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THE CHU MEMORANDUM: DIRECTIVES COULD INCREASE ELECTRICITY COSTS FOR OVER 40 MILLION FAMILIES AND SMALL BUSINESSES

OVERSIGHT HEARING

BEFORE THE

COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED TWELFTH CONGRESS

SECOND SESSION

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OVERSIGHT HEARING ON "THE CHU MEMORANDUM: DIRECTIVES COULD INCREASE ELECTRICITY COSTS FOR OVER 40 MILLION FAMILIES AND SMALL BUSINESSES."

Tuesday, September 11, 2012

U.S. House of Representatives

Committee on Natural Resources

Washington, D.C.

The Committee met, pursuant to notice, at 10:05 a.m., in Room 1324, Longworth House Office Building, Hon. Doc Hastings [Chairman of the Committee] presiding.

Present: Representatives Hastings, Duncan of Tennessee, Gohmert, Lamborn, Coffman, McClintock, Thompson, Tipton, Gosar, Labrador, Noem; Markey, Kildee, Holt, Costa, and Tsongas.

The CHAIRMAN. The Committee on Natural Resources will come to order, and the Chair notes the presence of a quorum, which, under Committee Rule 3(e) is 2 Members, and we have exceeded that.

The Committee on Natural Resources today meets to hear testimony on "The Chu Memorandum: Directives Could Increase Electricity Costs for Over 40 Million Families and Small Businesses."

We have a distinguished panel that we will hear from later on. We have Mr. Mark Crisson, President and CEO of the American Public Power Association; Mr. Scott Corwin, who is the Executive Director of the Public Power Council out of Portland, Oregon; Ms. Lauren Azar, Senior Policy Advisor to Energy Secretary Steven Chu, from the U.S. Department of Energy; Mr. Jim Baak, who is Director of Policy for Utility-Scale Solar, The Vote Solar Initiative out of San Francisco; Mr. Kent Palmerton, General Manager of the Power and Water Resources Pooling Authority, also out of California, in Carmichael; and Mr. Joel Bladow, Senior Vice President of Transmission of the Tri-State Generation and Transmission Association, out of Westminster, Colorado.

And I note that we had another panelist, Mr. Ed Anderson, who is a manager of the South Dakota Rural Electric Association. But unfortunately, there was a flight problem, and he could not make the hearing today. However, at the appropriate time, his full testimony will appear in the record.

Under Committee Rules, opening statements are confined to the Chairman and Ranking Member. However, I ask unanimous consent that if any Member wishes to have a statement, it be given to the Committee prior to the close of business today.

I will now recognize myself for 5 minutes.

STATEMENT OF THE HON. DOC HASTINGS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

The CHAIRMAN. Today's hearing is the second examination of potentially significant electricity rate increases on 40 million consumers due to Washington, D.C. directives. These mandates, as proposed by Obama Administration and Energy Secretary Chu without a clear legal authority, in my view, could dramatically change and undermine the collaborative and low-cost, emissions-free nature of the Federal power program.

Five months ago we heard that the Administration's directives were a "solution in search of a problem," and that nothing was broken. In fact, we heard that those in the Pacific Northwest and others receiving hydropower from dams and reservoirs are working well on a collaborative level to resolve grid reliability concerns and to integrate more non-intermittent energies.

At the hearing, I asked why family farmers in my rural district in Central Washington should be forced to pay higher electricity bills so people in downtown Seattle can plug in expensive electric vehicles just because the Secretary says so. I never got an answer to that question. So I subsequently joined with 18 of my Pacific Northwest colleagues from both sides of the aisle in a letter to reaffirm that concern and other concerns.

But because it appeared these bipartisan concerns were falling on deaf ears, the full House adopted, through the appropriations process, a bipartisan Appropriations Committee provision to prohibit funding for any new activities outlined in the Chu memo. Shortly after that, 166 bipartisan House and Senate Members sent a letter with their concerns that this was a top-down effort, and urged the Secretary to engage in a "meaningful collaboration with stakeholders, including rate payers and Congress prior to moving forward with these new initiatives." That was a direct quote.

These actions should have sent a message to the Obama Administration and Secretary Chu that they need to work with rate payers most impacted by the memorandum, and that they may have gone a bit too far with the memoranda. But apparently, the message has not been received.

We will hear testimony today that DOE's workshops to gather input were superficial and disorganized. The American Public Power Association and National Rural Electric Cooperative Association, two national utility organizations representing consumers impacted by these directives, questioned whether DOE was genuinely seeking customer input.

Senator Max Baucus of Montana, in a letter he sent a few weeks ago, asked for concrete examples where Montana ratepayers will not pay for something in which they do not benefit. To my knowledge, he has not received a concrete example. Instead, the Secretary's staff is determined to impose its will on the Western Area Power Association, or WAPA, by its own arbitrary set deadline of the end of the year.

I commend and support Senator Baucus for his efforts to delay implementation of the Administration's Chu directive until at least early next year. But I have to say the evidence to me is irrefutably clear that the better approach would be for the Secretary to pull the plug entirely on this misguided effort.

The Secretary needs to scrap this effort, start over, and work with all involved in forming a policy based on need and transparency. That is why I introduced my hydropower protection and promotion legislation, H.R. 6247, which includes a provision to that end.

I fear this Administration is roaring downhill on a freight train to a pre-determined conclusion. Secretary Chu issued this Memorandum. It is, after all, signed by him and is in his name, which is why he was personally invited to testify today. Unfortunately, he turned down that request one more time.

With Americans already struggling to fill their tanks due to the rising gas prices, the last thing they need is to pay more every time they flip on the light switch. The Secretary needs to personally explain to this Committee why he and this Administration are experimenting with various energy schemes and mandates. At a crucial economic time, raising home energy prices defies logic. Yet that is what the Administration's proposals would do, according to many of our distinguished witnesses before us today. The only thing this Secretary seems to be generating in this effort is unanswered questions and a great deal of uncertainty. I think the American people deserve better.

[The prepared statement of Mr. Hastings follows:]

Statement of The Honorable Doc Hastings, Chairman, Committee on Natural Resources

Today's hearing is the second examination of potentially significant electricity rate increases on 40 million consumers due to Washington, DC directives. These mandates, as proposed by the Obama Administration and Energy Secretary Chu without any clear legal authority, could dramatically change and undermine the collaborative and low-cost, emissions-free nature of the federal power program.

This Committee heard five months ago that the Administration's directives were a "solution in search of a problem" and that nothing was broken. In fact, we heard that those in the Pacific Northwest and others receiving hydropower from our dams and reservoirs are working well on a collaborative level to resolve grid reliability concerns and to integrate more non-intermittent energies. I joined with 18 of my Pacific Northwest colleagues from both sides of the aisle to reflect many of those concerns. At the time, I asked why family farmers in my rural district should be forced to pay higher electricity bills so people in downtown Seattle can plug in expensive electric vehicles just because Secretary Chu says so. I never got an answer.

Because it appeared these bipartisan concerns were falling on deaf ears, the full House adopted a bipartisan Appropriations Committee provision to prohibit funding for any new activities outlined in the Chu Memorandum. Shortly after, 166 House Members and Senators sent a bipartisan letter with their concerns that this was a "top-down" effort and urged the Secretary to engage in a "meaningful collaboration with stakeholders, including ratepayers and Congress, prior to moving forward with these new initiatives." That's very telling in this political atmosphere.

With these actions, the Obama Administration and the Energy Secretary, in particular, should have heard loud and clear the messages that they needed to work with those ratepayers most impacted by the Memorandum and that maybe they had gone too far. By most accounts, the Administration, the Secretary and his people failed.

We will hear testimony today that the Department of Energy's workshops to gather input were "superficial" and "disorganized". In fact, the American Public Power Association will testify that they question whether DOE is "genuinely seeking customer input" and the National Rural Electric Cooperative Association has recently stated that "the reasons for the initiative have not been made clear and appear to be continually evolving". These charges are troubling and significant since they all come from those representing consumers who could be saddled with the bills stemming from these directives.

Senator Max Baucus, in a letter he sent a few weeks ago to the Secretary, appropriately asked for concrete examples where Montana ratepayers will not pay for something in which they do not benefit. To my knowledge, he has not received an

example. Instead, the Secretary's staff is emphatic about imposing its will on the Western Area Power Administration by its own arbitrarily-set deadline of the end of the year. Senator Baucus spoke for many in pointing out the Department's rush to judgment when he asked for a delay until at least early next year.

I commend Senator Baucus for his efforts to delay implementation of the Administration's Chu directives, and I support him, but the evidence is irrefutably clear that the better approach would be for the Secretary to pull the plug on this misguided effort. It's troubling to think that DOE's efforts with one PMA will become a blueprint for the other PMAs, including the Bonneville Power Administration.

The Secretary needs to scrap this effort, start over and work with customers and us in forming a policy based on need and transparency. That's why, following the Appropriations' Committee's actions earlier this year, my hydropower protection and promotion legislation, H.R. 6247, includes a provision to that end.

But, I fear that this Administration is on a roaring freight train to a pre-determined conclusion. Secretary Chu issued this Memorandum—it is, after all, signed by him and is in his name—which is why he was personally invited to testify today about its potential to drive up electricity costs. Unfortunately, he turned down our request once again.

When Americans are already struggling to fill up their tanks due to the rising price of gasoline, which has doubled under this Administration's watch, the last thing they need is to pay more every time they flip on the light switch. The Secretary needs to personally explain why he and his Administration are experimenting with various energy schemes and mandates. He also needs to work with this Committee to come up and explain for himself and his Department in person.

At a crucial economic time, raising home energy prices defies logic yet that is what the Administration's proposals would do according to many of our distinguished witnesses before us today. The only thing this Secretary seems to be generating in this effort is unanswered questions and fear. The American people deserve better.

The CHAIRMAN. And with that, I will recognize the distinguished Ranking Member, Mr. Markey.

STATEMENT OF THE HON. EDWARD J. MARKEY, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF MASSACHUSETTS

Mr. MARKEY. Thank you, Mr. Chairman, very much. This March Secretary Chu issued a memo to the Power Marketing Administrations under his jurisdiction. In that memo he outlined opportunities to modernize the grid that would also reduce costs to consumers.

As it turns out, Secretary Chu is a pretty smart guy. The Republicans these days are predictable. Secretary Chu knew the Republicans would call a bunch of hearings on his memo and try to mischaracterize it. So he said, right up top, in the second sentence of his memo, "Taking greater advantage of energy efficiency, demand resources, and clean energy, while at the same time reducing cost to consumers, requires a transition to a more flexible and resilient electric grid, and much greater coordination among system operators."

We are here today talking about this memo because some people doubt that part about reducing cost to consumers. So let's break it down. Let's see what people are afraid of. Let's do the arithmetic.

Energy efficiency—that is all about using less. Eliminating waste—that reduces costs. Demand response—that means lowering electricity demand at peak times. You need to build fewer new power plants. That reduces the costs. Wire transmission planning, better control systems, more frequent scheduling. The competition and increased efficiency these upgrades bring more than pay for the up-front investments. And renewable energy, new wind power

is being contracted for 3 cents per kilowatt hour right now in the Western Area Power Authority service territory.

But never mind that. The Chu memo has nothing to do with electricity generation, nothing. Hear that again? The Chu memo has nothing to do with electricity generation. Power Marketing Administrations don't own renewable energy. Can you hear that again? And they don't require anyone to purchase it. Can you hear that again? Can you do the arithmetic here? Nothing plus nothing equals nothing.

Should the grid be able to accommodate renewables? Absolutely. There must be a level playing field. And since renewable electricity is essentially free to operate—wind and solar actually drive down the price of electricity in markets—that reduces cost. So the arithmetic is getting pretty clear here, huh? Nothing plus nothing plus nothing plus nothing plus nothing—additional costs, plus the savings that you get is good arithmetic. Good arithmetic, ultimately, for consumers.

If all the component parts potentially save money, then the Chu initiative can save money. See, it is just arithmetic, very simple to understand.

Today's hearing is part of the same anti-clean energy, anti-progress agenda that Republicans have been pushing for the last 21 months. They have made this Congress the most do-nothing Congress in history. And now they are trying to shut down Secretary Chu's grid modernization effort to make sure this is the most do-nothing Department of Energy in history, as well.

Today's hearing is just the anti-clean energy opening act for the week. The main event is Friday, when Republicans roll out their No More Solyndras Act on the House Floor. That legislative monstrosity proclaims to end the Department of Energy loan guarantee programs, but actually plays favorites and allows $88 billion worth of coal and nuclear loan guarantees to go forward. So the bill should really be called the Only $88 Billion More for Coal and Nuclear No More Solyndras Act of 2012.

Republicans actually have just two approaches to solving any problem this Nation faces. First, privatize it. Social Security, public lands, Medicare, privatize them. Second, if they are already privatized, then Republicans want to repeal any and all regulations related to it. Clean air, clean water? Forget it, they say. The free market will figure it out. It is radical. It is bad for most Americans. But at least it is ideologically consistent.

In contrast, the Republicans' approach to the grid resembles Chinese central planning from the 1970s. They want the Federal Government to continue owning huge pieces of the transmission system, and they oppose operating it in the most modern, efficient manner possible. So, not only do Republicans support a Socialist electricity system, they support a backwards and inefficient Socialist electricity system, like it was in the old Soviet Union or China. The Republicans have to take bizarre positions for the sake of killing clean energy.

Here is the reality. The reforms in Secretary Chu's memo are anything but radical. He is proposing proven, tested, effective practices that are standard for any other large, private grid operators in the United States. Let's just modernize. That is our message.

But, unfortunately, the Republicans oppose it, because they want to keep the Socialist system in place that doesn't, in fact, have to improve anything.

I yield back the balance of my time.

[The prepared statement of Mr. Markey follows:]

Statement of The Honorable Edward J. Markey, Ranking Member, Committee on Natural Resources

Thank you, Mr. Chairman.

This March, Secretary Chu issued a memo to the Power Marketing Administrations under his jurisdiction. In that memo, he outlined opportunities to modernize the grid that would also reduce costs to consumers.

As it turns out, Secretary Chu is a pretty smart guy. And Republicans these days are predictable. Secretary Chu knew the Republicans would call a bunch of hearings on his memo and try to mischaracterize it. So he said right up top, in the second sentence of the memo:

"Taking greater advantage of energy efficiency, demand resources, and clean energy—WHILE AT THE SAME TIME REDUCING COSTS TO CONSUMERS—requires a transition to a more flexible and resilient electric grid and much greater coordination among system operators."

We're here today talking about this memo again because some people doubt that part about REDUCING COSTS TO CONSUMERS. So let's break it down. Let's see what people are afraid of. *Let's do the arithmetic.*

- Energy efficiency: That's all about using less, eliminating waste. That reduces costs.
- Demand response: That means lowering electricity demand at peak times. You need to build fewer new power plants. That reduces costs.
- Wider transmission planning, better control systems, more frequent scheduling: The competition and increased efficiency these upgrades bring more than pay for the upfront investments.
- Renewable energy: New wind power is being contracted for 3 cents per kilowatt hour right now in Western's service territory. But never mind that. The Chu memo has NOTHING TO DO WITH ELECTRICITY GENERATION. NOTHING. Power Marketing Administrations don't own renewable energy and they don't require anyone to purchase it. Should the grid be able to accommodate renewables? Absolutely, there must be a level playing field. And since renewable electricity is essentially free to operate, wind and solar actually drive down the price of electricity in markets. That reduces costs.

If all the component parts potentially save money, then the Chu initiative can save money. It's arithmetic.

Today's hearing is part of the same anti-clean energy, anti-progress agenda that Republicans have been pushing for the last 21 months. They've made this Congress the most "Do Nothing" Congress in history. And now, they're trying to shut down Secretary Chu's grid modernization effort to make sure this is the most "Do Nothing" Department of Energy in history as well.

Today's hearing is just the anti-clean energy opening act for the week. The main event is Friday, when Republicans roll out their "The No More Solyndras Act" on the House floor. That legislative monstrosity proclaims to end the Department of Energy loan guarantee program, but actually plays favorites and allows $88 billion worth of coal and nuclear loan guarantees to go forward.

Republicans usually have just two approaches to solving any problem this nation faces. First, privatize it. Social security, public lands, Medicare? Privatize them.

Second, if it's already privatized, then Republicans want to repeal any and all regulations related to it. Clean air and clean water? "Forget it" they say "the free market will figure it out." It's radical and bad for most Americans. BUT . . . at least it's ideologically consistent.

In contrast, the Republican approach to the grid resembles Chinese central planning from the 1970s. They want the federal government to continue owning huge pieces of the transmission system. And they oppose operating it in the most modern, efficient manner possible. So not only do Republicans support a socialist electricity system, they support a backwards and inefficient socialist electricity system.

Republicans take bizarre positions for the sake of killing clean energy.

Here's the reality. The reforms in Secretary Chu's memo are anything but radical. He is proposing proven, tested, and effective practices that are standard for other large, private grid operators in the United States.

Let's not wait for the current system to fail before we implement the best available systems, technologies, and practices. Let's be open to modernization and engage constructively with Secretary Chu on how best to do it.

The CHAIRMAN. I thank the gentleman for his opening remarks.

For the panelists, I will remind you once again of how these lights work. Most of you are somewhat familiar with that. But when the green light goes on it means you have 5 minutes. And when the yellow light goes on it means you have a minute. And when the red light goes on that means your time has expired. And I would ask you to try to finish your statement. Now, all of you have submitted statements for the record. Your full statement will appear in the record, if you don't say it orally. So it will appear in the record.

So, with that, we will start with Mr. Mark Crisson. And you are recognized for 5 minutes.

STATEMENT OF MARK CRISSON, PRESIDENT AND CEO, AMERICAN PUBLIC POWER ASSOCIATION, WASHINGTON, D.C.

Mr. CRISSON. Thank you, Chairman Hastings, Ranking Member Markey, members of the Committee. I appreciate the opportunity to testify before you today. My name is Mark Crisson. I am President and CEO of the American Public Power Association, or APPA. We are the national service organization for the Nation's more than 2,000 not-for-profit, community-owned electric utilities that serve more than 46 million Americans in 49 States. Of these, approximately 600 of these public power systems in 33 States purchase hydropower from the 4 Federal Power Marketing Administrations, or PMAs.

In total, 1,180 public power and cooperative systems purchase power from the PMAs. And the rates they pay for this marketed hydropower cover all the costs of generating and transmitting the power, including interest on the Federal investment in the projects, and ongoing operation and maintenance. In many cases, the power customers also subsidize other purposes of the dams, such as irrigation and recreation.

As you know, in March of this year, Energy Secretary Chu sent a memo to the PMA administrators directing changes in the policies and operations of the PMAs. These proposals, however, were crafted without any consultation with the very customers they would most directly affect. Customer consultation at the regional level has long been a core principle of PMA operation, so the DOE approach was very troubling.

Included in the changes proposed in this memorandum were concepts that could have a number of adverse impacts, including increasing power costs, altering the successful partnership between the PMAs and their customers, requiring participation in new and costly market programs in the West that could further erode State and local control of power costs, and creating a top-down decision-making process that moves decisions now made at the regional level to Washington, D.C.

Soon after the April Committee hearing we learned that the first PMA to be impacted would be the Western Area Power Administration, or WAPA, and that a series of workshops would be held over

the summer to garner stakeholder input. APPA and its members participated extensively in that process, as delineated in detail in my written testimony. Suffice it to say that the process did little to enhance our confidence in the process, or our understanding of the need for the proposed changes, and the shifting rationales presented by DOE since April have not served to clarify the ultimate goal of DOE.

Furthermore, the timeline delineated by DOE for completion of the WAPA recommendations is December 31st, which we feel is an arbitrary and inadequate time frame to thoroughly consider such sweeping proposals.

Given the course of the proceedings to this point, we find it hard to believe that DOE is genuinely interested in seeking customer input, or that it does not have a predetermined policy agenda it wishes to pursue, regardless of the views of the customers or the facts. And the facts, by the way, reveal that the PMAs are appropriately addressing the challenges of the integration of renewable resources, and that they operate and maintain reliable and resilient transmission systems. Rather, DOE seeks to institute a new regime for the PMAs, instead of coordinating with PMA customers to improve PMA operations within their congressionally mandated framework.

We, therefore, recommend that DOE step back and start this process anew. Take this opportunity to plug in to the long-established processes that identify the needs and objectives for each PMA. We urge them to take the time to engage in a real dialogue with the groups that will be primarily affected by any changes to the PMAs.

First, they should examine, in conjunction with the PMAs and their customers, where needs exist within the system, and then work with that group to articulate clear goals and plans to address these needs. This process should be led by the PMAs and their partners, the PMA customers. Only through steps like these can DOE hope to foster meaningful and lasting change in this area.

And this offer to work with DOE is not an empty gesture. As partners of the PMAs, the customers have every incentive to pursue good ideas that will increase efficiencies and reduce costs. In fact, most of the changes to the PMA's mission or authorities over time have originated with proposals from their customers.

Should DOE not reverse course, APPA would ask the Committee to consider legislative and other oversight remedies, including language similar to the provision in Chairman Hastings's new hydropower bill, H.R. 6247, which would prohibit DOE from implementing the March 16th memo.

We greatly appreciate the Committee's interest in this important issue, and the efforts you have undertaken to date. Thank you, and I look forward to your questions.

[The prepared statement of Mr. Crisson follows:]

Statement of Mark Crisson, President and CEO, American Public Power Association (APPA)

Thank you for the opportunity to testify at this hearing to examine the impacts of Department of Energy Secretary Chu's March 16, 2012, memorandum on the federal Power Marketing Administrations (PMAs) and the steps that DOE has taken since release of the memo almost five months ago. My name is Mark Crisson, Presi-

dent and CEO of the American Public Power Association (APPA). APPA, based in Washington, D.C., is the service organization for the nation's more than 2,000 not-for-profit, community-owned electric utilities. Collectively, these utilities serve more than 46 million Americans in 49 states (all but Hawaii).

