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INCREASED ELECTRICITY COSTS FOR AMERICAN FAMILIES AND SMALL BUSINESSES: THE POTENTIAL IMPACTS OF THE CHU MEMORANDUM

OVERSIGHT HEARING

BEFORE THE

COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED TWELFTH CONGRESS

SECOND SESSION

Thursday, April 26, 2012

Serial No. 112-107

Printed for the use of the Committee on Natural Resources

Available via the World Wide Web: http://www.fdsys.gov
or
Committee address: http://naturalresources.house.gov

U.S. GOVERNMENT PRINTING OFFICE

73-981 PDF WASHINGTON : 2013

For sale by the Superintendent of Documents, U.S. Government Printing Office
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OVERSIGHT HEARING ON "INCREASED ELECTRICITY COSTS FOR AMERICAN FAMILIES AND SMALL BUSINESSES: THE POTENTIAL IMPACTS OF THE CHU MEMORANDUM."

Thursday, April 26, 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, Bishop, Lamborn, Fleming, McClintock, Duncan of South Carolina, Gosar, Southerland; Markey, DeFazio, Napolitano, Costa, Luján, and Garamendi.

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

The Committee on Natural Resources is meeting today to hear testimony on an oversight hearing on "Increased Electricity Costs for American Families and Small Businesses: The Potential Impacts of the Chu Memorandum."

Under Rule 4(f), opening statements are limited to the Chairman and the Ranking Member. However, I ask unanimous consent that if any Members wish to submit an opening statement, they have that statement to the Committee by the close of business today. Without objection, so ordered.

The CHAIRMAN. I will recognize myself for five minutes.

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

The CHAIRMAN. Today's hearing is about protecting millions of electricity consumers from potentially expensive Washington, D.C. mandates put together under the cover of darkness and without any input from those that are impacted.

This hearing will not only allow for those inputs to be heard, but follows up on a bipartisan Pacific Northwest congressional delegation letter that asked legitimate questions about the Energy Secretary's March 16 Memorandum. The Memorandum in question directs substantial changes to the Power Marketing Administrations.

The core mission of the Bonneville Power Administration in the Pacific Northwest and the other three PMAs is to provide low-cost, renewable hydropower to millions of families and small businesses, and to do so with sound business practices.

This mission has worked well for generations and nothing seems to be broken, yet the Energy Secretary has chosen to rope the

PMAs into a larger ideological agenda, an agenda I believe will raise energy costs during these troubling economic times.

Americans are already struggling to fill up their tanks due to the rising price of gasoline. The last thing they need to do is to pay more every time they switch on a light switch.

While some of the Memorandum's goals are laudable, the memo raises serious concerns about the manner and scope of how it would dramatically change the PMAs' missions.

For example, the Memorandum suggests that PMA missions and rates should be changed to incentivize electrical vehicle deployment, something that is normally handled at the local and retail levels.

For example, family farmers in my rural District, in my view, should not be forced to pay higher electricity bills so that people in downtown Seattle can plug in expensive electric vehicles just because the Energy Secretary says so.

This and other matters in the memo raise legitimate questions as to whether the PMAs even have the legal authority to implement these directives. Yet, the Energy Department has bluntly refused to perform a legal analysis of what authorities it has or does not have.

This continues the impression that unjustified Executive Orders are a common practice within this Administration.

Many PMA customers, from those in big cities to those served by rural electric cooperatives, from the Pacific Northwest to the Southeast, believe that these directives will increase their costs while providing little or no benefits to them.

The Governor of South Dakota recently wrote a letter to the Secretary stating, and I directly quote, "The Department's orders would essentially dismantle the Federal hydropower system as it exists today and jeopardize the cost-based structure which has been the cornerstone of affordable electricity in South Dakota markets."

The concerns bridge political parties. As I referenced earlier, two weeks ago, 19 bipartisan Members from the Pacific Northwest delegation wrote to Secretary Chu asking that no actions be taken on these directives until the Department proves it has worked in a robust and transparent process with Congress and ratepayers.

Yesterday, this Committee was proud to work with our colleagues from Montana, Mr. Rehberg and our colleague from Washington State, Mr. Dicks, who led the effort in the House Appropriations Committee, to approve an amendment to suspend the Memorandum's new activities.

Secretary Chu issued this Memorandum. It is in his name, which is why he was personally invited to testify today about the potential to drive up electricity costs. It is unfortunate that he is in Europe at a clean energy conference and has declined to testify today and answer questions.

While Secretary Chu's personal electric bill may not increase as a result of his memo, those testifying today will explain firsthand how theirs probably will.

Their expert opinions should have been sought out prior to the memo's issuance to help avoid this unfortunate situation, and we welcome their testimony.

I also want to welcome members of the Northwest Public Power Association and members of the Northern California Power Agency that are here in Washington, D.C., and many of them are in the audience today.

The electric bills of families and small businesses that depend on power from the PMAs should not be increased because the Federal Energy Secretary would like to toy and experiment with various energy schemes and mandates.

American wallets are already being stretched thin as they struggle to make ends meet in this difficult economy. The last thing they need is another hastily written, unjustified Washington, D.C.-knows-best mandate that inflicts further economic pain and increases their power bills.

The American people deserve answers and transparency from their Government. They also deserve the right to know why their energy costs are increasing, and that is the reason for this hearing today.

With that, I recognize the distinguished Ranking Member.

[The prepared statement of Mr. Hastings follows:]

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

Today's hearing is about protecting millions of electricity consumers from potentially expensive Washington, D.C. mandates put together under the cover of darkness and without any input from those most impacted.

This hearing will not only allow for those inputs to be heard, but follows up on a bipartisan Pacific Northwest congressional delegation letter that asked legitimate questions about the Energy Secretary's March 16 Memorandum, which directs substantial changes to the Power Marketing Administrations (PMAs).

The core mission of the Bonneville Power Administration in the Pacific Northwest and the other three PMAs, is to provide low-cost, renewable hydropower to millions of families and small businesses. And to do so with sound business principles. This mission has worked well for generations and nothing seems to be broken, yet the Energy Secretary has chosen to rope the PMAs into a larger ideological agenda. An agenda I believe will raise energy costs during these troubling economic times. Americans are already struggling to fill up their tanks due to the rising price of gasoline, and the last thing they need is to pay more every time they flip on the light switch.

While some of the Memorandum's goals are laudable, the memo raises serious concerns about the manner and scope of how it would dramatically change the PMAs' mission. For example, the Memorandum suggests that PMA missions and rates should be changed to incentivize electric vehicle deployment, something normally handled at the local and retail levels. Family farmers in my rural district should not be forced to pay higher electricity bills so people in downtown Seattle can plug in expensive electric vehicles just because Secretary Chu says so.

This and other matters in the memo raise legitimate questions as to whether the PMAs even have the legal authority to implement these directives. Yet, the Energy Department has bluntly refused to perform a legal analysis of what authorities it has or doesn't have. This continues the impression that unjustified Executive Orders are a common practice for the Obama Administration.

Many PMA customers—from those in big cities to those served by rural electric cooperatives, from the Pacific Northwest to the Southeast, believe that these directives will increase their costs while providing little or no benefits to them.

The Governor of South Dakota recently wrote a letter to the Secretary stating that "the Department's orders would essentially dismantle the federal hydropower system as it exists today and jeopardize the cost-based structure which has been the cornerstone of affordable electricity in South Dakota markets."

The concerns bridge political parties. As I referenced earlier, two weeks ago, 19 bipartisan members from the Pacific Northwest Congressional delegation wrote to Secretary Chu asking that no actions be taken on these directives until the Department proves it has worked in a robust and transparent process with Congress and ratepayers.

And yesterday, we were proud to work with our colleagues Denny Rehberg from Montana and Norm Dicks from Washington State, who led the effort in the House Appropriations Committee to approve an amendment to suspend the memorandum's new activities.

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The electric bills of families and small businesses that depend on power from PMA's should not be increased because the federal Energy Secretary would like to toy and experiment with various energy schemes and mandates.

Americans wallets are already being stretched thin as they struggle to make ends meet in this difficult economy. The last thing they need is another hastily written, and unjustified Washington, DC-knows-best mandate that inflicts further economic pain and increases their power bills. The American people deserve answers and transparency from their government. They also deserve the right to know why their energy costs are increasing. This hearing is designed to help provide those answers.

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

Mr. MARKEY. Thank you, Mr. Chairman, very much. Mr. Chairman, when it comes to modernizing America's electric grid, our Power Marketing Administrations have and must continue to play an important role in moving our nation toward a cleaner, smarter, and more efficient electrical generation transmission and distribution system.

Last month, Secretary Chu announced a vision of moving our Federal Power Marketing Administrations forward to be leaders in building America's powerhouse.

I believe that the devil is in the details on how we accomplish these grid modernization goals and how we continue to meet the Power Marketing Administrations' unique missions.

You cannot get anywhere without a vision and a plan. The Secretary's announcement is a first step that lays the foundation for renewable energy, energy efficiency, demand response, smart grid, and other innovations to become fundamental pieces of our electricity system.

The Power Marketing Administrations can and should work toward those objectives. In fact, in testimony before the Subcommittee, the Bonneville Administrator, Stephen Wright, told us that they are already doing it. They are already doing it, yet the Republicans oppose this vision.

Where Secretary Chu sees opportunity for efficiency and improved access to transmission and increased market competition, Republicans see a different opportunity.

They see an opportunity to restrict the ability of clean energy and demand response to compete in the market. They see a political opportunity to engage in conspiracy theories about the Administration trying to raise energy prices.

The Republicans are so committed to the idea that modernization equals higher energy costs that they wrote it directly into the title of today's hearing.

Unfortunately, the Republicans have missed the point. Better planning, wider coordination, and using the best technologies are ways of ultimately reducing costs to consumers.

Secretary Chu understood this, which is why he wrote it into the second sentence of his memo, this is from Secretary Chu, "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."

Here is the reality. The Chu memo is about competition. It is about free and fair open markets. It is about economic efficiency. It is about all the things Republicans pretend to be for.

Today, Republicans did not invite their free market friends from the Heritage Foundation and the Cato Institute to testify. That would make it much stickier to defend inefficiency, socialist power, and that is what all these Power Marketing Administrations are, they are all socialists right to their core, socialist power systems, and restrictions to free competition, of all the things to a socialist in America, this is at the top of the list, that I am very concerned about.

I hate to see it go undiscussed in terms of what we can do to break down that socialistic Power Marketing Administration rather than focusing upon competition, free market, and innovation, which has to be the hallmark of what makes America great, and anything that is socialistic has to be examined on an ongoing basis to make sure that does not slow down the growth, the efficiency and the innovation in our country.

Also, notably absent from our hearing today is a representative from the Department of Energy. While I supported the Chairman's request to the Secretary himself be here in person today to explain his memo, I do not support the Chairman's decision to not allow any other representative from the Department to testify in his place.

He would have been great to have the number two guy from the Department of Energy here, but no, he was not invited.

There are legitimate questions to be asked about exactly how this vision can and should be implemented.

Not having the Department present to address those questions makes this a venue ripe for conjecture and misinformation.

I do hope we have the opportunity to hear directly from the Department on this subject in the future.

Here is the bottom line the way I see it. Thomas Edison, the father of the light bulb and the first power plant, would still understand much of our electrical grid if he were alive today.

We have a long way to go in adapting the infrastructure and operating systems to allow a level playing field for new companies, new businesses, new models, and new technologies to take hold.

I thank the Chairman for calling this hearing, and I hope this is the first of many Committee hearings that we can examine the way in which we can look at our public Power Administrations so that we can make sure they are positive forces of change in operation of our nation's grid, and kind of modify their socialistic origins to embrace this capitalistic system within which we live.

I thank the Chairman.

[The prepared statement of Mr. Markey follows:]

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

Thank you, Mr. Chairman.

When it comes to modernizing America's electric grid, our Power Marketing Administrations have and must continue to play an important role in moving our nation towards a cleaner, smarter, and more efficient electrical generation, transmission, and distribution system.

Last month, Secretary Chu announced a vision for moving our federal power marketing administrations forward to be leaders in building America's Powerhouse.

I believe that the devil is in the details on how we accomplish these grid modernization goals and how we continue to meet the Power Marketing Administration's unique missions.

But you can't get anywhere without a vision and a plan. The Secretary's announcement is a first step that lays the foundation for renewable energy, energy efficiency, demand response, smart grid, and other innovations to become fundamental pieces of our electricity system.

The Power Marketing Administrations *can and should* work towards these objectives. In fact, in testimony before the Subcommittee, the Bonneville Administrator—Stephen Wright—told us that they're *already doing it*!

Yet Republicans oppose this vision. Where Secretary Chu sees opportunity for efficiency and improved access to transmission and increased market competition, Republicans see a different opportunity. They see an opportunity to restrict the ability of clean energy and demand response to compete in the market. They see a political opportunity to engage in conspiracy theories about the Administration trying to raise energy prices.

Republicans are so committed to the idea that modernization equals higher energy costs that they wrote it directly into the title of today's hearing.

Unfortunately, Republicans have missed the point. Better planning, wider coordination, and using the best technologies are ways of ultimately *reducing* costs to consumers. Secretary Chu understood this, which is why he wrote it into the second sentence of his 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."

Here's the reality: the Chu memo is about competition. It's about free and fair and open markets. It's about economic efficiency. It's about all the things Republicans pretend to be for. But today, Republicans didn't invite their free-market friends from the Heritage Foundation and the Cato Institute to testify. That would make it much stickier to defend inefficiency, socialist power systems, and restrictions to free competition.

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Here's the bottom line the way I see it: Thomas Edison—the father of the light bulb and the first power plant—would still understand much of our electrical grid if he were alive today. We have a long way to go in adapting the infrastructure and operating systems to allow a level playing field for new companies, new business models, and new technologies to take hold.

I thank the Chairman for calling this hearing and I hope it is the first of many the Committee holds to examine ways in which our Power Marketing Administrations can be positive forces of change in the operation of our nation's grid.

The CHAIRMAN. I thank the gentleman very, very much for his remarks. Sometimes open remarks yield to new enlightenment, and I see that we have a whole lot of common ground that I had no

idea we had before, and that will give us an opportunity to pursue it in many, many ways.

To me, this is wonderful.

[Laughter.]

The CHAIRMAN. With that, I really want to welcome our distinguished panel today. We have The Honorable Glenn English, former Member of this body from Oklahoma, CEO of the National Rural Electric Cooperative Association.

We have The Honorable Jason Marks, Commissioner of the New Mexico Public Regulation Commission from Santa Fe, New Mexico.

Mr. Mark Crisson, CEO of American Public Power Association here in Washington, D.C.

Monty Humble, President and Chief Operating Officer of Brightman Energy in Austin, Texas.

Mr. Scott Corwin from my area in the Northwest, Executive Director of the Public Power Council out of Portland, Oregon.

Mr. Joel Bladow, Senior Vice President of Transmission of Tri-State Generation and Transmission out of Colorado.

Gentlemen, you have, I know, from time to time testified in front of this Committee. We have the five-minute rule. Your whole statement will appear in the record but I would ask you keep your oral remarks to five minutes.

The timing lights are thus, when the green light goes on, you have four minutes and you are doing well. When the yellow light comes on, that means you have one minute left, and when the red light comes on, sometimes horrible things happen.

I would just ask if you can keep your remarks to that, and with that, I would like to recognize Mr. Glenn English. Mr. English, you are recognized for five minutes.

STATEMENT OF GLENN ENGLISH, CEO, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

Mr. ENGLISH. Thank you very much, Mr. Chairman. I appreciate that. Having known Mr. Markey for a long time and a great admirer of certainly his diligence and his vigilance, I have to say I was not certain—this is a revelation to me about his looking after our concerns over socialism. Appreciate that, Mr. Markey.

Let me just say, Mr. Chairman, perhaps to put this a little bit in context and put it in a light that I am not sure I heard either the Chairman or the Ranking Member touch on, I think this goes back to the time in which rural electric cooperatives were created, and PMAs were created.

This was a rather unique period in our history. I think it may be a little lesson for us today.

What happened during those days in creating two tremendous success stories for this country, making it possible to bring electric power to rural areas of this nation where no one else wanted to deliver and where many said it could not be done.

This was done through a partnership between Government and its citizens, between those people who are directly impacted. It gave people the opportunity to do it for themselves.

If you look at both electric cooperatives and the PMAs, there is this element of doing it for yourself. It is the local people coming together, banding together. They are the folks that did this thing.

This is a tremendous success story, and I would suggest it is a very good model to be used today. I do not hear that much today.

What we hear today so often is let's get somebody else to pay for it, and by the way, we will push it off on the kids, in the form of a national debt, or get somebody else to pay for it that is not me.

I can remember there was a Senator, Chairman of the Senate Finance Committee, Chairman Russell Long, years ago, used to talk about taxes. He said "Do not tax you, do not tax me, tax that fellow behind the tree."

That is kind of the mentality, I think, we have this day. Let's push it off on the kids, let's push it off on somebody else, anybody but me pay for it.

Well, I think that is what we have to keep in mind as we move forward with some of these institutions that have been around a long time that have been great success stories.

I want to remind the Committee that electric cooperatives and municipals primarily, there were some other folks involved, too, but primarily those two groups made it possible to go out and build these dams, and to get them paid for.

We agreed that indeed we would go forward and guarantee that we would buy the power, not only buy it at market rates, we would even buy it at above market rates, because we saw that being very important to those communities.

The people who were being affected by the floods, the people who were going to be benefitted by irrigation, the people that were going to be benefitted by recreation, and only the people that were going to be benefitted by a reliable source of electric power were willing to pay more than market rates because what they saw this as being is the future, an investment. It has been a very wise investment indeed.

This whole premise was based on the fact this was a local thing, local folks. The Federal Government came in and helped make it possible.

This partnership was formed in order to create these entities to have this tremendous success story. Ever since, Mr. Chairman, what we have had is the local folks working with the PMAs locally to try to determine how can we best impact the lives of the customers of the PMAs, the citizens that are most directly affected.

Throughout the years, that is the way it has worked. Any time we have had improvements, yes, you have had appropriations, but you have also had that compensated and paid for with higher rates, and you have had the preference customers that are willing to pay more to bring about those kinds of improvements, doing it locally, the local people.

I agree, Mr. Markey, that without question, we need to move forward and to improve the electric utility system of this country.

I agree new technology has to come into play. I agree that the PMAs can play a major role in making that happen.

We still have this fundamental issue. Who is going to pay for it? That is what this is really all about—who is going to pay for it?

I am not sure whether the Secretary has that tied down yet. We do not know. In all honesty, that memo was a little bit vague, but it certainly got the attention of preference customers, certainly got the attention of electric co-op members, because what they sense is

somebody is going to make those of us who are not receiving the direct benefits pay for somebody else's benefits.

That we are seeing a change in policy that is coming about. I hope that is not true. I hope that what we are going to see is Secretary Chu recognizing the success that we have in the past of those people who receive the benefits pay for the investment.

If that should be the case, I think we have a great model to follow. If that is the case, all those elements that Mr. Markey was so concerned about and all those objectives that he had, I think, can be reached.

I would suggest it is those people who are going to be receiving the benefits that should they pay, be making the investment so they can receive the rewards in the future.

Thank you very much, Mr. Chairman.

[The prepared statement of Mr. English follows:]

Statement of The Honorable Glenn English, CEO, National Rural Electric Cooperative Association

Mr. Chairman and members of the Committee, thank you for holding this hearing and for providing me the opportunity to testify. We appreciate the committee's work to ensure that our federal hydropower infrastructure and the Power Marketing Administrations remain a vital part of America's energy backbone. It is most appropriate that this hearing's focus will be mainly on the recent memo from Secretary of Energy Chu to the administrators of the four Power Marketing Administrations, or PMAs: Bonneville Power Administration headquartered in Portland, OR; Western Area Power Administration in Lakewood, CO; Southwestern Power Administration in Tulsa, OK; and Southeastern Power Administration in Elberton, GA. Co-ops were some of the first purchasers of federal hydropower, and today more than 600 rural electric cooperatives are PMA power customers.

In my testimony, I want to highlight the importance of the PMAs for both electric customers and taxpayers; discuss elements of Secretary Chu's March 16 memo; and provide recommendations for how Congress and the Administration can work with customers to strengthen the federal hydropower resource and the PMAs

The Power Marketing Administrations are unique entities, spanning geographically diverse regions of the nation. They also have differing authorizing statutes, many of which have been layered over time as new projects were constructed. Since each of these regions is so complex and policies are developed in partnership with the federal power customers, PMAs have been statutorily headquartered in the geographic areas in which they serve, rather than in Washington, DC. Secretary Chu's memo seems to bring an end to that practice, which is a big concern to our members. The federal power customers and the electric consumers they serve are not convinced that a "Washington-knows-best" approach will result in improved delivery of electricity.

The National Rural Electric Cooperative Association (NRECA) is the national service organization representing the interests of cooperative electric utilities and their consumers. Electric cooperatives are not-for-profit, private businesses governed by their consumers. These consumers are unique in the electric industry in that they are members of their cooperative and therefore own their utility. There are more than 900 electric cooperatives which serve more than 42 million consumers in 47 states.

NRECA estimates that cooperatives own and maintain 2.5 million miles or 42 percent of the nation's electric distribution lines covering three-quarters of the nation's landmass. Cooperatives serve approximately 18 million businesses, homes, farms, schools (and other establishments) in 2,500 of the nation's 3,141 counties. Our member cooperatives serve over 5.75 million member owners in Congressional Districts represented on this Committee.

Cooperatives still average just seven customers per mile of electrical distribution line, by far the lowest density in the industry. These low population densities, the challenge of traversing vast, remote stretches of often rugged topography, and the increasing uncertainty in the electric marketplace pose a daily challenge to our mission: to provide a stable, reliable supply of affordable power to our members, your constituents.

The Role of Federal Hydropower

Historically, one of the keys to providing affordable electricity by cooperatives across the country has been access to the electricity produced at federal dams and marketed by the four Power Marketing Administrations.

More than 600 electric cooperatives in 34 states purchase PMA-marketed hydroelectric power. Other federal power customers include municipal electric utilities, irrigation districts, tribes, and state and federal installations such as universities and military bases. According to statute, the price for the power is set at ". . .the lowest possible cost to consumers."

The business relationship between electric cooperatives and PMAs represents a longstanding partnership between electric cooperatives and the federal government. It is a model that works well for providing consumers across the country with reliable, affordable electricity. It is also a good deal for taxpayers, as it provides a mechanism through which federal investment is continually repaid by users of the federal power system.

Hydroelectric power is produced at 134 federal dams that are operated by the U.S. Army Corps of Engineers and the Bureau of Reclamation. Power Marketing Administrations market that electricity at a wholesale level at a price that pays for all of the taxpayers' original investment, plus interest, and ongoing costs. Specifically, the rates charged to federal power customers cover:

- the cost of repaying capital investments including renewals and replacements, with interest;
- power-related annual operating and maintenance costs of dam operations;
- transmission and marketing of federal power;
- and financial support of some non-power related authorized project purposes.

Considerations for PMAs' continued strength

Secretary Chu's memo to the Power Marketing Administration heads on March 16 proposed major changes to the way the PMAs do business. While specific direction will be provided to each of the PMAs in subsequent memos, there are guidelines which should be considered before issuing any directives or changing the primary focus of the PMAs. Changes to existing policy and direction should be made only after a full and open public process with opportunities for the PMA customers to provide input. We believe the Secretary should remember three simple principles: affordability; fairness; and upholding the PMAs' core mission.

Affordability

As not-for-profits, electric cooperatives provide the most affordable and reliable electricity possible to their consumer-members. Simply put, every time the input costs increase for a co-op, electric bills must also increase to make up the difference. If changes are made that increase the costs of PMA-marketed electricity, it stands to reason that customers' cost-based rates would also increase.

There is no question that rising electric bills hurt American families and businesses. Since the incomes of co-op customers lag 14% below the national average, cooperatives work to keep rates affordable for our consumermembers at all times. Since we are finally starting to see signs of economic optimism after years of recession, this is no time to be driving up the cost of electricity.

The March 16 memo recognizes that the so-called modernization effort will likely be costly, and that costs will be "phased in" to minimize disruption. Phasing in expenses does not address the issue of increasing costs to consumers with no associated benefits. Any changes to the PMAs' strategic planning processes should be considered carefully, and new capital expenditures planned should be specifically discussed with the customers who will pay those expenses.

While I am concerned about the rate-raising impacts of this memo and its vague but expensive-sounding policies, the costs to the American taxpayer are also unknown. It seems that Congress should give this memo and future policies a good hard look before giving DOE and the PMAs the go-ahead to proceed.

Fairness

Throughout Secretary Chu's memo, there are examples of how the PMAs could be restructured to be more efficient. It is not clear from the memo which parties will benefit from the changes proposed, or who will pay for them.

The entire federal transmission system the PMAs use to market power is paid for through rates charged to users and beneficiaries. We support the construction of new transmission infrastructure—including poles, wires, computers, people, and other components—where it makes sense. These investments should be made to improve system performance and reliability, not to give one type of generator or customer an advantage. Further, the cost of those improvements should continue to be

borne by the beneficiaries. This long standing practice of assigning costs based on benefits received should be maintained.

Uphold the PMAs' Core Mission

In his memo, Secretary Chu outlines that PMAs will become involved in a wide range of businesses including test beds for cyber security, advancing electric car deployment, and energy efficiency. These are valid policy goals, and in fact they are ones that many of our member co-ops are pursuing. But to ask existing consumers, and taxpayers, to foot the bill for these pursuits is well outside the PMAs' mission. It would be bad public policy to use the PMAs as technology laboratories, forgetting their primary mission of marketing federal power.

Electric cooperatives are a good example of how the electric utility industry is changing. We have members across the country that are leading smart grid technology efforts; incorporating demand response; and reducing load by incorporating energy efficiency programs. We have cooperatives both developing renewable energy projects and purchasing renewable energy of all kinds including wind, solar, geothermal, biomass, and clean renewable hydropower. Electric co-ops have either installed or contracted for more than 4,000 MW of renewable capacity.

