connection with the Guarantee.

URGENCY: Authority to execute loan documents is needed for the closing of the transaction which is scheduled to occur on or about February 18, 2011.

RECOMMENDATION: That the Secretary approve each of the determinations, ratifications and authorizations set forth above.

APPROVED: [signature] DISAPPROVED: ____________ DATE: FEB 22 2011

CONCURRENCE:

[signature] Date: 2/18/11

Scott Blake Harris
General Counsel