APPA was created in 1940 as a non-profit, non-partisan organization to advance the public policy interests of its members and their customers, and to provide member services to ensure adequate, reliable electricity at a reasonable price with the proper protection of the environment. Since two-thirds of public power utilities do not generate their own electricity and instead buy it on the wholesale market for distribution to customers, securing low-cost and reliable wholesale power is a priority for public power. Most public power utilities are owned by municipalities, with others are owned by counties, public utility districts, and states. APPA members also include joint action agencies (state and regional consortia of public power utilities) and state, regional, and local associations that have purposes similar to those of APPA.

APPA advocates for policies that: ensure reliable electricity service at competitive costs; advance diversity and equity in the electric utility industry; promote effective competition in the wholesale electricity marketplace; protect the environment and the health and safety of electricity consumers; and safeguard the ability of communities to provide infrastructure services that their consumers require.

Approximately 600 public power utilities in 33 states purchase hydropower from the four federal Power Marketing Administrations (PMAs). The PMAs market the hydropower produced at large federally-owned dams operated by the U.S. Army Corps of Engineers (Corps) and the Bureau of Reclamation (BOR). Each of these public power utilities has a unique contractual arrangement with the PMA from which they receive power. Some of these utilities get all of their power needs met through the PMA, while others only get a portion—augmenting the federal hydropower with their own generation sources or those purchased from others, which include natural gas, coal, nuclear, other hydropower facilities and non-hydro renewable sources such as wind, solar, geothermal and biomass. What they have in common is that the rates they pay for the PMA-marketed hydropower cover *all* of the costs of generating and transmitting the power, interest on the federal investment in the project, and ongoing operation and maintenance. In some cases, the power customers also subsidize other purposes of the dams, such as irrigation and recreation.

For the public power utilities that purchase hydropower marketed by the PMAs, this system of repayment of the federal investment, through rates charged to electricity customers has worked well for decades. As modifications and updates are made to federal dams, the power customers who receive the benefits of these upgrades repay the government for such upgrades. This principle, long-referred to as "beneficiary pays," is a core underpinning of the PMAs' operations. Another principle is that of "preference" which is essentially a "right of first refusal" to access PMA power that has been granted under federal law to not-for-profit utilities—public power and rural electric cooperatives—and a few other not-for-profit entities such as military installations and publicly-owned universities. This sound public policy principle is based on the concept that our nation's river systems, and many of the dams that have been built on them, are public goods, and thus the benefits of these facilities must flow broadly to consumers on a cost-based, not-for-profit basis. This concept has had bipartisan support since the inception of federal hydropower in the early 1900s.

The four PMAs—Bonneville Power Administration (Bonneville or BPA), Western Area Power Administration (Western or WAPA), Southwestern Power Administration (Southwestern or SWPA) and Southeastern Power Administration (Southeastern or SEPA)—market wholesale power to approximately 1,180 public power utilities and rural electric cooperatives in 33 states, serving over 40 million electricity end-users. These 1,180 public power utilities and rural electric cooperatives are often referred to collectively as the "PMA customers." They in turn serve their end-use electric consumers who are located in the following states, by PMA region: BPA: Washington, Oregon, Idaho, Montana (part). WAPA: Arizona, California, Colorado, Iowa, Kansas (part), Minnesota, Montana (part), North Dakota, Nebraska, New Mexico, Nevada, South Dakota, Texas (part), Utah, Wisconsin, Wyoming. SWPA: Arkansas, Kansas (part), Louisiana, Missouri, Oklahoma, Texas (part). SEPA: Alabama, Florida, Georgia, Illinois, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia.

APPA members, as purchasers of significant quantities of wholesale power marketed by the PMAs, are directly impacted by changes to the "federal power program" (the policies and laws that collectively govern the PMAs). The PMAs are based on a system of cost "pass-throughs," whereby federal investment is repaid, plus inter-

est, through electricity rates. As the costs to the federal government to provide these hydropower services increase, wholesale and retail electricity rates are raised correspondingly. As a result of this relationship, APPA has consistently opposed unnecessary changes to the structure and mission of the PMAs that would have resulted in higher electricity rates for its members and their customers. These changes have often been attempts to either privatize the PMAs, or to raise the federal wholesale rates to market-based rates, as opposed to the cost-based rate methodology under which the PMAs have operated successfully for decades, at no cost to the federal government. Today, however, PMA customers face a more subtle, yet equally problematic, challenge.

Background on Department of Energy Secretary Chu March 16, 2012, Memo on the PMAs and Initial Customer and Congressional Response:

On March 16, 2012, Department of Energy (DOE) Secretary Steven Chu released a six-page memorandum outlining several proposed changes to the PMAs ("March 16 Memorandum"). As APPA testified at the April hearing held by this Committee, portions of the March 16 Memorandum contain admirable goals, at least in the abstract. But these proposals, which promise to impose unnecessary and inappropriate cost increases on federal hydropower customers, and therefore on millions of retail electricity customers, were crafted without any consultation with the very customers they would most directly affect. Customer consultation at the regional level has long been a core principle of PMA operations. In all PMA projects, customers have paid for improvements to the systems that provide them with hydropower and will continue to do so, as required by the various PMA authorizing statutes. The lack of coordination by DOE with PMA customers—the group that will be primarily impacted—in crafting these proposed changes, was therefore startling. When combined with the secretive process by which the March 16 Memorandum was created and the lack of specific directives, the entire effort was, and continues to be, quite troubling.

Included in the changes proposed in this March 16 Memorandum were concepts such as construction of new transmission through third-party financing mechanisms and new borrowing authorities; "improvement" of the PMAs' rate designs; the institution of an energy imbalance market for the West; the creation of revolving funds for transmission improvements, and other changes described in the sections below.

These plans, as introduced, were very short on specificity. They were described by Ms. Lauren Azar, the DOE Senior Advisor working on these issues, in written testimony to this Committee as "foundational goals." APPA and its PMA-customer members had hoped that more specificity would soon be forthcoming. However, the March 16 Memorandum's rollout was only the first step in a confusing and secretive process that could be described as, at best, poorly organized, and, at worst, misleading and misinformed. DOE has consistently shifted its rationale for its proposed changes to the PMAs. While DOE has used words such as "collaboration" and "transparency" to describe its intentions for the PMA-change process, APPA believes this process has been full of shifting justifications and opaque processes. For example, below is a short timeline outlining DOE's shifting public justifications for undertaking this effort:

Initial justification—March 16, 2012: The March 16 Memorandum from Secretary Chu is released, having been crafted with no customer input. As primary justification for these proposals, Secretary Chu cites a need for greater integration of renewable resources (wind and solar power) and a need to upgrade the nation's transmission grid.

Second justification—May 31, 2012: At a meeting of PMA customers in Denver, Colorado, hosted by APPA and the National Rural Electric Cooperative Association (NRECA), Ms. Azar reads aloud from a May 30 blog posting by Secretary Chu. This statement cites "global competitiveness" and enhancing transmission to avoid repetition of the September 2011 blackouts in the Southwestern United States (see below) as further justification for the proposed PMA changes (http://energy.gov/articles/america-s-competitiveness-depends-21st-century-grid).

Third justification—July 9, 2012: In response to a letter to Secretary Chu signed by 166 Members of Congress expressing concerns about his plans for the PMAs, Secretary Chu cites blackouts that occurred as part of a "derecho" weather pattern in Washington, D.C., as further evidence of the need for an upgrade of the PMAs' transmission systems.

Fourth justification—July 24 through August 2, 2012 (during the regional WAPA workshops—see below): Inappropriately characterizing her conversations with the CEOs of APPA and the National Rural Electric Cooperative

Association (NRECA), Ms. Azar cites her attendance (she appeared unannounced) at a meeting of electric and nuclear utility CEOs who were discussing emergency preparedness with the Secretaries of the Department of Homeland Security and the DOE as an indication that these CEOs, including APPA's and NRECA's, fully supported the objectives of the March 16 Memorandum. She publicly cites her involvement in this meeting, which was organized after 18 months of effort to discuss coordinated processes in the event of a national disaster, as justification of the need for the proposed PMA changes.

In the hearing held on this topic in April, Members of the Committee sought to better understand the specific plans and rationales for the effort announced in the March 16 Memorandum. And, as mentioned above, so did 166 members of the House and Senate, as well as PMA customer representatives from public power utilities and co-ops at a meeting in Denver. These three processes—the hearing, a broadly-bipartisan letter, and direct questions from PMA customer representatives to DOE and PMA staff—did little to enhance APPA's PMA-customer members' understanding of DOE's specific plans for the PMAs. We did learn, however, that the first PMA to be overhauled would be WAPA, and that a series of workshops would be held over the summer to garner stakeholder input. Much of the rest of this statement will focus on this process, including the topics related to the March 16 Memorandum that were discussed in the workshops. The statement will conclude by making recommendations to DOE and the Committee based on the process and substance of these workshops.

WAPA Workshops:

WAPA markets wholesale power to approximately 287 public power systems in Arizona, California, Colorado, Iowa, Kansas (part), Minnesota, Montana (part), North Dakota, Nebraska, New Mexico, Nevada, South Dakota, Texas (part), Utah, Wisconsin, and Wyoming. WAPA serves over 5.5 million electricity end-users in the public power communities in these states.

Six regional listening sessions/workshops were announced as part of DOE's processes for overhauling WAPA. APPA was immediately concerned when hearing of this announcement because these workshops were cast as including all PMA "stakeholders," a term Ms. Azar had described as meaning any person or group with a past, current, or future/potential interest in changes to the PMAs. For decades, PMA customers have paid for PMA operations and would bear the most direct impact of any cost increases caused by these changes. Hence, the customers regard themselves as more than mere "stakeholders" of the PMAs. DOE's lack of understanding that PMA customers are, in effect, the founding partners of the PMAs was apparent in its release of the March 16 Memorandum. This ignorance was further highlighted as DOE announced it would allow anyone with any interest whatsoever to attend workshops designed to discuss its vague PMA plans. Without first confirming its plans with the very PMA customers that agreed, decades ago, to enter into a partnership to create the PMAs, DOE effectively demonstrated its intention to move forward with or without PMA customer cooperation. This left the strong impression with the PMA customers that these regional meetings were more form than substance, intended as a "check the box" exercise.

In similar fashion to the (lack of) introduction of the March 16 Memorandum, DOE's webinar explaining the details for the upcoming workshops did little to inspire confidence that these meetings would be useful. In fact, it contained slides that had incorrect information about the PMAs' operations. The sign-up process for these workshops was confusing and was highlighted by changed registration dates, conflicting guidelines, and an overall lack of organization. So many questions were left unanswered that workshop attendees were forced to ask direct questions of the meeting organizers. It was only through these questions that customers learned that their contributed funds—$100,000 or more—were being used to fund the very workshops they had been given so little information about and from which they had largely been excluded from the planning. To learn this at the beginning of the three-week workshop process was a further insult to PMA customers.

The workshops and listening sessions did allow PMA customers and other stakeholders to discuss their views on several specific topics, as elaborated on below. Prior to providing more detail on this process, however, it is important to clarify WAPA's mission. In materials provided by DOE prior to the WAPA workshops, WAPA's historical mission is described as "to market and deliver reliable, renewable, cost-based hydroelectric power and related services to its customers." Secretary Chu earlier stated in his May 30 blog post that "the fundamental mission of the PMAs to provide electricity at cost-based rates—equal to the cost of generation and transmission—will not change."

The mission of the PMAs is not simply to provide wholesale electricity from hydropower at cost-based rates. Instead, any new actions taken by the PMAs must be in accordance with the standard established in Section 5 of the Flood Control Act of 1944, which provides that sales of wholesale electric power to PMA customers are to be made "at the lowest possible rates to consumers consistent with sound business practices." The distinction between this language and the broader "cost-based rates" verbiage is critical. Without a standard specifying that rates are to be the "lowest possible," the concept of cost-based rates allows for boundless, and potentially duplicative, mandates from DOE to the PMAs that would drive up the costs included in the rates. *Therefore, any new initiative undertaken by WAPA must have an objective consistent with the obligations of WAPA to its customers, and must represent the lowest-cost means to achieve that objective.*

Each of the five regional workshops featured three break-out sessions with specific working groups. APPA will discuss each breakout and the topics covered in it separately.

Transmission Planning and Operations:

This working group addressed the following two topic areas of the March 16 Memorandum: "Improving PMA Existing Infrastructure" and "Improving Collaboration with Other Owners and Operators of the Grid." The comments below focus on each of these issue areas.

Improving PMA Infrastructure:

DOE statements made at the workshops and listening sessions with regard to the WAPA transmission system imply that the transmission system is in a greater state of disrepair than other parts of the national grid. Such a portrayal has served as a distraction from any actual evaluation of transmission improvements that might in fact be needed, and raises questions about DOE's understanding of WAPA's infrastructure.

Examples of statements made by DOE on the state of the PMA infrastructure include Secretary Chu's statement in his May 30 blog, with regard to the PMAs, that "[m]ost of the transmission lines and power transformers we depend upon are decades old and in many cases nearing or exceeding their expected lifespan." The Secretary's blog post further states that "the PMAs will need *to make many of the same types of investments that other privately held electric utilities will need to make, and in some cases are already making,* if the United States is to remain economically competitive." (Emphasis added.)

There is no evidence that WAPA and the other PMAs are out of step with other utilities or somehow not in compliance with federal policy regarding transmission investments. These statements ignore the large number of transmission upgrades WAPA has constructed, as detailed on its web site and in annual or quarterly reports. For example, WAPA's 2011 Annual Report lists 47 transmission upgrade projects and three Transmission Infrastructure Program (TIP) projects totaling over 1,000 miles. WestConnect, a transmission planning organization which includes WAPA along with a number of public power and cooperative customers among its members, regularly releases detailed ten-year transmission plans. According to WestConnect's 2012 Ten-Year Transmission Plan, there are almost a billion dollars of upgrades and new facilities planned for WAPA's system between 2012 and 2020. It is questionable whether DOE took into account in its statement these documented, planned upgrades.

As discussed previously, the rationale for the Secretary's PMA directives has shifted from the integration of renewable energy to the prevention of power outages. In his July 9 response to the June 5 letter from 166 Members of Congress, Secretary Chu stated:

> As of July 6, 400,000 customers remained without power in sweltering heat due to the June 29, 2012 *derecho* storm that swept through the mid-Atlantic and East Coast. Blackouts not only cause significant economic losses, they are also a threat to human health, especially when they occur during extreme weather events.

The Secretary further points to the San Diego blackout as "a good example of what can happen when our Nation's electric sector is slow to respond to needed reforms." APPA agrees that blackouts, regardless of the causes, impose an immense burden on the public, whether these originate at the bulk power (wholesale) level or are the result of the effects of extreme weather on local distribution systems. However, conflating the June 29, 2012, *derecho* storm outages that brought down thousands of trees and the September 2011 blackout is not helpful in enhancing either public or congressional understanding of recent power outages or the measures that can and should be taken in response. Moreover, the storm outages that took

place in the Midwest and Mid-Atlantic states beginning on June 29, 2012, were *distribution system* (as opposed to wholesale, bulk power system level) events that took place over a wide area. WAPA and the other PMAs do not own or operate significant distribution facilities, but instead operate bulk power system facilities (nor is there any significant PMA presence in these regions—note list of PMA states on page 2 of this statement).

With regard to the September 2011 outages, the Federal Energy Regulatory Commission (FERC) and the North American Electric Reliability Corporation (NERC) investigation into the outage concluded that this bulk electric system outage stemmed primarily from weaknesses in two broad areas—operations planning and real-time situational awareness, which are both essential to ensure reliable system operation. FERC and NERC, in their report "Arizona-Southern California Outages on September 8, 2011, Causes and Recommendations" specifically recommended, among other items, improved data sharing and communications between neighboring balancing authorities and transmission operators, improving real-time tools to constantly monitor internal and external contingencies, better identifying and planning for external contingencies, and accounting for the impact of facilities below 100 kV (kilovolts) on reliability. Secretary Chu in his May 30 Blog post notes that DOE will be investigating "the exchange of real time data with neighbors for situational awareness and the exchange of scenarios and models for operational planning." While this is a commendable effort and should be pursued, simply restating the FERC/NERC recommendations in the blog post does not, however, mean that a broad array of DOE directives to the PMAs will improve reliability. Also, broad institutional "reforms" are not needed to respond to these events. Rather, existing system operators, particularly entities with responsibility for wide-area coordination and system operations, such as the Western Electricity Coordinating Council (WECC) Reliability Coordinator and California Independent System Operator, need to improve the execution of their responsibilities and keep local area system operators (such as WAPA) fully informed when extreme events take place.

As John DiStasio, general manager and CEO of the Sacramento Municipal Utility District, stated in the July 29, 2012, *The Sacramento Bee:*

> The directives in the DOE memo would lessen reliability, all in the name of efficiency. It's akin to increasing the number of airplanes that can land on a runway in a given hour in the name of efficiency, without taking into consideration unintended side effects such as a reduction in safety.

Ms. Azar added to this unrealistic portrayal of the PMA infrastructure at the workshops by repeatedly citing irrelevant statistics on the age of the wood poles on WAPA's transmission system. Ms. Azar's data is based in part on the age of the line and not the poles themselves. If a line is 50 years old, it does not mean that all of the poles are 50 years old. *Poles are replaced as necessary.* Moreover, there is a fundamental distinction between the economic and useful age of equipment. It would be cost-prohibitive to replace poles and equipment due to age only. What is important is how the system is performing. Like most utilities, WAPA has a program that, on a regular basis, inspects each and every pole on a given line. All poles that fail the inspection are replaced, and the reliability of the line is maintained at the high level that is expected. This standard utility practice implemented by WAPA ensures its system remains at a high level of reliability, with just one or two temporary outages on each line per year. Such outages are typically either momentary in nature (less than one second) or quickly returned back to service (a couple of minutes). According to the WAPA 2011 Annual Report, just 27 outages of consequence were reported on WAPA's *entire* system in 2011, most lasting less than 35 minutes.

Not all miles of a transmission system can be new all the time. Prudent management of the system entails replacing the parts that are in the worst shape or the most overloaded, which are not necessarily the oldest. WAPA has continually replaced the equipment and wood poles that require replacement due to performance-related issues, while balancing the impacts on rates to keep the system reliable and affordable. Detailed data is available in WestConnect's Ten-Year Transmission Plan on a number of projects involving replacement of wood structures with steel 230 K monopoles. This Plan was released in February 2012, one month prior to the March 16 Memorandum.

For transformers, the manufacturer plans for a 40-year life *at full load.* The life expectancy is directly related to the heavy continuous loading which causes the transformer to run at its maximum rated temperature. At that temperature, the heat eventually deteriorates the insulation, causing a failure. But most transformers idle along at far less than their full load rating and are only fully loaded during extremely high loading or during outages. Transformers that have regular oil test-

ing and monitoring, along with other testing, have provided reliable service for decades after the 40 year "expected" life.

Any formulation of new policies needs to be based on an accurate understanding of the *status quo.* The use of selected statistics to mischaracterize the current reality regarding WAPA's transmission system does not contribute positively to the debate. Rather, it raises additional concerns that the intent of DOE is to achieve predetermined policy outcomes, regardless of the facts "on the ground." This is a flawed basis for determining optimal policies to provide electric power at the lowest possible rates to consumers consistent with sound business practices, as the statute requires. Formulating policies for the PMAs based on this incorrect assessment of WAPA's infrastructure raises a significant risk of layering additional costs on WAPA's customers without any establishment of the need to incur them.

Improving Collaboration with Other Owners and Operators of the Grid:

Secretary Chu's March 16 Memorandum directs "the PMAs to capture economies through partnering with others in planning, building, and operating the grid," including the implementation of an Energy Imbalance Market (EIM). The Secretary claims an EIM will "capture many of the potential efficiencies that remain untapped in the Western Interconnection."

Although later communications from Secretary Chu do not mention the EIM, this concept was a topic at all of the workshops, and is actively being discussed by the PUC EIM, a taskforce established by the Western Governors' Association and comprised of state public utility commissioners (state utility commissions regulate retail—or distribution rates—and functions of investor-owned and cooperative utilities in most states). In contrast to Secretary Chu's foregone conclusion that an EIM will capture untapped efficiencies, there are significant uncertainties regarding the benefits and costs of an EIM. Such uncertainties indicate the need to proceed very cautiously on this measure, and to carefully evaluate other alternative methods to integrate variable energy resources.

Thus far, the only fully completed analysis of the costs and benefits of an EIM in WECC was commissioned by the WECC staff and finalized last October—entitled "WECC Efficient Dispatch Toolkit Cost-Benefit Analysis." The results of this analysis presented a range of the present value of net benefits over a 10-year period, with a high of a net benefit of $941 million and a low of a *net cost* of $1.25 billion. Not only was the ability of an EIM to produce net benefits not proven, but there were a number of flaws in the analysis that could have reduced the projected benefits or raised the costs. The benefit analysis, performed by Energy and Environmental Economics, Inc. (E3), found the largest category of benefits to be the reduction in the need for "flexibility reserves," which are generation resources standing by to come on line quickly when wind or solar resources drop off sharply, as often occurs. The reduction in flexibility reserves needs was assumed to result from access to a larger geographic array of renewable energy resources and a corresponding reduction in the overall variability of such resources. For example, if the wind or sunlight is low in one region of the EIM it might be greater in another area, thus reducing the total variability. But this benefit can only be fully achieved if there is adequate transmission capacity throughout the entire region, a highly unrealistic assumption. An April 2012 analysis by Argonne National Laboratory noted that the presence of transmission congestion could negate this benefit. Hence, the cost of the transmission facilities needed to reduce/eliminate such congestion would have to be assessed and included in the cost/benefit analysis.

