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SPENDING, PRIORITIES & MISSIONS OF THE BONNEVILLE POWER ADMINISTRATION, WESTERN AREA POWER ADMINISTRATION, SOUTHWESTERN POWER ADMINISTRATION & SOUTHEASTERN POWER ADMINISTRATION

OVERSIGHT HEARING

BEFORE THE

SUBCOMMITTEE ON WATER AND POWER

OF THE

COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED TWELFTH CONGRESS

FIRST SESSION

Tuesday, March 15, 2011

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OVERSIGHT HEARING TITLED "EXAMINING THE SPENDING, PRIORITIES AND MISSIONS OF THE BONNEVILLE POWER ADMINISTRATION, THE WESTERN AREA POWER ADMINISTRATION, THE SOUTHWESTERN POWER ADMINISTRATION AND THE SOUTHEASTERN POWER ADMINISTRATION."

Tuesday, March 15, 2011

U.S. House of Representatives

Subcommittee on Water and Power

Committee on Natural Resources

Washington, D.C.

The Subcommittee met, pursuant to call, at 10:00 a.m. in Room 1324, Longworth House Office Building, Hon. Tom McClintock [Chairman of the Subcommittee] presiding.

Present: Representatives McClintock, Gohmert, Denham, Tipton, Gosar, Labrador, Noem, Hastings, Napolitano, Costa, Grijalva, Luján, Garamendi, and Markey.

Also present: Representatives DeFazio and Inslee.

STATEMENT OF HON. TOM McCLINTOCK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. MCCLINTOCK. The Subcommittee on Water and Power will come to order. The Chair notes the presence of a quorum which under Committee Rule 3 is two Members. Luckily.

The Water and Power Subcommittee meets today to examine the spending, priorities, and the missions of the Bonneville Power Administration, the Western Area Power Administration, the Southwestern Power Administration, and the Southeastern Power Administration. We also meet under the mandate of House Resolution 72 to identify regulatory impediments to job creation.

As we begin, I would ask unanimous consent that the gentleman from Oregon, Mr. DeFazio, and the gentleman from Washington, Mr. Inslee, be allowed to sit with the Subcommittee and participate in the hearing. Hearing no objection, so ordered.

We will begin with five-minute opening statements by the Chairman and Ranking Member, and with that we will start the clock.

As I said, today we are hearing from the four Federal Power Marketing Administrations that administer our hydroelectricity. When we reviewed these administrations last year, I said that I wanted to know how much more is being added to our electricity bills from over-regulation, water use restrictions, and mandated use of so-called alternative energy sources, and what they were doing to reverse these restrictions and costs.

I also said that I wanted to know what plans were underway to increase our hydroelectric resources. I hope that we will get clear and accurate answers today on these critical points.

We should remember that in the 1940s, the cheap and abundant hydroelectricity generated in the West's Federal dams played a major role in producing the armaments and food needed to defeat our enemies in World War II. In the post-war years, it laid the foundation for the explosive economic growth and prosperity of the western United States. Federal hydropower projects and the transmission lines delivering the power continue to serve their purpose today. But there is one major difference. The objective of providing abundance has been replaced by a mentality of rationing shortages and imposing wildly expensive mandates.

Litigation, regulation, Federal judges turned river masters, and mission creep are reducing project output and slamming consumers when our economy can least afford it. At a time when we should be empowering communities and employers to create jobs, I am concerned that these policies are adding greatly to our economic distress.

For example, three out of ten ratepayer dollars in the Pacific Northwest, literally 30 percent of your electricity bill, is now being spent on restoring salmon habitats—over $800 million taken from ratepayers annually—while we ignore the role that fish hatcheries play in producing and supporting abundant salmon populations at a fraction of the cost.

The Federal Government has deliberately foregone a third of the hydropower production, roughly 1,000 megawatts, at Glen Canyon Dam in the name of saving the humpback chub. We have now discovered that this policy actually increases the predator populations that feed on the chub, and yet instead of admitting our mistakes and changing our policy, this Administration seems intent on doubling down on them.

Meanwhile, in the afflicted Central Valley of California, Central Valley Power customers are fleeced by restoration taxes that inflate their electricity prices to the breaking point.

All of these policies make electricity more expensive, and by imposing fees on hydropower or by deliberately restricting it for pet causes of the environmental Left, this government is forcing consumers to buy ever-more expensive replacement power. The effort by the Environmental Protection Agency to radically restrict carbon dioxide will vastly exacerbate this burden. And I would also add that the Western Area Power Administration's quest to incorporate wildly expensive solar and wind power, combined with its new borrowing authority, threatens to erode the beneficiary-based principal. Under the agency's new borrowing authority, any defaulted loans with balances could be heaped on taxpayers.

Instead of deliberately bypassing water away from hydroelectric turbines, decreasing storage capacity in the name of saving endangered fish, and mandating extremely expensive and inherently unreliable generation into the grid, we need to restore as our objective the development and maintenance of abundant, affordable, and reliable power supplies for those who actually pay the bills.

A government that confuses rationing with abundance or that mistakes ideological sophistry with sound resource management

condemns itself to increasingly painful shortages and continuing economic distress. The Power Marketing Administrations before us today hold the key to restoring a new era of abundance and prosperity if they choose to do so. Or they can plunge us into a new Dark Age of rationing, shortages, prohibitively expensive water and power, and a dying economy.

I hope today to discover how much more power they are providing today than when they appeared before the Subcommittee last year, and at what cost, what they have done to reduce prices for their consumers over the past year, and what they have done to relieve taxpayers from bearing costs that ought to be paid by the beneficiaries of their projects. I would like to know what cost-benefit analysis they used to evaluate their commitment of resources, and I would like to know what plans they have to further increase supply, decrease costs, and achieve financial independence in the future.

And with that, I yield back and recognize the Ranking Member, the gentlelady from California, Mrs. Napolitano, for five minutes.

[The prepared statement of Chairman McClintock follows:]

Statement of The Honorable Tom McClintock, Chairman, Subcommittee on Water and Power

Today the subcommittee hears from the four federal power marketing administrations that administer our hydroelectricity.

When we reviewed these administrations last year, I said that I wanted to know how much more is being added to our electricity bills from over-regulation, water use restrictions and mandated use of so-called alternative energy sources and what they were doing to reverse these restrictions and costs. I also said that I wanted to know what plans are underway to increase our hydro-electric resources.

I hope that we will get clear and accurate answers today on these critical points.

We should remember that in the 1940s, the cheap and abundant hydroelectricity generated in the west's federal dams played a major role in producing the armaments and food needed to defeat our enemies in World War II. And in the post-war years, it laid the foundation for the explosive economic growth and prosperity of the western United States.

Federal hydropower projects and the transmission lines delivering the power continue to serve their purpose today. But, there's one major difference: the objective of providing abundance has been replaced by a mentality of rationing shortages and imposing wildly expensive mandates. Litigation, regulation, federal judges turned river-masters, and mission creep are reducing project output and slamming consumers when our economy can least afford it.

At a time when we should be empowering communities and employers to create jobs, I am concerned that these policies are adding greatly to our economic distress.

For example:

- 3 out of 10 ratepayer dollars in the Pacific Northwest are now spent on restoring salmon habitats—over $800 million taken from ratepayers annually—while we ignore the role that fish hatcheries play in producing and supporting abundant salmon populations at a fraction of the cost.
- The federal government has deliberately foregone a third of the hydropower production—or 1,000 megawatts—at Glen Canyon Dam in the name of saving the humpback chub. We have now discovered that this policy actually increases the predator populations that feed on the chub, and yet instead of admitting our mistakes and changing our policy, this administration seems intent on doubling down on them.
- Meanwhile, in the afflicted Central Valley of California, Central Valley Project power customers are fleeced by restoration taxes that inflate their electricity prices to the breaking point.

All of these policies make electricity more expensive. By imposing fees on hydropower or by deliberately restricting it for pet causes of the environmental Left, this government is forcing consumers to buy ever more expensive replacement power. The effort by the Environmental Protection Agency to radically restrict carbon dioxide will vastly exacerbate this burden.

I might also add that the Western Area Power Administration's quest to incorporate wildly expensive solar and wind power—combined with its new borrowing authority—threatens to erode the "beneficiary pays" principle. Under the agency's new borrowing authority, any defaulted loans with balances could be heaped on taxpayers.

Instead of deliberately bypassing water away from hydropower turbines, decreasing storage capacity in the name of saving endangered fish and mandating wildly expensive and inherently unreliable generation into the grid, we need to restore as our objective the development and maintenance of abundant, affordable and reliable water and power supplies for those who actually pay the bills.

A government that confuses rationing with abundance or that mistakes ideological sophistry with sound resource management condemns itself to increasingly painful shortages and economic distress.

The power marketing administrations before us today hold a key to restoring a new era of abundance and prosperity if they choose to do so. Or they can plunge us into a new dark era of rationing, shortages, prohibitively expensive water and power and a dying economy.

I hope today to discover how much more power they are providing today than they were when they appeared before the subcommittee last year—and at what cost; what they have done to reduce prices for their consumers over the past year; and what they have done to relieve taxpayers from bearing costs that ought to be paid by the beneficiaries of their projects. I would like to know what cost/benefit analysis they use to evaluate their commitment of resources. And I would like to know what plans they have to further increase supply, decrease costs, and achieve financial independence in the future.

STATEMENT OF HON. GRACE NAPOLITANO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mrs. NAPOLITANO. Thank you, Mr. Chairman. And first of all, welcome to all of you, the four of the PMAs' Administrators, for coming to Washington to brief us and bring information to us, updating Congress on the most important issues that each of your agencies face. I know I have toured two. Hopefully I will make it to the other two sometime in the future, because I have learned from actually seeing and touring and asking the questions that are necessary.

Each of our four PMAs are unique in terms of geographic location, your customer base, the amount of infrastructure it owns, and your mission. PMA Administrators' testimonies today will help shed light on those differences and remind us that some of the challenges you face are universal. These challenges include water shortages caused by climate change and drought, how drought affects how we generate the power—I say "we"; you—and the amount of hydropower available to customers. Aging infrastructure—one of the biggest issues that I find is going to be an increasingly growing issues, and I am sure it is to you.

I am very interested in learning how your capital costs help to continue to rehabilitate our generation resources if we are to maintain an historic power production levels and how these costs would check up at the end of the year. And, yes, hydroelectricity is the cheapest power there is, and I am sure customers would be a little concerned if you raised them outside of the realm of reason, but I think that we need to start recouping some of the costs that are inherent than you have already.

I am very concerned about bark beetle infestation and how the problem affects your infrastructure and transmission line. I hope to hear if there is any research and development on how to keep it in check or help defeat it. We are also continuing our strong sup-

port for wind and renewables. However, we understand we have to find solutions to some of the operational changes of integrating these resources.

Pacific Northwest is fortunate that it depends on hydropower, but also wind resources and is exceeding demand, causing its own challenges. We need to continue to find out how we can help in Congress, as we understand it and you brief us, how we can help in those areas.

I do know that the Northwest delegation is actively looking at solutions to support this development of renewals while protecting the hydropower resources and the operational integrity of the BPA grid. I would like to offer any help in facilitating a solution in this discussion since California depends on renewables generated in the Northwest region. These challenges cause us to look in the future and understand that we will have to do more with less.

In reading some of the testimony, I find that some of you are finding yourselves with diminishing personnel because of age, retirement age, and that you are hoping to be able to bring in individuals who are interested in working in that particular area. And I look forward to hearing how you are attempting to do that, besides your job fairs, via internships and other things that we may be able to put some of our youngsters—get their interest in it.

Look forward to hearing from each one of you on how your respective agency plans to confront tomorrow's challenges using the funding outlined within the budget request. And thank you again for being here and for making us aware of where we need to be. And with that, I yield back.

[The prepared statement of Mrs. Napolitano follows:]

Statement of The Honorable Grace F. Napolitano, a Representative in Congress from the State of California

Thank you to all four of the PMA Administrators for making the trip to Washington today to update the Congress on the most important issues each of your agencies face. Welcome.

Each of our four PMAs is unique in terms of geographic location, customer base, the amount of infrastructure it owns, and their missions.

PMA Administrators' testimonies today help shed light on those differences. They also remind us that some of the challenges our PMAs face are universal.

These challenges include water shortages caused by climate change and drought. How drought affects how we generate our power and the amount of hydropower available to customers.

Aging infrastructure is also an increasingly growing issue. I'm interested in learning about how your capital costs help to rehabilitate our generation resources if we are to maintain historic power production levels—and how those costs check up at the end of the year.

I'm very concerned about the bark beetle infestation an how this problem affects our infrastructure, our transmission lines.

We are continuing our strong support for wind and renewables, but understand that we have to find solutions to some of the operational challenges of integrating these resources. The Pacific NW is fortunate in that it depends on hydropower but also has wind resources. Right now in the Northwest power supply is exceeding demand, causing its own challenges.

I know that the NW delegation is actively looking at solutions to support the development of renewables while protecting their hydropower resources and the operational integrity of the BPA grid. I would like to offer any help in facilitating a solution to this discussion since California depends on renewables generated in the NW region.

These challenges cause us to look to the future and understand that we will have to do more with less.

I look forward to hearing from each PMA Administrator on how their respective agency plans to confront tomorrow's challenges using the funding outlined in its budget request.

Mr. MCCLINTOCK. The Chair now recognizes the Chairman of the Natural Resources Committee, the gentleman from Washington, Mr. Hastings.

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

Mr. HASTINGS. Thank you very much, Mr. Chairman, and thank you for the courtesy. I am pleased to be here today, especially since the agencies under the Water and Power Subcommittee have a profound and direct impact on my constituents in my Central Washington district.

Two of the largest Federal irrigation projects in the West and the Grand Coulee Dam, the flagship of the Federal Columbia River Power System, are all in my district. Together they serve as the heart of Central Washington's economy and way of life.

Today's hearing on the Power and Marketing Administration is an important endeavor since Congress has the duty to conduct oversight on these agencies. While ratepayers typically recover all of the cost of these agencies, Congress should focus on what Federal matters impact the electricity rates to assess whether their rates are fair and the lowest possible cost. For example, at least 30 percent of the rates of those served by the Bonneville Power Administration are related to endangered fish costs that have been subject to almost a decade of litigation.

Despite these expenditures and the fact that fishery returns are at the highest levels, some still seek to remove the four dams on the lower Snake River in the name of salmon protection. Removal will do very little to help the salmon. In fact, it will drive up energy costs and destroy jobs. It will increase the carbon footprint in the region and eliminate a major backup source for wind integration. Snake River Dam removal, I will say, Mr. Chairman, will not happen on my watch, as long as I am the Chairman of this Committee.

On wind integration, we will hear later today from Bonneville Power Administrator Steve Wright about how wind integration presents a lot of challenges for the region. When much of the wind resource is destined for California, we need to ensure that our ratepayers in the Pacific Northwest are not negatively impacted, and that our endangered fish recovery efforts are not compromised by wind exports. If the beneficiaries are Californians, then these beneficiaries should pay.

I also want to make sure that the Western Area Power Administration adheres to the "beneficiary pays" principle as it implements its new borrowing authority. This new authority became law without any congressional hearings or markups. Oversight, therefore, is clearly needed. I am told that some of the agency's core customers are very concerned about this new mission, that this new mission could negatively impact them, and that there hasn't been adequate transparency to resolve their concerns on recently proposed transmission lines. As we all know, there is a potential taxpayer bailout of this new authority as well.