Improving PMAs and the federal hydropower resource

We need to take a step back, and identify how we could all collectively work together to improve the PMAs and the federal hydropower investment overall. Congress and this administration could make a significant impact on the energy security of our country by investing in the federal hydropower resource. Congress and the Administration should:

- Use existing authorities to prudently integrate newly developed resources into the existing federal transmission systems, while improving reliability and alleviating transmission shortfalls;
- Improve access to federal lands to speed construction of transmission and distribution lines;
- Recognize the importance of clean, renewable, affordable hydropower as an important part of our nation's energy policy; and
- Make a greater federal commitment to our hydropower resource. The President's Budget Request and appropriations by Congress must prioritize the safety and efficiency of federal dams and power-related resources as a priority.

The federal power program pays its own way. Unlike most other federal programs, appropriations for the federal power program are repaid to the U.S. Treasury by federal power customers. Historically, deficit reduction measures have curtailed appropriations for the federal power program, despite the fact that all of the costs of the federal power program are repaid. These curtailments threaten the reliability and efficiency of federal hydropower assets. However, the federal power customers, in partnership with the PMAs and generating agencies, have contributed funds to reduce this threat. Continued federal appropriations must remain the primary support for sustaining the federal power program, but should not preclude alternative funding methods to complement these appropriations.

By working together, Congress, the Administration, and the federal power customers can address the multiple goals of the federal hydropower resource and the PMAs, and maximize the benefit of the system for all.

The CHAIRMAN. The time of the gentleman has expired. Our next witness is from New Mexico, and I want to recognize my colleague from New Mexico, Mr. Luján, for purposes of introduction.

Mr. LUJÁN. Mr. Chairman, thank you very much. It is my pleasure to introduce my colleague, Commissioner Jason Marks, from New Mexico. Commissioner Marks and I both served in the New Mexico Public Regulation Commission together before I was elected to Congress.

It is essentially the equivalent of public utility commissions across the country. The PRC is an elected body which oversees utilities, telecommunications, insurance and transportation, among other things.

Working together, we were able to make New Mexico a leader in renewable energy generation by making it a part of the state's

energy portfolio and increasing the state's renewable portfolio standard, a similar responsibility that Senator Udall and Senator Bingaman are championing here in the Congress, which we refer to as a renewable electricity standard.

We laid a strong foundation to encourage development of a clean energy economy that creates good jobs in our communities while making sure we never forgot about energy efficiency.

We can see those efforts starting to pay off in our state.

I want to thank my colleague, Commissioner Marks, for being here today, and I look forward to his discussion today.

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

The CHAIRMAN. Mr. Marks, you are recognized for five minutes.

STATEMENT OF JASON MARKS, COMMISSIONER, NEW MEXICO PUBLIC REGULATION COMMISSION

Mr. MARKS. Chairman Hastings, Mr. Markey, members of the Committee, thank you for this opportunity. I am honored to have my first appearance in this August body introduced by my good friend and colleague, Mr. Luján from New Mexico.

As public utility commissioners, my colleagues and I are charged with keeping electric rates affordable while maintaining system reliability.

The West has a long tradition of states engaging regionally with industry and others to discuss ways to better utilize the electric grid to reduce costs.

A regional energy imbalanced market or EIM has been on a collaborative agenda for several years after first being introduced to us by industry. Commissioners quickly became interested because of the potential to save large amounts of money for the consumers in our states.

The Federal Government through the Power Marketing Administrations can play a key role in western EIM discussions.

I welcome Secretary Chu's memo indicating WAPA's participation and his leadership in directing the PMAs to work with the states and others to achieve shared goals of delivering reliable power supplies to consumers at low cost.

My written testimony describes the EIM concept in more detail. To summarize, a western EIM would be voluntary for participants, would not be an RTO or imply the subsequent creation of an RTO, would only be pursued based on a solid financial case with tightly controlled costs and assured net benefits. Based on early data, it could save customers in excess of $100 million annually with savings shared broadly across the region.

Finally, an EIM needs critical massive participation in order to be successful. The broader the participation, including that of the PMAs, the more opportunities that arise for cost saving transactions.

Today, the Western Interconnection has 37 separate balancing authorities. Each balancing authority works continuously and separately to ensure that electric supplies are in balance in fluctuating real time demand.

An EIM, however, looks at the balance between demand and supply across multiple BAs. Some imbalances will offset each other.

Remaining imbalances will be handled by dispatching the lowest cost generation available across the broad region.

Cost savings to consumers will be realized from reduced fuel costs, less wear and tear on generating plants from rapid cycling, and reduced need for reserves.

Existing transmission lines will be utilized more fully with appropriate compensation.

The larger the balancing footprint with a greater diversity of resources and loads, it will make it easier and cheaper to use variable generation resources such as wind power.

We need not fear that the EIM will somehow suck in the low-cost electric resources from the region leaving customers paying high market prices for their basic energy supply.

The decision on how much capacity to offer into the EIM would be up to each public or investor owned utility that has generation. Individual transactions would not happen unless they were beneficial to both sides.

Besides, the EIM is not that kind of a power market. An EIM would not be an RTO. It would not be centralized unit commitments, day ahead markets, capacity markets, regional transmission tariffs or so on.

If these other RTO aspects were on the table, many western commissioners, myself included, would be among the most vocal opponents.

Last year, an EIM costs/benefits study was performed by the WECC. The WECC study came up with a very broad range for EIM costs and a somewhat narrower range of benefits.

The PUC EIM group that I chair was formed to refine that analysis. Our group has representatives from 13 states. We have opened up our activities to any and all interested stakeholders.

Working with DOE, we asked NREL to conduct a new analysis of financial benefits using more sophisticated production cost models. We have obtained informational bids for implementing and operating an EIM from two qualified entities, the SPP and the CAISO, based on a sample market design we commissioned.

At some point, we expect to hand this work back to industry members of an EIM who will then make the actual decisions on market design and governance.

The informational bids we received indicate the cost of operating an EIM is about $28 million a year. NREL's calculation of benefits will be released in May.

Until then, using the WECC benefits in conjunction with the new cost information, it appears that there could be an excess of $100 million in net financial benefits from an EIM.

Critical mass and continuity in an EIM are keys to cost savings. Participation of the PMAs in a Western EIM would lead to greater benefits and lower costs to the benefit of consumers across the West, including those served by the PMAs' public power customers.

Thank you. I am happy to answer any questions.

[The prepared statement of Mr. Marks follows:]

Statement of Jason Marks, Commissioner, New Mexico Public Regulation Commission, and Chair, Western Public Utility Commissioners' EIM Group (PUC EIM)

As public utility commissioners, I and my colleagues are acutely concerned with keeping electric rates affordable, while maintaining reliability. The west has a long tradition of states engaging regionally with industry and other stakeholders to discuss ways to better utilize the electric grid to reduce costs. The regional energy imbalance market (EIM) concept has been on our collaborative agenda for several years and grows out of other efforts to more closely integrate western grid operations. It appears that at least $100 million in annual cost savings (and quite possibly more) could be realized with an EIM, with benefits to the customers of both investor-owned and public power entities that choose to participate in such a voluntary market for balancing energy.

The participation of the Western Area Power Administration in a western EIM can lead to greater benefits for consumers across the west, including those served by Western's public power customers. I welcome Secretary Chu's memorandum indicating WAPA participation and directing the power marketing administrations to work with the states and others to formulate cooperative paths to achieving our common objectives of delivering reliable power supplies to retail consumers at low costs.

The Function and Benefits of an EIM

Today in the Western Interconnection, we have 37 separate balancing authorities. (Figure 1) Each works continuously to keep electric generation in balance with fluctuating loads. The regional EIM being considered will offer several advantages over this balkanized status quo. (Figure 2)

The imbalances that must be addressed within each balancing authority (BA) can be either too much or too little electric supply relative to the real-time demand. By summing real-time demand and supply across multiple BAs, we can expect that a portion of the deviations will wash-out on their own, reducing the need for active dispatch by the EIM operator. It's likely that often when one BA is long, another BA will be short, and so rather than the first BA curtailing generation at the same time as the second BA increases it, we can let the excess supply in the first area meet the excess demands in the second. Of course, the EIM will work within the physical constraints of the transmission system and not just assume that any positive imbalance in the interconnection can offset a negative imbalance somewhere else. And also of course, generators will be paid when their electricity winds up serving customers in another BA.

The second inherent benefit of a regional EIM is that the EIM operator can address intra-hour balancing requirements using the lowest cost generating resource from a broader range of options, thus lowering the cost to electrical consumers. The customers of the utility needing extra electricity in a balancing transaction will benefit by getting the lowest-cost dispatch from across the whole region, instead of just what would have been available within the BA. And the customers of the utility that supplied the balancing electricity should also benefit by the fact a sale that would not otherwise have occurred has now been made, providing in most cases a revenue credit against the fixed costs of the generating plant.

The larger footprint of a regional EIM, with greater diversity of resources and loads, is also expected to make it easier and cheaper to make use of variable generating resources such as wind power. An EIM can also lead to more efficient use of the existing transmission infrastructure.

To summarize, every five minutes, the proposed energy imbalance market will dispatch the lowest-cost resources available to eliminate generation and load imbalances across the EIM's footprint. Cost savings come from reduced fuel costs, as the generating plants with the highest efficiencies (known as "heat rates") and lowest cost fuels are used more. Additional savings are expected from less wear and tear on generating plants from rapid cycling and from reduced need for reserves. Existing, but underutilized, transmission lines will be used to carry the lower-cost electricity to where it is needed in the region, and so the owners of those lines such as the Western Area Power Administration (WAPA) will gain additional revenues that can be used to reduce costs to their customers.

An EIM is not an RTO

The regional EIM that is being considered would be purely voluntary. Each existing BA would be able to decide whether to join the EIM and each utility or other owner of generation would be able to decide how much—if any—of its plant capacities it wished to make available to the EIM for dispatch.

The regional EIM would be a market for intra-hour balancing energy only. The EIM would be a far cry from a full-fledged RTO (regional transmission organization). The existing practices of self-generation and bilateral contracts by each utility to meet its own capacity and energy needs would not be disturbed. There would not be centralized unit commitment, day-ahead markets, capacity markets, regional transmission tariffs, etc.

If some of these other RTO aspects were on the table, many western utility commissioners—myself included—would be among the most vocal opponents. The vertically-integrated, cost-based model that we use keeps electricity costs to consumers low and bypasses the capacity-creation challenges we see in the organized markets. But that a western EIM looks like one of the functions RTOs perform is not a good reason to walk away from the potential of hundreds of millions of dollars in savings to consumers across the west (outside of California) from more cost-efficient intra-hour balancing.

Concerns have been raised that an EIM could evolve into an RTO over time. Many parts of the west have particular reasons for being suspicious of plans to form a western RTO. Legal provisions can be crafted for the governance structure of an EIM to ensure that "mission creep" does not occur, and to specifically protect EIM participants from being involuntarily forced into RTO.

Cost Benefit Studies and the Formation of the PUC EIM Group

Last year, an EIM cost-benefit study was performed under the auspices of the Western Electric Coordinating Council (WECC). The WECC study came up with a very broad range for EIM costs and a somewhat narrower range of benefits. (Figure 3) The WECC study results left open the possibility that EIM could lead to significant savings. But if actual costs came in at the higher end of the range, there would negative economic benefits.

The PUC EIM group that I chair was formed in order to carry forward and refine the analysis of an EIM. Our group commissioned the creation of an illustrative market design. Then, using this design as a fixed point of departure, we solicited informational bids from two existing market-operators, the Southwest Power Pool (SPP) and the California Independent System Operator (CAISO), on what they would charge to implement and operate such a market. Concurrently, with the financial assistance of the Department of Energy, we commissioned the National Renewable Energy Laboratory (NREL) to conduct a more refined analysis of potential EIM benefits using a new production cost modeling tool called PLEXOS, running on a ten-minute timescale.

The PUC EIM group includes representative from 13 state utility commissions. (Figure 4) We have opened up our activities to any and all interested stakeholders. We have conducted an extensive series of public webinars on each aspect of our project. We solicited and addressed comments on the illustrative market design and we've also begun loose coordination with WSPP, a membership organization that is looking at governance options for a voluntary western EIM, with a specific focus on preventing mission creep.

State utility commissioners recognize that, should a regional EIM be created, market design and governance will be prerogatives of the industry members. Our role in the process has been to facilitate, not to dictate, because—representing the interests of millions of retail electric consumers in the unorganized part of the west—we believe that there are substantial amounts of cost savings that would be left on the table if the EIM conversation was to stop.

The informational bids we have received from SPP and CAISO are both significantly lower than the engineering estimates that came out of the WECC study. (Figure 5) Because these are informational bids from entities that currently own and operate platforms that can be adapted to handle the business of a regional EIM, they can be given greater weight than the earlier estimates, which were done in the abstract and with uncertainty about whether market operations would be contracted out to an existing entity. The cost of operating an EIM would be about $28 million per year based on the SPP proposal.

The results of the PUC EIM engagement with NREL to calculate the financial benefits of an EIM will be released in early May. NREL's analysis using a 10-minute dispatch simulation could show higher benefits than what was found in the WECC study, which was limited to one-hour cycles. Using only the WECC benefits in conjunction with the better information on costs that we have now obtained, it appears there would be in excess of $100 million in net financial benefits from an EIM.

Conclusion

Based on the information available to-date, a western EIM would appear to be a very attractive option to improve the utilization of the existing electric grid. Net financial benefits to electricity customers appear to be in excess of $100 million a year, shared throughout the region. Fears about excessive or runaway costs are being answered by the illustrative market design and illustrative bid process undertaken by the PUC EIM group, which has identified two potential vendors that are willing and able to operate the market for relatively modest costs and start-up fees. Governance alternatives that can provide necessary reassurances against mission creep are being developed and shared with interested stakeholders.

Two principles guide those of us involved in the EIM conversation. The first is that the decision to proceed needs to be data-driven. An EIM should be pursued if (but only if) it shows significant net financial benefits to our constituents outside the margin of forecasting error. The second is that participation in an EIM must be voluntary. My expectation is that there will be a positive financial case for both investor-owned and public power to participate in a regional EIM.

An EIM needs a critical mass of participants in order to be successful. The broader the participation of load and generation, the more opportunities that arise for cost-saving transactions. Costs to participants will be lower if the fixed costs of a single EIM can be spread over a broader footprint. Conversely, alternatives in which multiple balancing markets are operated will inherently lead to increased fixed costs.

The Power Marketing Administrations are key players for this initiative due to the PMAs size and scope, the public power constituencies they serve, and their unique legal and regulatory posture. While the detailed cost/benefit calculations have yet to be prepared, we can safely assume that a larger footprint, with more participants and more contiguity, will translate into greater economic benefits and less cost per unit. I look forward to working with the PMAs, and their customers in working together to achieve our common goals of delivering reliable power supplies to all consumers at low costs.

Figures follow.

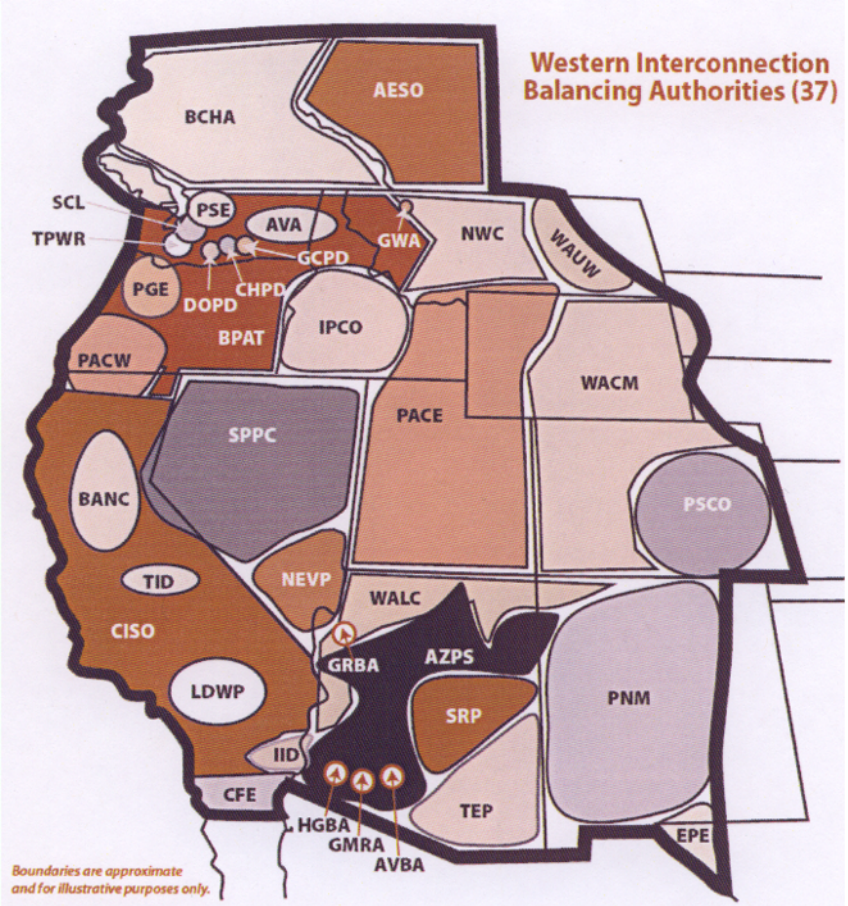


Figure 1: Map of Western Balancing Authorities

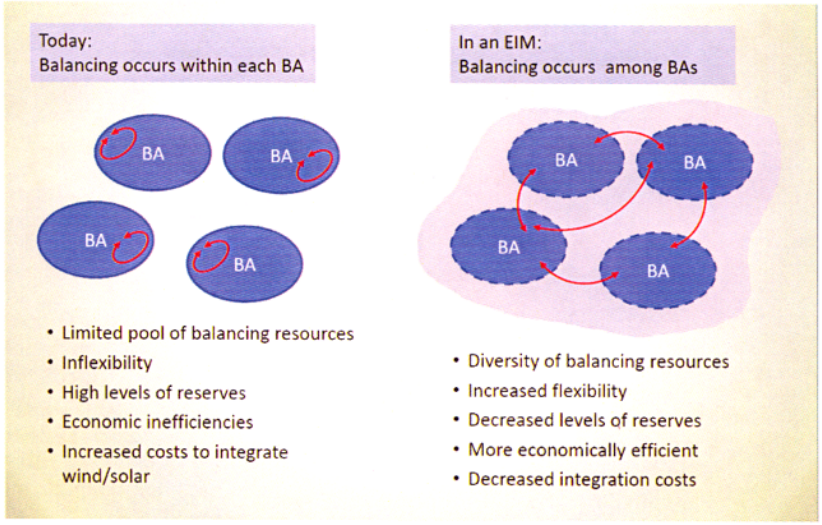


Figure 2: What is an EIM?

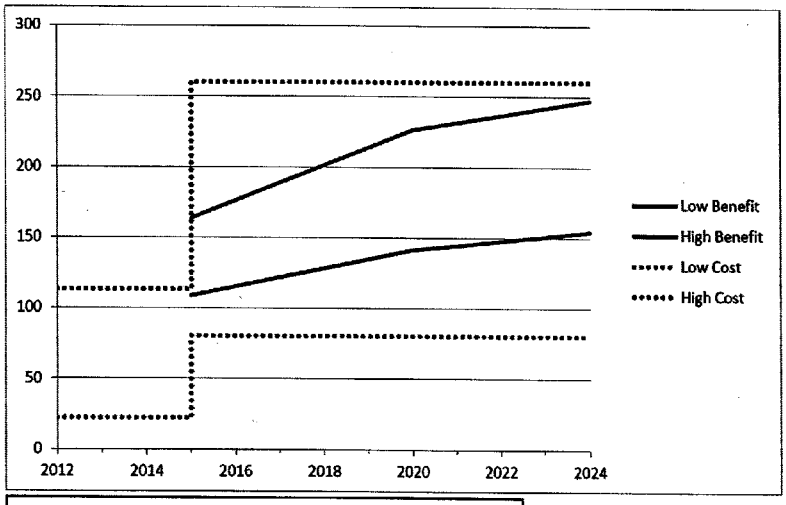


Figure 3: WECC Cost Benefit Study Results

California	Timothy Alan Simon
Arizona	Paul Newman
Colorado	Jim Tarpey
Idaho	Paul Kjellander
Montana	Travis Kavulla
Nevada	Rebecca Wagner
New Mexico	Jason Marks
Oregon	John Savage
South Dakota	Brian Rounds (Staff)
Texas	Rolando Pablos
Utah	Ric Campbell
Washington	Jeff Goltz
Wyoming	Steve Oxley

Figure 4: PUC EIM Group Members

	Start-Up Costs	Ongoing Operational Costs
WECC	$42.2 - $114 million	$50 - $95.7 million
SPP	$64.4 million	$28.5 million (first year) $28 million (years 2+)
CAISO	~ $ 16 million • ($.03 per MWh x 2009 net energy for load)	Variable • $.19 per MWh in the EIM • $1,000 per month per scheduling coordinator

Figure 5: EIM Informational Bids

Response to questions submitted for the record by Jason A. Marks, District 1 Commissioner, New Mexico Public Regulation Commission

Below are my responses to the questionnaire forwarded by Chairman Doc Hastings.

1. Commissioner Marks, the concept of an Energy Imbalance Market as you heard today, can be controversial. Commissioner, what is your response that this could increase rates for consumers? Would you advocate for an EIM if it showed a negative benefit for consumers?

The primary purpose for pursuing an energy imbalance market (EIM) is to **decrease** costs and **reduce** the rates that consumers would otherwise need to pay for their electricity. In theory, an EIM can reduce costs by reducing the need to cycle plants inter-hour, reducing reserve requirements, and by ensuring that incremental power needs are supplied using the lowest-cost power available across a broader footprint than a single balancing authority.

Results of a production cost modeling analysis of a Western EIM were released earlier this month by the Department of Energy's National Renewable Energy Laboratory. The technical assumptions and approach used by NREL were peer-reviewed by a team of industry experts, including representatives of several public power utilities. NREL estimated the operating savings of an EIM at $167 million annually.

A supplemental NREL analysis using a different modeling approach indicated savings in excess of $1 billion. The PUC EIM group is working to understand the applicability of the higher savings estimate.

As I understand it, EIM skeptics do not allege that electric supply costs would be increased with an EIM. The EIM skeptic case is that the overhead costs of building and operating an EIM could exceed the operation savings. The PUC EIM Group agrees that controlling costs and having certainty about cost are critical aspects of deploying a Western EIM. By seeking informational bids from existing entities that already provide similar services, we have been able to remove much of the uncertainty about out-of-control costs from the EIM decision-making process. Based on the bid from Southwest Power Pool, which is the higher of the two we received, annual costs for a Western EIM, including amortization of start-up expenses, would be around $40 million. Thus, the information we have to-date suggests a positive cost-benefit ratio of 4:1, with an almost certain likelihood of net savings to the region's consumers.

My support and advocacy for a Western EIM is predicated on an expectation of positive benefits for consumers. I would oppose an EIM at this time if were likely that it would yield negative benefits to consumers.

2. If the benefits of an EIM are shown, what effect is an EIM likely to have on federal expenditures and revenues, if the PMAs were to be involved?

The operation of an EIM relies upon moving low-cost power around the region using the excess capacity of existing transmission lines. EIM protocols under discussion would ensure that utilities' transmission rights to serve their own customers' load, as well as other contracted transfers would take priority on the transmission system. EIM would not displace any other power transfers, but would send power across transmission lines when surplus capacity was physically available (and the transfer was economic). Under an EIM, transmission owners would be compensated for this use of their transmission lines and facilities. Revenues received for hosting EIM power transfers would be additional or incremental to the compensation transmission owners currently receive. The federal PMAs, as owners of transmission lines and facilities, would be in line to receive some of these new revenues when their facilities are used for EIM power transfers.

Public power utilities that own significant transmission assets could also expect to see additional revenues from the use of their lines.

Secretary Chu's memorandum directs PMAs to incur short-term costs for analysis and potential implementation of an EIM. Based on my conversations with knowledgeable parties, I believe that such expenses will not rise to a material level; rather I take the Secretary's words as meant to show a definite commitment to the process.

3. What could this mean for the ability to integrate more system efficiencies and renewable energy into the system?

Research and analysis we are receiving indicate that the reserves needed to back up variable renewable energy generation sources are significantly reduced with an EIM. An EIM would permit a greater amount of renewable energy to be integrated into the Western grid, and would lower the costs of doing so.

4. Commissioner Marks, whether it is an EIM, or more broadly, the implementation of energy policy, what would you say is the role of public outreach and comment?

As an elected utility commissioner, it is my business to not just understand the legal, financial, and engineering context in which energy policy is made and executed, but also to understand public opinion and preferences. The general public is broadly and strongly in support of initiatives to modernize our energy supply system. Regardless of political affiliation, ordinary citizens in overwhelming proportions (e.g., 90%) favor much more use of solar power and other forms of clean renewable energy. Notably, public preferences in favor of more renewable energy are sustained even after detailed, but unbiased, information and education is provided about costs and other constraints with renewables; see for example the results of the 2011 Arizona Public Service/Morrison study). Polling consistently shows that electric customers are willing to pay a premium to accelerate the deployment of cleaner power sources.

The public also generally supports technical innovation in the power sector (albeit with some concerns over privacy when it comes to issues like "smart meters"). Thus, in many respects, the general public is ahead of industry and even political leadership in wanting to see our country move to a technologically-advanced energy economy built on sustainable, non-polluting resources, and which provides well-paying American jobs.

Unfortunately, the views and preferences of paid representatives of entities with direct financial interest in the outcome of various energy policy debates tend to dominate too many discussions at both utility commissions and legislatures. We need to keep the public closely involved in the development and implementation of energy policy. And this involvement needs to be bi-directional, with both outreach and education to communicate to the public, combined with ample opportunities to receive feedback from consumers and others affected by our policy decisions.