The measurement of the costs of an EIM, also commissioned by WECC and performed by Utilicast, LLC, was limited to the infrastructure (*i.e.,* software, hardware, facilities, and equipment), rent, supplies, travel, and staff costs incurred by the market operator and market participants, which include local utilities, balancing authorities, generation owners and transmission providers. These costs, however, ignore the likelihood for an EIM eventually to evolve into a full Regional Transmission Organization (RTO), a construct that has been imposed in the East, California, Texas, and most of the Mid-West, but has been resisted in the Southeast, and all of the West, except California, because of the costs associated with such a construct and the skepticism in these regions about the competence of the Federal Energy Regulatory Commission (FERC) to prevent skyrocketing costs and market manipulation such as was seen in the western electricity crisis of 2000–2001. The complexities of the constantly changing market rules, lengthy stakeholder meetings, FERC proceedings, and settlement talks that are an inevitable part of an RTO would produce much greater infrastructure, labor and time costs than estimated by Utilicast. Consumers would also bear the additional cost of potential price increases from an EIM or eventual RTO. An APPA analysis of retail price data provided by DOE's Energy Information Administration found that, in 2011, deregulated states

located within RTOs had average retail electric rates that exceeded that of the remaining states by 42 percent. (Report available at http://publicpower.org/files/PDFs/RKW_Final_-_2011_update.pdf.)

Another technical change that has already been implemented, but is not accounted for in this study or others that have been commissioned by WECC and the PUC EIM recently, is the use of what is known as "intra-hourly" scheduling of transmission lines in order to more precisely dispatch generation from power plants where necessary. Since electricity is generated and consumed instantaneously, grid operators must constantly balance the supply and demand. With power generation that is variable (i.e., cannot be dispatched and controlled in the same manner as conventional sources of power) like wind and solar, more precise scheduling of transmission lines becomes necessary. Therefore, WAPA implemented intra-hourly scheduling in July 2011, and FERC, which regulates bulk power system activities, ordered in June 2012 that public utility (i.e.; investor-owned utilities} transmission providers offer such scheduling. Many of the benefits of an EIM will be captured by these new requirements for more precise scheduling and, conversely, many of the additional technical aspects to an EIM are likely to have significant costs. As FERC stated in Order No. 764, Paragraph 98:

> The Commission appreciates that implementation of other reforms, such as intra-hour imbalance settlement, an intra-hour transmission product, increasing the frequency of resource commitment through sub-hourly dispatch, or the formation of intra-hour imbalance markets, could yield additional benefits for public utility transmission providers and their customers. *However, these additional reforms can have significant costs. The Commission's review of the record in this proceeding suggests that a more measured approach is appropriate to take at this time.* (Emphasis added.)

In the midst of the attention given to the conflicting and dubious benefits estimates, little attention has been paid to the costs. The only data collected by the PUC EIM on costs consists of the incremental market operator costs that would be incurred if one of two existing RTOs, the Southwest Power Pool or the California ISO, were to operate the EIM. These estimates ignore individual utility infrastructure and labor costs, not to mention the additional eventual likely cost of moving to a full RTO. APPA is greatly concerned that these underestimated costs will be paired with the overestimated benefits to justify implementation of an EIM.

Although APPA agrees that FERC is unlikely to unilaterally impose an RTO on the West, the history of existing RTOs reveals a step-by-step evolution into more complex and problematic markets, rather than a "grand design" from the outset. In recent years, FERC has even overturned carefully negotiated settlements regarding the rules applicable to such RTO markets, to the detriment of consumers. For a more detailed discussion, see *RTO Capacity Markets and Their Impacts on Consumers and Public Power,* APPA Fact Sheet, February 2012 available at http://www.publicpower.org/files/PDFs/RTOCapacityFactsFeb2012FS.pdf.

In "Corporate Structure and Governance of Western Energy Imbalance Market," a paper prepared by Wright & Talisman, PC, possible measures to guard against an unwanted RTO or RTO-like markets or characteristics are proposed. Although APPA greatly appreciates Wright & Talisman's efforts in this area, we remain concerned that an EIM will move forward based on an overreliance on such illusory safeguards. Two measures are proposed in this paper. First, the paper proposes that the structure of the EIM would assure that the market administrator would not assume control of any entity's transmission facilities, meaning that the EIM would not meet the definition of an RTO; it would, however, be administering a wholesale power market, which would presumably be subject to FERC's jurisdiction over sales for resale of electric power in interstate commerce. Second, the membership agreement would include a provision protecting against "mission creep" and the evolution of an EIM. This second tier safeguard is crucial, but unlikely to hold up.

The Wright & Talisman paper offers only the following description of this secondary safeguard:

> It is feasible to address this matter in the Members Agreement, either by including restrictive provisions or by establishing voting levels to allow mission expansion. If participants favor restrictions, such restrictions could be at the heart of providing assurance that the EIM will be only an EIM, until and unless there is broad consensus for change. Until and unless such expansion of the organizational role is approved, the scope and services of the EIM in Western markets would remain unchanged.

This language is hardly an assurance that the region would be adequately protected from the development of an RTO. First, there would need to be an agreement among all of the prospective members to include such language in the Members Agreement upon formation of an EIM, hardly a certainty. Second, the paper ac-

knowledges that there could be an undefined "broad consensus for change." How would such a consensus be defined? Would public power have adequate representation in the decision-making? Would public power and other similarly-situated entities have sufficient staff and other resources to participate in the lengthy proceedings leading up to the determination of such a consensus? The past experience of APPA and its members in RTO regions is that what happens in one RTO does not stay in that RTO; rather, "innovations" jump from one to another. Moreover the lop-sided resources that generators and their allies bring to RTO stakeholder processes mean that consumers and those who serve them often are steam-rolled, and they bear the consequences in the form of increased rates and decreased supply options. Hence, while the measures set out in this paper are no doubt well-intentioned, they should not be "taken to the bank."

There are also factors specific to WAPA that may impede the development of an EIM, and that are not being explored by DOE or the PUC EIM. First, transmission constraints and the absence of adequate interconnections with some regions, such as WAPA's Sierra Nevada region, may limit the ability to dispatch resources across the region. Second, there are statutory and other constraints on the availability of hydropower for dispatch under an EIM. Water delivery and maintaining water quality have priority over the generation of electricity from hydropower, and electricity from the hydropower must then be made available *first* to public power and rural electric cooperative preference customers. Also, the role of BOR is critical, as it operates and maintains the hydropower projects, and they, therefore, must agree to the participation of these facilities in an EIM. To APPA's knowledge, DOE has not asked the BOR (or to the Corps) its views about participation by hydropower in an EIM, and possible issues that could arise.

Design of Transmission Services/Integration of Variable Energy Resources:

It should first be noted that the development of wind and solar power is not part of WAPA's historical mission. Nevertheless, WAPA has made substantial efforts to integrate renewable energy in consultation with the PMA customers. As discussed previously, WAPA has implemented intra-hourly scheduling. WAPA and a number of balancing authorities (electric utilities or other entities charged with "balancing" the availability of generation and transmission in a given sub-region) in the region are also developing and implementing a number of highly technical processes to enhance the integration of variable wind and solar power.

WAPA's customers are also taking significant steps to expand their use of electricity generated from renewable sources. In 2011, WAPA customers provided 13.8 million megawatt-hours of renewable power, almost one million megawatt-hours more than in 2010. These efforts are not acknowledged by Secretary Chu or Ms. Azar, outside of the following statement made by the Secretary in a footnote to his Memorandum: "I recognize that, in some cases, one or more of the PMAs may already be accomplishing the directive." No further details are included with this vague acknowledgement.

Energy Efficiency and Demand Response:

The March 16 Memorandum directs the PMAs to create rate structures that incentivize programs for energy efficiency and demand response, the integration of variable resources, and preparation for electric vehicle deployment.

APPA is concerned that these "incentives" and any restructuring of the PMA rates to incorporate them will artificially and inappropriately raise the cost of providing federal hydropower to preference customers, resulting in wholesale and retail rate increases. This proposal could well mean that PMA customers would be subsidizing wind development and energy efficiency and demand response programs, whether or not they receive any benefits from these programs.

Furthermore, energy efficiency, demand response, and electric vehicle integration are primarily retail issues, not wholesale. As discussed above, the PMAs provide power at wholesale, while retail decisions are made at the local and state levels. Secretary Chu's proposal would thus substantially encroach on the jurisdiction of state and local decision-making bodies, including public utility districts, municipalities, and cooperative boards of directors. Moreover, there is no evidence that such encroachment is warranted given the increasing levels of customer activities in this area. As with renewable energy, WAPA's annual report provides summary data on the achievements of its customers in the area of demand-side management, which includes both energy efficiency and load-management (i.e., shifting energy demand to different time periods to reduce costs). In 2011, WAPA customers reported a savings of 2.7 million megawatt-hours from demand-side management, an increase of one million megawatt-hours from 2010.

Transmission Authorities:

Section 1222 of Energy Policy Act of 2005 (EPAct05) authorizes WAPA and the Southwestern Power Administration (SWPA), and the Transmission Infrastructure Program (TIP) created in the 2009 American Reinvestment and Recovery Act (ARRA) authorizes WAPA, to partner with non-customer groups to develop transmission on their systems.

The Section 1222 authority has rarely been used (although WAPA and SWPA are currently evaluating applications for its use). However, initial experiences with these applications reveal that even the administration of Section 1222 can impose significant burdens on the PMAs. For example, APPA understands that the processing of the Clean Line application by SWPA has consumed a significant portion of budget and staff time, which must come out of SWPA's own budget and, in turn, the electric customers of public power and cooperative utilities. This diversion of staff time and resources has greatly constrained SWPA staff's availability to review proposals for new power contracts, leading SWPA staff to simply renew preference customers' existing contracts coming up for renewal for one-year time frames. Finally, there appear to be conflicting interpretations as to whether the 2015 sunset provision applies merely to the cap on funding or applies more broadly to the ability to take contributed funds or to the program itself. APPA's position is that Congress intended the sunset of the cap at the end of 2015 before accepting any third-party funds contributed after that date.

There are also reasons for concern with the TIP, the implementation of which was criticized in a DOE Inspector General report released in November 2011 (http://energy.gov/sites/prod/files/OAS-RA-12-01.pdf). That report cited instances of mismanagement and inefficiency within the program, including a lack of timely, integrated cost and schedule information that would allow WAPA to adequately monitor progress of the first project funded (the Montana Alberta Tie Line) and the absence of a risk-based management reserve to fund unanticipated cost overruns.

Despite both the explicit flexibility in Section 1222 for the relevant PMAs to exercise discretion regarding the use of this authority and the problems identified with the TIP program, Secretary Chu apparently seeks to mandate the use of these programs by administrative fiat. EPAct05 and the ARRA authorized, but did not mandate, third-party financing mechanisms, clearly allowing the PMAs, in collaboration with their customers, to balance the interests of the statutory preference customers with other interests in developing third-party financing proposals. In a new centralized mandatory regime directed from DOE headquarters, however, PMA customers could potentially be required to take on the costs of system-wide transmission upgrades not needed to serve them. Any benefit they would receive from these improvements would certainly not be commensurate with the costs they would be forced to pay. This would be a blatant violation of the "beneficiary pays" principle, discussed above.

PMA Customers Expect and Deserve Transparency Throughout This Process:

As noted above, the development and release of the March 16 Memorandum and the subsequent workshops and listening sessions have not allayed the concerns of APPA and the PMA customers. A webinar held this past Friday, September 7, by the Joint Outreach Team comprised of three paid consultants and numerous WAPA staff, was troubling given the breadth of staff and resources being dedicated to this effort—which is to be finalized by the end of the calendar year for no practical reason. In addition, a recent incident in the SWPA region undermines our faith in the process even further: DOE notified PMA customers in the SWPA region in mid-August that they would be hosting a session to discuss Section 1222 of the Energy Policy Act of 2005 (mentioned above) today, September 11, in Branson, Missouri. Despite the short notice and the limited details about the meeting, many SWPA customers made plans to attend—in many cases rearranging schedules, purchasing plane tickets, and reserving hotel rooms. Less than two weeks out from the meeting, these same PMA customers were informed by DOE that it had been cancelled because other "stakeholders" were unable to attend given the short notice. To date, the meeting has not been rescheduled.

Given the course of the proceedings up until now, we find it hard to believe that DOE is genuinely seeking customer input, or that it does not have a predetermined policy agenda it wishes to pursue, regardless of the views of the customers or the actual facts "on the ground." We are also concerned that the WAPA process could be a template for the other regions. The scheduling of the SWPA meeting on short notice then the abrupt cancellation of that meeting is also troubling.

To change this dynamic, APPA urges DOE to be transparent throughout the remainder of this process. To that end, the public should be provided and allowed to

comment on both the draft and final versions of the recommendations of DOE and WAPA staff to the Secretary. DOE's failure to grant this request would not be in keeping with the Administration's commitment to new levels of openness and transparency in government.

In the pre-read materials for the WAPA workshops, DOE stated that, at the workshops' conclusion, it would use the feedback received when developing draft recommendations to Secretary Chu regarding the application of the March 16 Memorandum to WAPA. DOE states further that, "[a]fter developing draft recommendations, the JOT will again seek stakeholder input on the draft recommendations before finalizing and submitting its recommendations to Secretary Chu sometime in the fall." DOE has made clear in the pre-read materials that it will make public its staff's draft recommendations for comment. In the webinar held on September 7, staff stated that there will be a 30-day comment period on the draft recommendations after publication in the Federal Register. APPA believes that a 60-day comment period is the minimum that due process would require, given the significant number of hours the PMA customers devoted to the process and the extensive record that was established.

DOE staff has not, however, made clear that it will make public the final recommendations submitted to Secretary Chu. Asking the PMA customers and others to participate in this time-consuming and resource-intensive process and then not sharing the final recommendations publicly would represent a grave disregard for those who took the time to participate, and would further bolster the view that the entire series of meetings and comment process were mere "check the box" exercises. If these final recommendations are expected to be the precursor to any proposed changes to WAPA's operations or rates, DOE staff should make public the final recommendations submitted to Secretary Chu.

Finally, any recommendations from DOE staff to Secretary Chu, in and of themselves, cannot result in any changes to WAPA's operations or rates. WAPA and DOE must operate within the statutes applicable to the PMAs. DOE cannot propose to make any changes affecting the operations of the PMAs without complying with the relevant legal and rulemaking processes, including those required by the DOE Reorganization Act and the Administrative Procedure Act. Depending on the actual recommendations, congressional action may well be required.

Conclusion and Recommendations:

The PMAs' are an ideal example of a successful public/private partnership. They were created in coordination with the customers they still serve today, which in turn repay the federal investment in these projects. They are subject to many congressional authorities and must help their customers meet many obligations, all while keeping costs at the "lowest possible" level. Rather than demonstrating problematic performance records, the PMAs are examples of government projects successfully accomplishing their statutory requirements. Instead of targeting a specific and necessary fix, DOE's proposals for WAPA and the other PMAs are simply solutions in search of problems. Instead of coordinating with PMA customers to improve PMA operations within their congressionally mandated framework, DOE seeks to institute a new regime for the PMAs, outside the scope of their original purposes altogether.

Some broad goals laid out in the March 16 Memorandum for the PMAs, from modernizing and increasing the efficiency of the grid to integrating renewable power to preventing future blackouts in all regions of the country, are admirable. The process by which they have been announced and initiated, however, has been characterized by DOE's apparent unwillingness even to acknowledge, much less evaluate and incorporate, the accomplishments of the PMAs in these areas. Similarly, DOE seems to have paid little more than lip service to the PMAs' statutory obligations to their customers, and the costs and need for these directives. Finally, DOE has "moved the goal posts" several times in terms of the stated purpose of the March 16 Memo such that it is difficult to ascertain the true impetus and goals of the proposals. If the most recent statements by Secretary Chu and Ms. Azar are to be followed, then the impetus of the memo is for the PMAs to better prevent blackouts (also known as improving "reliability"). While laudable, there are numerous, well-established processes in place to address electric reliability at the bulk power system level. In addition, the PMAs' total transmission footprint only encompasses eight percent of the entire transmission system of the continental U.S. This limited ability to impact bulk power system reliability underscores that the PMAs must work through existing processes and institutions to ensure regional reliability. This is another case where a new process is neither necessary nor appropriate.

APPA therefore recommends that the DOE step back and start this process anew, and essentially "plug in" to the long-established processes that identify the needs

and objectives for each PMA. First, DOE should examine, in conjunction with the PMAs and their customers, where needs exist within each system. Then, it should allow the PMAs to work with their customers to articulate clear goals and plans to address these needs. These steps should build upon the PMAs' ongoing activities, without saddling the PMA customers with excess costs. This process should be led by the PMAs and the primary "stakeholders"—PMA customers. APPA and its PMA customer members urge DOE to take the time to engage in a dialogue with the groups that will be primarily affected by any changes to the PMAs. Only through steps such as these can DOE hope to foster meaningful change in this area.

Should DOE refuse to pull back from the path they have taken thus far, APPA would ask the Committee to consider legislative remedies, including language similar to a provision in Chairman Hastings' new hydropower bill, the Saving Our Dams and New Hydropower Development and Jobs Act, which would prohibit DOE from implementing the March 16 Memo and/or language such that was included in the House-passed version of the Energy and Water Development Appropriations bill for FY 2013 to prohibit the use of funds to implement the memo. While the latter is outside of this Committee's direct jurisdiction, we recognize that a strong dialogue on this issue has occurred between this Committee and the Appropriations Committee, and would urge such dialogue to continue as opportunities arise when the appropriations process is reengaged in 2013.

We greatly appreciate the Committee's interest in this important issue and the efforts you have undertaken to date.

The CHAIRMAN. Thank you, Mr. Crisson, for your testimony.

And I will recognize Mr. Scott Corwin, Executive Director of the Public Power Council out of Portland, Oregon, hello.

STATEMENT OF R. SCOTT CORWIN, EXECUTIVE DIRECTOR, PUBLIC POWER COUNCIL, PORTLAND, OREGON

Mr. CORWIN. Thank you, Mr. Chairman, Ranking Member Markey, members of the Committee. It is nice to be with you again. Greetings from the Northwest. I am the Executive Director of the Public Power Council, and we represent preference customers, the utilities that purchase power from the Bonneville Power Administration. Our members are cities, public utility districts, and rural electric cooperatives spread all across the Northwest.

I stated previously that some of the Secretary's goals are certainly laudable. And, in fact, there is already a lot of work in the Power Marketing Administration regions on some of these areas involving a lot of the parties. So at the Committee hearing on April 26th I did observe, I thought, the March 16th memorandum appeared to be a solution in search of a problem, since the Power Marketing Administrations are already leaders in pursuit of forward-looking energy policy.

Their leadership arises, however, from the region, and is derived from the many statutory directives that they already follow. While the Department has offered varying explanations for its initiative, and has conducted several workshops in the footprint of the Western Area Power Administration, I don't see more clarity or compelling rationale today than there was at the beginning of the process for another DOE process on these matters, targeting Power Marketing Administrations.

PPC has closely monitored the WAPA efforts, since the Department stated that BPA might be the next focal point. And as part of our monitoring, I attended the workshop in Loveland, Colorado, and read the other materials. And I drew a couple of conclusions from those.

First, I think that DOE is now only beginning to understand the relationship between the PMAs and their customers. Power Marketing Administration customers are not just another stakeholder group. Our relationship with the agencies is embedded in statute. We are legally and contractually bound to repay the cost of the Federal hydropower system. And this is a partnership. And DOE's failure to understand that dynamic up front, I think, was a key problem.

Second, DOE does not seem to fully understand the rate-setting standards for the PMAs, or their importance. We do appreciate that the Department acknowledged up front the importance of cost-based rates. But the statutory rates—go beyond simply cost-based rates. The key is, what are those costs? Federal law requires PMA rates to be the lowest possible rate consistent with sound business principles. So costs are incurred only when they produce reciprocal and necessary benefit.

Third, I think the initiatives, policies, and processes arising from the memorandum are duplicative of our existing efforts, as I noted. And this appears to be the case in WAPA, from what I have seen. But I know it would be the case with respect to BPA. If applied to BPA, we would be creating added efforts and processes that parallel efforts already underway. We would have the same people who are already struggling to keep up with the workload on these very complex issues, discussing the same topics at redundant meetings, putting enormous strain on limited resources, and I believe threatening the progress that is underway on the very matters of interest to the Department of Energy.

In light of these and other concerns, PPC appreciates and extends its thanks to the many Members of Congress, especially those from the Northwest, who have raised these concerns with the Department. And especially, also, the Chairman's recent bill that Mr. Crisson mentioned, putting a restriction on funding in the bill. That also provides many good provisions for promoting renewable hydropower.

To conclude, the Power Marketing Administrations and their utility customers and, indeed, many other regional parties, have worked very well together for 75 years in a regionally focused, bipartisan, collaborative process of policy-making. And, in fact, many of us will be at Bonneville Dam this Saturday to note at an event the 75th anniversary of the Bonneville Power Administration. Together, the PMAs and their customers have created an impressive record, and continue to address the many new challenges facing the energy industry, with more progress being made every day. A DOE role that is supportive, rather than prescriptive, would allow us to continue to get the job done right.

Thank you very much for the opportunity to testify today.

[The prepared statement of Mr. Corwin follows:]

Statement of R. Scott Corwin, Executive Director, Public Power Council

Good morning, Chairman Hastings, Ranking Member Markey, and Members of the Committee. My name is Scott Corwin. I am the Executive Director of the Public Power Council (PPC). We are a trade association representing the consumer-owned electric utilities of the Pacific Northwest with statutory first rights (known as "preference") to purchase power that is generated by the Federal Columbia River Power System and marketed by the Bonneville Power Administration (BPA).

At the Committee's April 26 hearing, I observed that the Secretary's March 16 memorandum appeared to be a solution in search of a problem. The power marketing administrations already are leaders in pursuit of forward-looking energy policy. But, their leadership arises from regional initiatives that are derived from the many statutory directives they already follow. While the Department has offered varying explanations for its initiative, issued additional written materials, and conducted several workshops in the footprint of the Western Area Power Administration (WAPA), there is no more clarity, nor compelling rationale, today than there was at the beginning of this process.

A variety of justifications have been given—ranging from renewable energy development to electric system reliability. However, these justifications do not hold up in light of a factual review of the status of other processes already underway in the PMA regions. While meetings and conferences on energy topics in all corners of the country have grown exponentially in recent years, implementation of the Memorandum's objectives appear to have created another set of meetings that were mostly for information only, or were redundant of other efforts, or both.