So, in conclusion, I look forward to working with the Subcommittee Chairman, Mr. McClintock, and the Ranking Member, Mrs. Napolitano, both Californians I might add, on these and other issues for the next two years. And thank you, and I yield back.

[The prepared statement of Mr. Hastings follows:]

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

I'm pleased to be here today, especially since the agencies under the Water and Power Subcommittee have a profound and direct impact on constituents in my central Washington district. Two of the largest federal irrigation projects in the West and the Grand Coulee Dam, the flagship of the Federal Columbia River Power System, are in my district. Together, they serve as the heart of central Washington's economy and way of life.

Today's hearing on the Power Marketing Administrations is an important endeavor since Congress has a duty to conduct oversight on these agencies. While ratepayers typically recover all of the costs of these agencies, Congress should focus on what federal matters impact electricity rates to assess whether the rates are fair and the lowest cost possible.

For example, at least 30% of the rates of those served by the Bonneville Power Administration are related to endangered fish costs that have been subject to almost a decade of litigation. Despite these expenditures and the fact that fish returns are at high levels, some still seek to remove four dams on the Lower Snake River in the name of salmon protection. Removal would do very little to help the salmon, drive up energy costs and destroy jobs, increase the carbon footprint of the region and eliminate a major backup source for wind integration. Snake River dam removal will not happen on my watch.

I mentioned wind integration because we will hear later today from Bonneville's Administrator, Steve Wright, about how wind integration presents a lot of challenges for the region. When much of the wind resource is destined for California, we need to ensure that our ratepayers in the Pacific Northwest are not negatively impacted and that our endangered fish recovery efforts are not compromised by wind exports. If the beneficiaries are Californians, then those beneficiaries should pay.

I also want to make sure that the Western Area Power Administration adheres to the "beneficiaries pays" principle as it implements its new borrowing authority. This new authority became law without any congressional hearings or markups. Oversight is clearly needed. I'm told that some of the agency's core customers are very concerned that this new mission could negatively impact them and that there hasn't been adequate transparency to resolve their concerns on recently proposed transmission lines. As we all know, there is a potential taxpayer bailout in this new authority as well.

In conclusion, I appreciate being here for this important hearing and I look forward to working with Subcommittee Chairman McClintock and Ranking Member Napolitano—both from California—on these and other issues in the next two years.

Mr. MCCLINTOCK. It is customary on this Subcommittee to recognize any other Members who wish to make opening statements to do so. And in keeping with the Natural Resources Committee precedent, I will recognize Members present when the Subcommittee came to order, alternating between majority and minority. And Mr. Gosar, I believe, is next. Mr. Tipton, do you—OK. Well, good.

Then we will move on to witnesses today. We are pleased to be joined by Mr. Steve Wright, Administrator of the Bonneville Power Administration; Mr. Timothy Meeks, Administrator of the Western Area Power Administration; and Mr. John Worthington, Administrator of the Southwestern Power Administration; and Mr. Kenneth Legg, Administrator of the Southeastern Power Administration.

Your written testimony will appear in full in the hearing record, so I would ask that you keep your oral statement to five minutes,

as outlined in our invitation letter to you and under Committee Rule 4[a]. I also want to explain how our timing lights work. When you begin to speak, our clerk will start the timer, and a green light will appear. After four minutes, a yellow light will appear, and at that time, you should begin concluding your statement. At five minutes, the red light will come on. You can complete your statement, but I would ask that you conclude at that point.

Before I recognize Mr. Wright, I would note that he recently celebrated 30 years of service in the Bonneville Power Administration. Congratulations, and I now recognize him to testify for five minutes. All witness statements will be submitted for the hearing record.

STATEMENT OF MR. STEVE WRIGHT, ADMINISTRATOR, BONNEVILLE POWER ADMINISTRATION, PORTLAND, OREGON

Mr. WRIGHT. Thank you very much, Mr. Chairman, Mrs. Napolitano, Members of the Subcommittee. My name is Steve Wright, and I am the Administrator of the Bonneville Power Administration. My testimony provides a summary of the last year, as well as a look at the challenges coming at us.

First, a quick reminder that BPA receives no annual appropriations. We cover all of our costs through the sale of power and transmission services. We have limited access to capital that must be repaid at the U.S. Treasury's cost of money.

2010 was a challenging but productive year. The downturn in the economy, combined with another below-average water year, resulted in not achieving our revenue targets and losing money for the second year in a row. Fortunately, our conservative fiscal policies in previous years resulted in building financial reserves designed to carry us through just such circumstances.

In 2010, BPA made its full scheduled $864 million repayment to the Federal investment. This marks the 27th straight year that BPA has made the full scheduled payment. BPA also registered substantial progammatic success. Working with our public power customers over 90 average megawatts of energy efficiency was acquired, a substantial increase from previous years.

We completed the decade-long refurbishment of the historic Bonneville Dam first power house, part of a comprehensive effort to assure we are investing to get maximum cost effective, renewable hydropower from our system. The interconnections of wind power to BPA's transmission now exceeds 3,400 megawatts, effectively accomplishing the regionally established 2020 goal set just four years ago a decade ahead of schedule.

There are many reasons behind that wind power explosion, but one of the most significant is BPA's nationally innovative policies to get financial commitments in advance, allowing more transmission to be offered and built. Our first major construction project utilizing American Recovery and Reinvestment Act borrowing authority, The McNary-John Day line, is ahead of schedule and under budget.

We are also witnessing dramatic increases in returning adult Columbia Basin salmon and steelhead listed as threatened and endangered. While humility demands that we recognize the contribution of good ocean conditions, where these fish spend the majority

of their lives, our extensive research, monitoring, and evaluation program tells us that the substantial investment Northwest ratepayers are making is resulting in increased survival through the hydro system corridor.

There are in fact more successes to celebrate, but I want to take time to describe six key issues likely to come to the attention of the Subcommittee in the coming year. First, we will expand our efforts to support the acquisition of energy efficiency by our customers. Energy efficiency is by far the least cost, most environmentally benign resource. It deserves our priority attention over all other resources.

Second, the rapid pace of wind development, most of which is being exported outside of our control area, has created a new set of challenges. For example, development is concentrated in a small geographic area, exacerbating the peaks and troughs of wind generation. The flexibility available from the hydro system to manage the variable output of wind power and maintain reliability is nearing exhaustion.

Wind generation also tends to accentuate the periodic over-supply of electricity, particularly in the spring. Increasing injections of wind energy without mitigation may extend this challenge. We are pursuing a lessons-learned effort to help address these issues. We believe these challenges can be met, but it should be recognized we are likely to encounter difficult choices that must be made.

Our values as we confront these choices are encouraging renewable resource development while assuring reliability is maintained and assuring that any cost of wind power is paid by the purchasers and sellers.

Third, we are in the process of resetting rates. We are seeking to assure adequate investment in a valuable but aging hydro system, assuring a probability of repaying the U.S. Treasury while keeping rates as low as possible, recognizing the state of the economy.

Fourth, we are awaiting an extremely important Federal District Court decision regarding a joint Federal, three State, and six tribe plan for salmon restoration. This Subcommittee has followed this issue for more than a decade. A decision supporting the plan would solidify a remarkably successful collaboration that is producing results on the ground and avoid a reset button that would likely result in uncertainty, if not turmoil.

Fifth, the Columbia River treaty with Canada is nearing deadlines for decisions about its future post-2024. One would be hard-pressed to find a more successful trans-international boundary river basin agreement. Important questions, though, must be addressed, including flood control protection, the treatment of power production at U.S. facilities enabled by the treaty, and many ecosystem protection and economic issues that were not part of the original treaty consideration.

Sixth and finally, there has been a long-running debate and litigation around a program BPA is mandated to operate, designed to create greater rate parity for residential and small farm consumers in the Northwest. The parties have worked hard to resolve their differences. We applaud them for their effort and are considering

the merits of their agreement in a rate case setting, and commend it for your consideration.

Mr. Chairman, this concludes my testimony. I look forward to your questions.

[The prepared statement of Mr. Wright follows:]

Statement of Stephen J. Wright, Administrator, Bonneville Power Administration, U.S. Department of Energy

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to testify here today. My name is Steve Wright. I am the Administrator of the Bonneville Power Administration (Bonneville). I am pleased to be here today to discuss the President's Fiscal Year (FY) 2012 Budget as it relates to Bonneville.

In my testimony today, I will share with the Committee Bonneville's significant successes over the past year, how we are addressing the considerable challenges we are facing, and an overview of the FY 2012 budget.

BONNEVILLE'S RECENT SUCCESSES

FY 2010 was challenging, yet productive for Bonneville. Like almost every institution and business in the nation, Bonneville is facing the realities of the current economic hardships. But Bonneville has been more than up to the challenge of managing through difficult economic times while making important progress in areas that advance both national and regional energy goals.

In the Pacific Northwest, poor economic conditions have been exacerbated by successive years of low snowpack. Snowpack fuels our hydro-powered system. With last year's January—July runoff at only 79 percent of the 30-year average, we had little surplus power to sell. Surplus sales normally represent about one-fifth of our revenues. As a result, we fell far short of our start-of-year revenue goals.

Despite these challenges, Bonneville has retained its fundamental financial strength and stability. The same financial discipline and management principles that enabled us to recover from the West Coast energy crisis of 2000–2001 are ensuring that we can manage the current environment, while continuing to make substantial investments in the region's transmission, generation, energy efficiency, and fish and wildlife restoration efforts.

As the Committee knows, Bonneville ratepayers repay the debt on the Federal investment in the Federal Columbia River Power System (FCRPS). In FY 2010, Bonneville made its full scheduled payment of $864 million to the U.S. Treasury, including $38.5 million in advanced amortization. This payment marks the 27th year in a row that Bonneville has made a full, on time payment to the Treasury. Bonneville finances its approximate $4.6 billion annual cost of operations and investments primarily using power and transmission revenues and borrowing from the U.S. Treasury at interest rates comparable to the rates prevailing in the market for similar bonds issued by Government corporations.

As stewards of the FCRPS, Bonneville also has a mandate to mitigate the impacts on fish and wildlife of Federal hydropower development and operations on the Columbia River and its tributaries. On that front, it has been a very successful year. While ocean conditions clearly play a big role in the survival of fish, there is strong evidence that our efforts are contributing to the increasingly robust salmon populations. After years of investing in improvements to make our hydroelectric projects and habitat safer for fish, we are seeing remarkable results. Some salmon runs are returning in numbers that haven't been seen since the 1950s. Last year, more Snake River fall Chinook returned above Lower Granite Dam than we have seen since the dam was built in 1975.

FY 2010 also saw wind power continue to flourish in the Pacific Northwest. As the owner of about 75 percent of the high voltage transmission in the region, nearly 3,400 megawatts of wind capacity is currently integrated into Bonneville's system, an amount that could double in the next few years. Major transmission infrastructure projects accompany this continuing expansion. We are well into construction of the West of McNary Group I Transmission Project (also known as McNary-John Day) which was the first of Bonneville's American Recovery and Reinvestment Act (ARRA) projects to break ground.

We are grateful to the Congress and the President for a substantial increase in our existing borrowing authority as part of ARRA. We have developed asset management plans for our major categories of capital assets (transmission, hydro system infrastructure, fish and wildlife, and conservation) and have identified cost-effective investments that exceed our current total borrowing authority. This means we will

need to continue to follow rigorous capital review process to assure we approve only the most cost-effective uses of our borrowing authority.

Bonneville captured almost 90 average megawatts of energy efficiency in FY 2010, easily exceeding its portion of the Northwest Power and Conservation Council's conservation target. The energy efficiency team was recognized as a leader in the field with multiple awards, including three Energy Management Awards from the Department of Energy and two regional Environmental Protection Agency Awards.

KEY CHALLENGES

The coming years will see fundamental changes in the Pacific Northwest power system. Growing demand and increased wind power development are combining to put new strains on our transmission and power systems. Bonneville is working closely with customers and stakeholders throughout the West and looking for opportunities to meet these new demands.

Energy Efficiency—The Northwest's Priority Resource

The Pacific Northwest has long been a national leader in energy efficiency and Bonneville has been an integral part of this successful effort. Bonneville is significantly increasing investment in the years to come which will support the Administration's goals of enhancing the economy, increasing energy independence, and promoting clean energy (Attachment A).

In FY 2010, the Northwest Power and Conservation Council issued its Sixth Power Plan. The plan identifies energy efficiency as the least cost resource and envisions that almost 60 percent of the Pacific Northwest's new demand for electricity over the next five years and 85 percent of load growth over the next 20 years could be met cost effectively with energy efficiency. This nearly doubles targets from the previous plan. Bonneville agrees with this plan and will work in partnership with public power to achieve public power's share of that goal. Bonneville budgets reflect increasing investment to achieve the higher megawatt targets.

Bonneville is also supporting two major demonstration initiatives supporting a smarter grid—the Pacific Northwest Smart Grid Demonstration Project and the Western Interconnection Synchrophasor Program. We are exploring how different smart grid technologies can benefit Bonneville's customers through cost containment and improved reliability. Smart grid technologies hold great potential to improve transmission reliability and reduce the need for new transmission infrastructure and power resources, although much work remains to be done to prove the business case.

Wind—Success Breeds Challenges

By the end of 2010, Bonneville had connected nearly 3,400 megawatts of wind generation to its transmission system (Attachment B). What is remarkable about this milestone is that only four years ago, a regional wind integration task force thought that 3,000 megawatts of wind connection to the Bonneville system was a reasonable target to be accomplished by 2020. We hit that target a decade sooner. We now have commitments in our interconnection queue that could increase that total generating capacity in Bonneville's Balancing Authority Area to 10,000 megawatts by 2017 (Attachment C).

It is important to note that most of this wind resource is being developed for use elsewhere. More than 80 percent of the wind on Bonneville's system is meant to serve renewable electricity demand outside Bonneville's Balancing Authority Area. We estimate that over half is under contract to serve California utilities. Bonneville's ability to connect such significant amounts of renewable generation is a major contribution to renewable energy development West-wide.

This rapid pace of wind development leads us to believe there is a need for a "lessons learned" discussion with the region. We intend to work with regional stakeholders to review our operating experiences and the challenges we can expect to face as a result of further accelerated wind power development in the Pacific Northwest.

Bonneville is seeking to simultaneously encourage renewable resource development, maintain reliability, protect fish and wildlife, and assure that the costs of wind power are paid by wind purchasers and sellers. We believe success at achieving these goals is necessary to continue the expansion of renewable resources.

Some of the challenges we are currently experiencing include:

1. Wind development has concentrated in a small geographic area east of the Columbia River Gorge where transmission service is available and in close proximity to California interties. This concentration magnifies the peaks and troughs of wind generation.
2. Wind generation tends to accentuate the periodic oversupply of energy in the spring.

3. Bonneville's transmission system has limited ability to move all of this generation out of the region.
4. Bonneville has embarked on major transmission projects within the region to improve service for all transmission transactions, including wind generation, but due to flexibility we have offered we do not always know the ultimate destination of wind electricity and this uncertainty is increasingly affecting our ability to plan for reliable transmission service.
5. The Federal hydro system has worked well to back up wind generation's high variability. The dams can ramp generation up when wind generation falls off and back down when wind generation comes back up. We have worked successfully for the last several years on new tools to stretch the reserve capabilities of the hydro system but we are nearing the limits of those capabilities.

If wind generation in our system is to triple in the next six years, we need to engage the region to expand the integration strategy.