Thank you for the opportunity to respond to these questions. If you have any other questions or need for more information, please feel free to contact my office.

The CHAIRMAN. Thank you very much for your testimony.

Next, we will recognize Mr. Mark Crisson, CEO of the American Public Power Association.

Mr. Crisson, you are recognized for five minutes.

STATEMENT OF MARK CRISSON, CEO, AMERICAN PUBLIC POWER ASSOCIATION

Mr. CRISSON. Thank you, Mr. Chairman. Good morning, Mr. Chairman, members of the Committee.

I represent the American Public Power Association, which represents the interests of over 2,000 community owned not for profit electric systems throughout the country.

We are in more than 49 states and serve 46 million customers.

We appreciate you making this a priority and taking the time to explore the issues raised by Secretary Chu's Memorandum.

Since two-thirds of our members do not generate their own power and have to rely on wholesale power purchases, this is a critical issue for our members.

We are very concerned about being able to secure an affordable, low-cost supply of wholesale power.

We have 600 of our members in 33 states that purchase wholesale power from the four Federal Power Marketing Administrations.

The rates that our members pay for this power is cost based. They pay all the costs of generation, including the interest in the O&M associated with the projects.

This system of repayment of the Federal Government through rates charged to power customers has worked well for decades. This is known as the "beneficiary pays principle." This is fundamental to the success of the power marketing agencies.

Our concern is that the directives proposed in Secretary Chu's memo would violate this principle, potentially increasing costs to millions of ratepayers around the country.

The mission of the PMAs for decades has been to provide affordable, reliable power from renewable resources consistent with best business practices.

Any time there has been changes proposed to this mission that might somehow change or jeopardize it, it has been done with very careful evaluation, very rigorous scrutiny of the potential impacts, and then only with congressional involvement and approval.

The changes proposed in this memo, however, are done without any customer or congressional input.

I am not going to summarize all of the changes proposed in this memo in the interest of time, but let me just give a couple of examples that concern us.

One is the mandated use of otherwise discretionary third party transmission financing authority. The proposal is kind of vague. We are not exactly sure what is going to happen here, but there is the potential for all the costs of this transmission being born by the customers of the PMAs without any commensurate benefits.

Another concern we have is the idea of incentivizing through rate design a number of activities, such as energy efficiency, deployment of electric vehicles, which is really more properly a retail activity, not a wholesale activity.

By the definition of "incentive," that conjures the notion of discounts or something that departs from cost based rates. This is a real concern.

Finally, to the comments of Mr. Marks a moment ago, there is a proposal for Western to pursue membership in something called an "energy imbalance market."

I know this Committee does not deal very often if at all with the issues of power markets and their operations. Let me be clear on this point.

This market would be a bid based market. What that means is that the participants in this market would bid into this market. They do not have to bid their actual costs. They can bid anything. The price that clears the market is the highest of those costs, and everybody receives that.

Right out of the box, you have departed from cost based rates and what has traditionally been a system that has worked very well for decades. It is a major concern for us.

There is the study that was mentioned earlier about the costs and benefits. Let me just say that there is a lot of uncertainty about just what might happen in this case.

I would just mention that the WECC study that Mr. Marks referred to indicated that under one scenario, there would be a net cost of $1.25 billion to customers over ten years.

Those costs are deemed to be under estimated by a subsequent review that was done by DOE's own Argonne Labs, who feel that those costs are probably too low.

Public power utilities are industry leaders in a lot of the areas that are discussed in the Chu memo. We support renewables, energy efficiency. We understand the imperatives of the 21st Century.

We think progress can be made here without jeopardizing the legacy of our Federal PMAs and subjecting customers to higher power costs.

Let's keep in mind that the PMAs have delivered in abundance the most affordable, reliable renewable resource of all, hydropower, for years.

We need to find a better way forward. We stand ready to work with DOE to support new multi-purpose transmission consistent with regional planning processes.

We urge DOE to expand the role for hydroelectric power as part of the nation's clean energy portfolio.

Progress in these areas would do much to both support renewable resource development and enhanced PMA affordability and reliability.

We urge Secretary Chu and DOE to work with Congress, to work with PMA customers, to ensure the PMAs can continue to successfully provide low-cost, reliable hydropower for years to come.

Thank you, and I look forward to your questions.

[The prepared statement of Mr. Crisson follows:]

Statement of Mark Crisson, President & CEO, American Public Power Association

The American Public Power Association (APPA), based in Washington, D.C., is the not-for-profit service organization for the nation's more than 2,000 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 nonprofit, 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 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 APPA.

APPA participates in a wide range of legislative and regulatory forums. It advocates 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 of APPA's members 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 and the Bureau of Reclamation. 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 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 them. 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—the 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 1180 public power systems and rural electric cooperatives in 33 states, serving over 40 million electricity end-users. Electricity customers in the following states receive a portion of their

power from the PMAs: 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 PMAs, as described above, are based on a system of cost pass-throughs, whereby federal investment is repaid, plus interest, through electricity rates. As the costs to the federal government to provide these essential hydropower services increase, wholesale and retail electricity rates are raised correspondingly. APPA has consistently opposed 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 so effectively for so long. Today, however, PMA customers face a more subtle, yet equally problematic, challenge.

On March 16, 2012, Department of Energy (DOE) Secretary Steven Chu released a six-page memorandum outlining several proposed changes to the PMAs. These proposed changes would impose unnecessary and inappropriate cost increases on federal hydropower customers, and therefore on millions of electricity customers. During a March 20, 2012, PMA budget hearing held by the Water and Power Subcommittee of this committee, Subcommittee Chairman Tom McClintock (R–CA) questioned who would pay for these proposed changes and whether the proposal would force a shift from the "beneficiary pays" principle that has consistently governed the PMAs' operation. Chairman McClintock's question is well taken and APPA believes that the changes proposed by Secretary Chu would in fact both increase costs to federal hydropower customers and violate the historic, and highly effective, principles under which the PMAs have operated.

Secretary Chu proposes the following four changes to the PMAs:

First, he would require the forced implementation of new transmission through third party financing mechanisms (WAPA, SWPA) and borrowing authority (WAPA). Section 1222 of Energy Policy Act of 2005 (EPAct05) authorizes WAPA and 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 within their systems. The Section 1222 authority has never been used (although WAPA and SWPA are currently evaluating applications for its use) and TIP has been criticized in a report by DOE's Inspector General for mismanagement and not being operated in a transparent and efficient manner.

Despite both the explicit flexibility in Section 1222 for the relevant PMAs to exercise discretion regarding the use this authority and the problems identified with the TIP program, Secretary Chu nevertheless seeks to mandate 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 the customers, to balance the interests of their existing hydropower customers with third party financing proposals. In this new centralized mandatory regime directed from DOE headquarters, however, PMA customers could be forced to take on the costs of all system-wide transmission upgrades. Any benefit they would receive from these improvements would certainly be incommensurate with the costs they would be forced to pay. This is a blatant violation of the "beneficiary pays" principle, which has consistently governed enhancements to PMA operations.

Secretary Chu also seeks legislation to grant WAPA a new borrowing authority to finance capital expenses. Currently, WAPA finances construction activities through annual appropriations and some customer funding. By removing these established funding processes, which allow for both congressional and customer input, decisions regarding capital improvements to WAPA facilities also would be shifted to DOE headquarters. APPA is concerned that removing Congress, the customers, and stakeholders further from this decision-making process will result in, again, a net increase in costs to be borne by WAPA customers for which they would receive disproportionate benefits. Also unaddressed in Secretary Chu's memo is the budget scoring problem these undertakings would face and the budget offsets that would necessarily be required for their implementation.

Second, Secretary Chu proposes to "improve the PMAs' rate designs." To do so, he envisions changing the PMAs' rate structures to incentivize programs for energy efficiency and demand response, the integration of variable resources, and preparation for electric vehicle deployment. In this context, the word "incentive" is simply

synonymous with and a euphemism for cost-shifting. APPA is concerned that both these "incentives" and the restructuring of the PMA rates will artificially and inappropriately raise the cost of providing federal hydropower, resulting in corresponding wholesale and retail rate increases. This proposal essentially means 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 issues—the PMAs provide power at wholesale, while retail decisions are made at the local and state levels. In effect then, Secretary Chu's proposal would substantially encroach on the jurisdiction of state utility commissions, state legislatures, and local governments.

Secretary Chu's third proposal is to improve collaboration with owners and operators of the grid through steps such as entering into an energy imbalance market (EIM). Some western energy markets are experiencing problems with the increased development of variable renewable energy resources (i.e., wind and solar that vary depending on the availability of the resource and therefore must be integrated onto the electric grid whenever they are available, day or night) promoted through federal tax incentives and renewable portfolio standards in some states. Since the physics of electricity dictate that it must be generated at the same time that it is used, integrating these variable resources poses a challenge to maintaining electric reliability (i.e., ensuring that the lights stay on at all times) and to the cost of electricity to consumers. Many of these resources are under development even though the economic recession has reduced demand for electric generation in many areas in the West. While there are several efforts underway in the West to address integration of these variable resources at reasonable and affordable cost to consumers, creation of an EIM is being touted by wind developers and by the DOE as the only way to handle renewable energy integration. Though DOE representatives express interest in alternatives to an EIM, it appears that the EIM proposal is being fast-tracked by DOE through its oversight of the PMAs.

It is against this backdrop that a variety of efforts have been offered to address the problems associated with incorporating variable renewable energy resources in the West. One of the proposals pushed by wind generators initially via the Western Electric Coordinating Council (WECC), a group that oversees electric reliability in the region, is an EIM. As proposed, such an EIM would be a sub-hourly, real-time, centrally-dispatched energy market intended to improve the integration of increasing levels of variable generation from renewable resources. The theoretical benefit of an EIM is that the larger array of generation available for dispatch would provide a greater balance of intermittent resources and reduce the need for backup power. 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 from the sources of generation to the demand for power. Critical details of the EIM such as governance, the market operator, market monitoring, and mitigation have not yet been determined by either the stakeholders who have proposed it or DOE.

A major concern with the creation of an EIM is its potential to quickly evolve into a Regional Transmission Organization (RTO). Public power utilities located in areas of the country with electricity markets run by RTOs and Independent System Operators (ISOs)—collectively referred to as "RTOs"—have experienced ongoing difficulties that adversely affect the consumers they serve. These problems include: complex and costly market-pricing mechanisms; price volatility; an absence of cost-effective measures to assure generation resource adequacy (i.e., the availability of backup power); limited data availability; increased participation by financial entities that do not produce power or serve load (i.e.; customers); findings of price manipulation without compensation to consumers; governance structures that are not always responsive to stakeholder concerns; and, burdensome administrative costs. The Federal Energy Regulatory Commission (FERC), the entity in charge of regulating the RTO markets, has not recognized or addressed these concerns despite its mandate under the Federal Power Act to ensure that wholesale electricity rates are just and reasonable. The creation of an EIM sets the West on the path to energy markets that are subject to significantly increased jurisdiction by FERC, which would in turn result in a loss of jurisdiction to state and local authorities.

WECC's stated intent is that such an EIM would not be a federally jurisdictional entity such as an RTO like those in the East. However, this ignores the history of RTOs, which developed incrementally, step-by-step, beginning with energy imbalance markets and expanding to include other complex and costly markets. The only other case where an EIM is operated without the more complex RTO markets is the Southwest Power Pool (SPP), which recently filed a request with the FERC to incorporate many of the problematic features of a full-blown RTO. This is an example

of how an EIM is likely to lead to an RTO and should serve as a warning to the West to reject any EIM proposal. In the West, an RTO was a central feature of Enron's business plan, but the proposal was soundly defeated (except in California, which has an intrastate RTO, known as the CAISO) in the lead up to passage of the Energy Policy Act of 2005.

An EIM for the West would be costly and unnecessary. A WECC-commissioned study found that the infrastructure and operating costs of EIM (with the features proposed to WECC) implementation and operation could, in some scenarios, outweigh the estimated benefits, with the *net costs* potentially reaching $1.25 billion in net present value terms over the first 10 years. These costs do not include the additional costs incurred were EIM to expand into a full RTO. Secretary Chu argues that an EIM "should [ultimately] reduce costs for WAPA's customers." In describing this proposal, however, he admits that collaborative processes such as an EIM will increase costs immediately in the near term. Whether or not the costs of instituting an EIM do eventually decrease, APPA believes that any increased costs are untimely and unnecessary, especially when they will be passed along to PMA customers via higher electricity rates. It is not necessary for consumers in the WECC region to incur the costs associated with the creation and operation of an EIM.

There are many efforts being undertaken or under development in the West to integrate variable renewable resources that do not entail the formation of a complex, centralized market. Such efforts include intra-hourly scheduling and the Intra-Hour Transaction Accelerator Platform (ITAP) to facilitate intra-hourly transactions, Dynamic Scheduling Systems to allow participants to trade capacity and energy on a dynamic basis, the use of reserve sharing to back-up variable resources, and improved forecasting (to know when the wind will blow and the sun will shine). These ongoing and planned initiatives will likely achieve the majority of the benefits of an EIM at a fraction of the costs. Moreover, two of the critical needs for integration of variable resources—construction of transmission and ensuring sufficient generation capable of providing "fast start" and "flexible ramping" (both needed to be able to bring power generation on and offline quickly)—will not be resolved by the formation of an EIM.

Currently, electricity in the region is sold under regulated rates that are based on costs. Utilities either provide generation from resources they own or they purchase power through competitively negotiated bilateral contracts for power. The movement from cost-based to socialized market-based pricing will only lead to higher costs for customers. In this proposal, Secretary Chu also recommends the PMA take steps in addition to EIM such as coordination with balancing authorities, cooperation between public and private power, and regional planning. Such activities would result in significant duplication of effort (and cost) because the PMAs are undertaking many (if not all) of these steps already.

Secretary Chu's fourth and final proposal is for DOE to work with Congress to "modernize oversight" of the PMAs. While noting the complexity of the authorizing statutes of the PMAs, Secretary Chu urges Congress to create revolving funds to be used for transmission improvements within WAPA and SWPA (BPA already has a revolving fund and SEPA has no transmission). Secretary Chu argues that WAPA and SWPA are at risk for reliability problems if Congress does not grant them the "financial rights and responsibilities to go along with their existing responsibilities for keeping the lights on." APPA does not believe that WAPA and SWPA have difficulty providing reliable, cost-based power. New revolving funds for WAPA and SWPA will result in both greater costs and an increase in bureaucratic top-down decision-making with limited input from Congress or the customers. Increased costs mean higher electricity rates. Moreover, adding to the already-complex organizational structures of the PMAs when Congress has expressed no desire to do so seems to be yet another flaw in Secretary Chu's proposal.

In concluding his memo, Secretary Chu argues that "the federal government should be leading the way for a modern, secure, and reliable electric transmission grid." Besides the four proposals outlined above, he argues that the PMAs should: be "test beds" for cybersecurity technologies; take greater advantage of "clean" energy (over and above "clean," renewable and low-cost hydropower); and take greater advantage of modern communications and control technologies. The Secretary clearly believes that aggressively forcing all PMA customers (and possibly all taxpayers in general) to pay for the integration and transmission of renewable resources, such as wind and solar power, will result in a system-wide "upgrade." APPA disagrees. For an Administration that prides itself on an "all of the above" energy strategy, Secretary Chu's clear preference for enhancements to unreliable wind and solar power—at the expense of hydropower and paid for by hydropower customers—is contradictory.

Portions of Secretary Chu's memorandum do contain admirable goals. However, the PMAs are currently taking many of the steps Secretary Chu urges in his memo. Furthermore, the PMAs have consistently provided clean, renewable, cost-based hydropower for decades under the principle that enhancements to PMA operations should be paid for by the customers who benefit from the improvements. Instead of allowing the PMAs to coordinate with federal power customers to make well-thought out and pragmatic improvements to the federal projects from which they receive the benefits of hydropower services, Secretary Chu seeks to undertake significant new programs without input from PMA customers or Congress. These proposals will result in increased electricity rates for BPA, WAPA, SWPA, and SEPA customers. APPA supports the current framework under which the PMAs operate and will work to ensure these processes continue unimpeded. These plans for the PMAs are untimely, unwise, and unnecessary.

Response to questions submitted for the record by Mark Crisson, President & CEO, American Public Power Association

Questions from Representative Jeff Denham

- **Given that California has already been implementing an overly aggressive renewable energy mandate; wouldn't the ratepayers in my district be stuck with an even bigger energy bill for little to no benefit, especially since renewable energy is capital intensive and expensive?**

In addition to the state's renewable portfolio standard (RPS), we understand that California has enacted a law requiring that 75 percent of renewable energy resources used to meet that RPS largely originate from in-state generation. Our members in California (one of the largest energy markets in the Western U.S.) who purchase power from the Western Area Power Administration (WAPA)—one of the four federal Power Marketing Administrations (PMAs)—have expressed concerns that additional integration of renewable energy and efficiencies envisioned in the DOE memo may not materialize as DOE asserts because California utilities will effectively be required to use in-state renewable to meet the state's RPS mandate in the coming years. This adds to concerns our California members share with consumer-owned utility systems across the country regarding potential costs likely to be incurred by PMA customers pursuant to the directives in the DOE memo. California utilities that purchase WAPA power could end up paying for integration of out-of-state renewables and, at the same time, be blocked from using those renewables to meet the state's RPS mandates. As a result, they could effectively be paying twice: once for renewable resources needed to meet state RPS obligations and again for unneeded renewable resources acquired by WAPA and unusable in the California market.

- **And, I want to make it clear for those in my district, aren't ratepayers the ones that are going to have to pay the bill for this administration's directive to the Power Marketing Agencies that we are discussing here?**

Yes, because the vast majority of electric utilities that purchase PMA power are not-for-profit public power utilities and rural electric cooperatives, any increases in operating expenses by the PMAs would be passed on to the end-use electric ratepayers.

- **Doesn't this one-size-fits-all approach completely stifle the flexibility needed to manage our local power areas in the best manner to keep costs from overwhelming ratepayers, especially during these tough economic times and in places like my district where unemployment is high and power rates are already taxing families' pocket books due to the state renewable mandate?**

The PMAs themselves are not government agencies in the traditional sense of the term. They are instead government enterprises that serve a specific purpose—marketing (and transmitting for three of the four) federal hydropower—and whose services are paid for by the utilities that purchase this resource for power use. Any of the costs associated with running the PMAs—including the capital assets associated with marketing and transmitting the power and the employees of the PMAs, are paid for by the PMAs' utility customers and, in turn, their ratepayers, as alluded to in your question above. This includes any debt, plus interest, associated with the PMAs' capital assets. Therefore, the general taxpayer does not pay for the PMAs to operate.

This arrangement, in place for decades, has resulted in an extremely collaborative process between the PMAs themselves and their utility customers that is regionally

specific. In the WAPA region, which covers much of the West, the utility customers interact with the WAPA regional offices that market power from particular "projects" that typically involve several dams on a river system or systems. For California, the hydropower marketed by WAPA is from the Central Valley Project (CVP).

In addition, the PMA customers in each region have coordinated heavily with their regional congressional delegations to report on the status of this collaborative relationship between the PMAs and their customers. To borrow an analogy from one of the other panelists at the hearing on April 26, the PMA customers could be viewed as the "shareholders" of the PMAs, and their regional congressional delegations as the "board of directors."

This context is necessary to understand the local (from the perspective of the utility customers and ratepayers) and regional (from the perspective of the PMAs) nature of this relationship and the way it has worked to ensure the needs of the region are met at the lowest possible cost. The not-for-profit nature of the PMA customer utilities exposes their ratepayers to any price increases or volatility in the PMA rates, which incentivizes the utilities to scrutinize the PMAs' operations and expenditures. The PMAs in turn understand that if they are not responsive to their customers their "board of directors" in Congress may become involved. This has resulted in a unique and beneficial situation for ratepayers in the PMA regions and a culture of responsiveness that contributes to accountability and efficiency within the PMAs. While there is always room for improvement, this collaboration can result (and has resulted) in positive changes over time.

Secretary Chu's memo is, therefore, a misguided attempt to take these local and regional decision-making processes and turn them into a top-down, Washington, D.C.-centric approach, which is unlikely to result in the same collaboration and efficiency described above. Instead, we believe that a one-size-fits-all approach such as that delineated in the memo is likely to increase costs and decrease efficiencies. As you note, this is particularly acute during a time of economic hardship such as we are currently experiencing.

- **Has Congress provided the Department of Energy with the authority to implement this over-reaching political initiative by Secretary Chu that pushes a socializing agenda for America's energy production and distribution grid?**

APPA is currently working with other customer groups to review the existing statutory authority that governs the operations of the PMAs, and, in particular, WAPA (which the Secretary has stated will be the first PMA to be "modernized"). It is a more complex endeavor than one might imagine because many of the projects (and even specific dams) have their own organic statutes. The preliminary analysis indicates that certain of the initiatives set out in the Secretary Chu memo could conflict with the statutory obligations of WAPA.

Regardless of the statutory authority, however, from a historical process and political standpoint, whenever the PMAs and/or their customers—individually or collectively—have sought major policy changes to these agencies, they have done so with congressional oversight, debate, and approval. Therefore, whatever the limits of DOE's statutory authority are, the Secretary's lack of consultation with the congressional authorizing committees (and other relevant committees) is, at the least, inappropriate.

- **Has the cost-benefit analysis of the Energy Imbalance Market (EIM) shown to be the best option for the ratepayers? And, has a full and complete study of the EIM been finished to make a fully educated decision about such a major shift in energy delivery, or is it just assumed by Secretary Chu to be in ratepayers' best interests in his memo?**

There has not yet been a cost-benefit analysis that accounts for the full scope of all EIM costs and benefits. As described in greater detail below, studies completed so far contain a number of methodological flaws that are likely to overstate the benefits and underestimate the costs. These studies, therefore, do not provide support for the conclusion that an EIM will provide net benefits to consumers, and it is therefore not possible to make any decision on an EIM with certainty at this time.

Thus far the only fully completed analysis of the EIM costs and benefits was commissioned by the Western Electricity Coordinating Council (WECC) staff. The results of this analysis presented a range of the present value of net benefits over a 10 year period, with a high of $941 million in net benefits and of net costs of $1.25 billion. This study, however, appears to have overstated the benefits and understated the costs. The benefits analysis, performed by Energy and Environmental Economics, Inc. (E3), found that the largest category of benefits, accounting for 60 per-

cent of the total benefits, is the reduction in the need for "flexibility reserves," which are extra generation resources standing by to come on line quickly when wind or solar resources drop off sharply, as occurs often. The reduction in flexibility reserves was assumed to result from the reduction in such variability from access to a larger array of renewable energy 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, a highly unrealistic assumption. An April 2012 analysis by Argonne National Laboratory criticizes this E3 assumption, noting that the presence of transmission congestion would negate this benefit.

The other source of benefits estimated by E3 was from the savings resulting from the dispatch of lower cost generation resulting from a centralized dispatch of all generation. But this benefit assumes that if lower cost resources are used, these owners would sell power at a price no higher than their costs and pass through the savings to consumers, which ignores the fact that in centrally-operated electricity markets, prices almost always exceed costs. In fact, the study never looked at or calculated the prices that would be produced by the EIM and paid for ultimately by consumers.

The costs analysis, performed by Utilicast, LLC, includes just the infrastructure and staff costs incurred in the implementation of an EIM by the market operator and market participants, which include local utilities, balancing authorities, generation owners and transmission providers. These costs, however, ignore the central fact that the history of Regional Transmission Organization (RTO) development in the East clearly shows that an EIM is highly likely to become a full RTO over time (note that California has the only RTO in the West, the California Independent System Operator). The complexities of the constantly changing market rules, lengthy stakeholder meetings, Federal Energy Regulatory Commission proceedings, and settlement talks that are an inevitable part of an RTO will produce much greater infrastructure, labor and time costs than estimated by Utilicast.

Since the completion of the WECC-commissioned benefit-cost analysis last fall, the focus of the EIM discussion has shifted to the PUC EIM, a group of individual state utility commissioners that was formed by the Western Governors Association (WGA). The PUC EIM appears to be an advocate of an EIM and is working on issuing revised benefits and costs analyses. DOE's National Renewable Energy Laboratory (NREL) also recently released a new benefits analysis, as requested by the PUC EIM, containing the same flaws as the E3 study described above. Moreover, when NREL could not produce significantly higher benefits, it created an entirely new "baseline" assumption that current balancing authorities dispatch generation only once an hour, which NREL acknowledged is not accurate. PUC EIM is also attempting to replace the WECC costs study with a much narrower version of the costs—one that consists solely of the incremental market operator costs that would be incurred if one or two existing RTOs, the Southwest Power Pool (located in the middle of the country, not the desert Southwest) or the California ISO were to operate the EIM. In addition to ignoring the costs of moving to a full RTO despite being operated by an existing RTO, these estimates also leave out individual utility infrastructure and labor costs, and are therefore greatly understated.

Some of APPA's members in the Northwest, in conjunction with the Northwest Power Pool, are undertaking a study of an EIM as well as other alternative proposals to EIM that would potentially help to integrate variable renewable generation. These studies are expected to be completed at the end of the calendar year.

- **What is the problem that Secretary Chu is trying to fix with the initiatives laid out in the March 16 memo? Is it a transmission issue, and, if so, will this memo increase transmission siting approvals and expedite the process to get power lines built where they are needed? Also, Will there be an improvement in power delivery reliability from this memo's directives?**

In response to your first question, we do not believe there is a problem that needs fixing with regard to the PMAs. There is a particular policy position that is implied in the DOE memo—the desire for the PMAs to prioritize integration of variable renewable resources potentially at the expense of the core mission of the PMAs to market renewable hydropower. The integration of these resources has become an operational concern across utilities, not just in the context of the PMAs, because of their variability and the need to have back-up generation to accommodate these variations. APPA's members in both the PMA regions and in non-PMA areas are working with each other and with other stakeholders to address these integration issues. These efforts are ongoing and do not require DOE directives to proceed.