As you know, the Department's efforts to date have focused on the WAPA. While BPA has not been a direct participant in this process, PPC has closely monitored this effort since the Department has stated that BPA could be the next focal point. As part of our monitoring efforts, I attended the July 31, 2012 DOE workshop in Loveland, Colorado. The conclusions I have drawn from that session and my observation of the rest of this initiative are:

1. DOE is only now beginning to understand the relationship between the PMAs and their customers. PMA customers are not simply another stakeholder group. Our relationship with the PMAs is embedded in statute. We are legally and contractually bound to repay the costs of the federal hydropower system. In many cases, we also shoulder the costs of other features of the multipurpose dams that generate federal hydropower. This is a partnership, and DOE's failure to understand that dynamic up-front was a key flaw in this exercise.
2. DOE does not fully understand the rate-setting standards for the PMAs or their importance. We appreciate that the Department has acknowledged the importance of cost-based rates. But the statutory rate standards go beyond simply "cost-based rates." Federal law requires PMA rates to be "the lowest possible rate consistent with sound business principles." This more detailed definition makes clear that: costs should be incurred, and added to PMA rates, only when they produce comparable and necessary benefits; PMAs policy and acquisition decisions should be "least-cost" and PMAs should be conservative in their business decisions. A proper application of this standard would obviate some of the policy initiatives outlined in the Secretary's memo.
3. The initiatives, policies and processes arising from the Memorandum would duplicate existing efforts. At the beginning of this process, PPC and others noted that some of what DOE seemed to be driving toward was already underway in the Northwest. The closer I review this effort, the more apparent it becomes that, if applied to BPA, we would be creating new efforts and processes that parallel efforts already underway. We would have the same people, discussing the same topics, putting enormous strain on limited resources. What this tells me is that DOE wasn't able to understand what is occurring in the region, or it doesn't like the expected conclusions and is hoping a second bite of the apple will produce a different answer.

PPC appreciates and extends its thanks to the many members of Congress of both parties, especially those representing us in the Northwest, who have weighed in with the Department of Energy regarding the Memorandum. We also offer our thanks to members of the Appropriations Committee for including funding prohibitions in legislation and to Chairman Hastings for his recent introduction of H.R. 6247 doing the same, and including many other provisions beneficial to clean, renewable hydropower.

Background on the Nature of PMAs

For generations people have gathered around the great waters of the Northwest for food, for transportation, for irrigation, for recreation, and then for power. As in other areas with great waterways, this uniquely public resource of navigable water creates a unique source of clean and renewable power to be shared among the citizens of the region from whence that power was derived. Thus were formed the Power Marketing Administrations to ensure the power value of these public resources was sent to those within the region best able to pass the benefits through to the end consumer.

The PMAs and the treasured assets with which they are entrusted, being funded regionally, are not just another tool for federal policy pursuit. These are statutory creatures with a rich history from which evolved specific missions, specific goals, and specific purposes. Because of the public and regional nature of the assets, the process around them is very public and regional. In a sense, the people were asked to take ownership and stewardship of the mission for these local assets, and their representatives in Congress likewise work to protect the assets and the needs of the citizens within the region.

BPA and its customers have worked and struggled together with the Army Corps of Engineers and the Bureau of Reclamation to keep this power supply reliable and affordable while fulfilling myriad statutory and regulatory mandates. We have nurtured this incredible renewable resource of hydropower, and it has helped enable new renewable resources. We have achieved staggering levels of energy conservation to make more efficient use of existing resources. And, we have become the world's foremost experts in anadromous fish passage.

In recent decades, we've been faced with a host of new challenges in the form of volatile energy markets, transmission constraints, new intermittent generation, environmental concerns including emissions and renewable portfolio standards, a renewed focus on system reliability, energy security concerns, and unstable economic conditions. The PMAs have met these challenges and are forging ahead into the new frontier as well as any large utility can in this setting.

This Saturday, there is a celebration at Bonneville Dam marking the 75th Anniversary of BPA. Over this time, the primary mission of BPA is and always has been to provide reliable electricity at affordable prices. Throughout this history the agency has accomplished this mission well, partnering with consumer-owned utilities to bring economic benefit to citizens of the region through cost-based power. Today, BPA must continue to pursue its core obligations as it evolves to meet new challenges.

To fully understand why consumers are very concerned about potential changes to the mission or function of PMAs, one must truly understand how PMAs work with their customers. While federal in nature, BPA is not supported by taxpayer dollars. Rather, customers pay for all of the power costs incurred by BPA. The agency is a pass-through entity with respect to its costs and obligations. And, consumer-owned utilities likewise must pass costs on to their consumers. Because of this, extensive regional processes have grown up around budget and rate setting, and any major policy that the agency pursues.

Power costs borne by PMAs are borne by the region, so the regional view weighs heavily in the decision-making. Along with this regional consideration is a close relationship with the region's representatives in Washington, D.C.—the Northwest Congressional delegation. In a simplified analogy, if the power customers who have paid for the Federal Columbia River Power System are the shareholders, the region's Congressional delegation is viewed as the Board of Directors. These directors have a long history of working in a bipartisan way for the good of the region. The Northwest Congressional delegation has responded time and again to defend the value of the Columbia River system.

We have found that directives from outside the region rarely work as well as solutions crafted by regional parties with knowledge of the unique nature of each power system. Lending context to ratepayer concerns about the DOE memo is the long history of proposals to shift the mission of the PMAs, and shift the value from these regionally funded entities. Over the years this has taken the form of federal deficit reduction proposals that would have the effect of imposing a regional tax to benefit the federal budget. It has also taken the form of pressure from FERC and others to create new forms of standardized markets or bureaucratic institutions that threatened to add higher costs to customers in exchange for worse access to power from the federal system.

Cost Concerns

While the Northwest has been hit hard during the last few years, BPA, with its legally mandated cost-based rates, has been an important economic engine. Any additional costs on BPA customers without corresponding benefits risks sacrificing the power rates that have been a lifeline for the Northwest economy. After recovering some from the enormous increase following the West Coast energy crisis in the last decade, BPA power rates have started to go up again with an almost eight percent increase last year, and potential for a double digit increase next year.

Under statute, BPA has an imperative to focus on the least-cost means of achieving policy objectives that fall within its authority. Redesigning rates to achieve various policy goals has the potential to threaten the important rate design principle of "cost causation" in which costs are paid by the parties that cause the action. Di-

rection to pursue policy objectives that would impose costs on BPA ratepayers without offsetting benefits is a dangerous threat to the region.

BPA Processes and Customer Achievements

BPA continues to achieve greatly in the areas of the Memorandum's focus without new statutes or directives.

- BPA has achieved the highest rate of wind penetration of any balancing authority in the country (42 percent by generation to peak load). This spring, BPA's system passed the mark of integrating 4,700 megawatts of wind generation, and expects to have 5,000 megawatts of this variable resource connected to its system by 2013, several years ahead of estimates. This is a tenfold (1000 percent) increase over the amount of wind on the BPA system in August of 2006.
- BPA and its customer utilities achieved 130 average megawatts of energy efficiency last year, exceeding targets and adding to the nearly 5000 average megawatts of efficiency achieved by the Northwest region since passage of the Northwest Power Act in 1980. In addition, BPA now has a tiered rate structure that effects efficiency, and there are dozens of demand response projects underway in the Northwest.
- BPA owns and operates over 15,000 circuit miles of high voltage transmission lines. The agency responds to new needs and requests through extensive regional processes that analyze many considerations such as environmental impact, system operational impact and reliability, cost, risk, potential for recovery of cost, feasibility, and alternative options. As of the start of the fiscal year, BPA had underway 217 miles of new 500 kilovolt lines, 82 miles of rebuilding for 230 kilovolt lines, and 3 new substations.
- BPA and its customers are involved in myriad processes developing solutions to issues relating to energy efficiency, integration of renewable resources, development of possible imbalance services constructs or imbalance markets, open access tariff development, network open seasons for transmission development, transmission planning and cost allocation, associated rate case and budget setting processes, and many other efforts.

Conclusion

The Power Marketing Administrations and their utility customers have worked well together for 75 years in a regionally focused process of policy development. These processes are reflective of a collaborative spirit, and of the many operational, economic, and political dynamics unique to each region. Together, the PMAs and their customers have created an impressive record in addressing the many new challenges facing the energy industry, with more progress being made each day.

Future initiatives must continue to be consistent with each PMA's statutes and responsibilities, and must not create costs to ratepayers without reciprocal benefits. Previously, I testified to the lack of need for the DOE Memorandum and to some of our concerns about its implications. The process to date has not changed our view in both of those respects.

Thank you very much for the opportunity to testify today. I look forward to answering any questions.

The CHAIRMAN. Thank you very much for your testimony. I now recognize Ms. Lauren Azar, the Senior Policy Advisor to Secretary Chu.

Ms. Azar, you are recognized for 5 minutes.

STATEMENT OF LAUREN AZAR, SENIOR POLICY ADVISOR TO ENERGY SECRETARY STEVEN CHU, U.S. DEPARTMENT OF ENERGY, WASHINGTON, D.C.

Ms. AZAR. Thank you. Mr. Chairman, Ranking Member Markey, thank you, thank you, for inviting me to speak about the Secretary's memo setting forth his foundational goals for the Power Marketing Administrations. I am Secretary Chu's Senior Advisor.

I arrived here 15 months ago from the great State of Wisconsin, where I was a Commissioner at the Public Service Commission, overseeing the electric, natural gas, water, and telecommunication industries. As a Commissioner, my charge, among other things,

was to ensure that the electric customers had a safe and reliable and affordable electricity at their disposal. While I was a Commissioner, I chaired the efforts of the Midwest ISO to determine how 12 Midwestern States and 1 Canadian Province would pay for needed transmission. I also organized and led the 38 States east of the Rockies in the interconnection-wide transmission planning that was funded by Congress.

Prior to serving as a Commissioner I was an attorney in private practice at a corporate law firm where I had represented both utilities and customers.

Three of the four PMAs own and operate 33,700 miles of transmission lines that comprise a significant portion of the Nation's power grid. As part owners and operators of the Nation's grid, the Federal Government must maintain its aging facilities and, if necessary, update and replace them for the benefit of their consumers. The Federal Government can and should be leading the way in ensuring that our Nation has a reliable transmission grid that supports a competitive marketplace.

The PMAs have two primary obligations: one is marketing electricity to preference customers at the lowest possible rates consistent with sound business practices—today I am going to call those cost-based rates; and two, maintaining and operating their portion of the transmission grid.

Let's talk about the marketing of the power. Beginning in the late 1800s, the Federal Government began to build dams with hydroelectric power. Congress mandated that the electricity generated be sold to preference customers at cost. DOE will comply with all applicable laws relating to the rates for the sale of electricity for preference customers, which includes the obligation to sell at the "lowest possible rates to consumers consistent with sound business practices."

But the overwhelming majority of the proposed activities in the Secretary's memo relate to the PMA's obligations and goals for transmission. To bolster the competitiveness of the electricity marketplace, we need to ensure the grid's resilience. And Congress, in 1992 and 2005, passed comprehensive legislation creating obligations on grid operations and reliability. The Secretary's memo is intended, among other things, to ensure that PMAs are complying with those obligations.

In meeting those obligations, the Federal Government must respond to a rapidly changing electric industry. Today's industry differs quite markedly from that of even 10 years ago.

And examples include, number one, security threats and natural disasters. Our Nation faces increasing security threats, and the electric sector is no exception. Congress has mandated a hardening of our electric infrastructure against physical threats, natural disasters, and cyber attacks.

Number two, technological advancements. Consumers are using more technologies that create challenges and opportunities for the transmission grid. Examples include large electric water heaters used as storage devices, rooftop solars, electric vehicles, and demand response applications.

Three, removal of portfolio standards that have been enacted by the States. Thirty-seven States have enacted RPSs, either stand-

ards or goals. The transmission system must be flexible enough to accommodate these new sources of generation that are mandated by the States. While the Secretary's memo asks the PMAs to effectively respond to these continued changes, our overall goal is to keep consumers' bills as low as possible, while ensuring our Nation has the infrastructure it needs to remain competitive in a global marketplace, and accommodate regional choices to meet customers' demand.

Now, let's turn to the implementation of the memo and WAPA. WAPA and DOE had jointly convened a team which is charged with preparing recommendations to the Secretary. So far, the team has received extensive input from preference customers, stakeholders, Tribes, and Congress through the following: six listening sessions, five workshops, two webinars, three sessions for House and Senate staff. We have received over 100 written comments online.

Based on the results of this outreach, WAPA's own internal reviews and reports, external resources, and their own expertise, the joint Western and DOE team will be deliberating and developing a set of draft recommendations. They will be sending those recommendations to the Secretary after folks have an opportunity to comment on them. And they will be potentially revising them based on the comments they receive. The team intends, as I just indicated, to publish those draft recommendations in the Federal Register, so everybody knows what they are.

This work has been and will continue to be a robust, collaborative process, sensitive to the unique character of each of WAPA's regions.

And I look forward to answering your questions. Thank you.

[The prepared statement of Ms. Azar follows:]

Statement of Lauren Azar, Senior Advisor to the Secretary, U.S. Department of Energy

Chairman Hastings, Ranking Member Markey, thank you for the opportunity to testify on the Federal Power Marketing Administrations (PMAs), and specifically, Secretary Chu's March 16, 2012 Memorandum (Memo) setting forth "foundational goals" that the Department of Energy (DOE) is considering for the PMAs. In order to address these goals, DOE intends to work with each PMA sequentially to develop tailored approaches to ensure each region has the infrastructure necessary to power the U.S. economy. DOE has begun this work with the Western Area Power Administration (WAPA) and our approach to the other PMAs will be revised in light of our experience with WAPA.

PMA PRIMARY MISSIONS: POWER MARKETING AND TRANSMISSION

The PMAs have two primary obligations: (1) marketing electricity to preference customers so as to encourage the most widespread use of federal power at the lowest possible rates to consumers, consistent with sound business principles,[1] and (2) maintaining and operating their portion of the Nation's transmission grid.[2] Below, I will describe these obligations and how they relate to the Secretary's Memo in more detail, but it is important to note from the outset that the overwhelming majority of the goals set forth in the Memo relate to the PMAs' transmission infrastructure and not to the marketing of federally generated power to the preference customers.

Power Marketing

Beginning in the late 1800s, the federal government began to build dams with hydroelectric power generation. The dams were initially built primarily for flood control, navigation, or irrigation, while in some systems the selling of the electricity was a secondary consideration. Today, the electricity generated by these federal facilities is incredibly valuable: with water as its fuel source, it is generally inexpen-

sive[3] and produced without air-pollution emissions. As the demand for clean energy grows, so does the value of these federal assets. The Secretary is committed to taking good care of the federal hydropower system and the clean energy it represents.

Congress has mandated the electricity generated by federal hydroelectric plants be sold at cost. Congress also specified who in each region should get priority access to this federal electricity, namely the "preference customers."[4] Understandably, the preference customers have a strong interest in protecting their ability to purchase cost-based, clean federal electricity. Other consumers in the PMA regions, however, do not have access to this federal electricity, and therefore must build their own generation or purchase electricity on the open market.[5] To be clear, preference customers also rely on the open market to purchase electricity over and above their allocation of federal hydropower to fulfill their customers' electricity needs. Hence, both preference and non-preference customers benefit from a robust and competitive electricity marketplace. (Herein the "electricity marketplace" refers not only to the buying and selling of electricity but also includes all facets of generating, delivering, and consuming electricity.)

The Secretary has expressed his continued commitment to driving down consumers' bills while ensuring we have the infrastructure we need to power the U.S. economy. DOE will comply with all applicable laws relating to the rates for the sale of electricity to preference customers, which includes the obligation to sell at the lowest possible cost consistent with sound business principles. This commitment will not waiver as the individual plans are developed. The DOE will continue to support the PMAs' fundamental obligations to operate and maintain the federal hydropower assets and sell their power to preferred customers at cost.

Transmission

In addition to selling federally generated electricity, three of the four PMAs (WAPA, BPA, and SWPA) own and operate 33,700 miles of transmission lines that comprise a significant portion of the Nation's power grid.

To bolster the competitiveness of the electricity marketplace and to ensure the grid's resilience, Congress in 1992 and 2005 passed comprehensive legislation creating obligations on grid operations and reliability. As explained below, the Secretary's Memo is intended, among other things, to ensure the PMAs are complying with these obligations. In cases in which Congress exempted the PMAs from some of these requirements, DOE has further required that the PMAs comply with transmission requirements, to the extent allowed under the PMAs' enabling statutes, to enable market competition and ensure grid resilience. That policy remains in place to this day.

As part owners and operators of the Nation's transmission grid, the federal government must maintain its aging facilities and, if necessary, update or replace them for the benefit of their consumers. The Secretary is committed to ensuring the PMAs' transmission is managed to support cost-effective transmission expansion, grid reliability and open, non-discriminatory access consistent with the PMAs' statutory requirements. The federal government can and should be leading the way in ensuring that our Nation has a reliable transmission grid that supports a competitive marketplace.

To be clear, anyone using the PMAs' transmission lines pays for that use, whether or not they are preference customers. As is true for any transportation system supporting a marketplace, at a minimum, our Nation's transmission system should accomplish the following for the electricity marketplace:

- Efficiently and reliably deliver electricity;
- Eliminate barriers to competition and operate in a non-discriminatory fashion; and
- Accommodate the emergence of new technologies and market opportunities/segments.[6]

The proposals described in the Secretary's Memo would seek to accomplish all of these goals, through actions that are in harmony with the PMAs' enabling statutes. And as mentioned previously, the overwhelming majority of the proposed activities relate to the PMAs' obligations and goals for transmission and not to the marketing of federally generated power to the preference customers. As a consequence, the Secretary's Memo will have minimal applicability to the Southeastern Power Administration, which owns and operates no transmission.

TODAY'S ELECTRICITY MARKETPLACE

Today's electricity marketplace differs markedly from that of even 10 years ago. For example:

(1) Security Threats and Natural Disasters: It should come as no surprise that our Nation faces increasing security threats and the electric sector is no ex-

ception. By establishing an electric reliability organization and mandating the enactment of reliability standards, including cybersecurity standards, Congress has mandated a hardening of our electric infrastructure against physical threats, natural disasters, and cyber attacks. Protecting the transmission grid is particularly important. Blackouts not only threaten human health and safety, but also cause immense economic injuries to our Nation's businesses.

(2) Technological Advances: As consumers adopt new or improving technologies and practices such as large electric water heaters used as storage devices, rooftop solar, electric vehicles, and demand-response applications both the transmission grid and the electricity marketplace will face challenges and opportunities.

(3) State Renewable Portfolio Standards (RPS): Thirty-seven states[7] have now enacted RPS standards (mandatory) or goals (voluntary). In other words, 37 states have decided to incentivize the production of electricity from renewable sources, which often are variable resources. The electricity transmission system should be flexible enough to accommodate these new sources of generation into the grid.

The Secretary's memo asks the PMAs to effectively respond to the continued changes in the electricity marketplace to better serve their customers and stakeholders within the limits set by their enabling statutes.

CONSUMERS' BILLS

The evolving nature of the electricity system requires the owners and operators of the transmission grid to adapt. As owners and operators of a significant part of the transmission grid, the PMAs should explore more effective ways to invest in the future and keep pace with the changing industry. Our overall goal is to keep consumer bills as low as possible while ensuring our Nation has the infrastructure needed to remain competitive in a global economy and accommodate regional choices to meet consumer demand.

JOINT OUTREACH TEAM

WAPA and the DOE have jointly convened the Joint Outreach Team (JOT), which is charged with preparing recommendations to the Secretary in response to his Memo. The JOT held six listening sessions and five substantive workshops throughout WAPA's service territory soliciting comments from customers and stakeholders on the issues presented in the Memo. Additionally, over one hundred written comments have been submitted on-line through JOT@wapa.gov. In advance of the workshops and listening sessions, JOT held a webinar for registered participants and those unable to participate in the workshops and listening sessions. JOT also held a webinar after the workshops and listening sessions providing a high-level summary of those sessions. JOT also held a separate tribal conference call and will shortly be holding a separate tribal webinar as part of its government-to-government consultation plan.

Based on the results of the workshops and listening sessions, input received online and through webinars, WAPA's own internal reviews and reports, external resources, and their own expertise, the JOT will deliberate and develop a set of draft recommendations to the Secretary. Though not legally required, the JOT intends to publish those draft recommendations in the *Federal Register* asking for public and congressional comments. After receiving the comments and revising the draft recommendations, the JOT will submit its final recommendations to the Secretary.

In addition to the JOT outreach, DOE and WAPA held three informational sessions for House and Senate staff during which the workshops and listening sessions were summarized and questions answered.

This work has been and will continue to be a robust collaborative process sensitive to the unique character of each PMA. I look forward to answering your questions.

ENDNOTES

[1] This standard—to encourage the most widespread use of Federal power at the lowest possible rates to consumers, consistent with sound business principles—is often simply referred to as "cost-based rates" or "at cost". The truncated versions are used hereafter.

[2] The PMAs have many responsibilities beyond these two missions. For example, BPA has a third primary mission: fish and wildlife protection.

[3] The relative expense of federal hydropower differs from system to system. As a consequence, it is not "inexpensive" for every system.

[4] "Preference Customers" refers to municipalities and other public corporations and agencies.

[5] There are exceptions. BPA and WAPA have a few non-preference customers who are grandfathered and able to purchase federal electricity. Certain non-preference customers of BPA receive, from the power revenues, annual benefits for their rural areas.
[6] These bulleted items refer to both legal requirements and policy goals.
[7] In addition to these 37 states, the District of Columbia and Puerto Rico both have an RPS.

The CHAIRMAN. Thank you very much for your testimony. And I will recognize Mr. Jim Baak, the Director of Policy for Utility-Scale Solar in San Francisco.

You are recognized for 5 minutes.

STATEMENT OF JIM BAAK, DIRECTOR OF POLICY FOR UTILITY-SCALE SOLAR, THE VOTE SOLAR INITIATIVE, SAN FRANCISCO, CALIFORNIA

Mr. BAAK. Mr. Chairman, Ranking Member Markey, members of the Committee, good morning and thank you for inviting me to participate in this hearing on the Secretary's memorandum to the PMAs. I am representing The Vote Solar Initiative. It is a non-profit, non-partisan, foundation-funded organization working to promote rooftop and utility-scale solar deployment in America. As a Director of Policy for Utility-Scale Solar, I am involved in regional and State transmission planning efforts throughout the Western interconnection.