Rates –Managing for Short and Long-Term

Bonneville is currently engaged in processes to re-set rates for sales of power and transmission and is following an extensive public process to review and make changes to Bonneville's budget. Almost all Transmission customers have agreed in principle to a settlement of rates for FY 2012–2013.

On the Power side, this is the first time we will be implementing rates under our new contracts, which include tiered rates. Bonneville is proposing an 8.5 percent wholesale power rate increase primarily driven by the need for investment in the non-CO_2 emitting, low cost hydropower assets that create substantial value for the region. We are committed to establishing rates that will maintain at least a 95 percent Treasury Payment Probability while also seeking to keep rates as low as possible reflecting the stress the regional economy is experiencing.

Residential Exchange—Addressing a Regional Controversy

Representatives of consumer owned and investor owned utilities across the region have worked hard in response to our request that they attempt to settle on Residential Exchange Program costs and benefits for the next 17 years. Disputes and litigation have plagued the Program since its inception. Together they have reached a proposed settlement that will now be considered by the utilities for adoption. We applaud their efforts and are considering the merits of their proposal in a formal rate setting process. We are under ex parte rules for both this and the power and transmission rate setting processes.

Protecting ESA Listed Fish

After more than a decade of litigation, we are awaiting an imminent ruling on biological opinions protecting threatened and endangered fish in the Columbia River Basin. A Federal plan has been introduced in the Federal District Court of Oregon under Judge James Redden. This plan responds to Judge Redden's request for funding commitments that ensure the improvements are reasonably certain to occur. Consistent with the Court's request for collaboration, the Federal plan is the product of extensive regional collaboration resulting in support from three states and seven Indian Tribes. The National Oceanic and Atmospheric Administration performed a review of the plan, which also included review by independent biologists. The independent review confirmed that the underlying science of the plan was sound.

Bonneville believes the region is at a fundamental fork in the road with respect to salmonid restoration. The Federal plan is well positioned to succeed. The Federal plan addresses the whole salmonid life cycle: habitat, hydro, hatcheries and harvest, while the plaintiffs' plan focuses only on hydro projects. The Federal plan has unprecedented state and tribal support. It is the product of regional collaboration and supported by the best science available. The data shows that surface passage and spill has improved fish survival, habitat restoration provides healthy rivers for returning fish to spawn, and returns are improving. Moreover, the Federal plan also creates a substantial number of jobs. Bonneville believes that it's time to let the plan work.

Part of implementing the plan includes beginning construction in FY 2012 on three significant fish projects. These projects are listed in the Proposed Appropriations (Expenditure Authority) Language of Bonneville's Congressional Budget submission pursuant to Public Laws 93–454 and 96–501. The projects are consistent with the 2008 Biological Opinion and the 2008 Columbia Basin Fish Accords. The projects exemplify the commitment by tribes, states, and Bonneville to work collaboratively towards achieving specific biological objectives and meeting salmon recovery requirements.

Columbia River Treaty—Important Decisions are Coming

The Columbia River Treaty (CRT) is a marvel of international cooperation enabling a wide range of related benefits that affect British Columbia and the Pacific Northwest (Attachment D). Signed in 1961 and ratified in 1964, the CRT is known throughout the world as one of the best and most successful examples of a transboundary water Treaty. The Treaty includes a unilateral right for either country to terminate beginning in 2024 provided 10 years' notice is provided. The U.S. Entity for the CRT, through Bonneville and the Army Corps of Engineers, has initiated the process to discuss with the region's state governments and tribes, as well as other stakeholders, issues related to the continuation of the CRT. The CRT was designed to provide flood control and hydropower benefits in both countries, but we understand that values in the region have changed in the last 50 years and issues need to be considered that were not part of the debate 50 years ago. The U.S. Entity is establishing management structures to engage fellow Federal agencies, regional sovereigns and non-sovereign stakeholders in order to develop a recommendation to be provided to the State Department in fall 2013.

FY 2012 BUDGET OVERVIEW

Bonneville is in sound financial condition and is well positioned for the future. Bonneville's FY 2012 budget proposes estimated accrued expenditures of $3,195 million for operating expenses, $52 million for Projects Funded in Advance, and $937 million for capital investments.

Bonneville's commitment to fish and wildlife mitigation and enhancement is exemplified in its substantial direct program budget of $300 million, capital and expense.

Bonneville's FY 2012 budget is a business based budget that strongly supports Department of Energy priorities and goals.

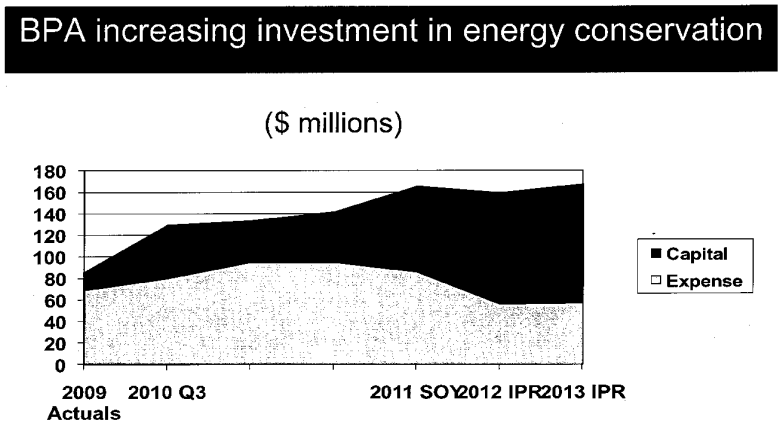
Even with the ARRA providing a sizable increase in Bonneville's authority to borrow from the Treasury, the agency will continue to face capital funding challenges as the pace of capital spending increases to meet the infrastructure and energy efficiency needs of the region. We continue to seek opportunities for alternative funding sources with third parties. Table BP–5 in Bonneville's FY 2012 Congressional Budget submission provides increased transparency regarding potential Bonneville third-party financing activity, which is estimated at about $203 million during the FY 2010 through FY 2016 period. This use of third-party financing pushes out the point in time where capital spending plans are estimated to exhaust Treasury borrowing authority.

Please see Attachment E for budget data based on current services for FYs 2010 through 2012.

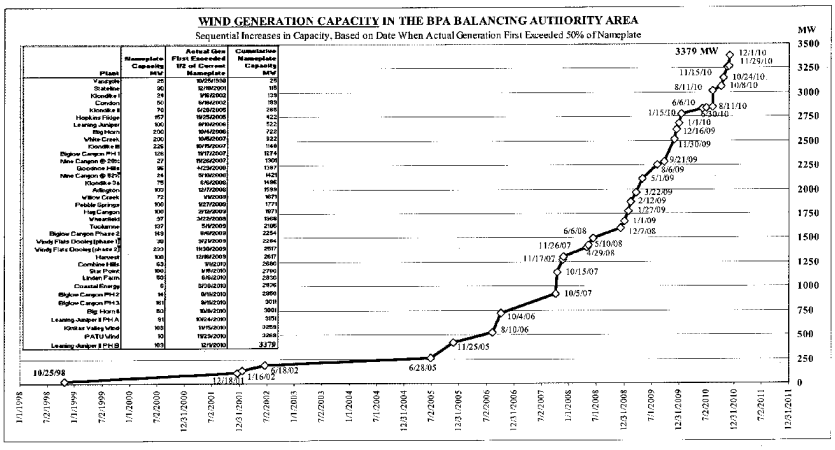
CONCLUSION

That concludes my prepared remarks Mr. Chairman. I am excited by the role Bonneville is playing to achieve regional and national goals for clean and reliable electricity supplies while managing the operation in a fiscally prudent manner. I would be happy to respond to any questions from the Committee.

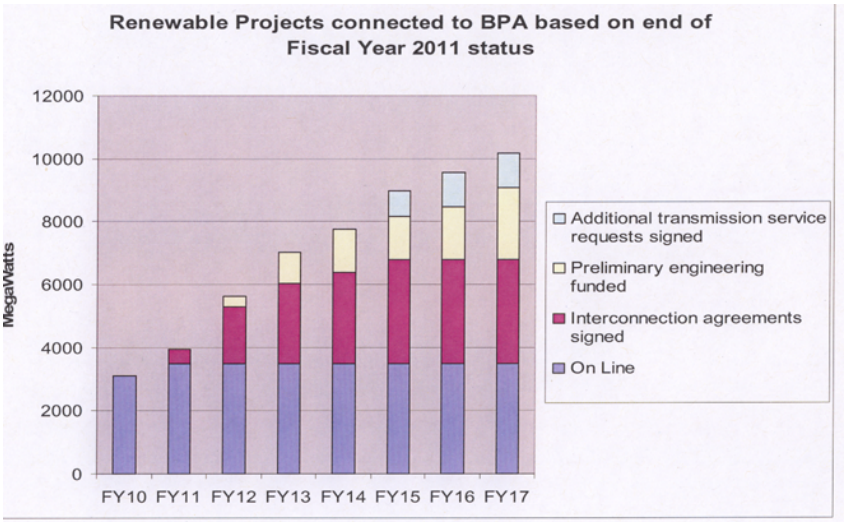
Attachment A



Attachment B



Attachment C



Attachment D

Attachment E

The accompanying notes are an integral part of this table.

[1] BPA finances its operations with a business-type budget under the Government Corporation Control Act, 31 U.S.C 9101–10, on the basis of the self-financing authority provided by the Federal Columbia River Transmission Act of 1974 (Transmission Act) (Public Law 93–454) and the U.S. Treasury borrowing authority provided by the Transmission Act, the Pacific Northwest **Electric** Power Planning and Conservation Act (Pacific Northwest Power Act) (Public Law 96–501) for energy conservation, renewable energy resources, capital fish **facilities,** and other purposes, the American Recovery and Reinvestment Act of 2009 (Public Law 111–5), and other legislation. Authority to borrow from the U.S. Treasury is available to the BPA on a permanent, indefinite basis. The amount **of U.S. Treasury** borrowing outstanding at any time cannot exceed $7.70 billion. BPA finances its **approximate** $4.6 billion annual cost of operations and investments primarily using power and transmission revenues and borrowing from the U.S. Treasury at rates comparable to borrowings at open market rates for similar issues.

[2] BPA includes updated operating year budget estimates in each Congressional Budget submission. Updated BPA FY 2011 operating year estimates are included in the FY 2012 Congressional Budget.

[3] This budget has been prepared in accordance with the Budget Enforcement Act (BEA) of 1990. Under the BEA all RPA budget estimates are treated as mandatory and are not subject to the discretionary caps included in the BEA. These estimates support activities which are legally separate from discretionary activities and accounts. Thus, any changes to BPA estimates cannot be used to affect any other budget categories which have their own legal dollar caps. Because BPA operates within existing legislative authority, BPA is not subject to BEA "pay-as-you-go" test regarding its revision of current-law funding estimates.

[4] Original estimates reflect BPA's FY 2011 Congressional Budget Submission. Revised estimates, consistent with BPA's annual near-term funding review process, provide notification to the Administration and Congress of updated capital and expense funding levels for FY 2011.

[5] Includes infrastructure investments designed to address the long-term needs of the Northwest and to reflect significant changes affecting BPA's power and transmission markets.

[6] Power Services includes Fish & Wildlife. Residential Exchange Program, Planning Council, Conservation & Energy Efficiency and Associated Project Costs which have been shown separately for display purposes.

[7] This FY 2012 budget includes capital and expense estimates based on preliminary IPR forecasted data for FYs 2011–2016.

[8] PFIA for Transmission Services paid by customers. The cumulative amount of actual advance amortization payments as of the end of FY 2010 is $2,574 million. Refer to 16 USC Chapters 12B, 12G, 12H, and BPA's other organic laws, including P.L. 100–371, Title III. Sec. 300, 102 Stat. 869, July 18, 1988 regarding BPA's ability to obligate funds.

Mr. MCCLINTOCK. I now recognize Mr. Timothy Meeks, Administrator of the Western Area Power Administration, to testify for five minutes.

STATEMENT OF MR. TIMOTHY MEEKS, ADMINISTRATOR, WESTERN AREA POWER ADMINISTRATION, LAKEWOOD, COLORADO

Mr. MEEKS. Thank you, Mr. Chairman, Congresswoman Napolitano. I am glad to be here today to answer any questions you may have in regards to what the Western Area Power Administration has done and where we are headed in the future.

But first, I would like to remind the Committee of who we are. We are a Power Marketing Administration that covers 15 western United States. We are responsible for 17,000 miles of transmission. We market from 56 Federally owned dams in 15 States. We market 10,000 megawatts of clean, renewable energy. Ultimately, this energy goes to over 25 million consumers in the western United States.

We recover our costs with interest and meet our repayment obligations to the Treasury. We have a proud history. I am proud of our employees and what we have done, given the resources that we have been provided. Over our history, we have a proud tradition of building such projects as Bears Ears-Bonanza, the California-Oregon Transmission Project, and most recently the Path 15 Upgrade Project. Many of these projects were groundbreaking, and the fact that we worked with third parties outside of the government.

I am proud of our tradition of working with our customers. We present to our customers every year our 10-year plan. This 10-year plan shows transparency of what we are doing. It is a working collaboration for our asset management program. In other words, we work with our customers to show them what projects that we are doing in the future and why they are value-added, and we reach consensus and move forward based on that.

We have put together groundbreaking—what I call a budget council within our PMA customer group. Never before have our customers from various regions all across the 15 western United States got together to look at our budget and to help us meet the future resource needs that we will have. So I am proud of that fact.

As a result of that fact, only a small fraction of our operating budget—we operate over a billion dollar program, and that is not counting the borrowing authority. Only $96 million in appropriations, net appropriations, is our request. So that comes from other sources, and that source is our customers. They represent 84 percent of our construction, rehabilitation, and replacement program. So that equates to $93 million that we get directly from them. So obviously, they believe in what we are doing.

We are meeting our reliability standards, as set forth by the NERC, WEEC, FERC, MRO. We are also meeting our safety standards. We are substantially lower as far as our safety incidents as compared to like industry.

Over last year, we had our open access transmission tariff substantially approved by FERC. There are a few minor things that we have to submit, but for all practical purposes, that was approved in December. We are continuing to work with others on new transmission projects, utilizing our borrowing authority as well as our traditional means of projects. And we adhere to the construct of beneficiary pays.

Our costs associated with each program is separated out, as we do with our marketing projects, and those that benefit pay for it; those that don't, don't. We are working with our sister agencies on the precious hydro resource that the Chairman mentioned. We understand there is a balance that must be struck. And obviously, we support hydropower, and we believe in it, and we market it to the most value that we are able to do so. And that comes from conversations with the Corps, with the Bureau, and maximizing the value of that product.

In short, I believe that we are doing an outstanding job to be good stewards of the Federal resources that we have been provided, and I am happy to answer any questions you may have today. Thank you, Mr. Chairman.

[The prepared statement of Mr. Meeks follows:]

Statement of Timothy J. Meeks, Administrator, Western Area Power Administration, U.S. Department of Energy

Thank you, Chairman McClintock and members of the Subcommittee. My name is Timothy Meeks. I am the Administrator of the Western Area Power Administration (Western), and I'm proud to be here today to represent Western and to tell you about who we are, and our role in delivering clean, renewable power to the western United States.

Who we are and what we do

On December 21, 1977, high gas prices and a concern over reliable energy supplies led Congress to create the Department of Energy, including the Western Area Power Administration—a new agency to market and deliver Federal hydropower within a 15-state region of the central and western United States. More than three decades later, our mission of delivering clean, renewable energy continues to be crucial in meeting today's energy demands. Federal hydropower has been critical in providing reliable electricity to light homes and drive industry in small towns and large communities, and on Tribal lands and military bases.