As you correctly surmise, one other challenge is accessing wind generation, which is often located far away from population (or "load") centers. New transmission lines are sometimes required to reach these resources, and the challenges associated with planning, siting, and paying for transmission lines have not gone away. However, the PMAs, as federal agencies, have the ability to site transmission lines using federal eminent domain authority.

In terms of your question on reliability, hydropower can often be one of the most reliable resources because, unless there are drought conditions or other statutory constraints on the resource (such as Endangered Species Act considerations, which are pervasive in some parts of the country), it can almost be used as a large and resilient "battery" for the region, to be turned on and off relatively easily if need be. For example, during the August 2003 Northeast blackout, the Niagara and St. Lawrence hydropower stations of the New York Power Authority remained in service, serving load in western New York, despite system conditions that took other generators in the region off-line. These hydro-electric resources were critical to the restoration of the bulk power system in the rest of New York and Ontario, whereas, for safety reasons, other types of power plants had to slowly be cycled back on. The operational flexibility of these hydroelectric resources were invaluable to the citizens of New York that summer, by helping to restore the stability of the system and giving other resources the ability to ramp back on. So, if the Secretary Chu memo detracts from the core mission of the PMAs to market and make reliable federal hydropower resources available to WAPA's customers, it is possible that bulk power reliability could be adversely impacted in ways that are difficult to foresee.

Furthermore, should the PMAs be used as the vehicle to site transmission lines for wind generation, there is no guarantee that those lines will be used to benefit regional reliability. For example, a line being proposed in the SWPA territory (the PMA serving the Arkansas Texas, Oklahoma, Missouri, Kansas, Louisiana region) to access wind power, is a direct current (DC) line, which makes it primarily able to deliver power from point "a" to point "b" unless special interfaces are constructed to allow movement between this type of line and an alternating current (AC) line. Alternating current lines, by contrast, are typically used to enhance regional power flow and reliability. The line in question is seeking to use the third party financing authority created in the Energy Policy Act of 2005 as an option for the PMAs. While APPA has supported this authority as an option, it does not support its use to support "fly-over" projects that provide little or no benefit to the regions through which they pass. The line in question is still under review by SWPA.

The CHAIRMAN. Thank you very much for your testimony. Next, I will recognize Mr. Monty Humble, who is President and COO of Brightman Energy, LLC, out of Austin, Texas.

Mr. Humble, you are recognized.

STATEMENT OF MONTY HUMBLE, PRESIDENT AND COO, BRIGHTMAN ENERGY, LLC

Mr. HUMBLE. Thank you, Mr. Chairman, members of the Committee. I appreciate being invited to testify here as a member of the private business community.

I have educated myself to some extent on the issues here. I will say the PMAs certainly have a reasonable concern about exactly how this would be implemented, or the preference customers do.

I hope that we will not lose sight of the larger issue here, which is that our electric grid definitely needs to be improved. There are issues of reliability, issues that impact national security. There are inefficiencies in the grid, and given the interconnected nature of the grid, a small problem in one place can cascade into a very large problem for a large number of people.

For example, in 2003, some untrimmed trees underneath transmission lines in Ohio resulted in a cascade that took all of seven minutes to affect 50 million people and cost $6 billion.

There is no way to isolate one part of the grid or one group of customers from the rest of the grid. It is a national problem and we are all in it together.

As well, there are new issues that we are discovering, particularly the issues related to cyber security. Most of the electric system relies on SCADA controls. The virus or worm illustrated the damage that can be done by an attack on SCADA systems.

Just last night as I was boarding a plane in Los Angeles to come over here, a friend sent me an email detailing a security hole in one company's SCADA systems, in effect, an unplugged back door way into access the controllers.

There are a number of security holes that need to be addressed. Again, they affect or potentially could affect our entire electrical system, which in turn as the Defense Science Board has pointed out, would affect all of our military operations, particularly as we bring more military operations back to the United States and operate from here.

At the same time, there are tremendous opportunities available to us with respect to the electric grid. The grid, first off, modernization would be an enormous economic development opportunity. It would create jobs.

We found in Texas where we have chosen to invest about $8 billion in our grid that it has created a large number of jobs, created a large amount of economic activity.

Brattle has done a study that indicates that national investment would do the same thing.

The important thing to remember about the powers that were given to the PMAs by the Congress in 2005, during a time when the Republicans had the Majority, and again in 2009, during the time when the Democrats had the Majority, those powers, Section 1222 of EPAct 2005 and Section 402 of the stimulus bill, both require that the private capital that is attracted be attracted in such a way that it not impact the preference customers.

The preference customers have a legitimate right not to be asked to pay for new transmission upgrades that do not benefit them.

I am sorry, I am losing my voice.

At the same time, we have an opportunity to attract large amounts of private capital to the grid.

Last year, I delivered a letter to the Senate with 84 company signatures, the vast majority of those companies were traditional utility companies or related utility companies. They are eager to invest private capital in modernization of the grid if they are not foreclosed from doing so.

I thank you very much for the time and the opportunity to appear.

[The prepared statement of Mr. Humble follows:]

Statement of Monty Humble, President & COO of Brightman Energy LLC

Chairman Hastings, Mr. Markey, and members of the Committee, thank you for inviting me to testify at this hearing today. The United States transmission system needs serious attention, and this hearing will help to provide that attention.

As I begin, I want to share two anecdotes with the Committee. Unfortunately, these are neither fictional nor amusing. They are stories that I have personally experienced as an energy developer who is trying to invest private capital to produce electricity for which there is a competitive market.

This winter, my company, Brightman Energy LLC was evaluating whether to buy and complete development of a 100 megawatt wind energy project in the Pacific Northwest. The project had all of its permits in place, it was on private land, and the landowner was excited about the potential royalties from a wind farm. It was in a rural area where jobs are hard to find, and where land is cheap so the local governments struggle to finance local schools and law enforcement. The power was contracted to sell to a private utility company that had conducted an auction for power, and the project that my company was considering had been determined by the utility and its regulator to be an acceptable supplier of power. We had a project that was built on private land by a private developer and had a contract to sell power to a private utility company. All the permits and approvals were in place. As we did our due diligence on the project, we discovered that included in the project budget was a line item for a payment of nearly $50 million to purchase a transmission entitlement from the holder.

For those who do not know what a transmission entitlement is, let me explain. In the Western Electricity Coordinating Council (basically the area from the front range of the Rocky Mountains to the Pacific Ocean and from northern Canada to the border with Mexico) a good deal of transmission capacity sits idle most of the time. Ratepayers pay for this idle capacity, but it is not available for use because someone has the contractual right to use the transmission capacity. As a result, even if the capacity is not being used by the entity that is contractually entitled to use it, it sits. Since we have not perfected the ability to store electricity in large quantities, denying transmission access is the same as denying access to a resource.

In the case of the project that we were considering, the entity that had the right to use the transmission line wanted to be paid tens of millions of dollars in order to let the project use the transmission line capacity that the seller was not using. Since the transmission line was not subject to FERC jurisdiction, the seller was free to name its price, any price, without oversight. In plain English, it was charging monopoly rents because it could and because the transaction was not subject to regulatory oversight, and let me be clear—the payment did not cover the actual transmission tariff that was to be paid to the owner of the transmission line. That was a separate charge payable to the transmission owner.

One byproduct of this method of allocating transmission access is a significant underutilization of transmission assets. Studies of physical power flows consistently show that major transmission pathways in the WECC are loaded at less than 75% of their capacity a significant part of the time (see Figure 1 attached). This unused transmission capacity represents economic inefficiency. It is paid for by ratepayers. At the same time, ratepayers are also denied access to competing sources of electricity that could compete in wholesale markets and drive electricity prices down.

The second anecdote involves several projects that I have worked on in Texas. For those of you who are not deeply familiar with the United States electric system, there are three electrically isolated, separate grids that provide electric service in the United States, the Eastern Interconnect (which covers the United States from the Atlantic Ocean to the front range of the Rocky Mountains with the exception of Texas), the WECC (which I mentioned earlier), and the Texas interconnection (also frequently referred to by the name of the operator of that grid, Electric Reliability Council of Texas or ERCOT). Each of the three US electrical grids is isolated from the other two—for reasons related to the physical properties of electricity, it is not possible to have an AC connection from one grid to the other (see Figure 2 attached).

As some of you may know, Texas has been very fortunate to benefit from significant wind development, with over 10,000 megawatts of installed wind generation capacity. While this has benefited Texas consumers because we have a competitive market for electricity, and the wind generators have to compete like everyone else for customers, it has made it hard for developers like my company to make a profit for our investors. As a result, we have considered various options to export electricity generated in Texas. My company has also considered building transmission lines to provide access for other wind developers who wanted to export power. Each time I have suggested that we contact Western Area Power Administration to see if Western would be interested in participating in the development of transmission in ERCOT, I have been told that Western would not be interested because a transmission line in ERCOT would not connect up to the rest of Western's transmission system.

I do not know whether this actually represents the position of Western because I have never had a direct conversation with them, but if it does (and presumably the people I spoke to would have some basis for their statements), it seems like a very odd position for Western to take since its Congressionally mandated service territory includes a large part of Texas as you can see from the map attached as

Figure 3. Taken literally, Western would never build a transmission line in ERCOT because that transmission line would never connect to the rest of the Western system because it is not physically possible to connect an AC line across the boundary from WECC to ERCOT. And yet Congress surely had something in mind when it provided that almost one half of the State of Texas would be within the Western service territory.

These two anecdotes illustrate fundamental issues facing the power marketing administrations. In preparing to testify here today, I have communicated with many people involved in the transmission business and energy markets. Most of those with whom I spoke recognize that the PMAs are taking steps to move beyond their historical roles, but there is a feeling that the PMAs can take additional steps that would benefit their customers, and more importantly, the end consumers—families and small businesses—of power that the PMAs market. The additional steps would include leadership in making changes in the way energy markets in the West operate to encourage market competition and increased efficiency in grid operations. These market oriented reforms would reduce the cost of inefficient utilization of resources and reduce costs to consumers.

Today the PMAs almost exclusively serve their preference customers, and yet they hold powers that Congress has granted to them to do so much more. Those powers were granted by both Republican majority and Democratic majority Congresses. Section 1222 of the Energy Policy Act of 2005 provided to Western the authority to enter into public/private partnerships to build new transmission lines throughout the Western service territory. Section 402 of the American Reinvestment and Recovery Act provided new borrowing authority to Western to use for development of new transmission assets. In each of these laws, Congress very carefully considered the interests of the preference customers, and directed that the new authorities be exercised only in ways that could never cause the preference customers to experience increased rates as a result of the Congressionally granted authorities.

Western has used these powers to begin construction of one transmission line, and is exploring others, but there is a desire on the part of private transmission developers to work with Western in bringing additional private capital to transmission development in the Western service territory. BPA is using its powers to integrate wind energy into its transmission system and to construct new transmission lines, but there is a feeling among many that BPA can do more to encourage efficient, market driven, resource utilization decisions to address imbalances in the market between generation and load.

Let me be clear—no one is advocating radical change. The private participants are not seeking to make the PMAs subject to FERC jurisdiction, nor are they advocating the creation of a new FERC jurisdictional RTO/ISO in the parts of the PMA service territories where one does not now exist. We do, however, feel that operational changes, such as an energy imbalance market (which can be implemented on a voluntary basis without creation of an ISO), would result in greater efficiency and better resource utilization, saving money for consumers and small businesses. These are not radical proposals. They have been implemented successfully in the East, in Texas, and in the Midwest.

Before I founded Brightman Energy, I had the great good fortune to work for Boone Pickens, and I was lucky to have the opportunity to work with him as he developed the Pickens Plan. You may remember that the original Pickens Plan when it was announced in July 2008 focused equally on renewable electricity and natural gas vehicles. What we found when we researched renewable electricity was that the United States had vast resources of wind and sunlight that could be employed for the production of electricity, but that electricity could not be delivered to customers in many cases because the transmission infrastructure did not exist in the remote areas that were most suitable for development of renewable resources. For over three years, I was a frequent visitor to Washington seeking improved transmission policies. During that time, I found myself working with other companies that also had an interest in improving transmission policy. For example, last summer I delivered a letter to the Senate leadership signed by 84 companies who supported FERC Order 1000, which directs the development of regional agreements for the planning and allocation of costs for new transmission projects. Interestingly, most of those companies were traditional utility companies, not renewable companies. Time and time, we found that the concerns related to transmission policy applied to transmission no matter what sort of electricity the transmission wires carried.

The issues with the US transmission grid are well documented. They include basic reliability issues like those that resulted in the 2003 blackout in the Upper Midwest and Mid-Atlantic regions. They include concerns that the Defense Science Board has raised about the impact of grid reliability on the ability of our military

to perform its critical missions. They include concerns about vulnerability of the grid to cyberattacks and electromagnetic pulses. They include missed opportunities to invest private capital in productive transmission assets that would create jobs and economic efficiency. They include well documented inefficiencies that increase costs to consumers and small businesses due to waste of resources and impediments to competition.

The federal power marketing administrations have service territories that include all of the WECC and ERCOT footprints, with over 32,000 miles of transmission lines. The WECC and ERCOT grids are each self contained, but fully integrated within their respective geographic boundaries. Each part of the WECC and ERCOT grid is vulnerable to a malfunction elsewhere in that grid. The PMAs do not operate in a vacuum, nor are they islands unto themselves, apart from the main. Consequently, if the nation would be made better served, more competitive, and more secure through changes to the bulk electricity system, the PMAs will have to be a part of those changes.

According to a 2009 report on the transmission grid by the Congressional Research Service,

> The need for modernization is illustrated by the causes of the August 14, 2003 northeastern blackout. The blackout, which interrupted service to 50 million people in the United States and Canada for up to a week, started with transmission line trips (automatic shutdowns) and resulting overloads on the FirstEnergy utility system in Ohio. The blackout was not the result of insufficient transmission capacity or deteriorated equipment as identified by the United States—Canada investigating task force, the blackout was caused by factors such as the following:
>
> - FirstEnergy and the NERC reliability region within which it operated did not understand the strengths and weaknesses of the FE system. FirstEnergy consequently operated its system at dangerously low voltages.
> - FirstEnergy's system operators lacked the "situational awareness" that would have revealed the blackout risk as lines began to trip. The operators were blinded by monitoring and computer system breakdowns, combined with training and procedural deficiencies which led to those failures going undetected until it was too late.
> - FirstEnergy did not adequately trim the trees under its transmission lines. As a result, three key transmission lines tripped when they sagged (as the lines are designed to do as they heat up with use) and came in contact with trees.
> - The Midwest Independent System Operator (MISO), the RTO [regional transmission operator] that manages the grid in FirstEnergy's service area, did not have the real-time information necessary to assess the situation on FirstEnergy system and provide direction to the utility.
>
> Once the FirstEnergy system collapsed, overloads and power swings spread out across the Northeast, causing a cascading series of transmission line and power plant trips that left tens of millions of people without electricity. One reason the outage spread over such a wide area was because many power plants were equipped with unnecessarily sensitive automatic protection mechanisms that tripped the units prematurely. The speed of the cascade allowed almost no time for manual intervention. *The elapsed time from the start of the cascade (i.e., when failures began to radiate out from the collapsed FirstEnergy grid) to its full extent was about seven minutes.*
>
> In summary, as discussed in the official blackout report and other analyses, the 2003 blackout was not caused by a utility having built too few transmission lines, or because power line towers and substations were falling apart. The blackout was apparently due to such factors as malfunctioning if not obsolete computer and monitoring systems, human errors that compounded the equipment failures, mis-calibrated automatic protection systems on power plants, and FirstEnergy's failure to adequately trim trees.
>
> One part of a strategy for preventing repetitions of the 2003 blackout is to modernize the grid from a reliability standpoint. This will not always entail building more power lines. One analysis written shortly after the 2003 blackout concluded that "The common contributing factor to the recent blackout, based on investigations to date, is confusion-communication breakdowns both technical and human....[W]e maintain that much can be solved by updating technology and by changing procedures followed within the operating companies. This fix is cheaper and much more immediate than huge investment in new power lines. (emphasis added. Internal footnotes omitted)

It only required seven minutes for a problem caused by improperly trimmed trees to become a problem affecting 50 million people, and costing an estimated $6 billion. It is not realistic to believe that the PMAs can operate unconcerned about the rest of the electric grid. Improved coordination between the PMAs and other grid operators and owners is essential; given the balance of risks and costs, this is only prudent.

A 2008 report from a Defense Science Board Task Force stated that

> Military installations are almost completely dependent on a fragile and vulnerable commercial power gird, placing critical military and Homeland defense missions at unacceptable risk of extended outage.

Specifically, the report noted that "critical mission at [Department of Defense] installations have expanded significantly in recent years," rendering the current assumptions about the importance of civilian grid reliability obsolete. Mission changes for the military include both increased reliance on bases in the US for real time support of combat operations, and increased roles for the military in Homeland security, including both responses to terrorist attacks and to natural disasters such as Hurricane Katrina. At the same time,

> For various reasons, the grid has far less margin today than in earlier years between capacity and demand. The level of spare parts kept in inventory has declined, and spare parts are often co-located with the operational counterparts putting both at risk from a single act. In some cases, industrial capacity to produce critical spares is extremely limited, available only form overseas sources and very slow and difficult to transport due to physical size.

The report identified four sources of risk to the grid that could compromise national security by compromising the ability of the military to fulfill its missions—overload, vulnerability to natural disasters, sabotage or terrorist activity, including cyber attacks aimed at the SCADA systems that operate the grid, and fuel supply disruptions at generation facilities.

Each of these vulnerabilities has been seen in recent years. The 2003 blackout described above resulted in part from overloaded transmission lines overheating and sagging into trees. Hurricane Katrina wiped out much of the electrical system along the Mississippi Gulf Coast, requiring substantial and lengthy rebuilding efforts to restore power. The Stuxnet worm, although it was aimed at different SCADA systems, clearly demonstrated the vulnerability of those systems to cyber attack, and not all of the SCADA systems associated with operations of the gird have been protected from potential attacks.

> The Task Force noted that in addition to degrading national military and homeland defense capabilities, failure of the grid for any extended period could significantly affect national economic and social stability. Pumps that move natural gas and oil through pipelines rely on electricity, as do refineries, communications systems, water and sewage systems, hospitals, traffic systems, first response systems, border crossing detection systems and major transportation hubs such as airports.

Again, the PMAs are significant participants in addressing a critical issue—national security—identified by the Department of Defense.

A May 2010 study prepared by General Electric for the Department of Energy determined that the WECC could save approximately $1.7 billion per year in operating costs by improving coordination among WECC operators so that spinning reserves (generating units that are operating but not serving load in order to be available to prevent blackouts that would otherwise occur from unexpected loss of generation) could be shared over a wider area. The WECC has studied the potential benefits of an energy imbalance market, which could address this issue, and found that the potential benefits would be significant, and would outweigh the costs of creating and administering such a market. Further, implementation of an EIM would not require the creation of an RTO/ISO entity subject to FERC jurisdiction. The Western Interstate Energy Board, an adjunct to the Western Governors Association, also prepared a study regarding the potential benefits of creation of an EIM market.

> With spinning reserves determined on a zonal basis [simulating current, fragmented control areas], WECC simulated operating costs were about $2 Billion higher than with the reserves shared over larger regions for the 10% In-Area case. This is expected to increase with higher penetration levels. In this example, the total system spinning reserve was held constant. It was simply allocated over multiple zones. As the statistical analysis showed, the volatility and uncertainty are much higher for the smaller balancing areas, which mean that even more spinning reserve would be required to accommodate renewable generation. This would drive costs up even more. Be-

cause of the significant operating benefits of balancing area cooperation, this may be a fertile area for further investigation in another study.

The study also noted that the operational challenges associated with meeting state mandated renewable portfolio standards in the WECC could be "likely insurmountable" without additional coordination between balancing areas in the WECC.

The economic benefits to consumers and small business of well planned transmission system additions and operational changes have been documented. According to The Brattle Group, those benefits include not only improved reliability, but also less frequently recognized benefits—additional market benefits such as enhanced market competition and liquidity, additional reliability/operational benefits such as insurance and risk mitigation cost savings, additional investment and resource cost benefits such as capacity benefits, long-term resource cost advantages and synergies with other transmission projects, and external benefits such as favorable impacts on fuel markets, environmental and renewable access benefits and economic benefits from construction and tax collections.

The Brattle Group cites as an example the economic evaluation of the Palo Verde-Devers Line No. 2 which indicates that the total benefits of the transmission upgrade were more than double the benefits considered in determining whether to build the line as show in the attached Figure 5.

The State of Texas has made a substantial investment in new transmission assets over the last three years. The Perryman Group, a respected Texas based econometric firm that frequently advises state leadership and the Texas Public Utility Commission, performed a study of the expected economic impact of those transmission benefits and the follow on economic activity. The findings of that report included the following:

- The combined construction impact of new power transmission facilities as well as wind turbine construction following the initial implementation of the CREZ initiative [an $8 billion privately funded Texas transmission system expansion] on business activity in Texas is projected to total $30.6 billion in output (gross product) and some 383,972 person-years of employment. This economic activity leads to notable incremental tax receipts over the development period; [The Perryman Group] estimates the gains to include about $1.6 billion for the State and $329.1 million for various local governments.
- Another perspective is on a per-customer basis. Depending on the levels of overall generation fuel prices, ***the typical residential customer at project maturity will save between $160.93 and $354.94 per year (fully adjusted for the associated transmission costs),*** resulting in a stimulus to the economy of $454.44 to $995.60 in total spending and $216.76 to $478.03 in gross product. (emphasis added)
- The CREZ transmission investment will also help solidify Texas' position at the forefront of wind power, renewables, and associated industries. Incremental gains in the cluster stemming from the CREZ transmission investment could be expected under reasonable assumptions to include $8.6 billion in total annual spending, $3.8 billion in output (gross product) per annum, and 41,181 jobs.

Another study performed by The Brattle Group to analyze the potential effect of $12 billion to $16 billion annually of privately funded transmission investments in the United States and Canada found that the likely effect of those investments in the transmission grid would be the creation of 150,000 to 200,000 full time jobs in the United States and another 20,000 to 50,000 jobs in Canada, as well as $30 billion to $40 billion in additional annual economic activity. An additional knock on impact would be the creation of another 130,000 to 250,000 full time jobs as a result of new generation development that would follow from the availability of new transmission. The Brattle Group study also found:

In addition to these employment and economic stimulus benefits from constructing the facilities and manufacturing equipment, strengthening of the transmission grid provides important other benefits, including:

- Reduced transmission losses, production cost savings, enhanced wholesale power market competition and liquidity, and associated wholesale power price reductions;
- The economic value of increased reliability, insurance against high-cost outcomes under extreme market conditions, and increased flexibility of grid operations;
- Generation investment cost savings and access to lower-cost renewable generation;
- Reduced emissions and fossil fuel consumption; and
- Economic benefits from increased federal, state, and local tax income.

These simulations show that every $1 billion of U.S. transmission investment supports approximately 13,000 full-time-equivalent ("FTE") years of employment and $2.4 billion in total economic activity. If the $1 billion is spent over the course of one year, this means the investment will support approximately 13,000 FTE jobs in that year. Furthermore, our analysis suggests that the average transmission investment from 2011 through 2030 will likely range from $12 billion to $16 billion per year or $240 billion to $320 billion over the next 20 years (in 2011 dollars) assuming current barriers to planning, permitting, and cost recovery of regional transmission projects can be overcome. A significant portion of this range will depend on the scope of future renewable portfolio standards and the type of renewable generation projects that will be developed.

As summarized in the table below, this level of U.S.-wide transmission investment supports 150,000 to 200,000 FTE jobs and $30 billion to $40 billion in annual economic activity. The table shows that approximately one-third of this employment benefit is associated with the direct construction and manufacturing of transmission facilities. Two-thirds of the total impact is associated with indirect and induced employment by suppliers and service providers to the transmission construction and equipment manufacturing sectors.

Annual Transmission Capital Cost	**Annual FTE Jobs Supported**		**Annual Total Economic Activity Stimulated**
(2011$ Billion)	Direct	Total	(2011$ Billion)
$12	51,000	150,000	$30
$16	68,000	200,000	$40

As noted, a portion of the projected transmission investments will also enable development of the renewable generation projects needed to meet existing and potential future state or federal Renewable Portfolio Standard ("RPS") requirements. This renewable generation investment is estimated by various studies to support approximately 2.6 million to 5 million FTE-years of employment, or on average 130,000 to 250,000 FTE jobs during each year over the projected 20-year renewable generation construction effort, in addition to the direct impacts of manufacturing and constructing the transmission itself. Additional employment benefits are associated with the operations phase of these projects.

The Brattle Group report also found a wide range of additional benefits that accrued to electric system customers who were not directly benefitted by job creation or economic activity stimulated by transmission investments.

Once transmission facilities are constructed and placed in service, they support a wide range of additional benefits, from increased reliability, to decreased transmission congestion, to renewables integration, and increased competition in power markets. These benefits of major transmission investments often are wide-spread geographically across multiple utility service areas and states, are diverse in their effects on market participants, and occur and change over the course of several decades. The benefits we derive from today's transmission grid, such as the ability to operate competitive wholesale electricity markets, could barely be imagined when the facilities were built three or four decades ago.