But the testimony I am providing today also reflects the input and views of many members of the Western Clean Energy Advocates, a large and diverse coalition of renewable energy developers and advocates, independent transmission developers, environmental organizations, consumer advocates, energy efficiency proponents, and other stakeholders who support clean energy development.

There is very little disagreement in the utility sector that the Nation's grid is aging and in need of modernization. The grid today was never designed to support modern demands such as a reliance on digital technology, integration of variable resources, threats from cyber attacks, smart grid technologies, and a host of other innovations that are underway or on the horizon.

The PMAs operate a significant amount of electric transmission. The measures identified by the Secretary are being undertaken by all operators of electricity grids throughout the country. The PMAs must not be the weak link in the grid. Indeed, many of the PMAs are undertaking the measures that are outlined by the Secretary. From DOE and Western meetings that took place over the course of the summer, it was evident that the preference customers support the substance of the Secretary's memo. There was obviously disagreement over the process and the tone of the memo, but I am not here to address the process or the actions of the Department of Energy, but to focus on the substance of the memo, and benefits and consequences of not modernizing the grid.

The PMA's role extends beyond just supplying hydropower to preference customers. There is no dispute that the PMAs have an obligation to provide reliable, cost-based Federal hydropower to preference customers. PMAs also have an obligation in an increasingly interdependent grid to all users of the grid to ensure reliable,

cost-effective operation of the grid. And we saw evidence or the consequences of the lack of cooperation a year ago with the black-outs in Southern California and Arizona.

And the PMAs also have an obligation to support national and regional energy security and climate goals.

The essential question in this discussion should be, what are the consequences of not modernizing the grid? Without undertaking these measures, can the PMAs continue to reliably operate the grid, given the historic changes that are taking place in this country? If the PMAs do not undertake these measures, will it prevent them from fully benefitting from a more efficient and cost-effective grid enabled by an energy imbalance market?

Without the measures, how can the PMA support national energy security and climate goals and the actions of other Federal agencies, such as the Department of the Interior's solar programmatic environmental impact study and the rapid response team?

How will the preference customers be able to cost-effectively comply with the RPS, or renewable portfolio standards or climate policy requirements, such as those that are mandated in California?

And finally, we know that hydro resources are diminishing. In the Sierras, reports to Governor Brown indicate that there is less snowfall and earlier snow melt-off. But there is also increasing use of wind, solar, and geothermal. How will preference customers be able to access other affordable sources of energy without these modernizations?

Undertaking these measures will result in significant benefits throughout the entire country. Just as an example, in the West, the solar industry has been growing tremendously in a down economy. It is projected by 2016 there will be 100,000 jobs in the solar industry, alone. There are already 2,500 solar companies with projects worth a projected $3 billion. There is an additional $10 billion of solar projects that are in the works now. And in the wind industry, there are 30,000 jobs and 128 manufacturing facilities in the Western interconnection alone, representing $60 billion in capital investment. We applaud the DOE's efforts and we encourage the DOE, the PMAs, and the preference customers to work together to realize these benefits.

Nothing here takes away from the PMAs' primary obligations to deliver cost-based, economical hydropower from Federal projects to their customers. To the contrary, we believe these changes that are outlined by the Secretary are absolutely necessary to ensure their ability to continue to meet their obligation into the future, and do their part to ensure continued reliable and cost-effective operation of the entire grid.

Thank you again for inviting me to testify before this Committee, and I look forward to your questions.

[The prepared statement of Mr. Baak follows:]

Statement of Jim Baak, Director of Policy for Utility-Scale Solar, The Vote Solar Initiative

New Demands on Old Infrastructure

The Power Marketing Administrations (PMAs) operate a significant amount of transmission in the US and are an integral part of an increasingly interdependent grid. While the system has operated to meet the demands of the past, the existing

electric grid is not designed to meet the demands of the 21st century economy. Increasing reliance on digital technology, integration of variable resources, threats from cyber attacks, development of smart grid technologies, and a host of other innovations are stressing an aging electric transmission infrastructure.

There is very strong agreement among those in the utility sector that the grid needs to be modernized to keep pace with these changes to continue to deliver reliable, cost-effective electricity to consumers. The measures outlined by Secretary Chu in his memorandum explore these options, and are in large part already being implemented or considered by grid operators throughout the country.

It is therefore imperative that the PMAs keep pace so they are not the "weak link" in the grid. Failure to keep pace with grid modernization efforts will result in increased costs to consumers, including preference customers, stemming from reduced reliability, increased security risks, and inefficient and more costly operation of the grid.

Messages From the DOE/Western Workshops—There is Agreement on the Need for Grid Modernization and Enhanced Coordination and Planning

Vote Solar participated in the Department of Energy (DOE) and Western Area Power Administration (Western) jointly hosted Workshop "Defining the Future" in Rancho Cordova, California.[1] There were a large number of Western's preference customers in attendance, with a relatively small number of other stakeholders participating.

During the workshop, some objected that the process was not very open or transparent. There were also objections to the tone of the memo and what was perceived as top-down control by DOE. There were also objections that the DOE is misinformed about the condition of Western's grid.

However, we did not hear any major objections to the overall goals of the memo, nor did we hear disagreement over the value of the measures outlined by the Secretary. In fact, we heard that Western and its customers are already doing many of the things outlined in the Secretary's memo. From the descriptions of the upgrades and programs being undertaken by Western and the individual preference customers, it's evident that they share the same goals outlined by the Secretary.

PMA's Obligation Extends Beyond Preference Customers

The PMAs have an obligation to continue marketing and delivering reliable, renewable, cost-based Federal hydropower to their customers—that message is clear and undisputed. But, as is the case with Western, they also have an obligation to the American citizens that funded the projects that provide their customers with low-cost hydropower. As part of an interconnected and highly interdependent grid, all of the PMAs have an obligation to all users of the electric grid, as does every transmission operator. Finally, as agencies of the Federal government, the PMAs have an obligation to support the efforts and programs established by the Administration, Congress, and other agencies of the Federal government that support national energy, economic and environmental goals.

Preference customers are obligated to serve the interests of their citizen-owners, and that is as it should be. But the PMAs play a larger role as major transmission service providers. While PMAs are involved in many transmission planning and coordination activities, they need to be looking at the broader regional and long-term implications.

Consequences of Business-As-Usual

As the Secretary outlined in his memo, the nation faces significant new challenges that the existing electric grid was not designed to handle efficiently or effectively. The central question in this discussion is this: What are the consequences of not doing the things outlined by the Secretary in his memorandum?

While Western and the other PMAs have undertaken some of the modernization measures outlined in the memo, they may not take into account the broader regional implications, and they may not support the many efforts underway or being planned for the broader Western Interconnection.

For example, how do the modifications undertaken or underway by Western support the Department of the Interior's (DOI) Solar Programmatic Environmental Impact Study (SPEIS)? Will they allow preference customers to fully benefit from a west-wide Energy Imbalance Market (EIM)? Do they support the more aggressive Renewable Portfolio Standard (RPS) Governor Brown has suggested for California, or the expansion of renewable energy being studied by Western Electricity Coordi-

[1] This workshop was one of a series of stakeholder workshops and listening sessions hosted by the DOE and Western.

nating Council for the 2013 Regional Transmission Expansion Planning process? How well do Western's planning efforts mesh with FERC Order 1000 regional and interregional planning requirements?

Finally, there is the issue of cost. What will be the impacts on rates if Western does not fully participate in initiatives like a west-wide EIM that will support more a efficient and less costly grid? If climate change continues unabated, how much low-cost hydropower will continue to be available to Western's customers and what will be the price? What's clear is that there will be more renewable energy in the generation mix throughout the West—without adequate preparation, will Western be able to cost-effectively integrate larger amounts of renewable energy and bring those benefits to its customers?

Supporting National and Regional Goals

FERC has recently issued orders on integrating variable resources and developing regional and interregional plans, including consideration of public policy requirements for the first time. Federal efforts to slow climate change, promote the development of the country's vast homegrown, inexhaustible renewable resources, wean off of imported energy and enhance our energy security and other federal goals will benefit greatly from these proposed changes. Already the country is benefiting from the economic activity generated from these policies.

For example, the transition to a clean energy economy will continue to yield dividends to both rural and urban America. Despite the worst recession since the Great Depression, renewable energy has emerged as a strong economic force, growing and creating jobs for Americans. The solar energy industry alone is projected to support upwards of 100,000 jobs by 2016 in the 15 states Western serves. Already there are more than 2,500 solar companies in these states, with more being added each year. The approximately 1,800 MW of installed solar capacity in these states in 2010 is valued at over $3 billion. There are an additional 26,800 MW of large-scale solar projects under construction or in development in these states, representing over $10 billion in additional investment.

There are also over 30,000 MW of wind power in the states served by Western, representing approximately $60 billion in capital investment and 65% of all the wind built to date in the U.S. The capital investment from wind projects has helped reinvigorate the manufacturing sector in the region with the creation of 128 manufacturing facilities in Western's service area. In 2011 alone, the wind industry was responsible for over 30,000 good paying manufacturing, construction and other jobs in these states. For rural economies in these Western service area states, the investments result in annual economic benefits including more than $210 million in county property taxes and close to $90 million in lease payments to land owners—an important factor for continuing the region's rich heritage in farming and ranching.

The PMAs can and should play a role in supporting these and other national and regional goals.

PMA Leadership is Needed

We applaud DOE's leadership on this issue. We strongly believe the measures outlined in the Secretary's memo will greatly improve reliability, reduce costs and bring about significant economic benefits. We encourage DOE, the PMAs and their customers to work together to implement these measures.

We support the recommendations outlined by the Secretary to help guide PMA planning to meet their obligations to their customers. In particular, we encourage the PMAs to undertake the following measures:

- Maximize efficient operation of the PMAs' grids via consolidation of their Balancing Areas
- Eliminate rate pancaking across the PMAs' grids
- Implement conditional firm service rates to allow for fuller utilization of existing transmission resources
- Implement advanced technologies such as synchrophasors
- Improve coordination with neighboring Balancing Authorities (BA), as recommended in the FERC/NERC September 8, 2011 Blackout report
- Participate in the development and implementation of a west-wide Energy Imbalance Market (EIM) (Western and BPA)
- Participate more actively in the Regional Transmission Expansion Planning process and Scenario Planning Steering Group effort (Western and BPA)
- Continue to participate in the development of regional and interregional planning efforts in compliance with FERC Order 1000, identifying opportunities for PMAs to support regional and interregional goals

- Use Section 1222 funding, leveraging private sector financing to support regional and national goals, such as building transmission to Solar Energy Zones that have been identified by the Bureau of Land Management (BLM)
- Actively support efforts of other federal agencies, such as Department of the Interior's Solar Programmatic Environmental Impact Studies (SPEIS) and Restoration Design Energy Project (RDEP), the Department of Energy's SunShot Vision Study, implementation of FERC's Variable Energy Resources Integration Order, and support for the Rapid Response Transmission Team efforts. For example, BLM lacks the transmission expertise to evaluate transmission capacity to serve the proposed SEZs. Western should lend its expertise to BLM in screening SEZs for access to existing or planned transmission capacity.

Nothing here takes away from the PMAs' primary obligations to deliver cost-based, economical hydropower from federal projects to their customers. To the contrary, we believe these changes are absolutely necessary to ensure their ability to continue to meet their obligations into the future and do their part to ensure continued reliable and cost effective operation and enhancement of the entire grid.

Thank you for the opportunity to comment.

The CHAIRMAN. Thank you, Mr. Baak, for your testimony.

I will now recognize W. Kent Palmerton, the General Manager of the Power and Water Resources Pooling Authority out of Carmichael, California.

STATEMENT OF W. KENT PALMERTON, GENERAL MANAGER, POWER AND WATER RESOURCES POOLING AUTHORITY, CARMICHAEL, CALIFORNIA

Mr. PALMERTON. Mr. Chairman, Ranking Member Markey, thank you for allowing me this opportunity to testify before you today on behalf of the Power and Water Resources Pooling Authority. I am its General Manager. The Pooling Authority is a publicly owned joint powers authority serving the aggregated electric needs of its eight irrigation districts and six other water districts, collectively known as its "participants."

Virtually all of the electricity provided by the Pooling Authority is used by its participants for pumping water and for water treatment activities. Participants, particularly the participants in the Central Valley, deliver water to growers that farm over 1 million acres in California. Our diverse membership includes: the Glenn Colusa Irrigation District north of Sacramento; the Sonoma County Water Agency on the coast; the Santa Clara Valley Water District in the Silicon Valley; and the Arvin-Edison Water Storage District south of Bakersfield in the San Joaquin Valley.

Each participant has a Western allocation for power, which they have assigned to the Pooling Authority. Each participant also has one or more contracts with the Bureau of Reclamation for water supply from the Central Valley Project, the CVP. The Pooling Authority relies on Western power for approximately 50 percent of our energy needs on an average year. And in wet years that can grow as much as 90 percent, as our loads are inversely proportional with the amount of surface water that is available to us.

As you can see, the future of how Western's power is used, and how it is brought into question by the Secretary's memo, is of critical importance to our participants. There are many problems with the primary thrust of the Secretary's proposal, which is to use Western power—or at least it promotes the use of Western power—to integrate renewable energy resources into the grid.

Most importantly, Western does not operate the dams. That is done by Reclamation. As is in the case for most Reclamation projects, power generation is a secondary or even a tertiary purpose of the projects. In the case of the CVP, our authorizing legislation states that the project is to be used first for river regulation, improved navigation, and flood control.

Second, for irrigation and domestic uses. The power generation is a byproduct of water releases made for the CVP project priority uses. Federal law does not allow power generation to impair the efficiency of the CVP for water delivery purposes. In our view, any change in the CVP statutory priorities would violate existing water contracts, existing power contracts, and would require congressional legislation—pardon me.

Further, changes to Western operations that shift emphasis away from current statutory duties, including power deliveries to its customers, in favor of priorities that have been identified in the Chu memo will raise our costs. Higher costs means higher water delivery costs. It means an impact to the economy of the farming communities in the Central Valley.

The impact of the Secretary's proposal to cost shift the impact—pardon me. The impact of the Secretary's proposal is to cost shift to Western customers by authoring the operation of the Federal dams. And since water delivery obligations are the basis of how the CVP is optimized, using hydropower to integrate renewable resources will shift water release patterns in a manner that we expect to erode the benefits of the CVP to the Pooling Authority and our farm communities.

The Secretary's memo implies that Federal hydro facilities are ideal for integrating renewable resources. For that reason, DOE is urging Western to participate in an energy imbalance market, or an EIM. An EIM would not save our participants any money. It may, in fact—and we expect it to increase our cost.

Hijacking the CVP hydrogeneration to create an EIM and socialize the cost of integrating renewable resources would violate most, if not all, of CVP water obligations and contracts that exist today or might exist in the future.

Although we believe that the Chu memo was ill conceived, the Secretary should be pleased that the goal of increased renewable development is a goal we all share. The Pooling Authority is on track to meet its 33 percent renewable resource penetration, as the California RPS requires. And even a small entity like the Pooling Authority is expected to spend millions of dollars to meet that goal.

In the interest of time, I would be happy to answer questions if you have any for me, particularly as it relates to the trade-off between investments and transmission and the use of generation for integrating renewable resources. Thank you.

[The prepared statement of Mr. Palmerton follows:]

Statement of W. Kent Palmerton, General Manager, Power and Water Resources Pooling Authority

Mr. Chairman, on behalf of the Power and Water Resources Pooling Authority, or the "Pooling Authority," I greatly appreciate the opportunity to testify before the Committee on Natural Resources, with respect to the issues raised by the March 16, 2012 Memorandum issued by Secretary of Energy Chu ("Chu Memo") on poten-

tial reforms to the Power Marketing Administrations, including the Western Area Power Administration ("Western").

The Pooling Authority is a joint powers agency that was formed by eight Irrigation Districts pursuant to California law. The Pooling Authority is a publicly-owned retail electricity provider that serves the aggregated electric energy needs of its eight Irrigation District members, as well as six other types of water districts. Collectively, we refer to these 14 districts as the Pooling Authority's Participants. Virtually all of the electricity provided by the Pooling Authority is used by its Participants for pumping water and water treatment.

The Pooling Authority's Participants are diverse, and include the Glen Colusa Irrigation District located amidst the rice fields north of Sacramento, the Sonoma County Water Agency which spans from world-famous Napa Valley to the Pacific coast, the Santa Clara Valley Water District serving part of the Silicon Valley, and the Arvin-Edison Water Storage District which supports the agriculture in the southern San Joaquin Valley. The Pooling Authority's retail electric load varies depending upon hydrological conditions, which can greatly affect pumping to serve our Participants and their growers. The Pooling Authority's electric load ranges between approximately 300 and 500 gigawatt hours of energy per year, with a peak load of nearly 110 megawatts during the summer irrigation season in dry years.

Using this power, Pooling Authority Participants deliver water to growers that farm over one million acres of farmland in California's Central Valley. All totaled, the Pooling Authority's Participants deliver over 3.85 million acre-feet of water annually for various purposes.

The retail customer load that the Pooling Authority serves consists mainly of the pumping and water treatment load of its 14 Irrigation and Water District Participants. Each Participant has a Western allocation for power that they have assigned to the Pooling Authority. In the aggregate, the Pooling Authority represents nearly 7% of the Western Base Resource power allocations. Each Participant also has one or more contracts with the Bureau of Reclamation for water supply from the Central Valley Project ("CVP"). The Pooling Authority relies on its Western Base Resource contract for approximately 50% of its energy needs across all water conditions. In wet years, the Western Base Resource may serve more than 90% of the Pooling Authority's aggregate load requirements. As you can see, the future of Western, which has been brought into question by the Secretary's Memo, is of critical importance to the Pooling Authority Participants and their water customers.

My message today is simple. Changes to the PMAs that shift emphasis away from their statutory duties, which include power deliveries to their customers, will raise costs to the Pooling Authority. Higher costs to the Pooling Authority means higher water delivery costs to the farm communities that Pooling Authority Participants serve. Our communities have struggled in the depressed economic climate of the past several years. Pooling Authority Participants cannot afford the increased costs that would likely flow from shifting Western's mission away from service to its customers and toward the purposes set forth in the Chu Memo, namely integration of renewable resources.

Although the Chu Memo was short on specific proposals, the goals of a modern and secure infrastructure, increased renewable resource development, and transmission improvements are goals the Pooling Authority shares. But we are already doing all of this and more, and we achieve these goals using our existing partnership with Western. These goals include: (1) Grid Modernization—In the Western Sierra Nevada Region, Western customers formed a partnership with Western and the Bureau of Reclamation ("Reclamation") to prioritize and fund improvements to and modernization of federal generation and transmission, with customer dollars not reliant on annual appropriations. The Western system is reliable and modern, due in large part to the partnership between Western and its customers, and without using taxpayer dollars; and (2) Renewable Resources Development—the Pooling Authority is pursuing and will comply with California's aggressive renewable energy goals to achieve 33% renewable resources by 2020. Even a relatively small entity like the Pooling Authority will invest millions of dollars beyond our base costs for power to achieve these goals. Changes to Western will actually disrupt Western customers' ability to comply with California's renewable energy mandates, and will likely increase the use of fossil fuels to supplement Western's carbon-free hydropower.

In my time here today, I would like to emphasize just a few of the issues raised in the Chu Memo.

Reoperations of the Central Valley Project ("CVP"), Versus the Statutory and Practical Limitations on How Federal Dams are Operated.

The Chu Memo makes passing remarks that Western should engage in a centralized dispatch to better integrate Variable Energy Resources ("VERs")—Renewables.

The Secretary goes on to imply that federal hydro facilities are ideal for integrating VERs. Notwithstanding our objections based on the potential cost increases to our Western power deliveries, the plain fact is that Western does not operate the federal dams; this is done by the Bureau of Reclamation (Reclamation).

Further, power delivery is a secondary, or even tertiary purpose of Reclamation in its operation of the CVP. The CVP authorizing legislation states that the project is to be used, first, for river regulation, improved navigation, and flood control; second for irrigation and domestic uses. Generation of electricity is a by-product of water releases made for the CVP project priority purposes. Federal law forbids power generation to impair the efficiency of the CVP for water delivery purposes. Any change in the CVP's statutory priorities would require congressional action.

Impacts on Water Deliveries

As the Committee is aware, California has long-standing disputes over water usage, which are not the purpose of this hearing. In order to achieve their objectives, the Secretary's proposals are likely to involve reoperation of federal generation. Under existing operations, power output from the CVP is already optimized to provide flexible peaking and ancillary service capability to existing power customers. It is difficult to envision how reoperation of the CVP would avoid trampling arrangements with existing customers like the Pooling Authority, which were developed through a thorough public process and are embodied in existing contracts.

What the Secretary is proposing is a cost shift to the Pooling Authority and other Western customers by fundamentally alternating how federal dams are operated in order to firm up renewable resources. And since water delivery obligations form the basis on how the CVP is optimized today, using federal hydroelectric resources to integrate wind and solar generation may shift water release patterns in a manner that could erode the benefits of the CVP to the Pooling Authority and, therefore, to the farm communities that we serve.

Using Western to Build Transmission

California utilities are building transmission at a tremendous rate, primarily to interconnect new renewable resources and comply with state law. Evidence of this fact is that the Pooling Authority's transmission costs have roughly tripled in the last five years as new transmission is added to the system.

Secretary Chu's Memo suggests that Western should take a leadership role to improve the transmission infrastructure in the West. The Secretary does not explicitly explain what a "leadership" role might entail. Our concern is that Western customers will be called upon to pay for this leadership, either through cost responsibility for new transmission, or by the diversion of attention and resources from Western's core mission.