As one of four power marketing administrations within the U.S. Department of Energy, we market hydropower generated at 56 multi-use Federal water projects operated by the Bureau of Reclamation, U.S. Army Corps of Engineers and the International Boundary and Water Commission. Together, these plants are capable of delivering approximately 10,000 megawatts of power. Western does not market this power as a single power system. Rather, Western takes the power generated by each Federally-authorized, multi-purpose water project, and markets it within the region served by that water project. As a result, Western has 10 power systems, each with its own marketing plan and rates.

To deliver this power to our customers, Western owns, operates and maintains more than 17,000 miles of high-voltage transmission line and about 300 substations throughout our 1.3 million square-mile service territory.

Our permanent full-time staff of about 1,400 employees works around the clock, maintaining the interconnected transmission system and ensuring that energy supply instantaneously matches energy demand to ensure power keeps moving through the system and electricity ultimately reaches homes and businesses throughout our marketing area.

As an essential part of our mission to deliver Federal hydropower, Western has a long history of constructing transmission lines. Western has played important roles in the construction of such major transmission facilities as the California-Oregon Transmission Project, the Mead-Phoenix Transmission Line, and the Path 15 Transmission Upgrade, among many others. Recognizing this capability, Congress amended the Hoover Power Plant Act of 1984 in 2009 to give Western borrowing authority to construct new or upgraded transmission facilities that would deliver, or facilitate the delivery of, renewable energy.

How we conduct business—cost-based rates and the beneficiary pays principle

We sell our Federal hydropower according to Federal reclamation law, which requires our power be sold at the lowest possible rates to consumers consistent with sound business principles. This means we sell our firm power at rates designed to recover all the costs of providing this power. This includes not only our own costs, but also the costs of Federal generating agencies that are attributable to power generation. Operating expenses and capital investments are both repaid, the latter with interest. All the costs associated with the generation and transmission of electricity are paid by Western's customers, with essentially none of those costs borne by Federal taxpayers. In fact, in certain instances Congress has directed that power users pay non-power costs of multi-purpose Federal water projects that other project beneficiaries, such as irrigators, are unable to repay. In these cases, our power customers provide a subsidy to other project beneficiaries.

We operate in a business-like manner and we believe strongly in the principle that "the beneficiary pays." By this, we mean those entities that benefit from the use of these Federal resources should pay for the use of those resources. We design our rates so each power system pays only for its own costs. By law, we will ensure that transmission facilities built with our borrowing authority pay for themselves without relying on revenues from our core-mission projects.

Relationship with customers

Since our inception as an agency, we have worked to establish valuable partnerships with our customers to deliver affordable, reliable, renewable and clean Federal hydropower. We work diligently with our partners to ensure that our rates remain as low as possible. For example, in Western's Folsom, California, office, Western has implemented the Base Resource Displacement Program, resulting in avoiding significant transactional costs associated with delivering power between balancing authorities. Since its inception in June 2009 and through December 31, 2010, the Base Resource Displacement Program has resulted in over $3.5 million in cost savings.

Importance of cost control and cost control efforts

We have a strong culture of cost awareness and control throughout Western. It makes good business sense, and our customers expect it. Our rates are set through public processes for each project, ensuring involvement and transparency in the development of rates and understanding of the need for rate increases, when they occur. We meet regularly with our customers to review our capital improvement plans to ensure that we are concentrating our efforts on projects that meet recognized needs.

Western scrutinizes its expenses to minimize impacts to our core business units and to keep rates as low as possible. Western has a strong program to affirmatively practice cost containment via position management and looking for opportunities to streamline and improve business processes in both our administrative and core business lines.

We are reviewing and moving forward to maximize value from our procurement actions. Given the twin requirement of acquiring supplies and services in a cost effective manner while achieving agency targeted socio-economic goals, Western's procurement community has used a number of different acquisition authorities and cost-avoidance strategies to ensure best value procurement buys. In the area of administrative support contracts, Western has aggressively moved to use performance-based contracts to reduce costs by reducing the number of contractor employees and increasing accountability and responsibility for performance on the part of the individual contractor.

In addition, Western has undertaken a series of initiatives to identify and implement activities which reduce the cost of performing its core business. For example, Western's Operations Consolidation Project (OCP) is merging the operations of two regions into one, improving business efficiencies and reducing the overall cost of complying with mandatory industry-wide reliability standards. Consolidating the operations of two regions will also eliminate the need to support redundant backup alternative control centers, enable the use of a single computerized power control

system, and optimizes transmission planning and administration of the Open Access Transmission Tariff over a larger geographic footprint. Western also has a program to consolidate and standardize Information Technology applications such as the Power Billing System to eliminate redundancies, avoid duplication, and reduce administrative support costs. Coupled with this initiative are ad hoc programmatic initiatives to automate to the extent practicable, manual processes which are unduly complex and burdensome.

Western continues to work collaboratively with our generation partners to maximize hydropower operations to the extent practicable to ensure that customers continue to receive their hydropower allocations in a timely, reliable, and cost-effective manner.

However, there are a number of factors that are exerting upward pressure on our rates, most of which are out of Western's control. Some of the factors that have caused Western's costs to increase include:

- increased environmental regulatory compliance costs, which have had the net effect of increasing expenses, while reducing the quantity and reliability of the hydropower product
- the need to replace aging generation and/or transmission-related infrastructure
- the higher cost associated with operating and maintaining aging generation and/or transmission-related infrastructure until it can be replaced
- the cost associated with ensuring ongoing compliance with industry-wide mandatory reliability standards (including critical infrastructure protection assets)
- the impact that drought has had on the available net hydropower generation in recent years.

Western's role in transmission

While our role as transmission owner and provider is critical to the delivery of Federal power, the role we play in transmission is integral to our Nation's interconnected electrical grid and helps ensure the reliable and secure delivery of our Nation's power supply. Our customers, the industry and others look to Western as a partner in initiatives to increase transmission capacity and reliability, to eliminate congestion points and to respond to additional requests for interconnection onto the grid.

Demand for transmission capacity has been on the rise over the past several years. Renewable generation such as wind power, which is typically located in remote areas away from load centers, is increasing dramatically. Western's service territory encompasses nine of the 10 windiest states in the Nation, and developers are increasingly looking to our transmission system as the vehicle to move renewable generation to market.

However, a recent FERC study[1] indicates the current transmission system, nationwide, is nearing its capacity to accept new generation. Analyses point to key transmission constraints where reinforcements would allow lower-cost resources to flow toward higher-cost load areas. In addition, our transmission system is aging. It has become clear that additional transmission will be required to ensure a reliable supply of clean energy into the future.

Borrowing authority begins to provide solutions

Through the 2009 amendment to the Hoover Power Act of 1984, Western now has the authority to borrow from the Treasury to construct and/or upgrade transmission lines to help deliver renewable resources to market.

Western moved forward diligently to establish our Transmission Infrastructure Program (TIP) that implements this new borrowing authority. In less than nine months, we formalized our agreement to finance development and construction of the Montana-Alberta Tie Limited Transmission Project, or MATL, the first project financed with our new authority.

MATL is a 230-kilovolt, 214-mile transmission line that will run from a substation near Great Falls, Montana, to one near Lethbridge, Alberta, and allow energy flow in both directions. Northern Montana and southern Alberta are home to some of the best wind energy sources in North America. The MATL line will enable the development of new wind-energy projects by linking this renewable and emission-free source of power to consumers across North America. Construction is now underway, and we expect the line to be in service by January 2012.

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[1] *Use of Frequency Response Metrics to Assess the Planning and Operating Requirements for Reliable Integration of Variable Renewable Generation,* Lawrence Berkeley National Laboratory, December 2010

With MATL and other TIP projects under consideration, we strive to maintain flexibility in our approach as we use our borrowing authority to maximize use of the authority while keeping costs at a minimum. Three models—financier, customer partnership and public-private partnership—allow us to select the right tool for the job.

The concept of "beneficiary pays" remains a cornerstone of our Transmission Infrastructure Program. Each project funded under this authority will be repaid separately and distinctly from Western's other power and transmission facilities and from other projects funded using borrowing authority. This safeguard assures that costs are properly allocated to entities that benefit from each project and protects existing projects and customers. This fits well with our existing business practices and principles, so we are able to use our normal business systems and tools, as appropriate, to track and report cost and performance information.

Western's Budget request

We can't do any of this without resources, including Congress's support and the support of our customers. We plan to continue using collections from the sale of power and transmission to offset the appropriation for our annual expenses, keeping our net appropriations down and providing greater planning certainty for the annual expense portion of our program. Our FY 2012 Construction, Rehabilitation, Operation and Maintenance (CROM) Appropriation Account request totals $863 million, of which only $96 million (11 percent) would be funded by appropriations. This appropriation request of $96 million is down $13 million from FY 2010.

Much of Western's 17,000 miles of integrated high-voltage transmission infrastructure was constructed in the 1950s and 60s, with an anticipated useful lifespan of 50 years. The $96 million of appropriations requested will fund high priority capital rehabilitation and maintenance replacements and improvements across our 15-state service area. In addition, we are working with our customers to obtain $93 million in customer funding to keep the power system properly maintained and to address additional high priority capital rehabilitation needs in FY 2012. It's important to note that we can't use our new borrowing authority to replace or upgrade our existing transmission facilities unless it facilitates delivery of power from new renewable generation sources.

Purchase Power and Wheeling is another large component of our annual budget that does not require any appropriations. FY 2012 expenses for Purchase Power and Wheeling are estimated at $472 million. The program is down slightly from the prior year reflecting improving hydro conditions in the Pick-Sloan Missouri Basin after many years of drought.

As we look to the future

I'm proud of the role Western is playing to provide clean, renewable power to the West at the lowest possible cost, and I'm excited about the progress we've made in enhancing our transmission system to meet our customers' needs and to begin to realize the promise of renewable energy. Working together with our customers, we repay our expenses with interest, ensuring that the beneficiary pays and keeping costs down through sound business and project management practices to be good stewards of the public's resources.

We appreciate your continued support and confidence, and together with the support of the Administration, our customers and industry partners, we will continue to move as quickly as possible to do our part for economic recovery and energy independence as we build the electrical grid of tomorrow while continuing to fulfill our core mission.

Thank you, Mr. Chairman. I would be pleased to answer any questions that you or the Subcommittee members may have.

Mr. MCCLINTOCK. Thank you, Mr. Meeks. I now recognize Mr. John Worthington, Administrator of the Southwestern Power Administration, for five minutes.

STATEMENT OF MR. JON C. WORTHINGTON, ADMINISTRATOR, SOUTHWESTERN POWER ADMINISTRATION, TULSA, OKLAHOMA

Mr. WORTHINGTON. Thank you, Mr. Chairman, Congresswoman Napolitano, and Members of the Subcommittee. I am Jon Worthington, Administrator of Southwestern Power Administration. I

appreciate this opportunity to share with you today how Southwestern continues to focus on accountability, reliability, and cost-effectiveness as we approach our 68th year of marketing and delivering Federal hydropower.

We have effective means of keeping the downward pressure on our rates through our partnerships with our agencies and our customers. We have partnered with the U.S. Army Corps of Engineers to take over maintenance of their switch yards. This allows for staffing uses of both Southwestern and the Corps. It keeps training costs down and inventories low. It calls for a standardization of high voltage electrical equipment.

Perhaps the most successful partnership we currently enjoy is the arrangement among Southwestern, our customers, and the Corps, which allows our customers to fund major replacement work at the Corps generating facilities. Since 1999, our customers have provided the Corps with nearly a quarter of a billion dollars in critical funding of capitalized items to keep the hydropower's turbine spinning and the power flowing. This arrangement is cost effective in many multiple ways.

First, the generation asset remains available so we don't have to purchase replacement power. Second, money is spent only on what the stakeholders deem as prudent and necessary, with average expenditures now exceeding 40 million per year. Third, it is money that is not coming from Federal appropriations. And finally, this established funding process provides for better long-term planning of major equipment replacements at the core hydroelectric facilities.

This results in an even more efficient Federal hydropower system in our region, and it will continue to create jobs as the aging plants undergo more replacement work.

Southwestern and its customers remain committed to funding this critical work. We believe that investment in the generating plants, the transmission facilities that make up Southwestern's hydropower system, is essential in keeping assets available and fully capable of producing and delivering power in our region.

On the Federal transmission system, we have upgraded components and incorporated new technologies that reduce energy losses and enable a greater use of the Federal transmission assets.

Our budget includes funding to replace approximately 35 miles of conductor and components on Southwestern's high voltage transmission system. These upgrades are already accounted for in our existing rates, which cover the cost of replacing the equipment over its expected life.

As you know, our accountability to Congress, our customers, and the American people is largely accomplished through budgeteering such as this one and our ratemaking process. To date, Southwestern has repaid approximately 65 percent of the 1.3 billion in capital assets attributable to Federal power in our region.

We are also constantly looking for ways to increase efficiencies. For example, Southwestern continues to evaluate existing resources to determine if they can be used more efficiently as old initiatives give way to new ones. An example of this occurred recently when Southwestern restructured staffing resources to address com-

pliance with the mandatory requirements of the North American Electric Reliability Corporation.

No matter how conscientious we are, though, nature sometimes has other plans for us. Unlike my home state of Idaho that has large reservoirs and runoff from snow pack, the Southwestern system is 100 percent reliant on annual rainfall. Fortunately, in 2010, we did not incur any major dry spells, and inflows were even above normal. this resulted in Southwestern marketing 7.6 billion kilowatt hours of energy, with revenues of 202 million from the sale of energy capacity and transmission services.

Based on our 2010 generation, Southwestern's hydropower saved 12.8 billion barrels of oil—million barrels of oil, pardon me—and prevented emissions of 6.6 tons of greenhouse gases. But regardless of how much we save or how much water we have to work with, we couldn't do it without the right people. I truly believe that Southwestern's most important asset is our people.

Mr. Chairman, this concludes my testimony. I would be glad to answer any questions that you or the Committee may have.

[The prepared statement of Mr. Worthington follows:]

Statement of Jon C. Worthington, Administrator, Southwestern Power Administration, U.S. Department of Energy

Mr. Chairman and members of the Subcommittee, thank you for the opportunity to share with you today the highlights of the President's Fiscal Year 2012 budget request for the Southwestern Power Administration (Southwestern).

Southwestern markets and delivers clean, efficient, and reliable energy to the Nation. As our budget request shows, we are focused on continuing this important mission even as we seek to tighten our belts along with the rest of the country so that present and future generations will continue to have the hope of a brighter future.

SOUTHWESTERN PROFILE

As one of four Power Marketing Administrations in the United States, Southwestern markets hydroelectric power in Arkansas, Kansas, Louisiana, Missouri, Oklahoma, and Texas from 24 U.S. Army Corps of Engineers (Corps) multipurpose dams with a generating capacity of approximately 2,174 megawatts (MW).

By law, Southwestern's power is marketed and delivered primarily to public bodies and rural electric cooperatives. Southwestern has over one hundred such customers, and these entities ultimately serve another nine million end-use customers.

Southwestern operates and maintains 1,380 miles of high-voltage transmission lines, 25 substations and switching stations, and a communications system that includes microwave, VHF radio, and digital fiber optic components. Staff members work from offices located in Gore, Oklahoma; Jonesboro, Arkansas; Springfield, Missouri; and Tulsa, Oklahoma. Around-the-clock power scheduling and dispatching are conducted by staff in the Springfield Operations Center.