It is important to recognize that the scope of transmission-related benefits extends beyond the main driver of a particular investment. For example, transmission investments are often driven by the need to address reliability concerns and, thus, help increase the reliability of the power system. Reliability benefits were consequently often viewed as the primary source of benefits. However, with the emergence of transmission projects targeted to relieve transmission congestion or to integrate renewable generation projects, it is increasingly understood that transmission investments provide a wide range of benefits, such as reducing the cost of supplying electricity or allowing the integration of lower-cost renewable resources. Thus, while many transmission investments may be driven primarily by a single concern, such as reliability, congestion relief, or renewable integration, the

benefits of these transmission investments generally extend well beyond the benefit associated with the primary investment driver. For example, reliability-driven projects will also reduce congestion and often support the integration of renewable generation. Similarly, a transmission project driven by congestion relief objectives will generally also increase system reliability or help to avoid or delay reliability projects that would otherwise be needed in the future. It is the interrelated but collateral nature of these benefits that often makes them difficult to quantify. There are a number of studies quantifying the economic value of benefits for individual transmission projects, which we use to indicate the potential magnitude of these benefits in the following discussion.

The post-construction assessment of the Arrowhead-Weston transmission line in Wisconsin, which was energized by American Transmission Company ("ATC") in 2008, provides a good example of the broad range of benefits associated with an expanded transmission infrastructure. The primary driver of the Arrowhead-Weston line was to increase reliability in northwestern and central Wisconsin by adding another high voltage transmission line in what the federal government designated at the time as "the second-most constrained transmission system interface in the country."... By also reducing congestion, ATC estimated that the line allowed Wisconsin utilities to decrease their power purchase costs by $5.1 million annually, saving $94 million in net present value terms over the next 40 years. Similarly, ATC estimated that $1.2 million were saved in reduced costs for scheduled maintenance since the Arrowhead-Weston line went into service. . .. The construction of the line supported 2,560 jobs, generated $9.5 million in tax revenue, created $464 million in total economic stimulus and will provide income to local communities of $62 million over the next 40 years. The increased reliability of the electric system has provided economic development benefits by improving operations of existing commercial and industrial customers and attracting new customers. Lastly, the Arrowhead-Weston line also provides insurance value against extreme market conditions as was illustrated in a NERC report which noted that if Arrowhead-Weston had been in service earlier, it would have averted blackouts in the region which impacted an area that stretched from Wisconsin and Minnesota to western Ontario and Saskatchewan, affecting hundreds of thousands of customers.

The most commonly quantified "economic" benefits of transmission investments are reductions in simulated fuel and other variable operating costs of power generation (generally referred to as "production cost" savings) and the impact on wholesale electricity market prices (generally referred to as locational marginal prices or "LMPs") at load-serving locations of the grid. These production cost savings and "Load LMP benefits" are typically estimated with production cost simulation models that simulate generation dispatch and power flows subject to defined transmission constraints. In a recent assessment of RTO performance by the FERC, the majority of RTOs cited reduced congestion as a main benefit from expanding transmission capacity. For example, PJM noted that market simulations of recently approved high voltage upgrades indicate that the upgrades will reduce congestion costs by approximately $1.7 billion compared to congestion costs without these upgrades.

Transmission investments can enhance the competitiveness of wholesale electricity markets by broadening the set of suppliers that compete to serve load. While the magnitude of savings depends on market concentration and how much load is served at market-based rates (rather than through cost-of-service regulated generation), studies have found that the economic value of increased competition can reach 50% to 100% of a project's costs. . .. Transmission expansion can increase market liquidity by increasing the number of buyers and sellers able to transact with each other. This will lower the bid-ask spreads of electricity trades, increase pricing transparency, and provide better clarity for long-term planning and investment decisions. For example, we found that bid-ask spreads for bilateral trades at less liquid hubs are 50 cents to $1.50 per MWh higher than the bid-ask spreads at more liquid hubs. At transaction volumes ranging from less than 10 million to over 100 million MWh per quarter at each of more than 30 electricity trading hubs, even a 10 cent per MWh reduction of bid-ask spreads due to a transmission-investment-related increase in market liquidity saves $4 million to $40 million per year and trading hub, which would

amount to transactions cost savings of approximately $500 million annually on a nation-wide basis.

Transmission investments, even if not driven by reliability concerns, will generally increase reliability on the power system. This increase in reliability provides economic value by reducing service curtailments and avoiding high-cost outcomes during extreme system conditions. The cost of reliability problems and their "expected unserved energy" can be measured with estimates of the "value of lost load," which can exceed $5,000 to $10,000 per curtailed MWh. The high value of lost load means that avoiding even a single reliability event that would result in blackout is worth ranging from tens of millions to billions of dollars. . .For example, the Chair of the CAISO's Market Surveillance Committee estimated that if significant additional transmission capacity had been available during the California energy crisis from June 2000 to June 2001, its value would have been as high as $30 billion over this 12 month period. Similarly, a detailed analysis of the insurance benefit of a 345 kV transmission project found that the project's probability-weighted savings from reducing the impacts of extreme events equated to approximately 20% of the project's costs.

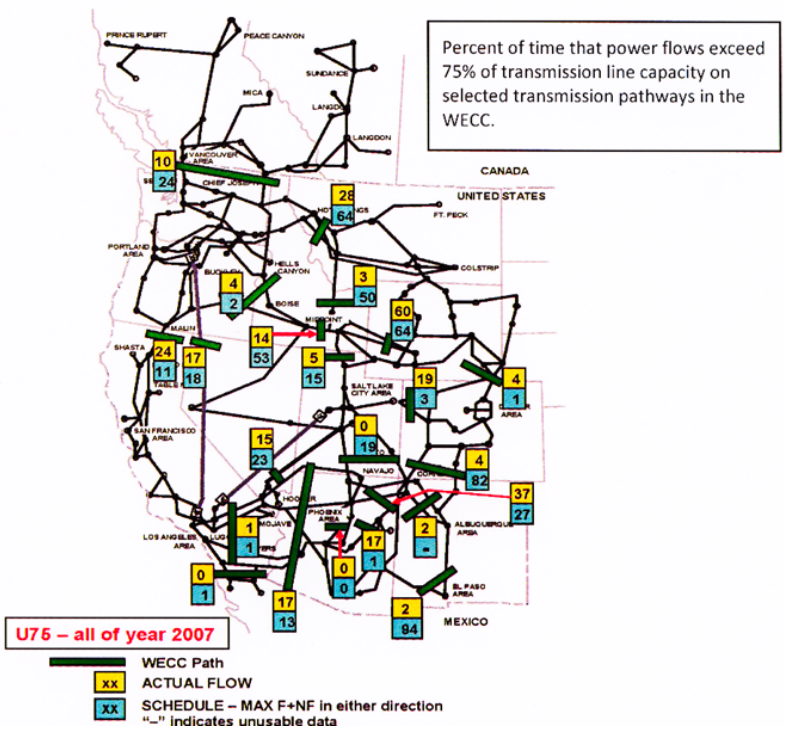
Transmission projects can provide "investment and resource cost benefits" by displacing or delaying otherwise needed capital investment, allowing the integration of lower-cost generation resources, and reducing the cost (or increasing the value) of subsequent transmission projects. For example, transmission investments that allow the integration of wind generation in locations with a 40% average annual capacity factor reduce the investment cost of wind generation by one quarter compared to the investment requirements of wind generation in locations with a 30% capacity factor. Transmission investments may also allow the development of generation with lower fuel costs (e.g., mine mouth coal plants or natural gas plants built in locations that offer higher operating efficiencies), better access to valuable unique resources (e.g., hydroelectric or pumped storage options), or lower environmental costs (e.g., better carbon sequestration and storage options). . .. Additional generation capacity investment savings also are provided by reducing losses during peak load and, through added transfer capabilities, the diversification of renewable generation. Recent studies show that peak-loss-related capacity benefits can add 5% to 10% to estimated production cost savings. The Eastern Wind Integration and Transmission Study ("EWITS") showed that regional transmission overlays can increase the capacity value of wind generation by roughly 5 percentage points (i.e., from an average of 23% without regional transmission upgrades to 28% with regional upgrades). Similarly, regional overlays can diversify the geographic footprint of intermittent renewable and balancing generation resources, which leads to lower renewable balancing costs. . ..

Transmission investments often create benefits beyond reducing the delivered wholesale cost of power. These "external" benefits include impacts on fuel markets (reduced fuel prices), environmental benefits (reduced emissions), and reducing the cost of public policy requirements (such as the cost of renewable generation). For example, the Southwest Power Pool estimated that transmission investment that allow for the interconnection of additional wind generation would lead to a reduction of regional natural gas prices, a customer benefit that offset approximately one quarter of the transmission costs.

In summary, the federal PMAs have been given significant powers by the Congress in EPAct 2005 and ARRA, and those powers were designed by Congress to permit the PMAs to attract private investments in transmission without placing the preference customers at risk of higher rates to pay for new projects that are not planned to provide new service to the preference customers. The steps proposed by Secretary Chu in his memorandum are modest, and seek the implementation of operational changes that will provide well documented benefits to rate payers. The new private investment in transmission that the PMAs can attract will create jobs, stimulate additional economic activity, and provide significant benefits and savings to ratepayers of all classes.

Again, thank you Mr. Chairman for holding this hearing today, and giving me the opportunity to testify before the Committee on this important subject.

I am happy to answer any questions you may have.


Percent of time that power flows exceed 75% of transmission line capacity on selected transmission pathways in the WECC.
CANADA
UNITED STATES
MEXICO
U75 – all of year 2007
WECC Path
xx ACTUAL FLOW
xx SCHEDULE – MAX F+NF in either direction
"–" indicates unusable data

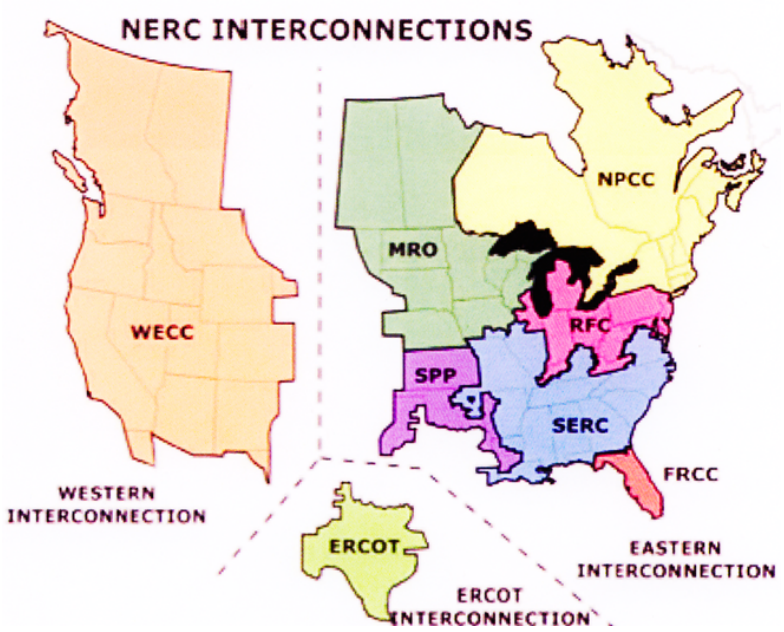

NERC INTERCONNECTIONS
WECC
NPCC
MRO
RFC
SPP
SERC
FRCC
ERCOT
WESTERN INTERCONNECTION
EASTERN INTERCONNECTION
ERCOT INTERCONNECTION

Figure 4

Impact on Spot Prices for Electricity of Balancing Area Consolidation

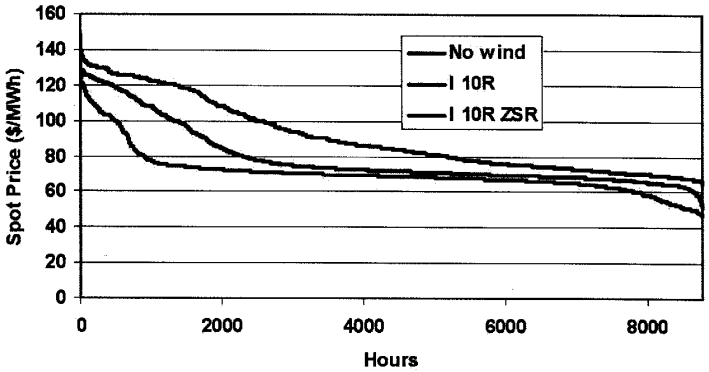
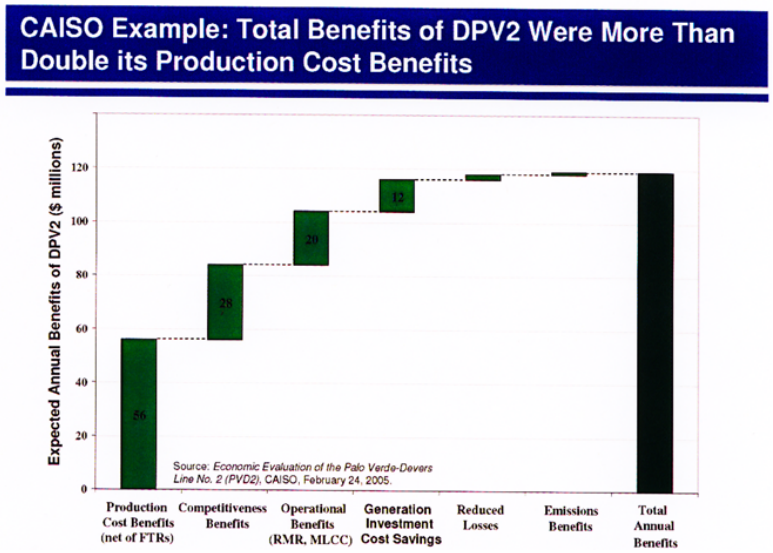


Figure 6.105 Spot Price Impact of Balancing Area Consolidation, 10% Penetration.



The CHAIRMAN. Thank you very much for your testimony. Next, I will recognize Mr. Scott Corwin, Executive Director of the Public Power Council out of Portland.

Mr. Corwin, you are recognized.

STATEMENT OF SCOTT CORWIN, EXECUTIVE DIRECTOR, PUBLIC POWER COUNCIL

Mr. CORWIN. Thank you, Mr. Chairman, members of the Committee. I am Scott Corwin, Executive Director of PPC, as the Chairman said.

We represent electric cooperative and public agency utilities in the Northwest that have preference rights to buy power from the Bonneville Power Administration.

It seems to us that while correctly noting that the PMAs can be and are leaders in the new challenges facing the industry, that the DOE memo represents to some extent a solution in search of a problem.

To understand our concerns with the DOE memo, it is important to understand that BPA is a statutory creature with specific missions that are not supported by taxpayer dollars. Customers pay for the costs incurred by this pass through entity.

Because of the public and regional nature of the assets, the process around them is very public and regional, and yes, arduous.

We do not always agree in the region. All families have their fights.

BPA, its customers, the states, the tribes, the Army Corps, the Bureau, the Regional Northwest Power and Conservation Council, and many others work together to fulfill increasingly complex mandates, all while trying to ensure reliable, affordable prices to bring benefits to citizens through cost based power.

The region's congressional delegation functions as a type of board of directors. They have a long history of working in a bipartisan way for the good of the region. We very much appreciate the letter they sent on April 11 expressing concerns with the DOE Memorandum and some of their work just this week on the appropriations language.

The PPC shares their concerns. We worry about the risk of higher costs without reciprocal benefit. Redesigning rates to achieve policy goals has the potential to impose costs on BPA ratepayers without offsetting benefits, which is unfair to citizens in the region.

Also, under statute, BPA has an imperative to achieve objectives at "the lowest possible rates to consumers consistent with sound business principles."

BPA's purposes can only be refined with specific authority from Congress, preserving the core tenets of public preference and cost based rates.

In several respects, the DOE Memorandum suggests new missions for BPA that would raise questions as to whether they are appropriate to the region or outside the agency's statutory authority or may impose undue risks to consumers.

Examples, the section on improving PMA rate designs has the look of planned rate increases that could conflict with BPA's statutory mandate for cost based rates.

Electric vehicle deployment, for example, is being pursued by retail utilities in the Northwest. It is not a necessary new role for a wholesale power supplier.

The cumulative effect of statements directing PMAs to centralize functions, implement new rate designs, and pursue broader projects hints at an unnecessary and costly expansion of regulatory reach, possibly despite the footnote in the memo to the contrary, possibly suggesting a regional transmission organization, an RTO, which has been carefully vetted and rejected over many years in the Northwest because of costs, operational and jurisdictional concerns.

Finally, because the memo reads as conclusory, there is little recognition of what is already happening without new statutes or directives.

BPA has the highest percentage of penetration of wind power of any balancing authority in the entire country. It has seen a ten fold increase on its system just since late 2006.

Just in the last year, BPA and its customer utilities achieved 130 average megawatts of new energy efficiency. The BPA has built and operates over 15,000 circuit miles of high voltage transmission lines, and has 217 miles of new 500 KV lines, 82 miles of 230 KV lines, and three new substations all underway right now.

For 75 years, PMAs in partnership with their customers have addressed new challenges, and there is more progress being made every day.

We urge that future initiatives be regionally based, consistent with current statutes and responsibilities, and that they avoid creating costs to ratepayers without reciprocal benefits.

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).

Since the beginning of the federal power program in the West, not-for-profit rural electric cooperatives and public agencies have had the priority or preference right to purchase federal power on behalf of their consumers because they have a mandate to pass the benefits through to the citizens who are their owners. In the Columbia River Basin there are 130 of these utilities serving customers in seven western states. They have a close and symbiotic relationship with BPA and directly feel the brunt of increased costs passed through by BPA.

I thank you very much for the invitation today because it allows the opportunity to testify about the way we do business, and on the manner in which consumer-owned utilities work with Power Marketing Administrations (PMAs). At their best, the PMAs reflect the essence of the core customers they serve: utilities that are service-oriented, cost-conscious, and consumer-focused because they are created for and owned by the people they serve.

It is difficult to know exactly what to make of the Department of Energy Memorandum to the PMAs sent on March 16 of this year. On a very general level, one might view portions of the memo as posing questions around new industry challenges that face many utilities. We do not disagree that the PMAs can be, and are, leaders in the industry. Indeed, the PMAs already are stepping up to meet new directions in energy, as discussed below, including aggressive pursuit of new technologies, integration of renewable resources, and visionary achievements in energy efficiency. We note as well that the DOE Memo aptly recognizes, at least at one point, the need for a continuing commitment to cost-based rates.

However, the Secretary's memo also steps beyond a general recognition of the PMAs direction and alludes to several ominous directives that could add additional costs. Today, I would like to explain our concerns, and why we view the memo as implying new endeavors that could set the PMAs off-course from their core mission, could increase costs to customers without reciprocal benefit, and could do more harm than good by separating the PMAs from the important regional deliberations that have guided them throughout history in pursuit of their statutory goals.

The Regional 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.

It is the 75th Anniversary of BPA this year, and not coincidentally it is also the 75th Anniversary of many of PPC's member utilities. Over this time, the primary mission of BPA is and always has been to provide reliable electricity at affordable prices. Throughout their history they have accomplished this mission well, partnering with consumer-owned utilities to bring economic benefit to citizens of the region through cost-based power. Today, they continue to do so even as they evolve to meet new challenges.

The Memo and BPA as a Pass-Through Entity

This impressive record of the PMAs, and their continued progress, makes it difficult to know how to view a memo that seeks a new vision for them. One could imagine a vision document with broad goals and a process laid out in which to engage in further discussion. However, the March 16 memo from Secretary Chu moved into fairly specific action items, and alluded to future directives that did not appear to fully recognize the regional dynamic of these entities or their current activities. It seems in part to be a solution in search of a problem, and is a threat of top-down approaches and more involvement from Washington, D.C.

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 very much appreciate the letter that they sent on April 11, 2012 expressing concerns about the DOE Memorandum.

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.

Specific Concerns with the Department of Energy Memorandum

The March 16, 2012 memorandum released by Department of Energy Secretary Chu outlines a vision and policy direction for the federal Power Marketing Administrations (PMAs). While short on specific policy prescriptions, the document raises significant concerns in a number of areas with its promise of "subsequent memoranda" and "directives."

Cost Concerns in the Northwest

While the Northwest has been hit hard during the last few years (Oregon and Washington unemployment stayed above the national average at the end of March), BPA, with its relatively lower-cost power supply and 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. Direction to pursue policy objectives that would impose costs on BPA ratepayers without offsetting benefits is a dangerous threat to the region.

Scope, Legal Authority, and Regulatory Oversight

The core mission of each of the PMAs is to market power generated at federal multi-purpose dams to public power systems. BPA is to do this at "the lowest possible rates to consumers consistent with sound business principles." 16 U.S.C. Section 838g. Over the years, the authority of BPA has been refined and expanded. But, in each case Congress has given specific authority and direction to BPA.

Moreover, each refinement of BPA's mission has carefully respected the core tenets of preference and cost-based rates, as well as BPA's core role as a the key wholesale power supplier for vast areas of the Northwest. In several respects, the DOE Memorandum suggests new missions for BPA that would raise questions as to whether they are appropriate to the region, are outside the agency's existing statutory authority, or pose undue business risk to consumers. For example:

- Technology—On page three of the memo, BPA and the other PMAs are directed to serve as "test beds" for innovative cyber security technologies. While BPA is certainly feeling the brunt of new NERC reliability and security standards, testing and proving technologies is a better role for DOE labs, not an agency that has 100% of its costs recovered from ratepayers.
- Rates—On page four of the memo there is a particularly concerning heading of "Improving the PMA's Rate Designs". This calls for rates to "incentivize" several policy objectives. This has the look of artificial rate increases, and one wonders how this would not conflict with BPA's statutory mandate for cost-based rates. Moreover, initiatives in the memo, such as electric-vehicle deployment, are being pursued by retail utilities in the Northwest, and are not necessary new roles for this wholesale power supplier.
- EIM—On page five, DOE discusses PMA participation in a West-wide market to address energy imbalances resulting from intermittent renewable generation. The value to BPA customers of a west-wide, FERC jurisdictional market of this kind has not been shown, and the concept raises multiple questions around governance and legality of BPA participation. Instead, parties within the footprint of the Northwest Power Pool are pursuing capture of additional flexibility and capacity across their systems to address energy imbalance. Part of that work includes further coordination on a host of initiatives already underway to create efficiencies among utilities.
- FERC—The cumulative effect of statements throughout the memo directing PMAs to centralize functions, implement new rate designs, address "rate pancaking", and pursue broad regional planning and coordination on operations of the grid all hint at an unnecessary and costly expansion of regulatory oversight and direction by both the Department of Energy and the Federal Energy Regulatory Commission (FERC).
- RTOs—Indeed, the above combination of elements in the memo undermines its assurance in a footnote that it is not proposing a move toward a Regional Transmission Organization (RTO) in these regions. The RTO concept has been carefully vetted and rejected over many years in the Northwest because of cost and jurisdictional concerns.
- Regional Process—Throughout the document, there are conclusions reached as to policy direction that appear to skip the usual regional analysis and collaboration in policy development, and overlook the statutory limitations for PMAs on cost recovery, mission, and geographic scope.

BPA and Customer Achievements to Date

The specter of BPA and the other PMAs being told to take steps to support new directions that may or may not have value to regional customers is all the more troubling given that BPA continues to achieve so much in this arena 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). In March, BPA's system passed the mark of 4,400 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 ten-fold (1000 percent) increase over the amount of wind on the BPA system in August of 2006 (Figure 1).
- 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.

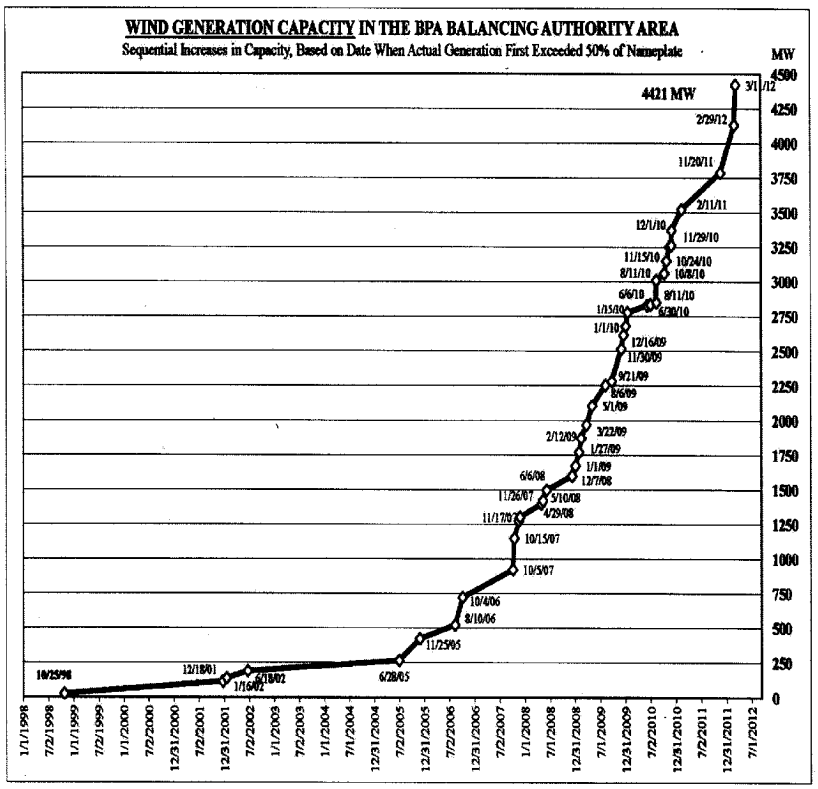
Conclusion

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.

While it is unclear how the Department of Energy memo on PMAs may be implemented, it raises significant concerns about potential costs and regulatory burdens. Future initiatives must continue to be consistent with each PMA's statutes and responsibilities, and must not create costs to ratepayers without reciprocal benefits. With so much progress already underway, it would be a shame to override regional solutions in favor of one-size-fits-all proposals from D.C. that may, in the end, not fit anyone.

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

Figure 1



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The CHAIRMAN. Thank you very much, Mr. Corwin, for your testimony. Next, I will recognize Mr. Joel Bladow, who is the Senior Vice President, Transmission, Tri-State Generation and Transmission out of Colorado.

Mr. Bladow?