Western's costs have always been allocated upon a principle that the "beneficiary pays" for new investment. Any use of Western to facilitate the development of new transmission must follow that principle. Further, this principle is not a vague notion of quantifying indirect benefits, but allocates cost responsibility to the direct users of the facilities. The Pooling Authority, as a direct user of existing transmission of Western-Sierra Nevada Region, pays for the cost of that transmission system. The Pooling Authority should not be forced to pay for a transmission line from Wyoming to California that interconnects wind resources, unless the Pooling Authority has contracted for those wind resources. Given that it is unlikely that these resources would qualify toward California Renewable Portfolio Standard credit because of limitations in state law, we are highly concerned about the prospect that Western will be used to spread transmission costs across the region. Such a result would eviscerate entirely the concept of "beneficiary pays."

Conclusion

I would like to conclude with the following observations and recommendations.

First, any effort to expropriate the value of the federal assets from Western customers in favor of renewable resource developers is a cost shift that Pooling Authority Participants, and the communities they serve, simply cannot afford.

Second, given that power generation from the CVP is constrained by statutory purposes and operated by Reclamation, it seems likely that some of the main objectives in the Secretary's Memo are outside of DOE control and contrary to law.

Finally, given that the Pooling Authority and others in California must already achieve by state law many of the objectives the Secretary espouses, it is difficult to see what benefits the Memo's proposals would bring with respect to the CVP.

The Chu Memo seems to be a solution in search of a problem, and an expensive one at that. The Pooling Authority urges the Secretary to start over, and work with the Pooling Authority and other Western customers as partners to craft improvements to PMA operations that work within the statutory and operational limitations

of federal projects, and which appropriately reflect the roles of the PMAs to market power to its customers.

The CHAIRMAN. Thank you, Mr. Palmerton, for your testimony.

And I will recognize Mr. Joel Bladow, the Senior Vice President of Transmission of the Tri-State Generation and Transmission Association out of Westminster, Colorado. And you are recognized for 5 minutes.

STATEMENT OF JOEL BLADOW, SENIOR VICE PRESIDENT, TRANSMISSION, TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC., WESTMINSTER, COLORADO

Mr. BLADOW. Thank you, Mr. Chairman, Ranking Member Markey. I appreciate the opportunity to provide testimony concerning the directives articulated in the Secretary's memo. And, really, the proposal unilaterally restructured the PMAs, and it really concerns us. As this process started, we weren't sure how the listening sessions would go. And now that they are done, and I have attended, it gives us great concern.

A little background on Tri-State. We are a not-for-profit, member-owned G&T. Tri-State covers four States: Colorado, Wyoming, New Mexico, and parts of Nebraska. We have been a partner in the Federal power program for over 60 years now. And it was around before we were, and we have had a great partnership over the years.

I think it is important to understand some of the basics. And a lot of the other panel members articulated things about WAPA and the Federal power program. But people, I think, have made a mistake. They continue to refer to—there is a power marketing and delivery of preference power mission and there is a transmission mission. And the reason WAPA has a transmission system is to deliver Federal power. It is kind of like saying we are going to work on the engine in your car. The engine is part of the car. You can't do things with the engine and not impact the rest of the vehicle. It's the same with the PMAs. You can't go and say, "We are only going to touch the transmission," because it is linked with the power generation, and they work together. That is how they were designed.

The Federal power program, it has been a success for almost 100 years. As I said, we have partnered with it for over 60 years. And we have put in millions of dollars and hundreds of millions of dollars into supporting the program. And we have this partnership that goes way back, and I think that is a real important aspect of it is not just the Federal grid, it is not just the customer grid, it has been a partnership. So simply saying the Department of Energy is going to restructure WAPA or move them to do things differently, it really doesn't work.

One of the things that we discovered in the listening session is WAPA has already shortened a time they require for people to schedule power. The challenge is nobody else around them has done that. Therefore, it is meaningless. So one utility cannot march out in front of everybody else and decide that they are going to change the way the grid is operated, because nobody else is out there with them. It just doesn't work. It has to be done in partner-

ship. And Western has been very active and very involved in meeting the goals of the utility industry and the challenges.

Another thing I would focus on is WAPA is an operating entity. The Department of Energy has other functions. For instance, renewable energy gets—I think it is $2.4 billion this year to promote and help assimilate renewables. They spend about $150 million a year on policy development, very good activities. There is a place for them. But WAPA is an operating entity. When you take a handful of key people—and there is a whole bunch of them—working on this initiative, when we are trying to hook up load, when we are calling WAPA, a lot of key decisions have been delayed because those folks are busy working on this initiative. There are impacts with that, and they concern us.

In terms of the process, one of the things I see is DOE defined the road we are on, and then went out and asked for our input on that road. They may be on the wrong road. One of the things that was clear at the listening session I was at, and we started at 8:00 in the morning and finished at 8:00 at night. And I would say the 80 people there were power customers of WAPA and very concerned about what may happen to their costs and the impacts on their system and the long-term partnership.

But it is important to—you know, we are giving feedback on DOE's road and not giving feedback on what could we all do together. One of the strong messages that came out by all the participants was a "Don't divert WAPA resources in order to start new missions. It is really up to the Department of Energy and Congress to allocate new resources if you want them to have a new mission. Otherwise, you are going to impact, really, constituents out there and consumers' electric bills, as well as their reliability."

Another thing that I think was loud and clear is in 100 years of the program, it is very difficult to have 5 or 6 meetings over about a 3-month span and understand it fully, and understand it enough to make a lot of changes without having a lot of unintended consequences. The process is moving extremely fast for a program that has been around so long, and it is extremely complex. The industry is changing and has a lot of moving parts.

So what I would emphasize is we are willing to work together to identify common ground where we can work and look at changes. But the way it is now, the changes have been somewhat defined, and whether you agree to them or not, they seem to be going in that direction. And that is our concern.

And I appreciate the opportunity, I would be happy to answer questions.

[The prepared statement of Mr. Bladow follows:]

Statement of Joel Bladow, Senior Vice President, Transmission, Tri-State Generation and Transmission Association, Inc.

Mr. Chairman, Ranking Member Markey, my name is Joel Bladow. I currently serve as Tri-State Generation and Transmission Association Inc.'s Senior Vice President of Transmission. I appreciate having another opportunity to testify before the committee on the impact the "Chu Memorandum" will have on Tri-State's ability to provide affordable and reliable electricity to small businesses and residential consumers throughout the Intermountain West.

Tri-State Background

Tri-State is a not-for-profit wholesale electric cooperative based in Colorado. Our mission is to provide reliable, cost-based wholesale electricity to our 44 not-for-profit member systems (electric cooperatives and public power districts) while maintaining high environmental standards. Our members serve 1.5 million predominantly rural consumers over 200,000 square miles of territory in Colorado, Wyoming, Nebraska and New Mexico. To meet our membership's electricity needs, Tri-State generates, or purchases power produced by coal, natural gas, and hydropower, as well as from intermittent renewables like solar and wind. Since the end of 2010, we have integrated just over 30 megawatts of solar from the Cimmaron Solar facility in Northern New Mexico and 50 megawatts of wind from Duke's wind farm in Burlington, Colorado. Tri-State recently signed a 20 year agreement to purchase all 67 megawatts of generation from the Colorado Highlands Wind Project located in Logan County, Colorado. In addition to these larger scale projects, Tri-State's Board of Directors has established policies to encourage local renewable energy projects on our member systems. Under this policy our members have added, or are scheduled to add, another 42 megawatts of distributed renewable generation resources. Tri-State is not unique with respect to the integration of traditional sources of coal, natural gas, federal hydropower and intermittent resources. Other customers of the Western Area Power Administration (WAPA) have undertaken similar initiatives and have comparable generation portfolios.

We are proud of the great strides we have taken to integrate intermittent renewable and local distributed generation into our production fleet. However, our most important source of renewable generation is still the reliable, dispatchable hydropower generated at the multi-purpose projects of the U.S. Army Corps of Engineers and Bureau of Reclamation and marketed by WAPA. Hydropower purchased from WAPA accounts for approximately 12% of our generation needs. Given that it is an important component of fulfilling our mission to provide affordable and reliable electricity to the rural membership we serve, we are very concerned about the directives for WAPA and the other power marketing administrations laid out in the Chu memo of March 16th, 2012.

Affordability and Reliability

As I noted, Tri-State's 44 members serve the predominantly rural areas of our four state service territory, which includes New Mexico, Nebraska, Wyoming and Colorado. On average these member systems serve five consumers per mile compared to 37 consumers per mile served by investor owned utilities. Many of the tribal customers served by our member systems reside in the poorest economies in the country. We are similar to other electric cooperatives nationwide who collectively maintain 41% of the electric distribution network, yet only have 12% of the consumers to shoulder the costs of building and maintaining this infrastructure. In times of economic recovery our consumers—whether it be the residential customer struggling to pay their mortgage, or the small business struggling to meet payroll—cannot be burdened with additional costs leading to unaffordable electricity. Unfortunately, we believe the Chu memorandum will add costs to our consumers' electricity bill, not reduce them. The DOE/WAPA sponsored workshops and listening sessions on the Chu Memo that took place this summer have not reduced our concerns over the DOE undertaking initiatives that may compromise the fundamental core principle of providing affordable electricity.

DOE/WAPA Workshops

During June and July 2012, the DOE and WAPA jointly sponsored workshops to discuss and further explain WAPA's future mission as outlined in the Chu Memo. These meetings were billed as an opportunity to discuss the memo in an "open and transparent" manner. In other words, the sessions were an opportunity for DOE to collaborate with customers and other interested parties on the initiatives laid out in the memo. Unfortunately, they focused on what the DOE thought the future should be as opposed to listening to the participants to better understand what the people most directly impacted by Secretary Chu's proposed realignment of the agency thought.

As Tri-State noted in the submission of its comments, the DOE/WAPA workshops were,—to put it lightly—disorganized. This appeared to be a direct result of a goal to get the workshops done quickly as opposed to a focus on collaborating with customers and stakeholders to identify and prioritize issues and concerns of impacted consumers. It was clear from the meeting I attended that significant resources and cost, on both WAPA and the participants' parts, were expended on this effort. It is shame that time was not allowed to conduct a more meaningful, collaborative proc-

ess that could have built support for important changes as opposed to a top-down, time constrained process that has no support from those it will impact the most.

Given the superficial nature of the DOE workshops and listening sessions that transpired over the summer—Tri-State remains concerned about the initiatives highlighted in the Chu Memo and the associated costs. It is important to re-emphasize that the Federal power system operates under the fundamental principle that the beneficiary pays for the initiatives from which it benefits. Therefore, the existing Federal power customers should see no harm to their rates as a result of these initiatives; if the initiatives do not benefit existing customers, the funding should come through the form of non-reimbursable appropriations. One customer should not be burdened with the subsidization costs of an initiative which solely benefits another customer.

If DOE publishes a report proposing new initiatives for WAPA based on the findings of the DOE listening sessions and workshops, or other feedback collected since the issuance of the Chu Memo, these initiatives should be non-reimbursable appropriations unless they can specifically demonstrate direct benefit to Federal power customers. As operators of the Federal transmission grid, WAPA has an obligation to deliver electricity generated at Bureau of Reclamation and U.S. Army Corps of Engineers facilities at a cost-based rate. This rate ensures recovery of operation, maintenance and investment costs (principal and interest to the U.S. Treasury). If there is excess transmission capacity available for purchase, it is WAPA's obligation to offer it on a non-discriminatory basis via the OASIS. The additional revenues realized from such sales should be used to help pay for the transmission system that is used and not diverted to pay for other public policy initiatives.

Conclusion

Little has changed since Secretary Chu released his March 16th, 2012 memo outlining new initiatives for WAPA and the other three Federal power marketing administrations. If anything, the series of workshops and listening sessions have only hardened our view that DOE embarked upon this mission without a fundamental understanding of WAPA's mission and the underlying statutes providing the framework for its mission. As I noted during my last testimony, WAPA is a real utility with real obligations to its customers, not a test-bed for policy initiatives and technology deployment. Many of the new missions outlined in the Chu memo are better suited for implementation by retail utilities, not a wholesale supplier such as WAPA. If the DOE is really interested in implementing changes that benefit consumers and the nation, a fresh start at examining WAPA's future is in order, not the continuation of the present top-down unsupported initiative.

Thank you, Mr. Chairman. I'd be happy to take any questions from the committee.

The CHAIRMAN. Thank you very much for your testimony. We will now start the round of questioning. I will recognize myself first.

This is to Mr. Crisson and Mr. Corwin. Apparently, the Secretary's staff is—in the memo it says something to the effect that they want to bring the PMAs into the 21st century.

Now, when you say things like that, you imply that there is something lacking or outdated. Do you believe that the PMAs are outdated, Mr. Crisson and Mr. Corwin?

Mr. CRISSON. No, Mr. Chairman. We do not believe the PMAs are outdated. In fact, I think if—the time it has taken to look at the status quo, what the PMAs have been able to accomplish in the last few years, it is a—I think a very exemplary record. They have dealt with challenges ranging from maintaining and operating a reliable transmission grid to, I think, successfully conferring the challenges of integrating renewable resources.

So, no, I think that is an overstatement and is inaccurate.

The CHAIRMAN. Mr. Corwin?

Mr. CORWIN. Yes, and I just build on that with an example for BPA. For example, I think they have been innovators. They are in the public eye. They know they are. And their capability, for exam-

ple, on wind integration has led the country. They have put in systems of forecasting, balancing, the physical connections, the manpower, the expertise, the software, overlaying that over the existing hydropower system and nuclear resource. And they have done that going from about almost no wind to 4,700 megawatts integrated in their system, all in a matter of several years, which is really incredible, and doesn't sound like a stodgy Federal agency to me.

The CHAIRMAN. Thank you for that. Another question for both of you. I come from the Northwest, as you know, and hydropower is a very big part of our electricity. Do either of you have any concerns about the Chu memo, as it would potentially impact hydro in the Northwest and other places, Mr. Crisson and Mr. Corwin?

Mr. CRISSON. Well, Mr. Chairman, I think our fundamental concern is the potential impact on costs of the hydropower. As a number of witnesses have pointed out, the statutory requirements are for the rates of that hydropower sold to our customers to be as low as possible, consistent with sound business practices.

But there are also potentially, I think, operational impacts on the system. Mr. Corwin can probably elaborate, I think, on some difficulties that have been experienced as a hydrosystem or any other operational system is used to basically plug the gaps in the variable output of renewable resources. Some of these consequences can be predicted. Some of them, I think, are unintended but, nonetheless, they are very real.

So, for example, in the Northwest this past year—or it was 2 years ago—they had a significant amount of surplus hydro, to the point where it necessitated shutting down other generation in the region, including the wind resources. In return, they were basically sued by the wind developers, because they wanted to continue to receive production tax credits. So there are some fairly kind of perverse results than can occur when you have that much renewables on a hydro system, and particularly in the Northwest.

The CHAIRMAN. Real quickly, Mr. Corwin. I have questions for the other witnesses.

Mr. CORWIN. Sure, yes. I would concur with that. There is the integration of the transmission system and the hydropower system that Joel mentioned. And so we are doing a lot already. And the real question that arises from the memo is if you are going to do something different, or something more, what exactly is that, and how will that impact the system?

The CHAIRMAN. Mr. Baak, speaking of hydro, do you believe that hydro is renewable?

Mr. BAAK. I believe that hydro is a clean source of energy——

The CHAIRMAN. No, no, Mr. Baak, it is a pretty straightforward question. Do you believe it is renewable?

Mr. BAAK. I believe it is renewable, yes.

The CHAIRMAN. It is renewable. OK. Ms. Azar, you heard the testimony of your fellow panelists, and a lot of it focused on the process. In your oral testimony you talked about the number of meetings which, of course, is quantity and potentially not quality. How do you respond to what has been said here by some of the other Members?

And let me ask this question in this regard. Is your December 31st deadline still the deadline?

Ms. AZAR. Yes. The——

The CHAIRMAN. Yes, it is. OK, now——

Ms. AZAR. The Western DOE team that is working on this is——

The CHAIRMAN. Yes, OK. That is your deadline. Now, you have heard from people that are concerned about the deadline as far as quality, rather than quantity. How do you respond to that?

Ms. AZAR. The Western DOE team has not asked for an extension. If they do, I am sure the Secretary would consider it.

Right now—and I want to emphasize that the folks that are working on this are a team comprised of Western employees and DOE employees. They pick their own team. They are working very extensively. And they are using the input that they received at the listening sessions and workshops.

Let me give you some actual numbers, so that you get an idea——

The CHAIRMAN. Well, my time has expired.

Ms. AZAR. Oh, drat.

The CHAIRMAN. So I don't have other time. But if you want to submit that for the record, I would be more than happy——

Ms. AZAR. I would love it.

The CHAIRMAN. But what I would like—and maybe this is an opening for somebody else—I heard very distinctly there is a problem with the process, and the process meaning the quality of the process. Your response was quantity. With that, I will recognize the Ranking Member.

Mr. MARKEY. Thank you. The production tax credit for wind expires on December 31st this year. And the Democrats want to extend it. Otherwise, there is going to be an increase in the cost for wind generation in our country. So I would like to just go down the line.

Would raising taxes on the wind industry increase or decrease rates for consumers? Just right across. Would it increase or decrease? Mr. Crisson?

Mr. CRISSON. All things being equal, I think it would increase.

Mr. MARKEY. Increase? Yes. Next?

Mr. CORWIN. I believe so.

Mr. MARKEY. Excuse me?

Mr. CORWIN. I said yes, I agree with that.

Mr. MARKEY. Increase? Yes.

Ms. AZAR. I would need to answer that for the record.

Mr. MARKEY. OK. Yes, sir?

Mr. BAAK. It would increase, yes.

Mr. MARKEY. Increase, yes. Yes, sir?

Mr. PALMERTON. I suppose it would increase it.

Mr. MARKEY. OK, thank you.

Mr. BLADOW. Increase.

Mr. MARKEY. It would what?

Mr. BLADOW. Increase.

Mr. MARKEY. OK. Thank you. So, now, let's just say here that is what Governor Romney's proposal is. He has been very clear. He wants to raise taxes on the wind industry if he becomes President, even though it will kill 40,000 jobs. He also wants to keep $40 billion worth of tax breaks for the oil industry, while killing the tax breaks for the wind industry, which will raise costs of wind genera-

tion for all of the consumers out in these public marketing authorities.

So now, let's do some more PMA arithmetic. Here is our sink or fly formula. Generation plus transmission equals rates. Let's talk generation. The Western rates are 1.6 cents per kilowatt hour. Again, that is only for generation, 1.6 per kilowatt hour. Doesn't include transmission, but that is incredibly low, cheap power. Wow, wow from New England.

Now, isn't it true that the Chu memo is chiefly about transmission, and the grid, and not about generation? Can we all agree that the Chu memo is not suggesting that anyone lose that capability to buy cheap Federal power at the cost-based rates I just mentioned? Is that correct, Ms. Azar?

Ms. AZAR. That is correct, the——

Mr. MARKEY. OK, 1.6 cents. So, everyone is keeping their cheap generation, which, by the way, is the largest piece of a customer's electrical bill.

Now, let's get back to the arithmetic again. Transmission—average transmission costs for Western's preference customers in 2011 were .46 cents per kilowatt hour. That was 15 percent more than the customers paid in the PJM Eastern United States, which serves all the parts of 14 Eastern States and the District of Columbia. It is 51 percent more than the customers paid in the Midwest market. It is 140 percent more than customers paid in the New York market.

Ms. Azar, is it possible that the PMAs may be able to actually do better than they currently are when it comes to providing reliable low-cost, secure transmission?

Ms. AZAR. Yes. We hope part of this initiative will result in capturing efficiencies that are going to drive down the cost for the consumers.

Mr. MARKEY. It just seems like, you know, you can't have it both ways. You can't believe in Darwinian capitalism on the one hand, and then over here say, "No, we want a Socialist system," and then within the Socialist system say, "Now we don't have to improve," because obviously they are falling behind where there is capitalism. So that is creating some real problems.

So, here is the formula: cheap generation plus lower, long-term transmission costs equals reduced cost to consumers. Is my arithmetic right, Ms. Azar?

Ms. AZAR. You are generalizing, but yes.

Mr. MARKEY. So one of your overall goals in the Chu memo is to reduce cost?

Ms. AZAR. Absolutely.

Mr. MARKEY. So it is arithmetic, then. The goal is cheaper rates for consumers. And we did that in New England, actually. Transmission costs are higher in New England than Western, but that is because we have spent money upgrading transmission in the last few years. That has allowed us to save money elsewhere.

See, you have to think of it as an integrated subject of reducing costs for consumers. Because of the upgrade, we have about 2,000 megawatts of demand response online. We have drastically reduced our reliance on coal and oil. We have brought online more than 1,000 megawatts of new natural gas. Peak demand has dropped 9

percent, 3,000 megawatts of wind are being developed. And now we see the arithmetic in action. Total electricity costs in New England are at their lowest point since 2003 because we think of it as an integrated subject, not separate subjects, which is, of course, what the Socialist system that they have in these government-run systems, you know, ignore.

So, all we are trying to do is just add a little bit more of the modernization of the innovation that, whenever you see a Socialist system, you know they are going to resist it because they don't want to be part of the whole.

So, I yield back the balance of my time.

The CHAIRMAN. The gentleman yields back his time. I understand that Mr. Costa has to leave, and the gentleman would like to submit questions for the record. Is that correct?

Mr. COSTA. Thank you, Mr. Chairman. That is correct, although I am informed that in the regular order, that Mr. Kildee would be willing to yield——

The CHAIRMAN. OK, then. We will go regular order.

Mr. COSTA. OK.

The CHAIRMAN. With that, we will recognize the gentleman from Colorado, Mr. Coffman.

Mr. COFFMAN. Thank you, Mr. Chairman. I would like to thank Chairman Hastings for holding this important hearing on Secretary Chu's memorandum that could increase energy rates for millions of American families. In light of this Administration's and Secretary Chu's troubling energy policies, it is imperative that the Committee vet the objectives laid out in this memorandum. With that, I want to thank the witnesses for providing valuable testimony so we can illuminate these issues.

Mr. Bladow, at the end of the day, what would be the implementation of the Chu memo directives—what would they mean for United Power customers?

Mr. BLADOW. Those customers would be in your district, Mr. Congressman. And if implemented the way I understand some of them, they would shift some costs to those customers. I think it would add to their cost.