RATES AND COST RECOVERY

I am proud to say that, at Southwestern, we have always been and will continue to be cost-conscious. We have to be cost-conscious, because the power we market is cost-based, so, when expenses go up, our power rates quickly follow. To make sure that we are recovering the cost of marketing and delivering power, every year, Southwestern conducts Power Repayment Studies (PRS) for each of the three rate systems in our marketing area: the Integrated System, the Robert D. Willis Hydropower Project, and the Sam Rayburn Dam.

In each annual PRS, Southwestern studies the projected and actual costs of operating and maintaining the generation and transmission facilities to make sure that sufficient revenues are being collected to repay these costs, plus the principal and interest on the Federal investment. We do this by working within our own agency to accurately capture our current expenses and to assess and plan for future replacement of transmission assets. We also work with the U.S. Army Corps of Engineers (Corps) to fully recover current and future hydropower expenses, which by law we are required to repay, at the hydroelectric generating plants from which we market power.

SYSTEM CONDITIONS AND PURCHASED POWER

No matter how conscientious we are though, nature sometimes has other plans for us. Unlike the Pacific Northwest, where there are large reservoirs with runoff from snowpack, Southwestern's system is 100 percent dependent on rainfall, with very limited reservoir storage. As a result, extended spells of dry weather can sometimes force us to purchase power to meet our contractual obligations. In planning for purchases, we strive to work with Congress, the Administration, and our customers to avoid increases in Federal spending and prevent severe rate impacts to our customers by using the various funding mechanisms we have in place. To this end, Southwestern's customers have already pre-funded [1] a significant portion of the estimated cost of Southwestern sustaining its contractual obligations during a major drought.

Fortunately, in FY 2010 we did not encounter any major dry spells, and inflows were even above normal. While audited numbers are still being finalized, pre-audit numbers place the quantity of energy marketed in FY 2010 as 7.6 billion kWh, with revenues of $202.3 million from the sale of energy, capacity, and transmission services. On average, Southwestern markets 5.6 billion kWh of energy annually with revenues of $182.5 million. To date, Southwestern has repaid approximately 65 percent of the $1.3 billion in capital investments attributable to Federal power within our region.

As a renewable resource, the hydropower marketed by Southwestern saves a considerable amount of fuel that would otherwise have to be obtained from other sources, usually hydrocarbon-based. For example, in FY 2010, based on actual generation, Southwestern's hydropower saved 12.8 million barrels of oil and prevented emissions of 6.6 million tons of greenhouse gases. [2]

INVESTMENT IN THE FUTURE

Investment in the aging facilities that make up Southwestern's Federal hydropower system is critical in keeping the generation and transmission assets available and fully capable of producing and delivering power to our region. Our goal is to keep these Federal assets intact while minimizing any Congressional appropriations necessary for capitalized replacements.

Generation

A significant funding mechanism for the maintenance of the Corps generation assets is the Jonesboro Memorandum of Agreement (MOA), which allows our customers to fund major replacement work at the hydroelectric plants. Signed in 1999, the Jonesboro MOA between Southwestern, the Corps, and City Water and Light Plant of the City of Jonesboro, Arkansas, has provided nearly a quarter of a billion dollars in critical funding of capitalized items to keep the turbines spinning and the power flowing. Perhaps more importantly, decisions as to which projects will be funded are made with all of the stakeholders at the table—the Corps as the owner of the generation assets, Southwestern as the marketer of power, and Southwestern's customers as the ones who buy the power and, ultimately, bear the responsibility of repayment. This mechanism also assures that Southwestern's power will remain marketable by funding what the stakeholders deem as prudent and necessary. To this end, the average funding provided by Southwestern's customers through Jonesboro is now over $40 million annually. This is $40 million that is not funded by Congressional appropriations, but, of course, is permitted with the authority and oversight of Congress.

We believe this established funding process provides for better planning, will result in an even more efficient Federal hydropower system in our region, and will continue to create jobs as more of the aging plants undergo major replacement work. Southwestern and its customers remain committed to this effort.

Transmission

Like the generation assets, Southwestern's 1,380 miles of transmission line and 25 substations are also experiencing the effects of age. Failure of these facilities would not only impact the delivery of power to Southwestern's customers, but would also ultimately impact the transmission systems of neighboring utilities and their customers within our region.

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[1] Southwestern has an internal accounting mechanism which takes into account and defers surplus receipts collected for purchased power expenses that did not occur. This is in accordance with Financial Accounting Standard Number 71.

[2] Emission savings computed using 1998–2007 data from U.S. Energy Information Administration (EIA), assuming a 50/50 Coal/Natural Gas Mix as representative of replacement energy for hydropower in Southwestern's area. Fuel savings based on thermal conversion factors from EIA's Annual Energy Review-2009.

To make sure this doesn't happen, Southwestern continuously inspects its transmission equipment and evaluates the risk of failure based on its current condition, age, and life expectancy. We put this knowledge to work by prioritizing investment in critical transmission components, such as poles, conductor, transformers, protective relays, and other equipment.

REGIONAL RELIABILITY

As an integral part of our region's power delivery infrastructure, Southwestern participates in regional planning initiatives conducted by Southwest Power Pool (SPP), the Regional Transmission Organization (RTO) in our area. Through special contractual arrangements with SPP consistent with the requirements of Section 1232 of the Energy Policy Act of 2005 (EPACT), Southwestern has completed upgrades on the Federal transmission system that were identified by SPP while maintaining our statutory responsibilities as a Federal agency. Currently, we are exploring ways we may be able to more fully partner with SPP and other utilities in the region so that our Nation's transmission system will be more robust, reliable, and efficient.

COMPLIANCE WITH NERC STANDARDS

Consistent with Section 2111 of EPACT, and to do its part in ensuring the reliability of the bulk electric system, Southwestern complies with the standards of the North American Electric Reliability Corporation (NERC). According to industry reports, in 2008, there were approximately 60 mandatory NERC reliability standards. Today, there are 102. Southwestern has, in the past year, reorganized staff to manage this growing number of mandatory standards and assure a continued culture of compliance.

Right-of-Way Clearing

Inadequate Right-of-Way (ROW) clearing has been cited as a major reason for blackouts and brownouts across the country, including the Northeast Blackout of 2003. To address this, NERC's vegetation management standard requires transmission owners to regularly patrol and clear their lines. In response, Southwestern has increased our ROW clearing efforts. In FY 2010, we cleared or contracted to clear nearly 700 of our 1,380 miles of transmission line, as opposed to previous years in which our clearing averaged between 400–500 miles. Regardless of the number of miles we clear, we are able to accomplish the work through the use of alternative financing, which, again, does not require Congressional appropriations.

Physical and Cyber Security

As with ROW clearing, NERC has defined critical security standards which protect the integrity of our Nation's power grid. To comply with these standards, we've continued to make improvements to our facilities and increased the use of video monitoring at our sites. We also implemented new cyber encryption techniques to prevent the loss of personally identifiable information and to strengthen our password protection scheme. As new requirements and responsibilities emerge, we will continue to dedicate resources to maintain cyber and physical security.

WORKFORCE PLANNING

I truly believe that Southwestern's most important asset is our people. But the fact of the matter is that a great number of these people will be eligible for retirement soon. In fact, approximately 25 percent of Southwestern's workforce could walk out the door next year if they chose to do so.

To address this, Southwestern has instituted several programs, in accordance with the President's hiring reform initiatives, to ensure that we have sufficient resources to meet the challenges of the future. For example, we have increased our use of student and veterans programs and attended job fairs at local universities specifically geared toward persons with disabilities so that we can aggressively recruit and fill the many technical positions that will become vacant in the next few years.

We are also able to address the resource and skills gaps that we identify through our regular analyses through our support services contracts for information technology and administrative services. As pressure mounts to reduce staff positions, these contracts have become more and more critical in assuring that Southwestern has adequate and appropriate staff on board to accomplish our mission. The contracts have the added benefit of supporting Native-American owned businesses in the region and providing good jobs to local residents.

FISCAL YEAR 2012 BUDGET REQUEST SUMMARY

	FY 2010 Current Appropriation	FY 2011 CR	FY 2012 Request
Southwestern Power Administration			
Operation and Maintenance	94,944	—	107,007
Subtotal, Southwestern Power Administration	94,944	—	107,007
Offsetting Collections, Annual Expenses	-31,868	—	-33,118
Offsetting Collections, Purchased Power and Wheeling (PPW)[a]	-38,000	—	-40,000
Alternative Financing	-12,000	—	-21,997
Total, Southwestern Power Administration	13,076	13,076	11,892

[a]Southwestern's budget request for the Purchased Power and Wheeling subprogram reflects anticipated needs to ensure adequate funding to fulfill its 1200-hour peaking power contractual obligations based on volatile market prices, limited availability of energy banks, and all but the most severe hydrological conditions.

BUDGET HIGHLIGHTS

Southwestern's budget request reflects a 9 percent decrease in appropriations; however, Southwestern's overall program makes use of alternative financing and offsetting collections for annual expenses. Both the use of alternative financing and the authority to use offsetting collections for annual expenses are essential in enabling Southwestern to operate a reliable Federal power system, produce power at the lowest cost-based rates possible consistent with sound business principles, repay the American taxpayers, provide economic benefits to the region, and ensure that our Nation receives as much clean, renewable, and domestically produced power and energy as possible.

Mr. Chairman, this concludes my testimony. I would be pleased to address any questions that you or the Members of the Subcommittee may have.

Mr. McCLINTOCK. Thank you very much, Mr. Worthington. I now recognize Mr. Kenneth Legg, Administrator of the Southeastern Power Administration, for five minutes.

STATEMENT OF MR. KENNETH LEGG, ADMINISTRATOR, SOUTHEASTERN POWER ADMINISTRATION, ELBERTON, GEORGIA

Mr. LEGG. Mr. Chairman, Mrs. Napolitano, and Subcommittee Members, I am Kenneth Legg, Administrator of the Southeastern Power Administration. I appreciate this opportunity to represent Southeastern and to provide for you today the highlights of the Fiscal Year 2012 budget request for the Southeastern Power Administration.

The mission of Southeastern is to market and deliver at wholesale Federal hydroelectric power at the lowest possible cost consistent with sound business principles to public bodies and cooperatives. With a staff of 44 full-time employees, Southeastern markets power produced at 22 multiple-purpose projects, and operated and maintained by the U.S. Army Corps of Engineers, which are separated into four marketing systems serving an eleven-State area.

Southeastern does not own or operate any transmission facilities, but delivers contracted Federal power through transmission lines

and substations owned and operated by others. Rate schedules are formulated to repay all of Southeastern's costs, as well as all Corps of Engineers costs allocated to power.

In Fiscal Year 2010, Southeastern sold approximately 7,714 gigawatt hours of energy to 491 wholesale customers, with revenues totaling approximately $246 million. Southeastern supports the Department of Energy's strategic goals. This is accomplished through two sub-programs—Purchased Power and Wheeling and Program Direction—supported by appropriations offset by Federal power receipts and alternative financing arrangements.

In keeping with this strategic goal, Southeastern performs its mission in a manner that promotes maintaining and upgrading our region's Federal energy infrastructure. The Southeastern Federal power system contributes program benefits by reducing carbon emissions from fossil fueled energy sources through production and marketing of hydroelectric power, which adds no carbon to the environment.

Southeastern' string flow generation of 7,217 gigawatt hours in Fiscal Year 2010 offset fossil fuel resources and reduced overall CO_2 emissions by 5.1 million metric tons. Southeastern supports the Administration's and the Department of Energy's clean energy targets by promoting residential, commercial, and industrial energy efficiency, as well as development of wind, solar, and biomass technologies when they are economically feasible.

Southeastern works with DOE's Energy Efficiency and Renewable Energy Programs to ensure that municipal and cooperative utilities in the Southeast benefit from the Federal services and technologies.

Southeastern will continue to work with the Corps of Engineers on the Wolf Creek and Center Hill safety issues. Cumberland River Basin operations have been severely impacted by the restrictions necessary due to dam safety concerns at both Wolf Creek and Center Hill projects. Restricted operations are expected to remain in place for several more years. Southeastern will continue an interim operations strategy until we can resume normal operations.

Southeastern maintains a cooperative working relationship with its customers and the Corps of Engineers in both the South Atlantic and Great Lakes and Ohio River divisions. Financial and operations issues are discussed regularly among members of the Southeastern Federal Power Alliance and Team Cumberland. Both groups meet on a biannual basis.

Southeastern is committed to maintaining open communications with its customers and with the Corps of Engineers. Southeastern's Fiscal Year 2012 budget requests a net appropriation of zero dollars. It provides $8.4 million for program direction expenses, which are completely offset by collections for these annual expenses, and $114.9 million for purchase power and Wheeling costs, which are entirely financed with offsetting collections and net billing.

Southeastern relies on existing transmission providers to transmit Federal power to its customers at a cost of $38.5 million, and Southeastern will purchase $76.4 million in replacement power and energy and pump storage energy.

The use of offsetting collections and net billings enables Southeastern to operate more like a business by allowing Southeastern's

revenues to pay for purchase power and transmission costs rather than relying upon appropriations. There are no new program starts included in Southeastern's Fiscal year 2012 budget request.

Mr. Chairman, this concludes my presentation, and if you or any other Subcommittee Members have questions, I would be pleased to answer them.

[The prepared statement of Mr. Legg follows:]

Statement of Kenneth E. Legg, Administrator, Southeastern Power Administration, U.S. Department of Energy

Mister Chairman and members of the Subcommittee, I am Kenneth Legg, Administrator of the Southeastern Power Administration (Southeastern). I appreciate this opportunity to represent Southeastern and to provide for you today the highlights of the Fiscal Year 2012 Budget Request for the Southeastern Power Administration.

PROFILE OF SOUTHEASTERN POWER ADMINISTRATION

The mission of Southeastern is to market and deliver at wholesale Federal hydroelectric power at the lowest possible cost, consistent with sound business principles, to public bodies and cooperatives in accordance with Section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s).

With a staff of 44 full-time employees, Southeastern markets power produced at 22 multiple-purpose projects, operated and maintained by the U. S. Army Corps of Engineers (Corps of Engineers), which are separated into four marketing systems serving an 11—state area. These systems are integrated hydraulically, financially, and electrically; and have separate rate and repayment schedules.

Southeastern coordinates the operation of the projects using customers' load schedules and the North American Electric Reliability Corporation's control area criteria, while complying with Corps of Engineers' operational and environmental requirements.

Southeastern does not own or operate any transmission facilities, but delivers contracted Federal power through transmission lines and substations owned and operated by others. Southeastern compensates these transmission providers using the revenue from electrical power sales.

Rate schedules are formulated to repay all of Southeastern's costs, as well as all Corps of Engineers' costs allocated to power. Rate schedules are designed to recover, on an annual basis, operation and maintenance expenses, purchased power and transmission expenses, and expensed interest. Rate schedules also include the costs of capital investments that are recovered over a reasonable number of years.

PROGRAM ACCOMPLISHMENTS

In FY 2010, Southeastern sold approximately 7,714 gigawatt-hours of energy to 491 wholesale customers, with revenues totaling approximately $246 million dollars. Southeastern supports the Department of Energy's strategic goals. This is accomplished through two sub-programs (Purchased Power and Wheeling, and Program Direction) supported by appropriations offset by Federal power receipts and alternative financing arrangements. Alternative funding sources include net billing [1] and bill crediting. In keeping with this strategic goal, Southeastern performs its mission in a manner that promotes maintaining and upgrading our region's Federal energy infrastructure. These efforts help to ensure reliable and efficient delivery of Federal power, which is an integral part of the Nation's electric energy supply.