STATEMENT OF JOEL BLADOW, SENIOR VICE PRESIDENT, TRANSMISSION, TRI-STATE GENERATION AND TRANSMISSION

Mr. BLADOW. Thank you, Mr. Chairman. My name is Joe Bladow out of Colorado. I again appreciate the opportunity to testify today and talk a little about the impact we see at Tri-State.

Up on the screen gives you a sense of how spread out we are. We consist of 44 members that own us. We are not for profit. There is about 1.5 million consumers that buy electricity from our members.

You see how vast that geography is, about 200,000 square miles in four states. In our spread out area, we have about five consumers per mile of line. A typical investor owned utility has about 40. You can see for us, keeping our costs down and keeping it affordable for those folks is not easy and very difficult at times to do.

There have been many concerns raised about the Chu memo, and there are just a couple of points I would like to make.

One would be I have been in building transmission for about 30 years now. The issue you see in building transmission is who is going to pay for it a lot. That has been mentioned before.

Will the beneficiaries pay for it or will they get somebody else to pay for it, as Mr. English pointed out.

I think more transmission is better if the folks willing to pay for it are the ones that pay for it. Just building transmission for somebody else is not really good for the folks that get stuck with the bill.

As a not-for-profit, every cost increase we have goes right to our members' bills. If there are nuggets in Mr. Chu's memo in terms of things we can do better to save a buck, if you will, for our members, we will be supportive and will be interested to see how we do that.

We are always looking to save the dollars, because that goes right to the bottom line. There is no we save some dollars and it goes to shareholders, no, it goes to our bottom line.

To date, there really is not enough information in that memo to understand is there a buck to be saved or are there just dollars to be spent.

Another thing is the leadership role of the PMAs. I would distinguish between leadership role and experimental. The PMAs are not DOE laboratories. When DOE labs do experiments, they do a lot of science. Sometimes it works out, sometimes it does not work out.

The PMAs have real assets, real customers. They operate real systems. When things go bad, my consumers, our people's lights go out. That means the cash registers do not work at the local store, the schools let out. Those are things that we want to avoid, but that is what happens when you experiment on a real system.

We are real concerned about trying things out on an operating utility, an operating system.

Tri-State amongst other utilities, the public power sectors, invested a lot in renewables. We have paid our own way to integrate wind, solar, distributed generation to our members.

We pay for that, and that is fine, but we just do not want to pay for other people's integration. Those who benefit need to pay.

Another issue is all the costs that go into the PMA rates, all the things they spend, we pay for as customers. There is no side kitty of appropriated dollars. It all comes into our rates.

Even the process of examining these efficiencies on a national level, that will go into our rates. We will be paying the cost of any type of public process and stakeholder on this. We would much rather pay the cost on a more regional based one that really identifies local issues and local problems.

Another issue that has been brought up is the energy imbalance market and the benefits or perhaps problems with it.

Where it has been implemented in other parts of the country, they always have built a foundation, and the foundation is how are we going to use the transmission system in order to enable the market.

In this case, there is a proposal for an energy imbalance market without any foundation under it, and to put the foundation under it, you have to basically have an RTO. You have to have a transmission agreement in order to build an energy imbalance market.

When engaged in that process and when asked the question of an energy imbalance market how are we going to deal with the transmission, the answer inevitably is we will get to that down the road.

That is a very fundamental piece. Our concern is once we understand the building blocks, we can then determine is that good or bad. A lot of the cost savings that are referred to, there may be general cost savings, the problem is there are winners and losers, and when you are on the short end of the stick and you are paying for somebody else, it does not look like such a good idea, and that is one of our concerns.

We have had decades of relationship with Western Power Administration. It has been very positive. We pay. We work with them. They meet the needs of our consumers in the regions.

Hopefully going forward, and I appreciate the Chairman calling this hearing, that we get that dialogue going again so we can identify the true savings.

With that, I would be happy to answer any 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's Senior Vice President for Transmission. I appreciate having the 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 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. Recently, we 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 developments on our member systems. Under this policy our members have added, or are scheduled to add, another 42 megawatts of distributed local renewables to our portfolio. 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 a similar generation portfolio.

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 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. Since it is such a crucial 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.

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 and Wyoming in addition to 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 that as a whole 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.

Secretary Chu's statement about WAPA's potential participation in an Energy Imbalance Market (EIM) is an example of an additional cost associated with his memo. The memo acknowledges "WAPA[and its customers] may incur costs during the initial transition to EIM. . ." It is disconcerting that the Department of Energy is pushing WAPA into an EIM—with its customers shouldering the costs—before the studies indentifying the costs and benefits have been completed and peer reviewed

While it is troubling in and of itself that our not-for profit member systems could face rate increase(s) resulting from the Chu directives—it is even more troubling that our members would shoulder these costs for the benefit of for-profit utilities. Tri-State has developed a significant renewable portfolio and our member-systems have complemented this portfolio by developing distributed generation projects working with local developers in the communities in which they serve. Our members have borne the cost of this development and the integration of these projects into our network. If the Chu memo is implemented, our members will not be rewarded for this effort, but rather would be required to help pay the costs for other utilities' renewable integration costs. For example, in Colorado the majority of the electricity demand is in the Denver Metropolitan Area. However, the utility providing electricity to this region has almost no interstate transmission connections which would help reduce their integration costs. The Chu approach would reward this utility by allowing it to use WAPA's interstate transmission system without compensating Tri-State and WAPA's other customers that paid for the construction and continue to pay for the maintenance of the system through their rates.

As disconcerting as it is that Tri-State and its member systems could face increased rates as a result of the "Chu" Memo, we are equally concerned about the effect that some of the directives could have on the reliability of the Western Grid. WAPA has real wholesale customers to serve, a real transmission system to maintain, and real reliability obligations to comply with. It is not a "laboratory" like Los Alamos or the National Renewable Energy Laboratory. We are concerned about the Chu memo's apparent desire to turn WAPA into a "test bed" for conducting research on such things as cyber-security, solar flares, and rate design. These actions not

only take away from its mission of providing cost-based federal power to its customers, but could affect WAPA's commitment to reliability and undoubtedly, raise customer rates in order to pay for the experiments. In addition to the cost impacts, the human resources that maintain and operate WAPA's extensive transmission system will be diverted to implementing these new policy initiatives at the expense of the existing system and the customers they serve.

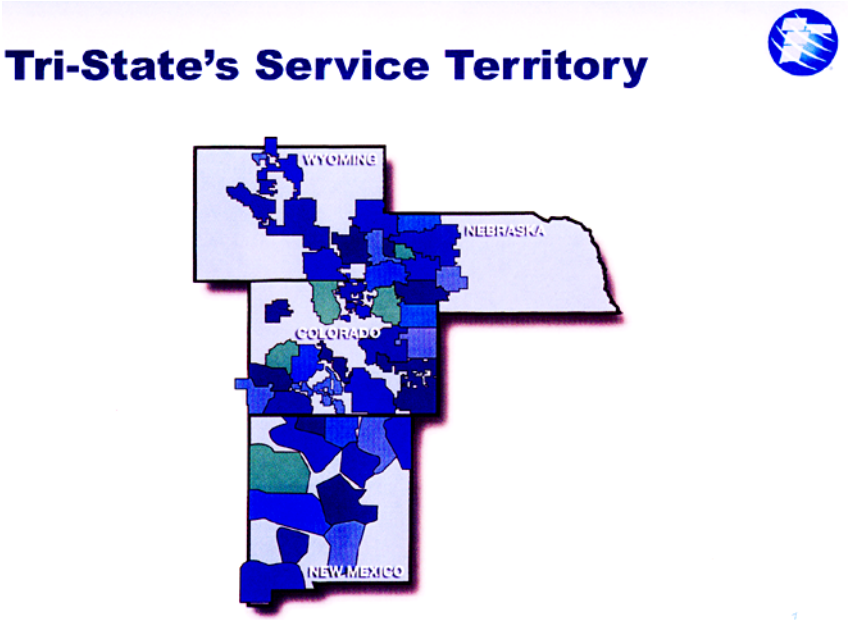
Customer Collaboration and Congressional Oversight

Over the years, Tri-State and the other WAPA customers have had an open dialogue routinely consulting with each other on operational, planning and other matters affecting the PMA. However, when Secretary Chu released his "visioning" memo—the "vision" was created and presented without talking to any of the hundreds of existing federal power customers, including Tri-State, that have existing systems that utilize these resources. The Department of Energy (DOE) has indicated that there will be stakeholder meetings to discuss the implementation of the concepts in the memo. Given the complete absence of dialogue between the customers and DOE prior to the release of the memo how seriously should Tri-State and other customers take these meetings? Will the process be a monologue from DOE to the existing customers and not a dialogue with the existing customers that will shoulder the cost burden of these experiments? If this consultation had occurred, the DOE would have realized that creating rate structures that incentivize certain retail consumer decisions is problematic, at best. Traditionally, retail suppliers, consistent with governing body and state regulations, have identified and determined which program best meets the needs of their consumers. A "one size fits all" federal mandate from the DOE on energy efficiency, demand response, and electric vehicle programs preempts the local decisions and community programs that are already in place and are the foundation of local control. Tri-State's member systems have numerous programs—each tailored to the local economies and consumers they serve—to help reduce costs and create jobs. A top down approach is unnecessary and counterproductive to the goal of providing our members with affordable and reliability electricity in these tough economic times.

Assuming a new role as a clearinghouse for energy efficiency, demand response and electric vehicles would be new for the PMAs. The DOE has proposed establishing a revolving fund for WAPA and the Southwestern Power Administration in order to pay for these new functions. So, on the one hand DOE did not consult with WAPA's customers before releasing its proposal to significantly realign the mission of the PMAs and now it would like to implement these new roles by establishing a revolving fund for two of the three PMAs, which would take away Congressional oversight. Given the approach the DOE took in releasing the Chu memo—Tri-State believes that establishing a revolving fund for WAPA, and thus reducing Congressional oversight, would not be a productive move at this time.

Conclusion

In general, the memorandum released by Secretary Chu on March 16th envisions a future where WAPA and the other PMAs become the technology and policy test beds for the industry with the development costs borne by PMA customers. At a time in the utility industry where there has been, and continues to be, rapid change with many new players and market segments (renewable developers, demand service management providers, smart meter deployment, independent transmission companies, independent transmission operators, etc.), do the PMAs really need to be "redirected" away from their traditional mission of marketing and delivering cost-based federal power from federal multi-purpose facilities? I would suggest that utilities with load serving obligations, as well as local governments and electric cooperative boards, are the best entities to determine how much consumers are able to afford in these anemic economic times—not the "one size fits all" mandated approach from the DOE.



Response to questions submitted for the record by Joel Bladow, Senior Vice President, Transmission, Tri-State Generation and Transmission Association, Inc.

1. Mr. Bladow, Page 2 of your testimony implies that Tri-State members would wind up paying more to subsidize renewable energy integration costs for IOUs. Would there still be an objection if (a) there are any actual additional costs to WAPA from the balancing electricity moving on a WAPA transmission line that has a lot of left over physical capacity and (b) if WAPA receives some payment for the use of this line from the EIM transaction that it wouldn't have otherwise received?

Mr. Markey, Tri-State and the 44 member rural electric cooperatives and public power districts (ppds) to which we provide wholesale electricity have done much to develop the transmission and distribution infrastructure in Colorado, Wyoming, Nebraska and New Mexico. Much of this development has been in geographic areas once seen as unattractive to other electric utilities. Since Tri-State and our member systems are not-for-profit consumer-owned utilities, the development of this generation and transmission network has manifested itself in the retail electricity bills electric cooperative and ppd consumers pay each month. These rates also include repayment for the development, operations, maintenance, and replacement costs of significant portions of the WAPA transmission system in our geographic area. Tri-State and our members did not develop this infrastructure and support WAPA's development because of a promised return on investment, but because they were necessary to provide affordable and reliable electricity to our membership. None of the analysis or proposals for markets in Tri-State's area has factored in the concept that WAPA or Tri-State would get transmission revenue for use of their large interstate transmission systems. The economic analysis is based on the free use of the transmission system by the energy imbalance market. If implementation of the EIM were to pay WAPA, or Tri-State their tariff rate, as all the existing customers pay, Tri-State would have no objection to the additional use of the transmission system and the lower average cost all users would pay.

The CHAIRMAN. Thank you. Thank you all very, very much for your testimony. We will now begin the rounds of questioning, and I will recognize myself for five minutes.

My first question is to Mr. Corwin and Mr. Bladow. Under Federal law, the PMAs have to sell hydropower at cost best rates within sound business principles. These rates apply to the capital investment, to the transportation infrastructure, and interest in operation and maintenance.

It has been said that the Chu memo and the directives from the Chu memo will run contrary to these cost based statutes.

Since both of you represent a number of utilities, could you explain how that would happen? Mr. Corwin, I will start with you.

Mr. CORWIN. Thank you, Mr. Chairman. That is correct. The rates are set on a cost basis for the Bonneville Power Administration and other PMAs because these are again pass through entities. There is no other place for the costs to go but to the ratepayers and public agencies and cooperatives have to pass those on to them.

The Chu memo in a couple of places certainly points in a different direction, especially the rates' incentive portion of the memo, mostly pages four and five is where they dive into that.

You can envision a whole host of scenarios, and Mr. Bladow just described a couple, where you have folks having to pay for projects where there has not been proven reciprocal benefit back to that set of customers.

Mr. BLADOW. I would add to that. They talk about eliminating pancaking for Western Area Power Administration's case, which really means we will blend the rates amongst various projects. Western is made up of numerous independent projects.

When you do that, you in essence are shifting costs between projects. It still may be cost based on paper, but reality, what you have done is you have added costs that do not benefit the one entity, and you end up shifting that.

That is our concern with the costs.

The CHAIRMAN. Thank you for that. My next question is for Mr. English and Mr. Crisson.

The PMAs, the four PMAs, while they are created by Congress, are all different, the complexity of those four are all very different, but there is at least a commonality that I have heard throughout my experience here and what I have heard today.

Those commonalities are cost based rates, the beneficiary pays, and whatever decisions or changes, they should be regionally based decisions.

Do you agree basically with that concept of how the PMAs are? Mr. English, we will start with you.

Mr. ENGLISH. I definitely do, as I said in my testimony, Mr. Chairman, basically this is a long history here, and this is a partnership. It was established as a partnership. We need to keep that in mind. It has been tremendously successful.

Each PMA as you point out is different. It is unique. It has special problems. That partnership between the local PMA and those customers that are using that power has been a great way in which we can deal with local problems.

The CHAIRMAN. Mr. Crisson?

Mr. CRISSON. Yes, Mr. Chairman, I would agree with that assessment. Most of the PMAs can look to a situation where the customers and the PMA itself enjoys a very good working relationship, a collaborative relationship, in which they discuss issues of mutual concern.

There have been times when the roles, authorities, responsibilities of the PMAs have been changed, but in my experience, that is usually a prolonged, multi-year process that involves significant dialogue and discussion within a region, involvement of Congress, and then ultimately authorization by approval of Congress.

The CHAIRMAN. To the extent that the Chu memo deviates from that basic concept, what effect would that have in your view on the ratepayers? Mr. English?

Mr. ENGLISH. I think it has the potential of having an enormous impact on the local ratepayers. Again, as I stated in my testimony, our major concern here is this is getting to be a huge cost shift, that the PMA customers are basically being placed in a position to pay for benefits for people who are not customers.

This is a major break with what has been the history of this program and what it has been all about. Quite frankly, the issue of fairness these days does not get discussed much. That is terribly unfair, and certainly contrary to what I think were implied promises made by the Federal Government back when PMAs were started and we agreed to pay higher than market rates.

The CHAIRMAN. Real quickly, Mr. Crisson, do you agree with that?

Mr. CRISSON. I would concur with that. This memo has been characterized as a vision statement. I would argue it is more a series of directives. There are a lot of unknowns and uncertainties here. We are very concerned about what might come out of all this.

The other clear concern we have about this is it signals a different way of doing business. We have a good working relationship. We have a collaborative relationship. We do not want that to change.

The CHAIRMAN. Thank you very much. My time has expired. I recognize the gentleman from Oregon, Mr. DeFazio.

Mr. DEFAZIO. Thank you, Mr. Chairman. Thank you for holding this very important hearing.

I would note we did send a letter raising a number of issues that have been discussed here, a number of the members of the Northwest Delegation sent to Secretary Chu. We have had no response. I would hope if we do receive a response, perhaps we might then invite them to come and elaborate upon that at a future hearing.

The CHAIRMAN. Will the gentleman yield?

Mr. DEFAZIO. Yes.

The CHAIRMAN. Listen, we are going to start this process, and talking to those that are affected, I am quite frankly surprised there has not been a response to our letter. Yes, we will follow up accordingly.

Mr. DEFAZIO. Thank you, Mr. Chairman.

We have particular problems with wind integration in the Northwest. In reading Mr. Humble's testimony here, I am just curious. You are not specific. Would you care to be specific about who held

the right to the transmission capacity, who tried to, as you said, extort monopoly rents?

Mr. HUMBLE. That is covered by a non-disclosure agreement. I cannot do that.

Mr. DEFAZIO. All right. There is no implication that this was a result of the policies of our power marketing agency, the Bonneville Power Administration, is that correct?

Mr. HUMBLE. I do not think the Bonneville Power Administration sanctioned it. No, sir.

Mr. DEFAZIO. OK. The energy you were going to generate, can you disclose, was that going to be—I assume it was going to be dispatched to California. That seems to be the big market.

Mr. HUMBLE. That is correct.

Mr. DEFAZIO. OK. Here is the issue, in the Northwest, we have a peculiar problem called "high wind/high water." We have little too much wind, at the same time, we sometimes have too much water, and then we have a salmon issue and a judge who wants to take out our dams. We have to be very careful how we manage those dams.

I think our regional Power Marketing Administration is trying to work with the wind developers. We are definitely not anti-wind. We have to figure out how to integrate them.

You are pointing to times where the system is under utilized, but there are also peak times where the system is way over utilized in terms of transmission.

I would ask Scott Corwin if you would care to perhaps elaborate on our particular problem. I do not see the Chu memo as being helpful. He mentions wind integration, but I do not see any helpful suggestions or guidance there.

Mr. CORWIN. Thank you, Congressman. I do not see any either, especially with respect to the over supply situation that you mentioned, where you have a whole lot of hydro coming down a system and fish constraints on the system, and then wind power coming on in the low load hours.

There are pieces that people are working on to get at some of the issues and the efficiencies that Mr. Humble mentions, but what we are doing in the Northwest is trying to do it on a regional basis, getting folks together, getting the different balancing areas, the different generators together around the room to see how they can coordinate and try to capture efficiencies.

We are not looking for a top down solution or a west-wide market on that at the moment.

Mr. DEFAZIO. We are still paying how much more because of the last west-wide market created by California in the Enron era? We are still stuck with some contracts.

Mr. CORWIN. Yes. That was the last time our rates went up 46 percent at BPA.

Mr. DEFAZIO. We are very skeptical of RTOs. I helped lead the fight against the RTO in our region. I do believe we are working in good faith with an extraordinary amount of wind development in the region now.

Since Mr. Humble cannot be specific, whatever particular entity held whatever particular transmission right to access perhaps then the high voltage interstate grid, that is an interesting issue. I can-

not really address it if I do not know more specifics and how we could make the system more efficient there.

I have suggested in talking to some wind developers in the past, you know, you are getting a tax subsidy. You get a production tax credit.

We have problems with our high water where we are fulfilling your contracts but those developers then cannot collect their tax subsidy. We have to curtail, and that is a problem for developers because they have certainly penciled out this whole thing depending upon that commitment when they generate.

I think there are ways perhaps to modify if we ever do deal with production tax credits again legislatively, mandatory curtailment, things like that. You are raising other issues that I cannot quite get at because I do not understand the legal barriers there.

I think this really merits a lot more discussion, Mr. Chairman.

The CHAIRMAN. I agree with the gentleman on that. His time has expired. I recognize the gentleman from Louisiana, Mr. Fleming.

Dr. FLEMING. Thank you, Mr. Chairman. I thank the gentlemen for joining us today on this.

Several times in this Committee, I have cited a quote by Secretary Chu made in 2008, when he shared his intentions to "Somehow figure out how to boost the price of gasoline to that of the level of Europe."

I find it ironic that he conveniently cannot be with us today to defend his memorandum and instead he is traveling in Europe where, of course, gasoline is today $8 a gallon.

Fundamentally, Secretary Chu and I disagree on the role of Government and how it best serves the people. In my opinion, he, as well as President Obama and Secretary Salazar, are out of touch with the American people who are desperate for lower energy costs.

I find his Memorandum to be another example of how this Administration seeks to ensure the rising costs of energy.

On the one hand, Secretary Chu is willing to commit taxpayer dollars to a now bankrupt Solyndra, and on the other hand, is trying to change some of the most fundamental functions of PMAs.

His response to these criticisms, of course, is to simply not appear in this hearing today.

Let me see if I get this right. I listened carefully to your testimonies. The way PMAs have worked for years is to decentralize the authority over the electricity production, that there is a collaborative relationship between the authorities and the customers, and that it has been a win-win situation for decades, that there is tremendous efficiencies enjoyed.

At the same time, customers are willing to pay a premium price for electricity for some other tradeoff's, all very voluntarily.

What I understand from Secretary Chu's Memorandum is instead, we begin to centralize all of this. We begin to potentially shift costs to other areas, and certainly, we bring out of touch the customer with the authority somehow perhaps transferring costs or maybe even transferring wealth, if you will, to others, where there is no accountability for that cost.

Mr. English, I would love to have your perception and certainly let me know where I am wrong on that.

Mr. ENGLISH. I do not think anyone can say you are wrong because quite frankly we do not know what this memo means at this particular point.

I have to say that we are alarmed because of the fact that we fully recognize that now the preference customers are getting great benefits for investment they made years ago. We gambled. We paid higher than market prices at that point. We helped pay off the debt to make sure the dams did get built.

This was kind of a little do it yourself project. Now, we are getting the benefits because you have very reasonably priced power, no question about it.

In fact, we think there could be far more power generated through these facilities, but we do not find a great deal of enthusiasm for making the kinds of investments and upgrades to improve that overall efficiency.

I do not think there has ever been a reluctance on the part of preference customers in stepping up and helping pay for that, to pay for it.

What we are talking about here is a different ball game, I think. What we are concerned about here is that this is looked upon as a cash cow. We will go raise money off preference customers to go pay for other projects that we know we cannot get paid for any other way.

With tight budgets, that is a tempting target. No question. You are right, it totally destroys what has been a very effective relationship locally, dealing with a lot of very individualistic problems faced by local PMAs.

Dr. FLEMING. If I understand this correctly, you had the preference customers who paid higher than market rates to really invest in the future?

Mr. ENGLISH. Exactly.

Dr. FLEMING. That is to say we are going to take out the capital costs, we are going to do this because we know down the road that we are going to lower our costs, we can then, of course, be more competitive in the marketplace. We can pass the savings along even to our customers.

Now that they have done the deal, now the Government is reneging on this by saying as you say we have all this cash, we can now invest it using the values that we in Washington perceive as being good, such values as perhaps investing in Solyndra like companies, which of course did not turn out very well, did it?

In fact, I think if I understand correctly, there was a total of $34 billion from the stimulus that went into all sorts of alternative energy and "investments," much of this which has turned out into bankrupt companies.

What I foresee and what I think you are telling me here is those who made the good business decisions and are now benefitting from it, Washington is now breaking the deal and want to put our hands, we in Washington, our hands in the till, pull the money out and put it into other things that are unproven, perhaps even dangerous for the future.

Mr. ENGLISH. Let me just say I do not know if I would go quite that far, but we are fearful. Let me also say that I think what we

are also laying on the line is that was a darn good business model to follow. People reaping the rewards.

We fully understand today, today's society, we do not have many people who want to pay for anything that they get, any benefits. I want free lunch. That is what we used to call it back in my days, free lunch.

In this case, we are suggesting that it was a good model for preference customers years ago, this would be a good model for folks today who may want to expand and go into new ventures to follow as well.

This partnership between Government and private folks makes sense, but they ought to pay for it, not somebody else.

Dr. FLEMING. Thank you. I yield back.

The CHAIRMAN. The time of the gentleman has expired. The Chair recognizes the gentlelady from California, Mrs. Napolitano.

Mrs. NAPOLITANO. Thank you, Mr. Chair. Very interesting conversations. I certainly wish somebody, Secretary Chu or his folks would be here to listen and understand what some of the concerns are from the witnesses.

To Mr. Corwin, it is my understanding that BPA has a revolving fund that allows the agency to move forward with capital projects. Do you believe their ability to self finance has removed any oversight by Congress and its customers?

Mr. CORWIN. No, it has not. We do a lot of customer oversight. I spent most of last week in customer oversight over there on the capital spending process at BPA.

Mrs. NAPOLITANO. Right. I agree with that. Mr. Crisson, as has been mentioned, my concern personally is that if the Administration does not ask for funding or if Congress does not authorize funding and the power users do not want to pay for it and there is no ability for Western to effectively manage aging infrastructure, how do you believe we can effectively manage the issue of aging infrastructure? How do we propose to deal with it?

Mr. CRISSON. Congresswoman, we are not saying there should not be any way to proceed with financing infrastructure. Our concern with the Chu memo is the directive nature of it.

Mrs. NAPOLITANO. Can we call him "Secretary Chu?" He does have a title.

Mr. CRISSON. Secretary Chu. The concern there is because the memo is not very specific, we are very concerned that proceeding with what is outlined there may produce significant costs, where the benefits are not clear, and raising a situation where the customers may pay for benefits that are not commensurate with what they are receiving.

Mrs. NAPOLITANO. You are concerned about the transparency of the memo, to be able to have people who are actually operators have input? Am I correct?

Mr. CRISSON. I think that is a good way to put it, yes, ma'am.

Mrs. NAPOLITANO. Thank you. The Secretary's Memorandum outlines some very good goals. As Ranking Member of the Subcommittee on Water and Power, I agree with some of the points he has made.