In terms of cost we pay to WAPA, I am not sure where the 1.6 cents comes from, but we pay over $.04 for WAPA power. And so there may be some averaging going on there that really isn't reflective of what each pays. But when we pay those costs, when you have perhaps electric vehicles or a shift and add more renewables, and the guys adding the renewables through an EIM process do not pay for their transmission, those costs have to be absorbed by somebody. It would be Tri-State, and we would end up passing that along to our members, which include United Power.

Mr. COFFMAN. So it could mean increased utility costs. Also, what about reliability of the grid? Would that also—would that be at stake?

Mr. BLADOW. I——

Mr. COFFMAN. First to the cost, and then to the grid.

Mr. BLADOW. You know, I think reliability can be impacted, if not implemented correctly. As others have pointed out, there are many processes going on. And having another duplicative process

that overlays it can lead to confusion and probably reduce the reliability.

Mr. COFFMAN. OK. It is my understanding that, after the Chu memo was released, that DOE and WAPA led a series of joint workshops and listening sessions in such places as Loveland, Phoenix, and other parts of the West to gather input and collaborate with interested stakeholders on the initiatives outlined in the memo. What was your impression of these workshops and listening sessions?

Mr. BLADOW. Again, my concern with the sessions is they started down a road and asked us for input on the direction they were taking, not sitting down and asking us what are the important issues of the day that we should come together, identify, and solve. So the whole goal was, "How do we solve the issues we have presented?" Whether or not they need solving, or whether or not they are the right issues didn't seem to be the point. And that is our concern.

Mr. COFFMAN. OK. Did Tri-State, as one of WAPA's largest customers, have any advance notice of the directives laid out in the Chu memo before it was released on March 16th?

Mr. BLADOW. No, we had absolutely no knowledge or were asked for any input.

Mr. COFFMAN. WAPA is a real utility, and with customers and obligations to maintain the integrity and the reliability of the Western electrical grid. Are you concerned that by implementing the directives of the Chu memo, WAPA would be departing from its mission of providing cost-based power to its customers, which would possibly affect the reliability of the Western grid?

Mr. BLADOW. You know, one of our concerns is—you saw it with outage on September 8th of 2011, where the Western Electric Coordinating Council, the one overseeing the reliability, really had too many missions. And I think there was some confusion. And that is one of our concerns. If WAPA becomes less of an operating agency—keep the lights on, operate things—and becomes more of a policy-driven organization, we will end up in a situation where they won't do either job very well. And that very much concerns us.

Mr. COFFMAN. OK. I see the Chu memo calls for the establishment of a revolving fund to help implement its initiatives. How does the creation of a revolving fund for WAPA affect the oversight responsibilities of Congress and WAPA's customers?

Mr. BLADOW. Well, I think it significantly reduces the oversight that Congress would have with a revolving fund on WAPA. They do have some of those funding mechanisms today, and I think there is less input and less responsiveness to customers, because the money, you might say, flows at their discretion, at DOE's discretion, and a lot of the oversight is reduced.

Mr. COFFMAN. Thank you, Mr. Chairman. I yield back.

The CHAIRMAN. The gentleman yields back his time. The Chair recognizes the gentleman from Michigan, Mr. Kildee.

Mr. KILDEE. I will yield.

The CHAIRMAN. The gentleman from California is recognized.

Mr. COSTA. Thank you, Mr. Chairman, and thank you, Congressman Kildee, for yielding, given my time situation.

I would like to change the focus of the questioning as it relates to the Chu memo to an area that I have been working on for many

years. And that is the potential impacts—I say potential impacts—to what I believe are some of the largest power users in California, which is both the Federal and State water projects, otherwise referred to as the Central Valley Project, the CVP, or the State Water Project.

And, Ms. Azar, I will get to a couple questions I have for you in a moment. But first of all, Mr. Palmerton, what we are talking about here, I believe, to put it in context, is public power agencies, and transferring a cost, if the Chu memo were successful, to public water agencies.

And we are talking about wholesale versus retail, in terms of the eventual cost of that water to those public water agencies who are now paying some of the highest costs for water, at least in California, not only in terms of their maintenance and the operation of their projects for both the Federal water project and the State water project, but also the costs that are then also passed on. Part of those costs are for the repayment of the projects that were built over a period of time, and that is required to be paid for the cost either to the Federal or State government for those projects, but also they have additional costs above and beyond that.

Now we are talking about passing an additional cost. And these are to farmers and ranchers who are trying to grow food.

Mr. Palmerton, what do you think would be the impact on the irrigation and water districts your authority serves if the Chu amendment were implemented in its current form? Quickly.

Mr. PALMERTON. Quickly, we pay about 3½ to 5½ cents for Western power during an average year or a dry year, depending on what——

Mr. COSTA. You are paying wholesale rates or regional rates?

Mr. PALMERTON. Those would be wholesale rates from Western.

Mr. COSTA. Right.

Mr. PALMERTON. So any time that that supply is disrupted, it is being replaced by higher-priced power. In 2008, Western cost 5.5 cents, and it was having to be replaced with $.10 power.

Mr. COSTA. So you would have to pass those costs on to——

Mr. PALMERTON. Those costs are passed on directly in the——

Mr. COSTA. To the farmers and ranchers for how much acre foot they pay for water.

Mr. PALMERTON. Exactly.

Mr. COSTA. In some cases they pay as—anywhere from $30 per acre foot to as much as $130 an acre foot, depending upon the water district you are at.

Is the authorizing legislation for the Central Valley Project consistent with the initiatives in the Chu memo, in your opinion?

Mr. PALMERTON. Not as I understand them at all.

Mr. COSTA. Is the Pooling Authority doing anything now to integrate renewables into the energy supply? And are you subject to California's 2030 law that requires 30 percent renewables by the year 2020?

Mr. PALMERTON. Yes, we are purchasing renewables, we are looking at solar, and we have a number of small hydro projects and gas projects.

Mr. COSTA. Even though, by the definition of that State law, hydropower is not considered renewable, right?

Mr. PALMERTON. That is correct.

Mr. COSTA. Which I would take issue with, because I believe it is renewable——

Mr. PALMERTON. I——

Mr. COSTA [continuing]. As the Chairman stated. What is the Pooling Authority and the Western Area Power Administration doing to upgrade this Central Valley Project grid?

Mr. PALMERTON. We participate directly with Western initiatives. Individually, our districts do not participate in building transmission.

Mr. COSTA. Ms. Azar, as a Senior Policy Advisor, is it the Department of Energy's view, or have you examined, how the changes in the Power Marketing Administration will affect the cost of power for the need of management and delivery of water, this wholesale of water, to the water districts which then pass those costs on to the farmers and ranchers that purchase that water?

Ms. AZAR. There are no changes to the Power Marketing Administration's mission here. This memo—let me just quote the last two sentences of the memo. "Just as DOE is calling on the private sector to help our Nation win the future, DOE and the PMAs must do the same. The Federal Government should be leading the way for a modern, secure, reliable electric transmission"——

Mr. COSTA. OK. Well, my time has expired, and you have read your last sentence. Let me ask you, then, in the final-final, then do you believe it is appropriate for some Federal customers, like my constituents with the Central Valley Project, to bear a greater cost to facilitate the delivery of renewable energy that will primarily be used elsewhere?

Ms. AZAR. That is not what this initiative is about.

Mr. COSTA. Well, it seems like that might be, in the law of unintended consequences, a potential impact.

Ms. AZAR. Folks here are assuming quite a lot with regards to what the joint Western-DOE team is going to be recommending——

Mr. COSTA. Would you say categorically that it would not then increase the cost?

Ms. AZAR. Our goal is to actually drive down the cost to consumers by capturing efficiencies, and ensuring we invest in our infrastructure for the future.

Mr. COSTA. My time has expired, but would you please look at that as a potential outcome? If you say it is not intended to be an outcome, then I think it would be important to look at it so that we can make sure it is not an outcome.

The CHAIRMAN. The time of the gentleman has expired. The Chair recognizes the gentleman from Arizona, Mr. Gosar.

Dr. GOSAR. Mr. Palmerton, I want to go back to the gentlelady's comments. I am from Arizona, so these are very similar irrigation-type situations. Can you comment on those, in regards to raising irrigation costs?

Mr. PALMERTON. Yes, I can. The Federal hydro system is optimized for a number of purposes: releasing water, environmental purposes, and other arrangements. If you are going to integrate renewable resources and use the generation capability of Western—actually, the Bureau of Resources—that change will change the operation of the project, it will decrease the net amount of energy

available to sell to customers, and it will have to be—energy would then have to be replaced at different times, typically at much higher costs, and those costs have to then be passed on to our customers. And that raises the cost of food and the cost of agriculture, in particular, for our organization.

Dr. GOSAR. So, Ms. Azar made the comment—do you agree—that we are misinterpreting the language of the bill?

Mr. PALMERTON. Well, Ms. Azar spoke of three items: security threats, technology advantages, and RPS. And for technology advantages and RPS, I think it is a question of transmission investment versus generation. And any time that you are going to use generation and move it to integrate renewable resources, you are having to move the water, because that is how you generate the power with a hydro project. When you move the water, you change the balance. When you change that entire relationship, we expect costs to increase.

So, if there is efficiency in the transmission system, that is investing in transmission infrastructure. We believe the beneficiaries should pay. My customers that have no benefit from an increased transmission system from Wyoming to California shouldn't have to pay for that.

Dr. GOSAR. I guess they don't realize that whiskey is for drinking, water is for fighting over.

Mr. PALMERTON. That is true.

Dr. GOSAR. Mr. Crisson, I want to go back to a comment that was made earlier by my colleague here behind me, in regards to—because I think it needs mentioning again. Actually the Chu memo proposes "reforms that would limit Congress' ability to oversee power administration and its revenue." Should Congress have a legislative and oversight role in the new authorities laid out by the Chu memorandum? And how so?

Mr. CRISSON. Yes, sir. We believe that Congress should play a role here. Simply going by precedent, every time there has been a change in the mission of the PMAs, or change in their authorities, Congress has played an integral role there. It is really a good way to work through the issues, and make sure there is transparency and a public airing of the concerns that the customers have. So, we think Congress should play a key role.

Dr. GOSAR. Mr. Bladow, you made a couple of comments that the path has already been pre-set, and you were never included in this direction. Given that opportunity, what would you see as a forecast that you could see in going down from the PMA standpoint?

Mr. BLADOW. Could you clarify that?

Dr. GOSAR. Yes. They said that—you made the comment that they have picked the road, and they are asking you to comment, instead of asking you what is the road. Tell me what you see, from your insights, on that road.

Mr. BLADOW. I mean what we heard, in terms of feedback at the session in Loveland, there is concern about the reliability of the system, in terms of all these renewables coming on. But the thing people want to know is how are we going to integrate them without shifting costs around, as opposed to let's figure out how to integrate. Things like an energy imbalanced market in the West, some

folks think it is the greatest thing ever; other folks think, you know, it is a big cost shift.

And that is really one of the issues that I saw, was let's come together and identify how we do this, and who is going to pay for it. Because beneficiary pays sounds good. But WAPA had a call on Friday, from the joint team, and they said, "But we really haven't defined who the beneficiaries are yet." And so, if you start spending money, and you have a very broad definition of "beneficiary," everybody is going to get swept up in that, and start paying.

So, those are some of those foundational issues that—what are the key issues out there? Is it integrating renewables? Is it reliability? They have pre-defined a few of them that we don't necessarily feel are the right ones to go on.

Dr. GOSAR. So, at those listening sessions, would you quantify the majority of those that were there share your views?

Mr. BLADOW. Yes. Actually, even the folks who were non-customers, I think, were concerned about WAPA resources being diverted to new initiatives and not being replaced with additional appropriations or staffing in order to take over what they are doing today. That was expressed even by non-customers, just average stakeholders.

Dr. GOSAR. Well, that is the same thing that we heard from Arizona. So very, very consistent. Thank you very much. I yield back.

Mr. MCCLINTOCK [presiding]. Mr. Kildee.

Mr. KILDEE. Thank you very much, Mr. Chairman. Ms. Azar, what have been the most effective and productive steps the outreach team has taken to hear from customers and other stakeholders? And has the team made an effort to consult with the travel groups on this topic?

Ms. AZAR. Thank you. And let me just first say that the joint Western and DOE team determined what the outreach was going to be. And I spoke with one of the team members yesterday and asked how this outreach effort compared with others that Western normally holds, and he said this was extraordinary, as far as the amount of outreach that has been done with the customers, stakeholders, and Tribes.

Though I don't want to focus on numbers, I do want to give you some statistics, because I think it does reflect how extraordinary this is. At the listening sessions there were 568 folks registered for those. There were six of those. Workshops, there were five of them. There were 553 registered. We had a webinar last week, 192 folks participated. The website—and mind you, regardless of what folks thought of the workshops, they had the opportunity to submit any comments they wanted on the website.

And, you know, the Western-DOE joint team is committed to reviewing all of those and determining how best to implement the Secretary's memo. We don't know what they are going to be recommending. And until we do, I think some of the comments today here are premature.

Mr. KILDEE. And your contacts and your efforts to consult with the tribal groups?

Ms. AZAR. Yes, a conference call was held very early on for tribal consultation. The Tribes did participate in the listening sessions and workshops. But we are going to hold a separate webinar for

the Tribes. That has not been scheduled yet, but they will be holding that, I am assuming, in the next few weeks.

Mr. KILDEE. Have you had any feedback from the tribal areas, that they feel they have really been treated properly, and have had the opportunity to give their input?

Ms. AZAR. Well, let me say, first of all, I am not part of the joint Western-DOE team, so I am not sure what the Tribes have been telling those members. I can tell you I went to the listening sessions, which were, essentially, the public hearing sessions. And I had Tribe members come up to me and give me specific input on this initiative. So I do know that they were engaged and provided their input.

Mr. KILDEE. I appreciate that. In my 36 years in Congress, I have been trying to make sure that every area of our national life, that the Native Americans are really given full participation in any of these studies or outreaches. And so to any degree that—in your area you can encourage—I don't know what influence you have directly, but encourage the inquiry among the Tribes, I would appreciate that very much.

Ms. AZAR. Thank you.

Mr. KILDEE. And I yield back, Mr. Chairman. Oh, Mr. Markey.

Mr. MARKEY. I thank you. I would just like to say this, we really don't have these region-wide power marketing authorities, the Federal marketing authorities in the Northeast or the Midwest. But if any of you at any point in time would like to talk about moving toward a privatized system, away from this public and kind of Socialist system, to move toward what we have in the Northeast and the Midwest, which is really much more capitalistic, my door is always open. I am ready to have the conversation at any point in time that you would like to move foward. I say the same to any Member that is interested in doing that. I am ready to talk about it. So I thank the gentleman for yielding.

Mr. KILDEE. Thank you.

Mr. MCCLINTOCK. Let's have that conversation. Mr. Kildee, you have concluded?

Mr. KILDEE. I have concluded, yes.

Mr. MCCLINTOCK. Great, thank you. Mr. Tipton?

Mr. TIPTON. Well, thank you, Mr. Chairman. I am delighted to hear Mr. Markey is embracing capitalism. We need to do the same thing with the health care proposal, as well.

I would like to go ahead and ask a question of Mr. Bladow and Mr. Crisson. It is a follow-up, actually, to Mr. Markey's comments. Do you believe that the Chu amendment will reduce costs to consumers?

Mr. CRISSON. Well, no, sir, we don't. There is, I think, a lack of specificity in the proposals. And so, given some of the unknowns, it is hard to know, but we are very concerned about the process, which we really think is the issue. The customers have not been involved in helping to identify the goals and work toward those ends.

As was pointed out by a number of panelists, on a broad, kind of conceptual level, some of the goals are laudable. But we are not sure how they are going to be attained. And so we are very concerned that we do it within the statutory mandatory framework, it

requires rates to be kept as low as possible, consistent with sound business principles.

Mr. TIPTON. Good.

Mr. CORWIN. Do you want Mr. Bladow or me?

Mr. BLADOW. You know, I think Mr. Crisson hit it well. I don't know that there is enough specificity to say every point is going to raise rates. There is certainly the potential there, and the devil is in the details. And since we are not quite sure of the details, we are concerned.

Mr. TIPTON. You know, Mr. Chairman, I think that is what really concerns me. We all just came off of a month of working back in our districts. My communities over in Mesa County, 19.5 percent real unemployment. Pueblo County, 12.2 percent unemployment. These people are struggling right now. And we seem to continue to want to pursue policies of taxation via regulation that are driving up costs, ultimately, to consumers, money that they can never recoup, that is taking money away from their ability to be able to feed their families and keep a roof over their heads.

And so, Ms. Azar, I would like you to be able to maybe address what you said earlier and I think that is admirable—the goal is to be able to reduce costs. So you did a cost benefit analysis.

Ms. AZAR. Ultimately, our goal is to reduce costs. We do not know——

Mr. TIPTON. I know the goal. But when you are putting out a memorandum that is going to have an impact——

Ms. AZAR. Right.

Mr. TIPTON [continuing]. Did you perceive that with some sort of a cost benefit analysis to see if that is the proper path to pursue?

Ms. AZAR. We don't know what the recommendations are going to be on implementing the memo. The memo's goal is to ensure that we have the infrastructure we need for the 21st century. We can't afford not to have that infrastructure.

So, part of this is to make sure that we have a grid that is resilient and flexible. And ultimately, we are going to have to wait to see what the joint team recommends.

Mr. TIPTON. Are we saying that the power authorities have failed in that mission to be able to upgrade their facilities?

Ms. AZAR. No, absolutely not. In fact, let me just——

Mr. TIPTON. Great. Then why are we——

Ms. AZAR. Let me just quote the memo.

Mr. TIPTON. Why are we kind of throwing this up into the wind, as another potential regulation, when you have not identified the cost, what the impacts are going to be? When I take you to Grand Junction, Colorado, Pueblo, Colorado, people can't afford their homes right now, and we have a potential cost that you can't identify.

Ms. AZAR. That is the reason we absolutely need to look at the costs and make sure that the costs are as low as possible.

Mr. TIPTON. OK, I would like to actually go back to——

Ms. AZAR. That is precisely what this is about.

Mr. TIPTON [continuing]. Mr. Bladow, because when we are going back to those hearing sessions—we have all sat through a lot of hearings and had a lot of feedback from my customers from listening sessions out of this Administration: "They listen, but they don't

hear." It does not flow, actually, back into the policy. "Thank you for your comments," and they ignore them.

So, would you like to speak a little more, Mr. Bladow, perhaps, about some of the hearings?

Mr. BLADOW. Well, again, I think the challenge we had is they are going down a road, and we are trying to identify things in the path they have decided is the right path to be on. And it is kind of tough to—as somebody said, the train is going down the tracks, and you may want to try to push it down another track. But they are not seeming to want to go on a different track.

So, again, some of the things they have identified, as Mark pointed out, and at a high level, the concepts sound good. But as you look at the details below them, they have the potential to impact costs and shift costs around. Maybe they lower costs, on average, for a lot of people. But it could increase them for a number of other folks. And we tend to be in the area where the costs are increasing, given our membership out in the rural areas, where it is pretty sparse, and it is hard to serve those folks cost-effectively. Very——

Mr. TIPTON. You know, I applaud what you do. I represent rural America, trying to deliver cost-effective energy to people that are struggling right now. And I agree with you. I think this policy of get on, get out of the way, or we are going to run over the top of you is not the best policy approach that we can possibly have. Let's stand up for the consumers, the people that are struggling in these communities right now. And I look forward to having the opportunity to work with you.

And, Mr. Chairman, I yield back.

Mr. MCCLINTOCK. Mr. Holt, do you want to get settled first? You are up, if you would like to be recognized, OK. Mr. Holt.

Dr. HOLT. Yes, Mr. Chairman, if I may be recognized.

Mr. MCCLINTOCK. Go ahead.

Dr. HOLT. Thank you. Forgive me for coming in to the middle of the discussion, but I suspect and I understand this has not been covered so well yet.

Congress set up the current structure of the Power Marketing Administrations, in which the Federal Government owns the transmission assets, and costs are passed directly through to consumers on a cost basis. But it is the Federal Government that shoulders the risk. Taxpayers don't get at the profits from assuming the risk.

Let's turn to Ms. Azar. If Federally owned transmission lines were to fail, who is liable?

Ms. AZAR. Ultimately, the Federal Government owns these assets, and we are responsible for the liabilities. Ultimately, the——

Dr. HOLT. This might be shorthand—we might shorten that by saying "the taxpayers."

Ms. AZAR. Yes. Now, let me just be clear. The preference customers, if they remain as customers, will pay for it. But the preference customers can leave, and that leaves us, or the taxpayers, holding the bag.

Dr. HOLT. So, who likely would be called to face Congress if there were a major failure?

Ms. AZAR. Well, the Secretary of Energy is responsible for the PMAs. And that is why he sent out this memo saying that we need

to make sure that we have the grid that is reliable and is ready for the 21st century.

Dr. HOLT. Secretary Chu, yes.

Ms. AZAR. Correct.

Dr. HOLT. So, the assets of the PMAs were built with taxpayer dollars, the PMAs continue to receive ongoing taxpayer support through annual appropriations and other mechanisms. And if and when these aging systems fail, the buck stops with the Secretary of Energy, Secretary Chu.

Ms. AZAR. Yes. Let me just note that, because appropriations haven't been sufficient, the Federal Government has actually had to go out and get loans from the customers to keep the grid up.

Dr. HOLT. So, Secretary Chu should be, must, needs to be exercising his PMA authority. I think, following your line of comments here, it would be irresponsible for him not to.

Ms. AZAR. Congress has mandated that the Secretary—the buck stops with him.

Dr. HOLT. Mr. Baak—forgive me, I am not sure of the pronunciation—does it make sense to you that the Department of Energy is using PMAs and their public assets to advance our Nation's broader energy interests?

Mr. BAAK. Yes, absolutely. I think that the PMAs operate a significant portion of the transmission grid, and a grid is highly interdependent. And I think that the upgrades that were discussed in the memorandum are also modernizations that are taking place throughout the rest of the grid. All of the grid operators are looking at the same set of modernizations.