Southeastern has an active succession management plan that is reviewed on an ongoing basis. The succession plan addresses the need of replacing several members of Southeastern's management team and other critical staff, and recruiting highly-skilled technical personnel in the near future.

CLEAN ENERGY AND ENERGY CONSERVATION

The Southeastern Federal Power System contributes program benefits by reducing carbon emissions from fossil-fueled energy sources through production and marketing of hydroelectric power, which adds no carbon to the environment.

[1] Southeastern's authority to use net billing and bill crediting is inherent in the authority provided by the Flood Control Act of 1944, and has been affirmed by the Comptroller General. Honorable Secretary of the Interior B–125.127 (February 4, 1956) available at WL 3064 (Comp. Gen.).

Southeastern's stream-flow generation of 7,217 GWH in FY 2010 offset fossil fuel resources and reduced overall CO_2 emissions by 5.1 million metric tons[2].

Southeastern supports the Administration's and the Department of Energy's clean energy targets by promoting residential, commercial, and industrial energy efficiency, as well as development of wind, solar, and biomass technologies when they are economically feasible. Southeastern works with DOE's Energy Efficiency and Renewable Energy programs to ensure that municipal and cooperative utilities in the southeast benefit from Federal services and technologies.

PROGRAM GOALS

Cumberland River System

Southeastern will continue to work with the Corps of Engineers on the Wolf Creek and Center Hill safety issues. Cumberland River Basin operations have been severely impacted by the restrictions necessary due to dam safety concerns at both Wolf Creek and Center Hill projects. Restricted operations are expected to remain in place for several more years. Southeastern will continue an interim operations strategy until we can resume normal operations.

Wolf Creek Project

The Wolf Creek Dam Safety issue will continue to be a major concern for the remainder of fiscal year 2011 and 2012. Last year Cumberland System River Basin power generation was severely impacted by the operational restrictions determined to be necessary as a result of dam safety concerns at the project. On January 22, 2007, the Corps of Engineers lowered the lake elevation of the Wolf Creek Project to 680 feet to reduce the risk to human life, health, property, and severe economic loss in the region. This decision came in response to numerous studies, conducted by dam safety experts, which concluded that Wolf Creek Dam was at high risk of failure. We expect that the 680 foot operating level will continue in place until ongoing remedial efforts at the project show a reduced risk of failure. In early FY 2009, the Corps of Engineers completed the first line of grouting at the project in an effort to fill all the cavities and voids under the foundation, which are providing paths for seepage. Work is currently under way on the installation of the cutoff wall through the project's earthen embankment.

The decrease in the lake elevation of the Wolf Creek Project has resulted in a significant reduction in the quantity of water stored in the Cumberland System. Due to the large volume of system storage normally provided by the Wolf Creek Project, virtually all in-lake and in-stream purposes throughout the entire Cumberland River System have been dramatically impacted, either by the reduced storage or the corresponding reduction in flows. In-stream flows and the operation of all hydroelectric projects in the basin are directly or indirectly impacted by the lack of system storage and the altered river basin operational criteria, which call for a relatively constant elevation in lake level at Wolf Creek Dam to be maintained. Consequently, dramatic impacts are being experienced by stakeholders throughout the river basin, including marina operators, recreation-related businesses, environmental purposes, navigation, municipal and industrial water supply, and power generating facilities. The impact to Southeastern's hydropower program is significant. The 216 municipalities and cooperatives located in the states of Tennessee, Kentucky, Georgia, Illinois, Mississippi, Alabama, and North Carolina that normally receive Cumberland System generation as a dependable peaking resource have been forced to replace this generation with costly alternative sources of power. At the onset of the altered river operation for the Cumberland System, Southeastern implemented an interim marketing strategy for system generation in order to provide a method of equitably sharing any remaining system generation benefits among all of Southeastern's customers. This revised operation for the Cumberland System provides benefits to each customer on an "as available" basis, as power is made available by the Corps of Engineers. Southeastern will continue this method of operating until it can once again resume a more normal operation.

Center Hill Project

Center Hill Dam is located on the Caney Fork River in DeKalb County, Tennessee, approximately 30 miles upstream from the river's confluence with the Cumberland River. Construction on the project was completed in 1951, and it is operated for flood control, hydropower production, recreation, navigation, water supply, and water quality. Since the 1960s, the Center Hill Project has experienced serious seepage problems as a result of the Karst limestone features which comprise the project's foundation.

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[2] http://www.epa.gov/cleanenergy/energy-resources/calculator.html

Through the years, the foundation features have allowed water to seep under the dam, eroding material and creating voids and cavities in the abutments. The uncontrolled seepage of water has caused muddy downstream flows and the formation of large sinkholes in the left abutment. All previous attempts at remedying the foundation conditions through grouting have been ineffective, since previous methods did not meet current grouting standards.

Based on the findings of the External Peer Review Panel for Dam Safety, the situation at the Center Hill Project was classified as Corps of Engineers' Class I designation (Urgent and Compelling) under the Corps of Engineers' Dam Safety Action Classification System. The Panel recommended an immediate lowering of the reservoir elevation at the Center Hill Project. As a result, the Corps of Engineers implemented a revised operating plan for the Center Hill Project which will maintain a lower reservoir level to relieve pressure and stress on the foundation. The range of operation for the project will be from a low elevation of 620 feet to a high elevation of 630 feet during the year. The Panel recommended a comprehensive grouting program and installation of a cutoff wall as soon as possible. The work is tentatively scheduled to be completed by 2014. Southeastern continues to work with the Corps of Engineers as they implement their operational plan for the Center Hill Project.

Compliance Requirements

In order to maintain compliance with North American Electric Reliability Corporation and the SERC Reliability Corporation reliability standards, Southeastern will ensure that its power system operators are recertified as necessary so that available power can be delivered to the transmission system for the benefit of Southeastern's customers.

SOUTHEASTERN'S RELATIONSHIP WITH ITS CUSTOMERS AND THE CORPS

Southeastern maintains a cooperative working relationship with its customers and the Corps of Engineers in both the South Atlantic, and Great Lakes and Ohio River Divisions. Financial and operations issues are discussed regularly among members of the Southeastern Federal Power Alliance and Team Cumberland. The Alliance was established in 1991 and includes representatives from Southeastern, the Corps of Engineers, South Atlantic Division, and Southeastern's preference customers located in the Georgia-Alabama-South Carolina, Kerr-Philpott, and Jim Woodruff Systems. Team Cumberland was formed in 1992 and includes representatives from Southeastern, the Corps of Engineers, Great Lakes and Ohio River Division, and Southeastern's preference customers located in the Cumberland System. Both groups meet on a biannual basis. Southeastern is committed to maintaining open communications with its customers and the Corps of Engineers.

2012 BUDGET REQUEST

Southeastern's FY 2012 budget requests a net appropriation of $0 (Attachment 1). It provides $8.4 million for Program Direction expenses, which are completely offset by collections for these annual expenses, and $114.9 million for Purchase Power and Wheeling costs, which are entirely financed with offsetting collections and net billing. Southeastern relies on existing transmission providers to transmit Federal power to its customers at a cost of $38.5 million, and Southeastern will purchase $76.4 million in replacement power and pumped storage energy. The use of offsetting collections and net billing enables Southeastern to operate more like a business by allowing Southeastern's revenues to pay for purchase power and transmission costs rather than relying upon appropriations. There are no new program starts included in Southeastern's Fiscal Year 2012 budget request.

Mister Chairman, this concludes my presentation of Southeastern's Fiscal Year 2012 budget request and program status. If you or any of the Subcommittee members have questions, I will be pleased to answer them.

Attachment 1

BUDGET REQUEST SUMMARY

(dollars in thousands)

	FY 2010 Current Appropriation	FY 2011 CR	FY 2012 Request
Southeastern Power Administration			
Purchase Power and Wheeling (PPW)	85,228	—	114,870
Program Direction (PD)	7,638	—	8,428
Subtotal, Southeastern Program Level	92,866	—	123,298
Offsetting Collections, PPW	-70,806	—	-100,162
Alternative financing, PPW	-14,422	—	-14,708
Offsetting Collections, Annual Expenses	-7,638	—	-8,428
Total, Southeastern Power Administration	0	0	0

Mr. MCCLINTOCK. Well, thank you very much. And as a matter of fact, we do. Let me begin just by asking for some very brief answers from each of you. If you don't know, just let us know, but please get us that information. I would like to know for each of the administrations how much have you increased electricity generation over the past year?

Mr. WRIGHT. I would say that we have a very modest increase because we had an ongoing refurbishment program going on, and we completed some projects. I would like to provide that for the record.

Mr. MEEKS. Over the past year, I would say none. But I would like to double check with my staff and provide it for the record if it is something different.

Mr. WORTHINGTON. I am pleased to say that the Stockton Plant was put back in service this year, so that was 50 megawatts that is now back in service. The Ozark and Webber Falls Hydro Projects will be back—one of their units will be back in service any day now. And so each of those units would be 25 megawatts.

Mr. LEGG. In our service area, a number of generators have also been restored to operation that had either failed or were out for refurbishment. That is the bulk of the increase we have seen. The Southeast is operating under drought conditions. Hopefully, we are going to go into this season with adequate water to make it through the summer.

Mr. MCCLINTOCK. Thank you. Could we also get population increase figures from each of your service areas? Again a critical question is whether we are meeting growing demands for power. And, of course, you guys are a big part of that. The next question I would have, again just a brief answer, how much of your cost increased or decreased over this past year per megawatt hour?

Mr. WRIGHT. In the last year, our costs have not increased. Our rates are set every two years, and we are in the midst of a rate-setting process right now. On the transmission side, we have reached a settlement agreement, and we will be keeping our trans-

mission rates constant for the next rate period. On the power side, we have proposed an 8-1/2 rate increase.

Mr. MEEKS. We are coming out of 10, 11 years of drought. So basically, much of our costs have been, I would say, out of our control; and in the fact that we have had to purchase as much as 500—more than 500 percent of normal to meet our contractual obligations. So as far as the actual things within our control, I feel that we are doing a great job of holding our costs down. As far as things out of our control, as far as drought and water supply, there has been increase.

Just by way of example——

Mr. MCCLINTOCK. I am going to have to cut you off right there.

Mr. MEEKS. OK.

Mr. MCCLINTOCK. But thank you. Mr. Worthington?

Mr. WORTHINGTON. Thank you, sir. Southwestern did its power repayment study this year, and it showed a .9 percent increase in our—would be needed. We defer that. Anything less than 2 percent rate increase we defer. So our expenses have increased by approximately .9 percent.

Mr. MCCLINTOCK. Mr. Legg?

Mr. LEGG. In Southeastern's area, we have four marketing systems. Two of those saw rate increases, one of 10 percent, one of 15 percent. This is due in combination, drought conditions, and also one of our projects, the Richard B. Russell, we received final cost allocation, and that investment was added.

Mr. MCCLINTOCK. How much hydropower has been lost directly or indirectly because of environmental regulations, would you say, over the past 10 years, and what sources have replaced it, and at what cost? Mr. Wright?

Mr. WRIGHT. I couldn't say for the last 10 years. Over the last 20 years, I know that we have reduced the output of the Federal hydropower system by about 1,000 average megawatts as a result of protections that have been in place to help restore threatened and endangered salmon and steelhead.

Mr. MCCLINTOCK. Mr. Meeks?

Mr. MEEKS. I know out of the Glen Canyon Dam we lost a third of the generation, roughly around 400 megawatts of capacity, back in '97.

Mr. MCCLINTOCK. Mr. Worthington?

Mr. WORTHINGTON. I am not certain of the amount of capacity that has been lost. Southwestern pays approximately—or their voided cost is about less than a million dollars for the three endangered species that we work with.

Mr. MCCLINTOCK. And Mr. Legg.

Mr. LEGG. For our region, the only reductions we have seen have been in energy, and that has been as a result of required operational changes to meet some of the threatened and endangered species conditions during drought. Our revenue impact has been minimal.

Mr. MCCLINTOCK. Thank you. I now recognize the Ranking Member, Mrs. Napolitano.

Mrs. NAPOLITANO. Thank you, Mr. Chair. And I would like to take just a slight different vein on questioning. Our Ranking Mem-

ber for the full Committee couldn't be here, so I am going to ask one of the questions that he wanted to bring before you.

The Columbia generating station is one of 31 reactors in the United States that share the same reactor design as the one in the Fukushima Daiichi Power Plant. BPA is responsible for power at the station. What is the role and emergency planning in the case of a catastrophic disaster like a dam breach? Would Bonneville be able to restore or replace power through alternate resources in adequate time, and how safe would that be?

Mr. WRIGHT. Well, let me just take a second and describe the relationship that we have. Energy Northwest is the operator of the Columbia generating station, and we have, under what are called the net billing agreements, an arrangement where we pay all of the costs of the facility and receive all of the output from the facility but the management is actually run by the organization Energy Northwest.

So in that situation, we would be responsible for making up the lost power supply. If there is power supply not provided, then we would be making sure the reliability is maintained, purchasing power in the open market in order to be able to substitute for it.

I did have a conversation with Mark Reddemann, who is the CEO for Energy Northwest, last night, just to make sure that I understood from him what would happen in the case of an earthquake in that region. And, of course, the plant is on the Hanford Reservation. It is a long way from the ocean. We are not really worried so much about a tsunami, but the risk would be potentially from upstream, as the loss of Grand Coulee or Chief Joseph Dam.

That plant was built with the expectation of that possibility, and is built on high enough ground that at least the Energy Northwest folks believe that it would be able to continue operation, even if there was a loss of Grand Coulee and Chief Joseph.

Mrs. NAPOLITANO. Thank you. And to all Administrators, not to answer today, but for the record and for you to please reply in writing, there are approximately 50 nuclear reactor sites in the four Power Marketing Administration service areas. How are the PMAs involved in backup power emergency planning matters. That is for the record, if you would not mind.

And now I will go on to Mr. Meeks and Mr. Worthington. How do your requests for capital cost appropriations solve the issue of aging infrastructure critical to us, and how are the projects prioritized so changes will help the system as a whole?

Mr. MEEKS. As I stated in my opening remarks, we do work with our customers ten years out. So we use asset management principles. So that is looking at the age of the infrastructure, the likelihood of failure, and things such as that. We are——

Mrs. NAPOLITANO. Are you saying then that you are pretty much upgrading as you go on your infrastructure, so it is not really a big problem in the foreseeable future?

Mr. MEEKS. I would say that as has been noted, resources are tight, and we have to prioritize what we upgrade and replace in some form or fashion. Our customers provide a significant chunk of that resource, but they are stretched. And so there is a limit to how much money they can provide because they have their own infrastructure they have to upgrade.

So in short, to move on to my counterpart, we are working with our customers to help maximize the resources.

Mrs. NAPOLITANO. Mr. Worthington, time is running out.

Mr. WORTHINGTON. Thank you. With our budget request, we are now looking at replacing 35 miles of line each consecutive year going forward for the foreseeable future. A number of our transmission lines were built in the '40s, and they are old, and they need to be rebuilt and reconducted. We are also looking at purchasing new transformers. A large transformer is approximately 1.3 million each. Again——

Mrs. NAPOLITANO. So you are continuing to replace.