In order for a process to be successful, it is imperative that we ensure our constituents are included in the process.

I am sending a letter. I understand Mr. DeFazio has already sent a letter, to which he has had no reply. I am sending mine. I am hoping we get a reply because there are some issues, some questions that we have.

We agree with some of the points that you have made, but I still have an issue with the infrastructure itself because I visited a couple of the PMAs. There is aging infrastructure, and there is a need for it, and you are being asked or the PMAs are being asked to receive renewables, and yet there is not that infrastructure ready to be able to be implemented or at least connected.

Those are issues that I have great concerns about. I am sorry Mr. DeFazio left. I was going to ask him. If California did not have the need, what would you do with that power. Sorry, I am from California.

Anybody want to address that?

Mr. ENGLISH. Ma'am, I will take a crack at that. Let me just say here I think there are some other issues.

We are involved in renewables, electric cooperatives are, big time. We would argue probably we are doing on a per capita basis as much if not more than anybody else in the industry. We are very proud of that.

We believe in efficiency. We think efficiency has a big, big role to play.

Mrs. NAPOLITANO. And you are.

Mr. ENGLISH. Exactly. Thank you. The point that we are getting to here is this thing—I probably should not say it—there is suspicion, as I said, that the Secretary is really looking for a cash cow, looking for a way to ride on the backs of the PMAs to accomplish a task for other people other than the beneficiaries.

You are talking about that aging infrastructure. You are absolutely right on, and we agree. We think following that same model that we had in the past, and which we have that partnership between the Federal Government and the preference customers, should be followed to seriously upgrade those facilities.

Mrs. NAPOLITANO. Right. I do believe the stakeholders have to be involved.

Mr. ENGLISH. You are right.

Mrs. NAPOLITANO. That is something that we are very, very concerned about. I just want the politics left out of it. This water has no color. It is our economy.

Mr. ENGLISH. Amen.

Mrs. NAPOLITANO. With that, I yield back.

The CHAIRMAN. I thank the gentlelady. The Chair now recognizes the gentleman from Colorado, Mr. Lamborn.

Mr. LAMBORN. Thank you, Mr. Chairman. Mr. Bladow, thank you for coming here from Colorado. Good to see you, and all the other witnesses as well.

Were the PMA customers at all consulted on this proposal? Since they are the ones who are going to be asked to pay for PMA programs, it seems they should have some kind of involvement in this whole process. Has that happened up until now?

Mr. BLADOW. Mr. Lamborn, no. From Tri-State's perspective, we are one of WAPA's largest customers, and we are very disappointed that there was no reaching out, no discussion to help understand

what issues we are trying to address, and what may be important to us.

It seems to be somebody else's agenda to set the course. It is important for us that we get involved and make sure that whatever process the Department does follow, they have indicated they will have a stakeholder process, that we are actually involved and they are actually willing to listen to what the needs are, not what they perceive the needs are.

Mr. LAMBORN. OK. Thank you. The Chairman asked you about cost sharing. Let me drill down a little more specifically.

Who would pay the costs if there are hard costs, and there sounds like there are, with this proposal?

Mr. BLADOW. At the end of the day, all of the PMAs' costs are recovered through rates. Even the Federal appropriations they may get is rolled into the rates.

Whatever comes out of this, we will end up paying in our rates and our consumers will pay in their rates, all of the preference customers, so for us, it is very important to make sure we have some insight and have some ability to influence where those dollars are spent, and make sure the benefits flow from whatever dollars they spend.

Mr. LAMBORN. Would one alternative, if not the ratepayers, the only other alternative that I am aware of would be an appropriation from Congress.

Mr. BLADOW. Yes, it is either the ratepayers or the taxpayers have to pay, as Mr. English said, somebody else has to pay.

Mr. LAMBORN. All right. Thank you. For Mr. Crisson or Mr. English, I am concerned that sometimes we have well intended but maybe unrealistic bureaucratic fiats coming down from on high, telling the private sector, telling the economy how they should operate with the goal of saving money, but those who are actually on the ground doing the business day to day may not agree there is a tangible cost savings at the end of the day.

Is it possible that is what is going on here?

Mr. CRISSON. Yes, Mr. Congressman. It is possible. Certainly, the memo was directive in nature. It was not very clear. We are very concerned about exactly what might come out of that.

Let me just say, I think I speak for my members when I say we are not adverse to exploring a lot of the things that are suggested in the memo. In fact, a lot of the PMAs are doing this already.

It is the way we go about it that is important. For example, taking a transmission project, Mrs. Napolitano was talking about a minute ago, if we had a process in which there was a rigorous examination of the costs and benefits, there was input from the customers who are ultimately going to have to pay for this, there was agreement there was a positive analysis, that the risks were manageable, that it was a product of a regional planning process that not only addressed needs for renewables but reliability, congestion management, I think our members' reaction to that would be very positive.

We are the ones responsible at the end of the day for the reliability of the system. We want to see the right investments made.

The way we are going about it in this memo is a concern.

Mr. LAMBORN. Mr. English, let me transition my next question, although feel free to address this one as well.

When I see in the Secretary's memo on page four, among other things, he wants to start preparation for electric vehicle deployment, once again, well intended, but not something that the free market is really responding to.

I look at the volt. Some of the car companies, maybe it was the pressure from the bailouts. I do not know. They are producing vehicles that the public is not really responding to, is not buying.

Yet, that is going to be something that the Secretary wants you to start paying money apparently to start preparing for.

What is your response?

Mr. ENGLISH. Well, I do not think this is the result of some bureaucratic exercise, no. I think without question what we have here is a political objective, and I think we ought to recognize it as such. That is what it is.

I agree with the political objective. I think we need electric cars. I think we need to certainly fully develop all of our renewable resources, electric cooperatives are doing it, and let me also say I think we are rather foolish in trying to say that hydro is not a renewable. It is, and we ought to take credit for it.

I think we ought to fully utilize every bit of electric power we can get out of those facilities, and that should count toward our overall effort. Makes sense.

In this particular case, as was pointed out, basically what this comes down to is a question of who is going to pay for this. That is what we are talking about.

It is an objective we want to make, I do not think folks feel very comfortable they are going to be able to bring a big dollar item before this Congress, gets taxes increased, to be able to pay for it, or to increase the deficit. It is not likely to happen.

I think what we have is well, those preference rates over there are pretty good, pretty reasonable. It will not hurt to jack those preference rates up in order to pay for this particular political objective.

It may be an expedient way to deal with it, but I have to say it certainly is not a fair way and completely destroys this relationship that you have locally that has been a tremendous success.

If something has worked and it has worked well, why not use it as a model rather than blow the thing up. That is what I am afraid we are doing.

Mr. LAMBORN. Thank you all.

The CHAIRMAN. The time of the gentleman has expired. The Chair recognizes the gentleman from New Mexico, Mr. Luján.

Mr. LUJÁN. Thank you, Mr. Chairman. Mr. English, do you support Federal investment in infrastructure across America?

Mr. ENGLISH. I think we need to invest in our infrastructure all across America. There is no question. I would wholeheartedly agree with all those who say our grid needs to be substantially upgraded and improved. There is no question about it.

I would wholeheartedly agree that we need an investment with regard to the generation of electric power in this country.

I think we need to approach it on the basis of a sound energy policy rather than bits and pieces that quite frankly probably have

a lot of political objectives tied to them or who is supporting it and who is not.

Mr. LUJÁN. Should the Federal Government invest in transmission projects across America?

Mr. ENGLISH. As far as investing, again, I would go back to the model that we used whenever you developed electric cooperatives in this country. It would be great if you could make loans to do that where necessary.

I am not sure how much is going to be necessary. The big problem you have in transmission in this country right now is getting right-of-way.

Mr. LUJÁN. You support low interest loans and grants for Federal transmission projects?

Mr. ENGLISH. I think it makes sense. It makes sense, yes, particularly at these times of low interest rates. We ought to be investing like crazy.

Keep in mind, that is not your problem. Your problem is siting.

Mr. LUJÁN. I appreciate that. This Committee passed a measure that would fund an effort to be able to provide Federal guaranteed loans to transmission projects in the country. I am glad to see we are on the same page. We need to maybe get you back over here. We will find a way to do that.

Mr. Bladow, when you are putting the contracts together, and I cannot see the witness, I apologize, when you are putting projects together or your contracts associated with rates for co-op members in the 44 coops that you represent, do you go get input from the co-op members before you put the contract together?

Mr. BLADOW. Yes, what we have is our Board of Directors is made up of a representative from every one of our members.

Mr. LUJÁN. Those are elected members. Do you go to the members around the country when you put those contracts together before they are presented to the Board for approval?

Or does the staff of Tri-State put together a contract and proposes it to the Board for consideration?

Mr. BLADOW. What we do is, for example, right now, we are actually examining extending our contracts with our members, and on the committee looking at that, we have Board members from our members, not Tri-State Board members, but members, and we also have managers, and we also have Board members.

We always try to have a very good cross section. We assume that our member representatives, whether it be a Board member or manager, is looking to their communities and getting input from their communities and what is important to them, so we can bring all that together.

Mr. LUJÁN. Before it is adopted, you show it to them, right?

Mr. BLADOW. Before it is adopted, our Board shows it to our members' Boards.

Mr. LUJÁN. Should not this memo be shown to you before it is issued as a directive? This is not a directive, everybody. It is not.

The Secretary talks in this memo about the importance of making sure we are modernizing our grid.

Last time I checked, the complexity associated with the deliverability of power in this country, there are computers in there, some

of them are older, some of them are newer. There is access to the outside world via the Internet through broadband connections.

If there was a cyber attack that was issued on any one of us anywhere in the country, I am terrified of what would happen, and what that could do to destroy commerce in America.

I think all we are asking here, Mr. Chairman, is what can we do to do things smarter, and how can we do these collectively with taking the rhetoric out.

The importance of transmission projects in the country, making sure we are truly doing the right things.

Are you all aware of "line lost?" Is that a term that is familiar to everybody?

Mr. Chairman, "line lost" is a term with the electrons as they are moving through these power lines that we lose every day.

How much in rates do you account for line lost? Mr. Bladow?

Mr. BLADOW. Well, when we set our rate, we account for how much we lose.

Mr. LUJÁN. Ten percent? Is that about the average?

Mr. BLADOW. Typically, it is about five percent.

Mr. LUJÁN. Five to ten, I think, is what I see across the country.

Mr. Chairman, you want to talk about a hidden cost to American taxpayers, to American consumers, to American businesses, we are just losing electrons because of old infrastructure. There has to be a smarter way to do it.

Commissioner Marks, I apologize. I did not have time to get to all these questions. I will make sure I submit them to you.

As we talk about the questions that this conversation brings up, if you could explain, you talk about advocating for EIM.

What does this mean to the ability to integrate more system efficiencies and renewable energy into the system, and what would you say about the role of public outreach and comment?

Mr. MARKS. Mr. Luján, as you correctly point out, this is not about fiat. This is about asking the PMAs, which sit in the middle of all other customers just geographically, to say work with your neighbors for mutual benefit. We are not asking anyone to pick up someone else's costs. We are asking folks to work together for ultimate savings.

As my colleagues on this panel recognize, we are all trying to integrate more renewables. We know wind, which is big in the Northwest and it is big in Colorado and Wyoming, it is intermittent.

If we can spread that intermittency across more customers, across the West, it is cheaper for all of us to integrate.

This is a matter of working together for mutual benefit instead of hiding in our own bunkers.

Mr. LUJÁN. Appreciate it. Mr. Chairman, I appreciate the time. The memo also says it looks like there is room to create some regulatory certainty with looking at these old statutes from 1902 and trying to reduce them.

I think that is something we can agree on as well, we can find some efficiencies that maybe we can work on together, Mr. Chairman.

The CHAIRMAN. The time of the gentleman has expired. The Chair recognizes the gentleman from California, Mr. McClintock.

Mr. MCCLINTOCK. Thank you, Mr. Chairman. First, I would like to ask unanimous consent to submit for the record letters from the Northern California Power Agency, the Balancing Authority of Northern California, which represents the Modesto Irrigation District, the Cities of Redding and Roseville, and the Sacramento Municipal Utilities District.

They are extremely concerned with the impact that the Chu memo policies will have on consumer electricity rates, which I might add are already amongst the highest in the nation.

The CHAIRMAN. Without objection, they will be part of the record.

[NOTE: The letters submitted for the record have been retained in the Committee's official files.]

Mr. MCCLINTOCK. That leads me to my first question, gentlemen. What does this mean to the bills that my constituents would be getting from their electricity utilities?

Mr. CRISSON. Mr. McClintock, part of the concern we have is we do not know the extent of the impact because of the uncertainty.

We are very concerned about some specific language in the Secretary's memo.

One example would be the direction to incentivize——

Mr. MCCLINTOCK. I want to get to that in a second. Basically, are my constituents' bills going up or going down as a result of these policies?

Mr. CRISSON. I think it is much more likely they will go up.

Mr. MCCLINTOCK. How much? A lot or a little?

Mr. CRISSON. It depends on the extent to which the memo is implemented. It could go up a lot.

Mr. MCCLINTOCK. I wonder what is going on really here. Is this not an ideological preference by elements on the radical left for wind and solar electricity above all other sources, regardless of the costs, and the costs are considerable?

It is expensive in its own right. Affordable electricity has been around for 170 years, and in 170 years of research and development and God knows how many billions of dollars of subsidies, we have not yet invented a more expensive way of producing electricity, just on its own.

Then on top of that, you have to factor in the transmission costs because of the low output of wind and solar and because of the remote locations most of these facilities are on.

We have to pay a premium for special high tension transmission lines over vast distances, solely to accommodate solar and wind. We have land costs which are considerable. Just to replicate the power output of the Diablo Canyon nuclear facility in California, we would have to add some 36 solid square miles of solar panels, and it is unreliable.

The moment that a cloud passes over a solar array or the wind drops off from a wind farm, the power drops to zero. When that happens, we have to be able to instantly replace that power or the grid collapses.

In addition to the wind and solar facility, we have to have backup facilities available, ready to come on line in an instant, which often means running gas and coal fired plants, keeping them at ready stand-by for that moment when the clouds pass over solar arrays.

This is enormous expense. There is no possible way anyone in his right mind would actually pay for this.

What do you do? You have to do two things. You have to hide the actual cost of this from consumers, and at the same time, you have to artificially increase the price of conventional electricity supplies that are vastly less expensive. Hydroelectricity, natural gas, coal and nuclear.

Is that essentially what is going on here?

Mr. CRISSON. Let me respond in this way. We are very concerned about the increasing cost of integrating renewables into our system. When we talk to our members, this has risen to the top of their list.

As you approach double digits in terms of percent capacity represented by wind, for example, you get this increasing amount of variable generation, much of it off peak, which means it does not coincide with the need for load, so it represents a real problem as to how you use it in a cost effective fashion.

Mr. MCCLINTOCK. Is that essentially what is going on here, are we hiding the cost of wind and solar from consumers?

Mr. CRISSON. I find it very puzzling and confusing that an Administration that touts an all-of-the-above energy policy would favor providing incentives for intermittent wind and solar at the expense of hydropower and hydropower customers.

Mr. MCCLINTOCK. That is because this has nothing to do with science or with the economies. It has everything to do with a religious fervor on the radical left.

I do agree with the Ranking Member on one point, this is a battle of two visions. I find the vision of this Administration dreary and depressing.

It is a future of increasingly severe Government induced shortages, higher and higher electricity and water prices, massive taxpayer subsidies to politically well connected and favored industries, and a permanently declining quality of life for our children who are going to be required to stretch every drop of water and every watt of electricity in their bleak and dimly lit homes.

Mr. Chairman, I know you share with me a different vision, of clean, cheap and abundant hydroelectricity. Great new reservoirs for water storage, a future where families can enjoy the prosperity of abundant electricity, a nation whose children look forward to a green lawn, a backyard garden, affordable air conditioning in the Summer and heat in the Winter, and brightly lit homes and cities, and abundant affordable groceries.

This is a battle of two very different visions. It is a choice that must be made not only by this Committee or this Congress but by the American people.

The CHAIRMAN. The time of the gentleman has expired. I certainly agree with that concept. The Chair recognizes the gentleman from California, Mr. Garamendi.

Mr. GARAMENDI. I am trying to understand what this is all about. Is this about the generation of hydropower, gentlemen, or is this about the transmission of electricity in the Western United States? Which of the two is it?

Mr. ENGLISH. It is who is going to pay. That is what it is about, who is going to pay. Is it going to be the preference customers who

made the investments so many years ago, who have followed a policy throughout their history in which they worked with the local PMAs to deal with their local problems, and they pay for whatever improvements and costs they might have.

The issue that we come down to is with regard to any additional benefits that may go to people who are not those preference customers, who is going to pay.

Is that cost going to be shifted off to the preference customer, and are they going to have to pay for benefits that others may enjoy or is it going to be those who get the benefits.

Mr. GARAMENDI. I thank you for that description. Can you tell me who the others are?

Mr. ENGLISH. That is the whole point. I do not think anyone knows at this particular point. I think what we are talking about is what is going to be the policy.

The alarm and the concern, at least from our point of view, from the rural electric's point of view, is the fact that since the very passage of the legislation here in this Congress establishing building those dams, establishing the PMAs, providing flood control for local people, providing irrigation to local people, providing recreation to local people, and providing electric power to local people, those folks will pay for those benefits.

That has been what we have been doing throughout history. We paid above market rates.

The second issue here is it appears that we are interrupting what has been that history, that relationship between those customers and the PMAs and dealing with local problems.

It appears that what we are getting into here are additional areas that may benefit people other than the local folks. It appears. Let me just say this.

I think to be honest about this, none of us know right now. We just do not know. The only thing we are saying is the Secretary's memo is out of whack with the way we have been in business up to this point.

Mr. GARAMENDI. Thank you. We just do not know?

Mr. ENGLISH. We just do not know.

Mr. GARAMENDI. OK. We ought to do our best to find out how the Secretary would implement this, and who is to pay.

All of the fuss and fury and interesting political statements that have been made here about policies and religion really are not yet appropriate.

What is appropriate is for us to understand that changes are afoot, that solar and wind is very much of the all-of-the-above strategy. Correct, Mr. Chairman?

As is hydro and other sources of power.

The question really is how to integrate all of the above strategies, which I hear from my colleagues all of the time, into the power available, electrical power available, across the United States and particularly across the Western United States, and how to do it in a way that is fair and equitable, taking into account the history and in some cases the additional cost that may be incurred in the transmission of that power.

So I think this hearing could be extremely useful in ferreting out the underlying concerns which I believe all of you have expressed,

at least what I have heard by watching and attending half a dozen other meetings, and then moving toward a rational discussion, absent all of the religious fervor, and figuring out how to make it happen.

Now, so you have had your comments. If any of the others would like to take 18 seconds to add.

Mr. CORWIN. I can try in 18 seconds.

I think it is true there is not a lot of clarity here yet, but the linkages, since you have talked about transmission versus power, in some of the examples in the memo are ominous, and there is linkage.

I answered a question earlier about the revolving fund, but there is process to try to oversee that, but will they listen? There is not a lot of actual oversight or power by the customer. So does limited borrowing authority for BPA, for example, get used to bring those new resources to load, or does it get used for reliability purposes or for core customers to move power to load?

And those are tough questions.

Mr. GARAMENDI. Excuse me. The Chairman is about to hammer us both down, but before he does——

The CHAIRMAN. You are right.

Mr. GARAMENDI [continuing]. Those are all legitimate questions, and this is a really important issue, and the memo does put on the table—excuse me, Mr. Chairman, if I might—does put on the table an important series of issues. It sets out proposals or directions, but does not define the outcome. It is up to us to try to do that in a rational, thoughtful way so that we can achieve an "all of the above" strategy that is fair and equitable to everybody.

Thank you, Mr. Chairman, for the extra time.

The CHAIRMAN. The time of the gentleman has expired. I would just note that it has been noted several times. I know you had other meetings. Since that initial memo, there has been absolutely no follow-up for any clarification. Mr. DeFazio brought up the issue that 19 bipartisan Members from the Northwest sent a letter immediately after the memorandum, and we have had no answers.

So while we welcome that dialogue, frankly, the dialogue has not been there at all.

Dr. GOSAR. Mr. Chairman.

The CHAIRMAN. The gentleman from Arizona, Mr. Gosar.

Dr. GOSAR. Thank you.

Mr. English, as a former Congressman, you are very aware of how Congress authorized the power projects and the PMAs that we are talking about today. When it came to changing the PMAs, the missions, Congress even stepped in, in 2005 and 2009. Regardless of how you feel about it, it had its oversight and they stepped in and made those changes.

Then comes this Chu memo which seeks to radically change the PMAs by administrative fiat, and with little input from customers and Congress. Do you agree with that statement?

Mr. ENGLISH. I think that that statement is a fair statement. I am concerned that this is not business as usual.

Dr. GOSAR. Well, I mean, precedence gives us that denotation, right? When you see an Administration leading by administrative fiat, the apple does not fall far from the tree, does it?

Mr. ENGLISH. Right, and having been around this town for a long time and the fact that both Democrats and Republicans here in Congress from the areas that were affected, I do not believe were aware that the memo was coming. You know, as I said, it raises red flags, and I think that is what you are hearing us all say. We are alarmed. We do not know for sure exactly how this is going to proceed. We do not know if it is a trial balloon just to see, you know, how people react to it. If so, well, they have gotten a strong reaction, I think.

Dr. GOSAR. Oh, I see this over and over again. I mean, I have seen this from dictations from the Department of Justice. I have seen this all the way across the board and very astute about that.

And, by the way, I am a dentist impersonating a politician. So I mean, I am a businessman, and so I understand some of these things. But do you believe that Congress should be giving up its role in oversight?

Mr. ENGLISH. Oh, absolutely not.

Dr. GOSAR. It should be fighting in every aspect for it, right?

Mr. ENGLISH. Exactly. I had oversight responsibilities when I was here in Congress. I believe strongly that that is something that Congress does not do enough of. That is my personal belief. We need to do more of that. Congress should, as opposed to legislating. I think there is a lot of work to be done in that area, and I think in cases like this, as I said, if Congress does not engage, if people do not speak out, then I do not see that we have any complaint.

Dr. GOSAR. Well, you know, when I was listening to the Ranking Member talking about the socialistic aspect, I thought to myself, boy, that is quite the opposite of what I am seeing here for those, you know, like California that has not advocated an "all of the above" policy, they have predicated certain energy policies. They want people or States like Arizona to carry their water in more than one way.

So I find it very offensive into that aspect.

Mr. ENGLISH. Can I very quickly make a comment on that?

Dr. GOSAR. Sure.

Mr. ENGLISH. Let me just say very quickly I think the issue that we have here is that this was a partnership. It started out as a partnership. Historically it has been a partnership, and the concern is that that partnership is going to be disturbed, you know, due to the fact the memo seems to be out of character with what we have historically done, Congress and the customers.

Dr. GOSAR. So then it becomes a business model, does it not?

Mr. ENGLISH. It does.

Dr. GOSAR. So let's say that I am a dentist and I have a practice. Somebody wants to come in. They have to purchase into that agreement, do they not?

Mr. ENGLISH. They do.

Dr. GOSAR. That is common sense application.

Mr. ENGLISH. You are right.

Dr. GOSAR. So it seems to me like that when we have new players on the field, they have to buy their way into the system.

Mr. ENGLISH. Well, we would like to think so. As I said, we have been paying for this for years. Customers have so new people com-

ing in the field, they ought to get to enjoy the opportunities to invest the same as those who have been preference customers.

Dr. GOSAR. Well, I am glad that you say that, you know, because this Administration believes that Big Brother knows everything and should dictate everything, and I kind of want to go back that ever since this Chu memo in my State, everybody has been in an uproar because if we look at water policy throughout the United States, Arizona is very elaborate at having one of the most elaborate water policies throughout the country and very dynamic in how they understand that utilization of water. Banking, our canal system is probably one of the best around in the world today.

But everybody in my State started screaming because they knew exactly where this was coming. You know, the State does a pretty good job, and I think, Mr. Marks, you kind of represent what you do in New Mexico, and that is with our Corporation Commission. You know, they are very dynamic about understanding the intricacies, and are you not a little possessed, I mean, kind of upset, Mr. Marks, that somebody would tell you how to do your business that is very specific to New Mexico or to Arizona versus what you would have up here in the Northwest, a business model?

Mr. MARKS. Mr. Gosar, yes. I mean, that is one of the reasons why the State Commissioners, we do not like this RTO idea, which the other tiers do not like, but we also do not want to just close our minds to ways to save money.

Dr. GOSAR. But is there not a better way instead of being dictatorial about it, is to come in and embrace true leadership which brings parties to the table to ask solutions instead of demanding them?

I am a little bit tired of the one size fits all, and it seems like it is characteristic of this Administration over and over and over again, that we have to read what is in the communication. And do you know what? Leadership comes with a cost, and it comes with communication, and we ought to be asking for it.

And that means you. I mean from you representing a State because I know from my Corporation Commission they demand nothing less because it is an intricate relationship on the State's rights and into a region's rights. And the Federal Government does not know all, and I think that is what is so offensive because of what we see for Main Street America.

Mr. MARKS. Congressman, I have colleagues on your Commission, and your Commission and my Commission, we share the feature of being elected, and so we know we have to answer to our voters, to our constituents, to the people. That is what we all need to do, and we need to solicit their input.

And my Commissioner group brings in folks from the different Commissions, and we are opening ourselves up to consultation, dialogue with the various industry and other stakeholders, consumer stakeholders, because I agree with you. It cannot be top-down. It needs to be collaborative.

Dr. GOSAR. But that is exactly what this memo——

The CHAIRMAN. The time of the gentleman has expired.

The Chair recognizes the gentleman from Utah, Mr. Bishop.