Dr. HOLT. One thing that might help bring renewable energy to the PMA service areas is new transmission. Western has the authority to help finance new transmission.

Now, last October in this Committee, the Majority, the Republicans, reported out a bill that would repeal the borrowing authority that Western currently has to help provide financing for transmission servicing renewable energy projects.

Mr. Baak, how many solar jobs have been added in the last year?

Mr. BAAK. Well, I can't speak to how many jobs, particularly in the last year. But by 2016, as I mentioned in my testimony, there are projected to be 100,000 jobs in the——

Dr. HOLT. Do you think repealing the borrowing authority, if that legislation were to go through and become law, would create jobs or destroy jobs?

Mr. BAAK. It would definitely destroy jobs. One of the biggest inhibitors to developing large-scale solar has been access to transmission. So that borrowing authority has been really critical for a lot of developers to be able to create those projects and the jobs that go with them.

Dr. HOLT. And would repealing the borrowing authority, as the Republicans are still trying to do, increase or decrease rates, do you think, for consumers?

Mr. BAAK. I believe that would increase rates to consumers.

Dr. HOLT. OK. Well, you make some statements that can be put into some pretty convincing arguments against what we have heard from the other side. Thank you.

Mr. MCCLINTOCK. Mr. Lamborn.

Mr. LAMBORN. Thank you, Mr. Chairman. And thank you all for being here. I apologize for having to leave for a while. I was here earlier, but I was hosting an event that had been scheduled some weeks ago, so I had to leave for a little while. So thank you for being here.

And I do have to say, right off the bat, I am a satisfied WAPA and Tri-State customer, as are many of the people in the Fifth Congressional District of Colorado.

Now, I have several questions. And, Ms. Azar, if I can ask you first, Secretary [sic] Baucus recently urged Secretary Chu, in a letter about 2 weeks ago, to delay the implementation of any final recommendations impacting WAPA until, and I quote "at least February 2013," after the elections. Will the Secretary comply with this request?

Ms. AZAR. I have not talked to the Secretary about that.

Mr. LAMBORN. OK. So you are unsure about that.

Ms. AZAR. Correct.

Mr. LAMBORN. OK. I was hoping that the answer would be that, yes, this would be delayed. But I guess I will just accept that for now.

Shifting gears, Mr. Bladow, thank you for being here. Some of you discussed the issue of imposing an energy imbalance market mechanism to help integrate variable wind and solar power generation into the grid. This is a central directive in the Chu memo, and a potentially costly one.

Mr. Marks talks about the benefits of $100 million in annual cost savings to the customers if this mechanism is used. I wonder about the validity of that conclusion. It seems that Secretary Chu is already determined that it is a fait accompli that there are benefits to an EIM. What do you think about that?

Mr. BLADOW. Well, in our opinion, the jury is still out on that. There has been studies that show they can benefit $1 billion or you could lose $1 billion. You know, with that type of money in line, you want to be a little more certain of just what it is people are proposing. The proposals shift around a bit.

An energy imbalance market, typically you identify who is going to pay what for transmission, that is your foundation. And then you put a market on top of—you might say the rules of the road. The energy imbalance markets that have been proposed in the West, they don't identify how the transmission is going to be treated. They assume it is free. Since then, they have talked about, well, maybe we should pay a little. But the analysis doesn't count on any payments going to transmission owners. And so, from our perspective, we kind of scratch our heads because we don't know how it works.

So, the analysis that has been done to date is really lacking. It needs a lot more thorough treatment of a lot of these complex issues around it. And to date they really haven't done those. "They," meaning the number of entities that are looking at the various options.

Mr. LAMBORN. OK, thank you. And, Mr. Crisson, you mentioned that the Chu memo undermines hydropower and its customers by benefitting wind and solar power. Can you explain that statement of yours?

Mr. CRISSON. Yes, sir. We are concerned that, given the intermittent nature of wind and solar power, the hydro system in the case of PMAs has to be operated to fill the gaps in their output. And so, basically, you are using two sets of capacity, two different sets of power plants, to provide the load to the customers. We think that is an inefficient use of capital. And because you have a situation where solar and wind are more expensive than the hydropower, it is going to add to the cost that consumers ultimately pay.

In addition to that, you have some operational issues that we have talked about a little bit earlier in the hearing that can result in suboptimal operation of the hydrosystem, in some cases shifting the water so that water users are impacted, as Mr. Palmerton has testified.

So, we think there are all kinds of impacts as a result of that operation.

Mr. LAMBORN. Will those result in, potentially, anyway, costs in the electric bills to rate payers?

Mr. CRISSON. Certainly, yes.

Mr. LAMBORN. And are you saying it is because of two reasons, the inefficiencies, number one, and that it is kind of a cash cow that is being tapped into to pay for this, number two?

Mr. CRISSON. Well, that is certainly one way to look at it. The hydro customers are certainly writing the checks, you know, for the operation of the PMA system. Correct.

Mr. LAMBORN. Well, just for the record, I would like to say I think hydropower is a good, clean source of electricity. It is cheap, it is available, it is already online, and we shouldn't do anything to its detriment.

Thank you all for being here. And, Mr. Chairman, I yield back.

Mr. MCCLINTOCK. My turn. The gentleman from New Jersey just asserted that repealing WAPA loan guarantees would cost jobs. I was just wondering. How many jobs are at Solyndra these days? Oh, wait. I think I know the answer to that question. Zero. But we are a half-a-billion dollars deeper in debt from that one scam, alone.

Ms. Azar, Congress is vested with the authority and the responsibility to make law. The Chu memo appears breathtaking in its policy implications. And love it or hate it, it is a legitimate object of Congressional inquiry. I have to say that the consistent refusal of the Secretary to respond to requests by this Committee to discuss that memo bespeaks either an autocratic contempt for the legitimate constitutional authority of Congress, or an utter lack of confidence in supporting his position. I am just wondering. Which is it?

Ms. AZAR. We welcome the oversight of Congress of this memo. And, in fact, I am delighted that I was invited here with regards to that——

Mr. MCCLINTOCK. Then may I suggest the Secretary appear in person, as he has been invited on numerous occasions, so that we can actually have a discussion with the gentleman who originated that memo?

Ms. AZAR. The Secretary asked me——

Mr. MCCLINTOCK. I guess that is a rhetorical question. My clock is running.

Ms. AZAR. OK.

Mr. MCCLINTOCK. Mr. Bladow, we are told that we need to phase out coal and natural gas and hydro-electricity in favor of wind and hydro. And the Chu memo would dramatically alter PMA's operations to accomplish this goal. And I would like to nail down just one more time the impact that this has on consumers.

First of all, just from an engineering standpoint, how do wind and solar generating costs compare with gas and coal and hydro—and, for that matter, nuclear—on a per kilowatt basis?

Mr. BLADOW. Well, typically, they are higher, depending on how much support they are getting, whether it is production tax credits or the——

Mr. MCCLINTOCK. Oh, no, no. I am talking about the actual engineering costs before government comes in and distorts those costs.

Mr. BLADOW. Their costs are typically higher. They are——

Mr. MCCLINTOCK. Much higher, or just a little higher?

Mr. BLADOW. Right now they are considerably higher than gas, given the low price of gas——

Mr. MCCLINTOCK. OK, considerably higher. We keep hearing of the need for grid reliability. How reliable are wind and solar power, compared to hydro, coal, gas, and nuclear?

Mr. BLADOW. Well, their name, intermittent resource, I think defines that they come and go as the sun shines and wind blows. And we have some in our system, and that is our——

Mr. MCCLINTOCK. So now, we have an integrated grid. So we have to immediately replace that water or that electricity when the wind suddenly dies off or a cloud passes over a solar array, we have to be instantly ready to bring replacement power online. How do we do that?

Mr. BLADOW. We do that by making sure there is extra capacity available, so as——

Mr. MCCLINTOCK. Well, what does that mean, exactly, if you have a gas generator, for example, that you are using as stand-by?

Mr. BLADOW. It means it is idling, waiting to be moved.

Mr. MCCLINTOCK. So you are running it—ready at a moment's notice to deliver that power. Correct?

Mr. BLADOW. Yes, that is how you do it.

Mr. MCCLINTOCK. So we are basically paying twice for the power. We are paying once for the gas turbine to be generating, ready to flip that switch, and then we are paying again the much higher cost of wind and solar. Is that correct?

Mr. BLADOW. That is correct.

Mr. MCCLINTOCK. OK. Well now, how about transmission cost? Can we transmit wind and solar power long distances over the existing transmission system?

Mr. BLADOW. We can transfer a certain amount of it. The challenge is as you get more and more of it, and you have the intermittent nature, how does that—how do you engineer—how do you——

Mr. MCCLINTOCK. But don't you have to have high tension lines in order to transmit that power?

Mr. BLADOW. Yes, you have to have high voltage lines.

Mr. MCCLINTOCK. So we get hit three times. Once, the inherent, much higher cost of wind and solar. Second, we get hit because we have to run back up capacity that is reliable the moment that wind

and solar dies off. And, third, we have to add new transmission—high tension, expensive transmission lines in order to transport that wind and solar, usually from long distances, because it is hugely land inefficient, and we have to move it long distances to the urban areas where it is needed. Is that all correct?

Mr. BLADOW. That is correct.

Mr. MCCLINTOCK. So we are whacked three times for the power. We are literally paying three times for the power. What consumer in his right mind would voluntarily bear such costs? I think that is rhetorical.

I will go on to the final point, and that was what was raised by the Ranking Member. He said ending the production tax credit would—which is a direct subsidy—would increase the cost of wind generation. Does it actually increase the cost of wind generation itself, or does it simply shift the cost from the taxpayer to the consumer, so the consumer is getting more accurate price signals about what that power actually costs?

Mr. BLADOW. Yes, it actually just shifts it to the consumer, as opposed to the taxpayer.

Mr. MCCLINTOCK. Thank you. My time has expired. Mrs. Noem?

Mrs. NOEM. Well, thank you, Mr. Chairman. And I appreciate you holding this hearing today. This memo has created a lot of conversation in South Dakota and has a lot of concern.

Ed Anderson, who is the manager of South Dakota Rural Electric Association, was invited to testify today. And so, Mr. Chairman, he, unfortunately, wasn't able to attend. So I would like to have his testimony submitted for the record.

Mr. MCCLINTOCK. Without objection.

Mrs. NOEM. Thank you.

[The prepared statement of Mr. Anderson follows:]

Statement of Edward Anderson, General Manager, South Dakota Rural Electric Association

Mr. Chairman and members of the committee, thank you for allowing me the opportunity to appear on behalf of the 31 rural electric cooperatives who are members of South Dakota Rural Electric Association. SDREA is a member services organization that represents all electric cooperatives operating in the state of South Dakota. Our member systems provide service to nearly 300,000 consumers and operate in every county in South Dakota. Our members maintain 65,000 miles of power line and yet serve just 2.3 consumers per mile, compared to 26 consumers per mile for investor owned utilities and 45 consumers per mile for municipal electric systems. The demographic and geographic challenges our members face to deliver cost based power to their member's demands constant vigilance, ingenuity and an unwavering commitment to the partnerships that support the delivery of reliable and affordable power. The initiatives outlined in the March 2012 "Chu memo" will do nothing to support or advance that commitment.

While I will not address each of the initiatives outline in Secretary Chu's memorandum, a few stand out as proof that the administration and Secretary Chu know little about the federal power marketing administrations and their relationships with their preference customers. They know even less of the preference customer's efforts over the last several decades to work with the PMAs' and the agencies who oversee the federal hydropower system to maintain a reliable and robust power generation and delivery system. Both Secretary Chu and Ms. Azar have made statements suggesting that the PMAs' suffer from significant infrastructure degradation problems. That is simply not true. What possible sense would it make for my members to allow a system that is so critical to the delivery of reliable power to their members to fall into a state of disrepair? Through their rates they have supported a consistent and aggressive program of infrastructure maintenance and expansion to meet growing needs at no cost to the federal treasury. That's right; the federal power program pays its own way. And when the Western Area Power Administra-

tion has faced budget challenges in the past my members have voluntarily stepped in and supported amendments to long term power purchase agreements to help Western address those challenges. That should give you a sense of the relationship that exists between my members and Western. It is a relationship that has taken years and the efforts of many hard working intelligent people from Western and their preference customer base to develop. Secretary Chu's efforts to take the PMAs' well beyond their statutory mission, sending rates on an upward path in the process, threatens to fracture a public/private partnership that should be used as a model for developing other similar partnerships.

Secretary Chu's memo also indicates that he will push the PMAs' into a wide range of industry related activities including energy efficiency programs, demand response programs and integration of renewable resources. Had he taken the time to ask a few questions he would have discovered that electric cooperatives have been promoting energy efficiency and demand response programs for decades and I know that Western, working with electric cooperatives and others, doesn't need to be pushed into variable resource integration with thousands of megawatts of installed renewable resources already integrated into their system. Forcing the PMAs' to step beyond their current mission into these areas will only duplicate existing highly successful programs at significant cost to the end consumers.

Let me finish by noting that I attended two of the workshops that the Department of Energy staged to seek input on the Chu memo. The process could be described as frustrating at best. It became abundantly clear early on that the word "staged" would be important in describing the process. The purpose of the workshops was to publically roll out the Chu initiatives, not to seek the advice and consent of those who will be affected. The path that Secretary Chu is on is clearly not government by the people, but is a perfect example of the imposition of government upon the people, with little or no discernable benefit to the people, but will most certainly be paid for by the people. This is not good government.

Thank you again Mr. Chairman and members of the committee for allowing me to speak with you today.

Mrs. NOEM. You know, I have been meeting with many utilities across South Dakota the last several months, just discussing some of the challenges that they face. One of them was telling me just a week-and-a-half ago that they have had a 30 percent increase in their rates that they have had to pass on the last 3 years to their customers that they can directly attribute just to regulations that they are forced to comply with that come from the Federal Government.

They are very unhappy with the way that the meetings and the listening sessions were conducted by the Department of Energy as they were held throughout the area that is going to be impacted by the memo that was put out by Secretary Chu. They felt as though they were staged, that they were events where the Department of Energy was dictating and delivering information, but not necessarily seeking advice or asking for comments or questions. And so I will pass those concerns on to you, and maybe you could deliver those to the Secretary as well, and to the Western Area Department of Energy that was conducting those meetings.

One of the biggest concerns that comes out of the memo is obviously the need for infrastructure upgrades and problems where there have been gaps in delivery and failures that have been put upon them. And as they have approached the Department of Energy asking where the concerns are, they have not received much feedback, as far as specifics on where the concerns lie, and where the concerns lie within WAPA.

And so, with that, my question for you, Ms. Azar, is how long, first of all, will the comment period be when the draft first gets published? Will you have a comment period? And how long will it be?

Ms. AZAR. You know, that is up to the Western-DOE joint team. I believe they have indicated it is going to be the standard 30 days that is required by the AVA.

Mrs. NOEM. And then will you allow comments when a final is proposed?

Ms. AZAR. They are following, my understanding is, the standard Western practice, which is you get to respond to the draft recommendations, and then Western makes a decision. And they will be publishing—well, they will be sending their recommendations on to the Secretary.

Mrs. NOEM. OK. So the final is not necessarily debatable, or no input given once that comes out the door?

Ms. AZAR. I understand that is not their normal practice.

Mrs. NOEM. OK. Mr. Bladow, I would like you to answer some of the concerns that I was just talking about. The rationale advanced by the Department of Energy for this effort was transmission failure, and concerns for that into the future. And so, my understanding is that, in our region, WAPA has a higher reliability rating than virtually any other utility. Is this correct?

Mr. BLADOW. Yes. I think WAPA's system, and the area I operate also, has an extremely high reliability. The customers, in the partnership with WAPA over the years, have funded—I know in the Pick-Sloan program—over half-a-billion dollars of upgrades and improvements and new equipment in that system.

So, to me, it is one of the state-of-the-art—it is a good, solid system. And I think the reliability figures you quoted really highlight that.

Mrs. NOEM. Yes, that is one of the reasons I wish Ed Anderson was able to be here, because he did speak about the fact that the utilities continuously invest in their infrastructure when they have an, on average, 2.3 customers per mile that they are trying to serve. Their infrastructure is critically important for them to do their job and to even remain.

But the issue that this memo has brought up is that it has indicated that the Western Area Power Administration is falling down, and that is a concern that they have. And, Mr. Bladow, is that true?

Mr. BLADOW. No, I don't think it is true at all. I think the PMAs have done a really exceptional job of keeping their system up. And it is always a balance. Everything can't be shiny new all the time. You really need to balance, replacing the critical components, not just because of age, but because of failures and conditions. And you want them to last as long as possible, balancing that as you hit that 30 percent rate increase. You need to make sure that you only replace it when it needs to be replaced and not before, and balance that.

So, that is an effort we are all after. Because our consumers hold us accountable for that reliability——

Mrs. NOEM. Well, who is the best person to make that decision, somebody in Washington, D.C. or somebody who is actually out there looking at the transmission lines and judging their ability to continue to deliver the power?

Mr. BLADOW. I think it is very much the people on the ground who can judge which lines are the most important and which facilities need to be replaced.

Mrs. NOEM. Ms. Azar, just another question. I know Secretary Chu said in the memo that some areas are doing an admirable job of delivering and implementing DOE's goals, but that some can do better. And when describing the memo's primary objective, you acknowledged that one or more PMAs may already be accomplishing the directive. Why do you believe a mandate is necessary?

Ms. AZAR. First of all, the only mandate that is in here is to make sure that we have a flexible and resilient grid. The PMAs, the joint team, is going to be defining what that means for them. I would love the opportunity to speak on the record with regard to the aging asset issue, if somebody would give me that opportunity.

And if you look on Western's website, they actually have a wonderful piece that says, "Look, here is what the Secretary was talking about, and here are the things we have already been doing."

The joint team between Western and DOE, they are not going to be recommending duplicative processes—at least I hope not—but they are going to say, "You know what? We can all do better. And how can we do better in this situation and make sure that, indeed, we have the infrastructure for the 21st century"——

Mr. MCCLINTOCK. Thank you. The gentlelady's time has expired. Mr. Gohmert.

Mr. GOHMERT. Thank you, Mr. Chairman. I appreciate you being here, each of you. I know it is an imposition.

But, Ms. Azar, I had heard you mention earlier about energy efficiency, if I understood correctly, along with new and improved infrastructure, were ways that we could hold down costs.

As I understand it, one of the things that this Administration keeps pushing is the idea of more wind and solar power.

I live in East Texas. And we have rural electricity users who are quite concerned that they are going to be forced to pay for extravagant efforts at making things more efficient somewhere else that they will not see any benefit from. But I am curious. When it comes to wind energy, how do you make wind energy more efficient?

Ms. AZAR. That is not what this initiative is about. And let me just say this.

Mr. GOHMERT. So is there no way to make wind more efficient?

Ms. AZAR. Absolutely not.

Mr. GOHMERT. OK.

Ms. AZAR. This is about Western as the transmission operator. And there are 37 States that have enacted RPSs. As a consequence, there is lots more renewable generation being built all over this Nation.

Mr. GOHMERT. Right.

Ms. AZAR. And it is creating——

Mr. GOHMERT. And that is what we are getting to here when we are talking about PMAs. We are talking about, again, people that may have to pay in rural areas for things that they are getting no benefit from. And it seems ironic that, after all these years of hearing how much more efficient it is to live in a city, to then put the burden on people living in rural areas for things they don't see any

benefit from—I mean, for heaven's sake, when it comes to wind energy, as I understand it, there is no way yet to hold electricity. There is no gray battery, nothing that just will hang on to electricity until it is ready for use.

And until that happens, I mean, there is no way that I can see that we don't get into a situation of being triple-hit with costs, just so that we can say, "We are using wind. We are using these resources," solar—most places where we live, it gets dark at night, and solar is not much help because you can't hold the energy.

So, even in Washington, where there is so much hot air and wind, it drops dramatically when we are not in session. There is no regular source anywhere in the country of wind that will keep the windmills going, that will keep the electricity generated. And so, it just seems ridiculous, until such time as we have some means of holding electricity, that we would keep blowing these vast amounts of monies and demanding Americans pay for this.

And it seems to me, as I get around my 12 counties, we have more and more single moms trying to make it. Because I hear over and over, for God's sake, for my family's sake, "Would you please stop the increase in the electricity and gasoline prices?" Well, you know, the Interior Department has something to do with the price of gasoline, as well.

But for electricity, it just doesn't seem to make sense that we would keep on with this effort of wind and solar. Give us something that will hold electricity, and then let's talk about all these other resources. Otherwise, it just seems like we are penalizing people like single moms that can afford it the least. They are hanging on with their fingernails.

But new and improved infrastructure, if I understood, Ms. Azar, you correctly, that was one of your steps to avoid increased costs. But I am having trouble understanding how you get to new, improved infrastructure without increased costs. Or are we just going to borrow more money, where is that going to come from?

Ms. AZAR. There is a variety of answers to that, but let me just give you one, which has to do with the aging infrastructure. It is much like your car. You know, when you have a car, the older it gets, the more expensive, the more you have to pay for maintenance on that. There are——

Mr. GOHMERT. I am working on——

Ms. AZAR. Yes——

Mr. GOHMERT. I am hoping I can get a car that will run on natural gas before long.

Ms. AZAR. Well, that is——

Mr. GOHMERT. And a lot of those problems are going to go away, because we won't have to use ethanol in a compressed natural gas car that keeps destroying the energy and running up the costs you are talking about.

Ms. AZAR. I would love——

Mr. GOHMERT. So I really understand. The requirements that this Administration has put on—and in fairness, some of it started before this Administration, but it does require enhanced maintenance costs. But I understand where you are going.

But still, in the process—and I understand the whole thing pay me now, pay me later, but it is just that now, as my friend from California—it is like pay me triple now for single benefits later.

My time has expired.

Mr. MCCLINTOCK. That concludes the Committee's questions. I would like to thank the panel for their valuable testimony today. Members of the Committee may have additional questions for witnesses. We would ask that you respond to those in writing. The hearing record will be open for 10 business days to receive responses. And if there is no further business, without objection, the Committee stands adjourned.

[Whereupon, at 1:21 p.m., the Committee was adjourned.]