Mr. WORTHINGTON. Yes.

Mrs. NAPOLITANO. I am sorry. I am running out of time. But what does a PMA do if there is not sufficient funding for these capital costs?

Mr. WORTHINGTON. We defer that to a later time, or we defer that capital investment. We can also go to our customers and ask for the funding from the customers, and they can choose to fund that or not.

Mr. MEEKS. If there is a failure, we do have access to the emergency fund that allows us to do immediate action on something that is critical to the system.

Mr. WORTHINGTON. We also have access to the emergency fund.

Mrs. NAPOLITANO. The other two, the same?

Mr. WRIGHT. So we put in place a hydro and transmission asset management program a couple of years ago. We are working through the standard way you would look at risk management. What is the probability of event times the consequence of the event, and then we direct our resources to the places that create the greatest value for our customers.

Mrs. NAPOLITANO. Thank you.

Mr. MCCLINTOCK. Thank you. Mr. Tipton.

Mr. TIPTON. Thank you, Mr. Chairman and Ranking Member. Mr. Meeks, we come out of the same part of the world. Welcome to this Committee. I am out of Colorado as well. Can you give me an idea, when is the next planned flood for the Glen Canyon Dam, artificial flood?

Mr. MEEKS. There is a debate or talk about whether that is the appropriate thing to do. I know it is a substantial concern to our customers. I know there is a debate on how much it would cost as far as that flow testing. We estimate that it would cost the power customers $30 million.

Mr. TIPTON. Around $30 million. So this means that basically the Aspinall Unit is critical, though, really in meeting a lot of the peak demands, particularly in our part of the world. Is that a fair assessment?

Mr. MEEKS. Yes, sir. Glen Canyon Dam provides 80 percent of the baseload for our Salt Lake City area integrated projects. But Aspinall provides 40 percent of the load following capability within that area. In other words, if you look at Glen Canyon as the base resource, you look at Aspinall as very critical to following the loads and helping shape that. So it is an important project.

Mr. TIPTON. Great. You know, when we are doing this, what is the ultimate cost really to the consumer? What are the people paying in terms of increased rates?

Mr. MEEKS. Again, the example I used was $30 million. When you look at the estimate on the Aspinall Units for the stuff that is doing, if you look on average, it doesn't look significant. It looks like 600,000 a year on average, which I don't want to pay it. But it varies wildly on a year to year, so it is kind of a deceiving number. So it does end up going to the ratepayer.

Mr. TIPTON. Right. Can you give me an idea—in your written testimony, you had commented that regulations are increasing your costs, and the second side of that is when we are talking about some false floods and that, you aren't going to be receiving income at that point. How much of regulatory costs—I didn't hear that when the original question was brought by the Chairman. How much is that increasing rates?

Mr. MEEKS. A lot of what we are facing isn't so much what has been done. It is what is proposed to be done. In other words, you mentioned the high flow testing. Again, I use the 30 million. You look at stuff that has been done in the past, the other testing, where it adds up to somewhere around $10 million. What you are looking at in the future is some significant increase. When you look at other parts of our system, you look at, for example, $100 million was spent on temperature control device for the Central Valley Project.

So it is little incremental things that add up that is ultimately paid for by the power user. And so much what we are facing is, one, making sure decisions are made with sound science. We understand resources are sensitive. We get that. We are working with our generating agencies. I don't wish that mission on anybody because they have to balance a bunch of priorities. And we work closely to try and maximize whatever water we have that goes through the generation.

Mr. TIPTON. One thing if you could provide this, visiting with staff, as you note, we have all got budgetary concerns right now, and I think that the outreach that you are doing with the customers is admirable. I think it is 93 million, if I recall correctly, that you have been in consultation with. But we have been trying to get some answers in regards to some of the new staff hires in the Lakewood office that we are going to be addressing attrition and retirement that was going to be coming. Can you get us that information? Because those are going to be some real increased costs.

And I would like to know, how much of your operational costs overall are related to environmental concerns?

Mr. MEEKS. I will get you an answer for the record on that.

Mr. TIPTON. OK. We would appreciate that. And if you would also, in terms of the follow-up on that, we would just like to know how much those costs do ultimately affect the consumers. You know, we are going through every one of our communities, senior citizens, struggling young families right now having a tough time paying their bills, and this is obviously a very critical component for all of our communities, and we need to be looking out for them at this particular time.

Thank you. Mr. Chairman, I yield back the balance of my time.

Mr. MCCLINTOCK. Thank you. Mr. Garamendi.

Mr. GARAMENDI. Mr. Chairman, thank you for a very informative hearing, and, the witnesses, thank you. We bounced around the issue of transmission. This is a particular issue in the Western Power Administration. The lines coming in from the Columbia River Basin into California, they are some 50 years old. Could you briefly discuss or at length discuss where we are with the upgrade of those lines and what might be in the offing?

Mr. WRIGHT. I would be willing to take that one. There has been a great deal of conversation about what the potential upgrade for either the A/C or the D/C interties that connect the Northwest to California. The first thing that happened is a group made of Western Area Power Administration representatives, Pacific Gas & Electric, and Bonneville Power Administration was to look at the utilization of the existing interties and determine whether in fact they were being fully utilized. And the reports that I have seen indicate that while there are times of the year when the intertie is not fully utilized, it actually is pretty heavily utilized right now. So that raises the question as to whether there are upgrade opportunities, and that group that has been working together is taking that on as the next phase of their efforts—to look at just what are those opportunities, how much would it cost, is it cost effective, and are there people who are willing to put capital on the table in order to be able to support those kinds of things?

Mr. GARAMENDI. At one point, there was a new intertie line that was supposed to be developed from the Northwest into California. I understand that has been dropped. Has there been further discussion about upgrading the cables, that is, the transmission cables themselves, on the existing line?

Mr. WRIGHT. So the only thing that I am familiar with right now is on the D/C intertie there is an opportunity to potentially accomplish an upgrade there. There is some work that we are doing at our end to modernize facilities, which could also add an increment of additional capacity. We are working with our partners in Southern California to determine whether they have an interest in that as well.

Mr. GARAMENDI. Yes. I understand that there are transmission facilities, cables available that are 20, 30 percent more efficient in transmitting power. Is that true?

Mr. WRIGHT. There have been companies that have approached us that believe that they can increase the capacity of the line. We are involved in a research and demonstration program with one of them now to determine in fact how much capability there is there. I would say we are not at a point yet where we know enough to make a determination as to whether it is worth a substantial investment.

Mr. GARAMENDI. Well, it seems to me that if you can increase the flow or power by 20, 30 percent, that is like creating a new power plant that gives you that much more capacity. I would like to have you follow up on that.

Mr. WRIGHT. OK.

Mr. GARAMENDI. The other question has to do with the wind power in the Northwest as well as in California, the transmission

of that power through the lines, and how you deal with the necessity of balancing. You briefly touched on this, both of you. Could you go into that in a little more detail, what problems exist, what opportunities exist, and how you intend to deal with that?

Mr. WRIGHT. It will be hard to deal with that briefly. I will do the best I can. The fundamental challenge that we find with respect to wind is the variability of the output, particularly within the hour because within the hour of the transmission, the provider is responsible for maintaining reliability and assuring that loads and resources are in balance. What we are doing currently in order to be able to balance that is use the hydro system.

A few years ago, we thought that we could probably handle about 2,000 to 3,000 megawatts of wind, and then we would exhaust the capability of the hydro system. Through a variety of mechanisms that we have put in place, we are now operating at about 3,400 megawatts, and we think we can get above 4,000 megawatts, probably in the 5,000-megawatt range, just as we put new technology in place.

I will tell you the expansion of wind power is happening at a much, much more rapid pace than we had predicted. And consequently, our ability to keep up technologically has been a real challenge for us.

Mr. GARAMENDI. Thank you very much. I yield back my time.

Mr. MCCLINTOCK. Well, thank you. Mr. Gosar.

Dr. GOSAR. Mr. Meeks, as you may not know, the Navajo generating station and the Glen Canyon Dam are both in my district in Arizona. So given those questions, I want to refer to my colleague's question and kind of highlight a little bit more about the Aspinall Unit. If it is not in play, how do we make up for the loss during those high peak times? What is going to replace it?

Mr. MEEKS. Well, you would have to definitely purchase, be out on the market, and that is a mixture of all sorts of things, whether it is gas, coal, if there is other hydro out there, whatever. But we would be on the market. It definitely wouldn't be our hydro.

Dr. GOSAR. So is it even available right now?

Mr. MEEKS. Is it available? I don't know the answer to that. In other words, it is a precious resource. The ability to follow load is a very valuable commodity. Let us put it that way.

Dr. GOSAR. I would sure like to know what the backup would be for the next five years, if I could get an answer on that.

Mr. MEEKS. Sure, absolutely.

Dr. GOSAR. Because it is much more expensive, particularly an intermittent, particularly if we are looking at wind and solar and buying it on the market.

Mr. MEEKS. Though you notice I didn't throw that out because those aren't resources that are able to do what those units are able to do. So it would be more of a guess, combustion-type generation.

Dr. GOSAR. Thank you. You answered my question. Your agency sells any excess power from the coal burning Navajo generating station in Page.

Mr. MEEKS. Right.

Dr. GOSAR. In 2009, your agency sold about 4 million megawatt hours from the plant, generating about $121 million to the U.S. Treasury. If EPA goes through with its worst case scenario in air

regulations upon NGS, either the plant shuts down because it is uneconomical to make the retrofit, or the price of the energy produced goes through the roof. The net effect on WAPA is that no one would want to buy the power since it would be expensive.

What would be the impact of the EPA proposal, specifically the cost of the power sold in 2009, versus what it could be under the EPA scenario?

Mr. MEEKS. Basically, when it comes to the Navajo plant, we provide a service, if you will. In other words, we have no repayment responsibility for that plant. We are providing a service through the Bureau of Reclamation for selling excess energy, as you stated.

So whatever we can sell is what gets returned to the Treasury. Obviously, it is a market-based price. It is a price that has competition. So if I am unable to sell it, then I am unable to return anything to the Treasury.

Dr. GOSAR. But that whole area has grown immensely over the last 10 years, wouldn't you agree, its service line? And if it was to go out of production, we have no way of compensating for that, do we?

Mr. MEEKS. Again, if you take something out of service, it has to be replaced by something else.

Dr. GOSAR. OK. Finally, to close, in light of the Administration's policies that are reducing generation at the Glen Canyon policy, regulating uncertainty on the NGS is putting that kind of power at risk, and the aging and the inadequate amount of transmission lines, particularly on the reservations in my rural district, and considering your operational costs recovered by your rates, how much do you estimate my constituents will increase their rates in the next 10 years?

Mr. MEEKS. Again, as I stated before, a lot of the things that we are looking at are scary as far as someone who is in the business to sell hydropower. One other figure that I didn't mention from the impacts of Glen Canyon in your district, we used to track the costs as far as the lost generation, and what we found out from—an average amount of extra money for replacing Glen Canyon is $50 million a year that customers have to pay.

And in addition, going back to your replacement question, replacing that generation source, the estimates have been a billion dollars in capital costs to replace the resource we lost through Glen Canyon Dam.

So again, I don't want to be the generating agencies. They have a tough mission. But again, if you lose something, you have to replace it with something.

Dr. GOSAR. Real quickly, could you compare the transmission lines from the Hoover Dam on the western side of Arizona to the eastern side of Arizona? Which is in worse condition?

Mr. MEEKS. It depends where you are at. In other words, I would say they are equal. We need help.

Dr. GOSAR. Thank you.

Mr. MCCLINTOCK. Mr. DeFazio.

Mr. DEFAZIO. Thank you, Mr. Chairman. To the Bonneville Power Administrator, Mr. Wright. And Mr. Garamendi at least initiated the issue, the discussion of integrating wind in the Northwest, which is contracted to Southern California. And obviously, we

want to optimize the capability of transmitting that, and I am all on board with that.

But my other concern is where the costs go. You know, the costs should not be borne by Northwest ratepayers for wind power contracted to California. So I would like you to just tell me a little bit about the integration, cost of service issues. I know you have some particular problems now, and I have heard a lot of concerns about this high wind, high water situation, which we may see this year, the way snow pack is going. And if you could address those two things, I would appreciate it.

Mr. WRIGHT. So first on wind integration. There are costs associated with wind integration. When wind is operating on your system, you have to be able to fill in the holes. When wind goes up or wind goes down, that requires an operation of the hydro power system, and there are costs associated with that.

In 2008, we put in place our first wind integration rate. The 2009, we adopted an additional rate, and then we are operating our rates today, '10 and '11, that increase that rate because as we have added more wind to the system, the costs of wind integration have increased as well.

Mr. DEFAZIO. What is that cost? Can you tell us? How is it measured?

Mr. WRIGHT. It is measured in dollars per kilowatt month. You can roughly translate it to about six dollars a megawatt hour.

Mr. DEFAZIO. OK.

Mr. WRIGHT. So we are in the midst of rate case right now to set rates for the '12-'13 period, and wind integration is a substantial issue in that case. I am not allowed to speak very much about it because it is an ex parte process, and I am the decision maker in that process. So discussing the merits of it would be——

Mr. DEFAZIO. Yes. I have been there before, OK.

Mr. WRIGHT. The second part of your question got to just what about this high water, high wind event, which is really a set of unique circumstances that is a little different from wind integration. What we find in this circumstance, in the spring we can have more electricity than we need. In fact, if you get a slug of water that comes down the system, you get a big rainstorm of some kind, we can produce enough energy off the hydropower system to meet all of the loads in the Pacific Northwest, even assuming that the thermal units are shut down, coal plants, gas plants, et cetera are shut down.

And then if wind is operating on top of that, we have more electricity than we know what to do with, even if all of the interties are full. In that moment, we actually face a very difficult circumstances where we have to choose among our values. If there is more water than we can use to produce electricity, the only way to pass it is to spill it over the top of the dams. And yet at certain points, we can be spilling so much water that we exceed what are called the gas caps. A certain amount of gas in the water is bad for threatened and endangered salmon. And so we have an exposure with respect to trying to provide salmon protection, trying to provide reliability, make sure that the lights don't go out, try to make sure that any costs are paid for by those why created the costs and the system, and assuring that we are at the same trying

to encourage renewable resources, which has been a part of our mandate, to try to encourage renewable resources.

So we find ourselves having to choose between those values. Fortunately, so far we have not had to make that choice. We came very close last spring to having to do so. We have held six months of public process on this issue, trying to identify options so that we wouldn't have to make those hard choices. I would say so far we have found alternatives that help us to delay the choice. We have not found alternatives so far that solve the problem. And so I am concerned that we will have to make choices even this spring if we get that large slug of water.

Mr. DEFAZIO. Well, some way if you just went to 120 percent on the dissolved, you know, on the spill, that you could solve the problem.

Mr. WRIGHT. Yes. So the issue there is that there are certain gas caps that are created under the Clean Water Act that are implemented by the States, and there are differences of use between the States of Oregon and Washington, which share the river system, about what those gas caps should be.

Mr. DEFAZIO. So Washington is higher?

Mr. WRIGHT. Washington allows—it cuts off spill at a lower point.

Mr. DEFAZIO. Oh, a lower point, OK.

Mr. WRIGHT. This is an issue in which we have a great deal of interest because our salmon protection program, we are spending about $800 million a year, have costs about $800 million a year. And so candidly, we have not been willing to take a lot of risk with respect to salmon protection because it puts at risk the other investments that we are making in trying to make sure that we are mitigating for damage cause by the Federal hydroelectric resources.