Mr. BISHOP. First of all, I would like to thank the gentlemen who are here on the panel. I have done some work in the past with

rural electrics and co-ops, but at the same time this is not an area of my expertise. So I have found this fascinating.

Mr. Chairman, you know, when we were serving on the Transition Team, we tried to change our rules to make it possible for greater control, greater attendance at these committees. One of the things I find sad is that we need greater attendance on these committees because this is the exact kind of information that I think all of the Members here need to have.

And I promise I will not ask a question in the last five seconds of my time.

There are a couple of things that I see are overarching in the discussion we have had today. The first one is even though no one knows where this is going, there seems to be, for lack of a better word, a lack of trust in the future that we go. And we recognize that once a bureaucracy or administration starts down a path, changing that path becomes extremely difficult.

So I think what you are doing is raising some concerns and red flags now before we get further down that path, and I think that is appropriate to do so.

I find the questions come in a couple of areas. I think, Mr. Bladow, you mentioned that the issue is whether the ratepayers pay for these improvements or taxpayers pay for the improvements. I think one of the concerns I do have is that if it is the ratepayers who are paying, that is, in essence, some kind of a hidden tax and a hidden tax that goes on a separate group as opposed to across the board, which is what a tax increase or a tax benefit would do. It becomes something hidden, and it is something that is not paid by necessarily those who can most effectively agree with it.

So let me ask you, Congressman, in your written testimony you mentioned that rural co-op customers' income is approximately 14 percent below the national average. Do you see anything in this proposal by the Secretary that takes that factor into account?

Mr. ENGLISH. I do not think so. As I said, just having been around this town a while and certainly had dealings with the government for over 35 years, what this looks to me like, what it smells to me like is that the preference customers have a very good rate as far as electric power they have. It does not matter that they earned it.

Mr. BISHOP. So this becomes what, in essence, would be somewhat of a hidden tax?

Mr. ENGLISH. Yes. We are a cash cow. We are a minority. So it is easy to target us.

Mr. BISHOP. And I realize that the fact that there are rural co-ops in the first place is because of unique circumstances and situations about the demographics as well as the geography that created them.

The second issue is, in lack of a better term, maybe simply the concept of power. Mr. Crisson, does this proposal by the Secretary in your estimation empower local efforts or does it consolidate power back in Washington as to make future decisions?

Mr. CRISSON. Yes, sir. That is one of our concerns, is that it is very directive, top down in nature, and it seems to discount and

undermine the partnership, the collaborative relationship that exists in all PMA regions between the PMAs and its customers.

Mr. BISHOP. All right. Let me ask because I am going to quit this one on time here. I am sorry, but we will do that.

You mentioned in your testimony that power customers do subsidize other purposes of dams, such as irrigation and recreation. Are you concerned though, and I think the Congressman also mentioned this, that there will be additional purposes added into this proposal other than the traditional ones that are subsidized by your ratepayers?

Mr. CRISSON. Yes, that is one of our primary concerns.

Mr. BISHOP. Can I ask you a specific one as well from your written testimony? You mentioned that in the 2005 Act, Section 1222 gave some flexibility and authority on problems that would be identified by the TIP Program, but you see these programs rather being mandated by administrative fiat.

Has Section 1222 been effectively used, that section?

Mr. CRISSON. At this point, not to my knowledge, no.

Mr. BISHOP. And the same kind of consideration about the FERC's role, that it is supposed to be recognized to address concerns as to wholesale electric rates to make sure they are just and reasonable. Is that another thing that has been effectively addressed in this proposal or is that still something that is outstanding?

Mr. CRISSON. No, we are concerned that it puts just and reasonable rates at risk.

Mr. BISHOP. All right. I thank you.

I think in the discussion here there has been something that has been some overarching themes that are coming through here dealing with power, in essence, dealing with rates, who actually pays it, whether it is hidden tax, dealing with other opportunities we have of going forward, and all I can say is that is one of the reasons why I still use legal pads when I try to write something.

Thank you. I will yield back.

[Laughter.]

The CHAIRMAN. The gentleman yields back his time. The Chair recognizes the gentleman from California, Mr. Costa.

Mr. COSTA. Thank you very much, Mr. Chairman. I am sorry I have not been able to participate in this hearing to the degree I would like to because I am very concerned about the potential impact that the proposed Chu memo might have on Western Power and utilities that I represent.

The gentleman from New Mexico, Mr. Jason Marks, I understand has been having the good opportunity to answer a lot of the questions here this morning. Are you a supporter of the memo, as I understand it?

Mr. MARKS. Mr. Costa, I am not here to defend the entire memo, but I support the aspects of Secretary Chu's memo that support the project that I have been working on, which——

Mr. COSTA. All right. Well, hold on there for a second, and, Mr. Chairman, I am sure it has been already suggested here, but let me add my voice to that. I think we need to have the Secretary here to explain the whole proposal because I think that the department, at least from my perspective, has not done a good job as it

relates to explaining the rollout of the memo, the purpose, and if you have already made that determination——

The CHAIRMAN. Would the gentleman yield?

Mr. COSTA. Yes.

The CHAIRMAN. There have been several exchanges on that. In my opening statement, I mentioned very specifically that since Secretary Chu was the author, that is why we invited him specifically, and then there has been follow-up with letters, particularly from the Northwest, on a bipartisan basis where we have not gotten an answer.

Mr. DeFazio and I had an exchange on that. The intent is when we get some more information, we will move accordingly.

I yield back.

Mr. COSTA. All right. Well, to reclaim my time, I would add my signature to that letter if it is still available as a remedy. The Secretary and the department need to brief members of this Committee because of the impacts.

In terms of the initiatives that have been laid out in the memo, again, Mr. Marks, what are we trying to fix?

Mr. MARKS. Mr. Costa.

Mr. COSTA. Briefly.

Mr. MARKS. I am not known for that, unfortunately, but, Mr. Costa, we are not talking about new generation. We are not talking about new renewable energy mandates in this memo. This memo is we have some existing constraints on an existing system. How can we use it better?

Mr. COSTA. Well, let me stop you there.

Mr. MARKS. How can we save money?

Mr. COSTA. Let me stop you there because in California, as you know, I mean, we have had a devastating attempt on a regime in 2000-2001 that dramatically raised rates, and we are still trying to come back from. So there is a lot of fear that this is, you know, as Yogi Berra once said, deja vu all over again.

Utilities in the central and Northern California, as well as in the Pacific Northwest, are working together to identify all the tools in our energy toolbox, such as intra-hour scheduling, new electronic bulletin boards to facilitate energy transmission agreements, better integrate our renewal resources into the grid. So I am at a loss and I do not expect you to answer for the Secretary, but why this regional approach among utilities working together is, I think, more viable than a top down approach that I think the Secretary Chu's memo suggests.

Mr. MARKS. From our perspective, those initiatives you mentioned, those are some things that we have been looking at as well. The region, and I am talking about the bigger region, the entire West has been looking at those things. I have been a Commissioner——

Mr. COSTA. But we are doing those things.

Mr. MARKS. We are still studying them, Mr. Costa.

Mr. COSTA. No, but I am talking about my utility companies are doing these things, and they see this as really an attempt to tell them how to operate. I mean, they have a lot of motivation to do this in California. We have an AB-33 approach, as you may know, to obtain 30 percent renewable portfolios by the year 2020, and we

have a lot of good practices that we have done, but this is very frustrating.

What is likely to be the cost of a West-wide EIM, and who will pay those costs? Have you made any determinations on that?

Mr. MARKS. Yes, Mr. Costa. We have solicited informational bids from two market operators, one of which is the California ISO. The other one is the SPP, and the SPP is the easiest to explain. They have said $28 million a year, and that combined with the benefits that we have seen suggest that their potential net benefits are over $100 million a year.

Mr. COSTA. Well, I would like to look at those numbers. My time has expired, but, Mr. Chairman, I have some additional questions that I would like to submit on behalf of the Modesto-Turlock Irrigation District as well as other utilities in the San Joaquin Valley so that we can get answers to those questions.

I understand the other witnesses who have testified here today share similar concerns as members of the Committee. So I have not asked you those questions, but clearly, we need to have the Secretary testify before the Committee and get a far better understanding of what is being proposed, and I would work with you and, I think, a bipartisan effort on this to ensure that. It would be very helpful in trying to get to the bottom of this.

The CHAIRMAN. As we normally do at the end, further questions will be submitted. I will ask the witnesses to respond.

The Chair recognizes the gentleman from South Carolina, Mr. Duncan.

Mr. DUNCAN OF SOUTH CAROLINA. Who has waited patiently, Mr. Chairman, and do not mind at all because this area of power generation is important to me.

First off, let me just say that SEPA is an important power provider to my constituents, especially my rural cooperatives, and Northwest South Carolina, Third Congressional District.

We understand that. There is another issue with power generation that I would just like to mention. It may be a little off subject, but I think it definitely has bearing here, and that is the Corps' management of the lakes, especially Lake Hartwell, I will point that out, that we are seeing the lake levels on Lake Hartwell diminish, the downstream flows that really are affected by policies, not only with just DOE but the Corps of Engineers itself, FERC, EPA.

There is a Savannah River study that we are waiting on. It is costing the taxpayers millions of dollars to study the downstream flows to protect the sturgeon that have not been seen or breeds at different times.

There are just a lot of different factors there that are affecting that Corps lake, and affecting the quality of life, economic development, all these things.

For the record, I just want to mention I believe the private sector can better manage those lakes, better manage the power output of the hydro dams there, can better manage the economic benefit, and definitely yield a good return to the taxpayer.

The rates that are charged by SEPA are turned around and used to repay the debt of building those dams on that lake.

We are seeing Secretary Chu wanting to increase these rates to in my opinion to redistribute the wealth, to take those rates, that wealth, created through rate increases and fairly and equitably to use them, in the gentleman from California's words, redistribute that to other power sources that they particularly believe in, and that is wind, solar, other green energies.

They want to hold up the Dutch as an example of a country that generates its power through wind. You know what, wind and solar are intermittent.

I think the other gentleman from California made a tremendous point there about the intermittency of wind and solar. Cloud cover, the wind stops.

The best replacement source for the Dutch is the hydroelectric power they buy from Norway, Sweden and some of the other countries. They need 24/7 baseload power so that switch cuts on power, cuts on the lights, cuts on whatever in their homes.

They get that baseload 24/7 power from hydro primarily.

We are sitting here seeing the Secretary wanting to increase rates to support an energy source, green energy wind and solar, that as the other gentleman from California said, is not close to transmission lines and other things.

I appreciate your comments, and the gentleman from the West, the Northwest, saying you all have reinvested in your transmission lines. You have done things right. You do not necessarily need to increase your rates to do that.

I guess the point I wanted to make is we are seeing—Mr. Garamendi said policies that define an outcome, they are trying to define the outcome for us. They are trying to push us toward more wind and solar hydrogen.

I do not necessarily agree that man made global warming. I do not believe we are running out of the resources God gave us in this country. I do not agree with the President when he says he wants to increase American energy production and less dependence on oil.

I believe we have those resources here. I think this is about a lot of different political philosophies.

I want to ask Mr. Corwin just one quick question. Under the Federal law, Power Marketing Administrations have to sell hydropower at cost based rates with sound business principles.

I am a business man. I think you guys can apply sound business principles that say this is what it costs us to generate power, this is what it costs us to transmit that power, this is what our overhead margins are to pay the salaries of the guys operating it, and anything over that we are going to use to pay back our debt.

How does injecting this memorandum and this policy by Secretary Chu affect the way you will run your business and how will it run contrary to the cost based rate structures that you have now?

Mr. CORWIN. We are hoping that it does not get implemented in a way that disallows us to continue that. It has worked very well just as you described.

The mandate is for cost based rates throughout history. That has served us well in keeping the system running for customers.

Mr. DUNCAN OF SOUTH CAROLINA. My time is about out. I will say anything above cost rate structures that you have where you

cover your costs and you cover your debt rate payment means a tax increase on the constituents of the Third District that are buying power.

They do not want to see their taxes go up either through paying higher rates or paying higher taxes to benefit Solyndra and other businesses that are not proven.

Do not take our tax dollars and make investment decisions for us. Let us make those decisions ourselves.

With that, Mr. Chairman, I yield back.

The CHAIRMAN. The gentleman yields back. I did note he was very patient here, and I do very much appreciate that.

I want to ask just a clarification. We heard a great deal about the PMAs and how they are organized. The essence of how they are all organized is they would pay back whatever loans they got from the Federal Government through whatever activity, whether it is electricity, irrigation, and so forth.

The clarification I want, because I may have heard something different, is the exchange between Mr. Luján and Mr. English.

Mr. Luján was talking in terms of loans and grants, and he also said Federal guarantees. Mr. English, your response to that was affirmative, and yet that seems contrary to what you have said the historical model was, where there was no guarantees.

Which is it?

Mr. ENGLISH. Well, I think the issue was that we have appropriations and we pay back through those rates, the rate increase. That is the model that has been used, and as far as the PMAs, that is absolutely true.

I believe what he was asking and he did not specifically restrict this to PMA transmission, he is talking about transmission in general.

We certainly believe even through the electric cooperative program that there should be investment by the Federal Government through guarantees in general.

As far as the PMAs are concerned and particularly as far as the model that we have used in the past, as far as preference, there is no question we have had appropriations, and we have incorporated that into the rates, and that has been paid back.

That has been a tremendous success, and anything, transmission or otherwise, related to the PMAs to benefit the customers of PMAs, I think that model should be followed.

The CHAIRMAN. That still should be followed.

Mr. ENGLISH. Yes.

The CHAIRMAN. It is very subtle, but it is a very extremely important policy decision if that should be deviated from.

Mr. ENGLISH. Exactly. I would also say, Mr. Chairman, that as we talk about—this has troubled me just a little bit. We have talked about transmission within the context of the PMA, which historically speaking has meant within the local membership there, the local customers, and within that region, as opposed to going beyond that region, which is a much larger transmission problem that this country faces.

That is obviously where we are going to have to take on something much larger.

Congressman Luján, I think he did not qualify that and say he was talking about preference or PMA transmission. He was talking about transmission generally.

The CHAIRMAN. What I heard, and I appreciate we probably hear different things, I heard it as it relates to PMAs.

Mr. ENGLISH. That was my error. I appreciate the Chairman raising that so I could clarify it.

The CHAIRMAN. OK. Listen, I want to thank all of you. As so many times happens when we have hearings like this, there are follow up questions.

I would ask if you get follow up questions, please respond in a very, very timely manner.

I want to again thank all of you. I think this has been an extremely informational hearing, and I suspect we will hear more about this as more information comes in front of us.

With that, thank you all. The panel is dismissed. Without objection, with no more business, the Committee stands adjourned.

[Whereupon, at 12:07 p.m., the Committee was adjourned.]

[Additional material submitted for the record follows:]

Statement submitted for the record by Lauren Azar, Senior Advisor to the Secretary, U.S. Department of Energy

Chairman Hastings, Ranking Member Markey, I submit this testimony for the record 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. The Memo outlines broad concepts for achieving these goals in a manner that will be customized to reflect the uniqueness of each PMA. DOE will begin its review to address the goals of the Memo with the Western Area Power Administration (WAPA). The core of this process will be a robust collaboration among each PMA, its stakeholders, customers, and its congressional delegations. DOE intends to move sequentially and will assess our approach to the other PMAs in light of our experience with WAPA. We hope to initiate the WAPA review soon and anticipate it will take until late 2012 to complete.

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 inexpensive[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, thus forcing them to build their own generation or purchase electricity on the open market.[5] To be clear, preference cus-

tomers 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 electrons but also includes all facets of generating, delivering, and consuming electricity.)

The Secretary has expressed his continued commitment to comply with all applicable laws relating to the rates for the sale of electricity to preference customers, which include cost-based rate structures. 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 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 to, among other things, ensure the PMAs are complying 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. 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 eliminates barriers to 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 transmission 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. Furthermore, the overwhelming majority of the proposed activities described in the Secretary's Memo relate to the PMAs' obligations and goals for transmission and not to the marketing of federally generated power to the preference customers.[7]

TODAY'S ELECTRICITY MARKETPLACE

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

(1) State Renewable Portfolio Standards (RPS): Thirty-seven states8 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.

(2) Security threats: It should come as no surprise that our Nation faces increasing security threats and the electric sector is no exception. By establishing an electric reliability organization and mandating the enactment of reliability standards, as well as its interest in 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.

(3) Technological Advances: As consumers adopt new technologies and practices such as rooftop solar, electric vehicles, and demand-response applications both the transmission grid and the electricity marketplace will face challenges and opportunities.

To effectively respond to the continued changes in the electricity marketplace, DOE is considering potential actions the PMAs can implement, 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 marketplace. 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.

CONCLUSION

As I stated at the beginning of my remarks, as we consider these issues, DOE intends to work closely with each PMA, its stakeholders, customers, and Members of Congress. This will be a robust collaborative process that is sensitive to the unique character and enabling statutes of each PMA.

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] BPA is unique for two reasons. First, it has a few non-preference customers who are grandfathered and able to purchase federal electricity. Second, 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] As a consequence, the Secretary's Memo will have minimal applicability to the Southeastern Power Administration, which owns and operates no transmission.

[8] In addition to these 37 states, the District of Columbia and Puerto Rico both have an RPS.

[A letter to The Honorable Steven Chu, Secretary, U.S. Department of Energy, from The Honorable Doc Hastings, Chairman, Committee on Natural Resources, et al., submitted for the record follows:]

Congress of the United States
Washington, DC 20510

April 11, 2012

The Honorable Steven Chu
Secretary of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Secretary Chu:

We write with deep concern regarding your March 16, 2012 Memorandum to the Power Market Administrators. While many of the Memorandum's goals may have merit, these directives – and the manner in which your Department has relayed them – have created considerable consternation and confusion in the Pacific Northwest and amongst some of our constituents.

Since the Bonneville Power Administration (BPA) was established 75 years ago, Congress has expanded and refined the Administration's governing statutes, each time providing specific responsibilities and directions. We are concerned that the March 16th Memorandum suggests that the Department appears to be considering a role for BPA that disregards Congressional intent and exceeds BPA's current statutory authority.

We are similarly concerned that the Department of Energy (DOE) may have predetermined what it considers to be the best solution before evaluating all of the evidence, cooperating with stakeholders, or exploring alternatives sufficiently. Further, we are concerned that DOE's solutions will produce high-cost, low-benefit outcomes for some of our constituents.

We are confident that the Pacific Northwest can and will find solutions because our region has a long tradition of working together to resolve difficult challenges. Acting under existing law and direction, the region has already developed policies and programs that have produced impressive results that, in our view, already meets or exceeds the goals stated in the March 16th Memorandum:

- BPA, working together with regional electricity ratepayers, has achieved about 5,000 average megawatts of conservation since 1980.
- BPA has integrated over 4,400 megawatts of wind and other renewable sources of power, a significant feat since the level was only 250 megawatts just seven years ago. Today, wind resources in the BPA balancing authority represent 42 percent of peak load, among the highest penetration rates in the nation.
- BPA has added more new transmission in the last ten years than any other region.
- BPA, in concert with regional utilities, is leading efforts to test and deploy smart grid technology.
- BPA and other utilities in the Northwest Power Pool are implementing various tools to manage energy imbalances, including exploration of feasibility of a regional energy imbalance market.

- BPA (through Columbia Grid) is working with regional utilities to plan transmission that meets the needs of all load serving entities and generators.
- BPA provides the cleanest, most affordable electricity in our nation.

Unfortunately, DOE's Memorandum and subsequent discussions with DOE staff have raised more questions than they answered. While we have been told by your staff that the Memorandum should serve as a "vision statement," the undeniable fact is that this document issues directives to PMAs.

We strongly believe that no actions with respect to this Memorandum should move forward until the Department can demonstrate that it has worked within a robust, transparent, public process with stakeholders, including Members of Congress and ratepayers. In order to best understand these initiatives and their implications for some of our constituents, we ask for clarification on these specific concerns:

- Does DOE intend to provide a clear and public explanation of the relevant legal authorities before issuing any new directives or policies that impact BPA?
- Does DOE agree that for any initiative, a strong preference should be given to whichever approach accomplishes the stated policy goal at the least cost to consumers, and how will that be determined?
- Is DOE committed to upholding BPA's requirement for cost-based rates?
- Does DOE believe it is appropriate for BPA ratepayers to bear greater costs to facilitate new generation that will primarily be used outside of its balancing authority?
- Will DOE defer to regionally derived solutions, such as those under consideration by the Northwest Power Pool, as well as undertake and wait for a full cost-benefit analysis of alternatives before pushing the formation of a West-wide Energy Imbalance Market (EIM)?
- Has DOE categorically ruled out the formation of an RTO or RTO-like structure for the Pacific Northwest (or a West-wide RTO), especially given the region's historic, strong opposition to one?
- Has DOE categorically ruled out efforts to increase FERC's jurisdiction over BPA and its ratepayers?
- Will DOE clarify the process associated with implementing the goals articulated in the Memorandum, including the specific resources, level of funding and staffing dedicated to this effort as well as a timeline for implementation?
- Will DOE commit to consulting with the Pacific Northwest delegation, Congressional Committees of jurisdiction, and BPA ratepayers before issuing any subsequent memorandums, directives, or initiatives associated with BPA?

We look forward to hearing from you on this important issue.

Sincerely,

Maria Cantwell Doc Hastings

Patty Murray

Ron Wyden

Mike Crapo

Jaime Herrera Beutler

Danny Rehberg

Jim McDermott

[A statement submitted for the record by the Public Power Council, Portland, Oregon, follows:]

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Key Concerns with DOE Memorandum on PMA Policy

April 2012

On March 16, 2012, Department of Energy Secretary Chu released a memorandum outlining a vision and policy direction for the federal Power Marketing Administrations (PMAs). While short on specific policy prescriptions, the document raises significant concerns in a number of areas.

Scope, Mission and Legal Authority of the PMAs

The core mission of each of the PMAs is to market power generated at federal multipurpose dams to public power systems at the lowest possible rate consistent with sound business principles. Over the years, the authority of the PMAs has been refined and expanded. For instance, BPA has authority to acquire resources (with a prescribed priority for resource selection) to meet the load of regional utilities, operate a program to enable the residential and small farm customers of the region's private utilities to share in the benefits of the hydropower system, and to mitigate the impacts on fish and wildlife. Yet, in each case Congress has given specific authority and direction to BPA.

Moreover, each expansion of BPA's mission has still respected the core tenets of preference and cost-based rates, as well as BPA's role as a wholesale power supply entity. In several respects, the DOE Memorandum suggests new missions for BPA that are outside the agency's existing statutory authority:

- BPA and the other PMAs are directed to serve as "test beds" for innovative cyber security technologies. Testing and proving technologies is a role for DOE labs, not an agency that has 100% of its costs recovered from ratepayers.
- DOE is calling for changes in BPA rate design to "incentivize" policy objectives. By definition, an incentive is a payment that is greater than simple cost-recovery—which conflicts with BPA's statutory mandate for cost-based rates.
- DOE implies that BPA should participate in a West-wide market to address energy imbalances resulting from intermittent renewable generation. By law, BPA is restricted to operations within the watershed of the Columbia and Snake Rivers.
- BPA and the other PMAs are being told to take steps to support, encourage and facilitate renewable generation—even when that renewable generation is not being used by BPA ratepayers. This is all the more troubling given that BPA has already achieved the highest rate of wind penetration of any balancing authority in the country.
- Some of the directed rate incentives—like electric vehicle deployment—are issues for retail electric utilities, not wholesale power and transmission providers like BPA.

Throughout the document, BPA statutory limitations on cost recovery, mission and geographic scope are either blurred or ignored.

Regulatory Oversight

In several respects, Secretary Chu's memorandum envisions a world in which BPA and the other PMAs are subject to expanded regulatory oversight and direction by both the Department of Energy and the Federal Energy Regulatory Commission (FERC):

- Although the document states in a footnote that creation of and participation in a Regional Transmission Organization (RTO) is not being advocated, there are several policy initiatives advanced that clearly lead towards that conclusion. The memorandum calls for elimination of rate "pancaking," merging of balancing authorities, formation of an "energy imbalance market," and broad regional transmission planning. Each of these elements leads to discussion of

an RTO—and the full jurisdiction of FERC that would result. The Northwest has repeatedly rejected RTO formation, because of both cost concerns and the fear of ceding control to FERC.

- The memorandum also implies a number of rate design elements that the PMAs will implement. In several cases these rate issues are outside the scope of BPA's authority, and in each case the policy's inclusion is being pre-determined without any regional discussion and outside the lawful rate-setting process.
- DOE appears focused on one-size-fits-all solutions, rather than deferring to regionally-derived (and less expensive) alternatives. Just as the Northwest Power Pool is reviewing and implementing tools to better address energy imbalances resulting from intermittent renewable generation, the DOE memo implies a mandate for a West-wide, market-based "solution."

Cost Concerns

BPA, with its lower-cost power supply and legally mandated provision of cost-based rates, has been an important economic engine for the Northwest. The DOE memorandum ignores the legal requirements for cost-based rates, and may lead to additional costs on BPA customers without providing corresponding benefits, and also risks sacrificing the low-cost rates that have been a lifeline for the Northwest economy:

- The memo suggests various initiatives—like a West-wide energy imbalance market—that appear to decide on a policy approach irrespective of cost. BPA should focus on the least-cost means of achieving policy objectives that fall within its statutory authority.
- BPA is told to provide "incentives"—payments in excess of costs—in redesigning its rates to achieve various policy goals.
- The important rate design issue of "cost causation"—costs are paid by the parties that cause the action—is repeatedly ignored. Instead, BPA appears to be directed to pursue policy objectives that would impose costs on BPA ratepayers without providing offsetting benefits.

Conclusion

While the broad policy goals of the memorandum may be laudable, DOE appears to be unconcerned that its policy goals may be moving BPA in a direction that is outside the agency's statutory mission, increases FERC jurisdiction and reduces regional oversight, and imposes unwarranted costs on Northwest ratepayers.

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