So our view has been we would stick with the current standards which have been debated for probably more than 10 years rather than make a modification to them to allow more spill to occur.

Mr. DEFAZIO. OK, thank you. Thank you, Mr. Chairman.

Mr. MCCLINTOCK. Thank you. Mr. Costa.

Mr. COSTA. I would like to go back to that line of questioning that Mr. DeFazio was engaged in because it is my understanding on the Columbia and on the Bonneville project you have some issues with the Endangered Species Act with regards to salmon and biological opinions that have been part of the standard of their criteria that you have had to comply with over the years. Is that not correct?

Mr. WRIGHT. It is correct, that we do operate under a biological opinion.

Mr. COSTA. Yes. And they have been disputed, and then various debate has taken place between all the parties, between the power users, between the farmers, between the Indians, between the environmental community. Is that correct?

Mr. WRIGHT. That is correct. And that plan is pending in the Federal District Court today.

Mr. COSTA. OK. So then there has been more than one biological opinion, I think. Secretary Locke and I had a conversation about that a year ago.

Mr. WRIGHT. There have been a number of biological opinions over the years, starting in 1994. We are operating under a biological opinion that was adopted in 2008 today. It was adopted under the Bush Administration but was reviewed under the Obama Administration. And as I indicated before, it is pending in Federal District Court of Oregon.

Mr. COSTA. So depending upon that decision, it could maintain the current level of power that you are able to generate, or it could decrease it. Or what other impact might it have?

Mr. WRIGHT. Well, the 2000 biological opinion made modifications to the way we operate the hydro system and did result in some reductions in the output of the system as we increase spill to help juvenile salmon pass downstream. That plan, like I say, is the one we have been operating under for the last two years as we wait for the Federal District Court to rule.

Mr. COSTA. I see. And so is there a level of consensus that has taken place as a result, or everybody is waiting for the court to decide?

Mr. WRIGHT. Well, we are very proud of the fact that at the court's direction, we went off and instigated a collaboration process in the region, and currently in the Federal District Court, three Northwest States, Washington, Idaho, and Montana, have joined with the Federal Government, along with six Indian tribes, and are supporting that Federal plan. So there has been a great deal of collaboration, and we hope that the court will sustain that decision.

Mr. COSTA. We have a similar situation in California that you may have heard about, and it seems like the court may be the final arbiter of trying to get people to reach an agreement, for reasons that I think are probably similar on the Columbia.

Back to the point of transmission of power and the question that was asked earlier with regards to the need to upgrade our transmission lines. How much more power could we provide if we were to make that investment? Mr. Meeks, are you the proper person to ask that question?

Mr. MEEKS. I wish I was. One thing I do want to address, there are a lot of things we need to look at, including upgrading of existing infrastructure. One thing I just wanted to go back to the Congressman's question on composite conductor, it is not as simple as just slapping in a new conductor and calling it good. You have to as well upgrade your equipment on each end, you know, for higher amperage, and follow-up duty and things like that.

Mr. COSTA. But no. My sense is it is a significant investment. Otherwise, we would have done it——

Mr. MEEKS. Exactly.

Mr. COSTA.—two years ago. But again, in terms of the cost effectiveness or efficiencies that you would realize, I think that is what we really need to know, what bang for our buck. How much more power could we provide from power that we lose by the existing transmission lines that are outdated and not as efficient? There has to have been some study on this.

Mr. MEEKS. I will get you that for the record as well.

Mr. COSTA. Yes. We want to know the cost benefits. If you could provide that to the Subcommittee, I think we would all like to know that because we are looking at investing in our infrastruc-

ture. This is an important part of our infrastructure, and go from there.

I hear it was touched upon earlier, and I don't know if we got a complete answer or not on the conditions of the Bonneville projects to withstand seismic issues, since we are looking at the situation in Japan. Did we get a definitive answer on what standards of seismic events you think you are capable of withstanding?

Mr. WRIGHT. The question that came earlier was with respect to the nuclear project that Bonneville pays for and receives all the output from. And for that project, it is located on the Hanford Reservation. They looked at historical earthquakes that have occurred in that area. And the seismic event that they have planned for is well in excess of the historical seismic events that have occurred there.

Mr. COSTA. Which is?

Mr. WRIGHT. It is in the range of somewhere around four to five on the Richter scale.

Mr. COSTA. I am just as concerned about the dams.

Mr. WRIGHT. So I actually would need to provide that for the record. I don't know exactly what that is. I do know that the fundamental concern with respect to the nuclear plant was whether a dam might be taken out, and then you would have potentially a surge of water coming downstream that would affect the nuclear plant. And from the evidence that I have in front of me, it appears that that would be very unlikely, that the nuclear plant is built on high enough ground that a loss of Grand Coulee or Chief Joseph would not cause an inundation of the diesel generators that provide the backup power supply for Columbia generating station.

Mr. MCCLINTOCK. I am going to have to cut it off there. But happily, we do have time for a bonus of questioning that begins right now. Mr. Wright, we have been talking about the enormous amount of wind generation that you folks have added in the last few years, and we have also talked about the fact that because wind generation is unreliable, obviously the wind comes and goes, you have to be able to have an equal amount of backup power ready to replace it.

So does that mean that wind generation essentially adds zero to the baseline because you have to back up every megawatt of wind with a megawatt of reliable power?

Mr. WRIGHT. We have quite a debate about that going on in the Northwest, but basically the capacity factors that we use in the Northwest are somewhere between 5 percent and zero.

Mr. MCCLINTOCK. And you testified, if I understand correctly, that this mandate is adding about six dollars per megawatt to your generating costs?

Mr. WRIGHT. It creates costs that work out to be about six dollars per megawatt of wind. We collect that cost from the wind producers to assure that there is not a cost shift between wind purchasers and sellers, and then Northwest ratepayers who buy our firm power——

Mr. MCCLINTOCK. But that is a rather substantial amount compared to your baseline costs, isn't it?

Mr. WRIGHT. I think it does make a difference to the wind power producers. They certainly are very active in our rate case.

Mr. McCLINTOCK. What does a megawatt of hydroelectricity cost, and what is the final cost of the same megawatt of wind, taking account for a need for backup, obviously including all subsidies, and the additional transmission cost because a lot of these areas, I understand, require additional transmission?

Mr. WRIGHT. So we sell our firm power products at roughly about $30 a megawatt hour today, which is an all-in cost, and includes the hydro project, the nuclear projects, Fish and Wildlife mitigation costs, et cetera.

Mr. McCLINTOCK. Yes. But again, what I am trying to get at is what is the basic price or cost of generating, say, a megawatt of hydroelectricity compared to the same megawatt of wind?

Mr. WRIGHT. So the cost of the hydro units alone would be—the fully allocated costs would probably be in the $10 per megawatt or less range. If you were purchasing a wind power——

Mr. McCLINTOCK. And wind?

Mr. WRIGHT. If you were purchasing a wind power product in the market today, the price may range from anywhere from 70 to say $100 a megawatt hour.

Mr. McCLINTOCK. Good heavens. I guess the answer to the next question may be self-evident. Suppose instead of your mandate being to encourage renewable electricity, suppose it was to encourage the most efficient and least expensive electricity. How would that change your policy?

Mr. WRIGHT. Actually, that is the policy. It is in Federal law today under the Northwest Power Act.

Mr. McCLINTOCK. Well, obviously, $10 a megawatt power is an awful lot cheaper than $70 a megawatt power.

Mr. WRIGHT. It is. And for that reason, we are very actively pursuing trying to make sure that we are getting as much out of the hydro system as we possibly can. It is the cheapest resource available.

Mr. McCLINTOCK. You have all testified to substantially increased costs because of ESA compliance mandates. Suppose the policy were changed to allow the product fish hatcheries not only to be included in population counts, but also to be used as mitigation. Would that increase or decrease your costs?

Mr. WRIGHT. That would make a substantial difference in terms of the calculation of how to meet threatened and endangered species costs. It would be a substantial change in the policy with respect to whether a hatchery fish is the same as a wild fish or not. And not being a biologist, I would probably need to stop there in terms of my explanation. But it certainly would make a difference.

Mr. McCLINTOCK. Mr. Meeks, how about you folks? You have substantial compliance costs.

Mr. MEEKS. I agree with my colleague here.

Mr. McCLINTOCK. Let me have one final question for Mr. Meeks on the Central Valley Project Improvement Act. Obviously, water customers have been charged $30 million annually. The cap was supposed to be reduced to 15 million upon completion. It was specified mitigation and restoration activities. I understand today, 19 years after enactment of the Act, the annual fee cap on water and power customers is still $30 million per year, with no indication of

when that cap will be reduced, if ever. And I am told that makes the price above market.

What is going on with that? Ten seconds, what is going on with that, and what can be done about it?

Mr. MEEKS. Ten seconds. You are right in everything you said, 20 percent added on top, at market. I am meeting with the Commissioner next week, hopefully, to talk about that very issue.

Mr. MCCLINTOCK. Great, thank you. and if you could submit an additional response for the record, that would be appreciated. Now I recognize the Ranking Member, Mrs. Napolitano.

Mrs. NAPOLITANO. Thank you, Mr. Chair. And while you do that, maybe it is possible to have the people, the tribes and the States who are saying that the increase in salmon is creating another increase in their economy, whether it is tourism, whether it is fishing for the salmon, and what is that in return giving those areas in terms of economy, if you would look into that. Or maybe they have the ability to get input from your customers.

Mr. Meeks. Well, actually, I have another question that has to do with—on page 6, Mr. Worthington, you indicated on the right-of-way clearing because of the blackouts, the inadequate right-of-way clearing. You have increased it. When I toured one portion of the WAPA, and I was looking at the clearing, and apparently the bark beetle infestation, the pine beetle infestation was creating a problem with the right of way because those trees could fall on the lines that were—the right of way wasn't wide enough, and apparently there was an issue with forestry and all that.

Is that still a problem, and is there an R&D on the pine beetle infestation that has been looked at? It is an update on the environmental impact statement regarding the protection of the power lines against possible damage due to that infestation, including the right of way issue.

Mr. WORTHINGTON. We have utilized aggressive means to address this situation, but we don't have specific issues with the pine beetle infestation in our service region.

Mrs. NAPOLITANO. Mr. Meeks does.

Mr. MEEKS. Yes, I do. We are continuing to work with the Forest Service. We expect to have the draft environmental statement done in October of this year, and a final April of next year. So we are aggressive with it. We are doing the best we can on that issue.

Mrs. NAPOLITANO. Who is working on the R&D to be able to address this?

Mr. MEEKS. R&D, as far as what you said in your opening statement, I do not know as far as how do you prevent this in the future. I will get you something.

Mrs. NAPOLITANO. Please. Then the other question, Mr. Meeks, is how are you helping to integrate the renewable energy into the service area while keeping the core mission?

Mr. MEEKS. As I have said in the past, we cover nine of the ten windiest states. So we have 14,000 megawatts of wind in the queue. We only have 1,000 megawatts in service right now today. So what we are doing is, one, we have open access transmission tariffs. In other words, if people want to build into it, they have access to the system, given the proper constraints. We are offering products, transmission products, like long-term, non-firm, and con-

ditional-firm, that is attractive to renewable users, as well as working with the balance with our borrowing authority, our customer needs, and all of the above.

Mrs. NAPOLITANO. So you are juggling pretty well.

Mr. MEEKS. Yes.

Mrs. NAPOLITANO. There is a question in regard to the mandatory standards that have increased in 2008 from 60 to current 102. Is there anything that can be done to consolidate some of those mandates and save you time and money and save the ratepayers? Anybody? I am looking at the North American Reliability Corporation, the NARC.

Mr. MEEKS. Oh, there is an added burden, there is no doubt about it, as far as the reliability standards. One of the things that we are trying to work with the reliability organizations is how much is real, is value added to reliability of the system, versus checking the box and feeding a monster.

So that is one thing throughout industry that we are working on moving toward. We are doing things internally I would be happy to tell you about—I know time is short—to help alleviate costs related to those.

Mrs. NAPOLITANO. I would like to have you answer that in writing so that the rest of the Committee can understand what some of these standards do, how it affects your ability to provide the service. And with that, I yield back.

Mr. MCCLINTOCK. Thank you. Mr. Labrador.

Mr. LABRADOR. Thank you, Mr. Chairman. I only have one question for Mr. Wright. As you know, there has been a dramatic increase in the amount of wind generation located in the Northwest. I realize that some of the resulting wind energies are being used to meet our RPS requirements in Washington and other Northwest States. With California increasing its RPS to 33 percent, I am curious about what percentage of the wind energy generated in the Northwest is exported to California?

Mr. WRIGHT. I am not sure I can answer with respect to the Northwest as a whole, but for the Bonneville system—and I believe this is applicable for the rest of the region—it is in excess of half.

Mr. LABRADOR. OK. And does BPA have policies that differentiate between wind projects, where the output is consumed in the Northwest, versus sold out of region?

Mr. WRIGHT. We do not have a difference in terms of pricing for where the power ultimately is delivered to. We do create charges to assure that the costs that are created by wind power, wherever it is delivered to, are paid for by wind purchasers and sellers.

Mr. LABRADOR. All right. Thank you. I yield back.

Mr. MCCLINTOCK. Mr. DeFazio.

Mr. DEFAZIO. Thank you, Mr. Chairman. Mr. Wright, the Chairman asked a question I thought was interesting, but I doubt that anyone has developed the data because it would require a present cost or value analysis. But he was comparing the cost of the wind, new wind generation, versus the installed hydroelectric capacity, which of course was built 70 years ago during the Great Depression, for the most part, or then through World War II.

Has anyone ever looked at—I mean, it would be a real Blue Sky thing, but if you had to build Grand Coulee today and install the

capacity, I assume it would be much more expensive than it was then. Anyone ever looked at that?

Mr. WRIGHT. I think it would be safe to say it would be much more expensive.

Mr. DEFAZIO. Yes. So any new capacity is obviously very expensive, no matter what technology we are using. And that said, I would like to ask, as I understand it, the most cost effective way to meet the future projected power needs in the Pacific Northwest is neither wind, hydro, coal, oil, gas, or nuclear. There is one thing left, right?

Mr. WRIGHT. Yes. The number one resource in the resource of priority for the Northwest is energy efficiency. By all of the studies that I have seen by the Northwest Power and Conservation Council or by Bonneville staff, we think that we can acquire energy efficiency at somewhere in the range of about $30 a megawatt hour, which is probably half the cost of any other resource that is out there.

Mr. DEFAZIO. My local utility has been very good at subsidizing the cost of compact fluorescents. I believe BPA had a program perhaps encouraging them to do that. I am not sure. And I know historically BPA has been very involved in conservation. Are there any estimates just on—I mean, as I understand, there are some cities in Washington State where you can't even find incandescent light bulbs anymore, they have been so aggressive.

But can you tell me just on the lighting side what we can save? Do you have an estimate on that breakout?

Mr. WRIGHT. I don't have that one at the tip of my tongue. I know that our market penetration rate is still probably in the 15, 20 percent range. So there is a substantial amount of opportunity still out there in the lighting area, both in residential, but particularly in the commercial arena, where our programs have really just begun.

Mr. DEFAZIO. Well, I would be interested in any estimates you might have on that. We are about to have a raging controversy over, you know, save Edison's invention and, you know, ignore the 21st century here in Washington to move beyond the incandescent light bulb. It would be useful to have that data for that debate.

Mr. WRIGHT. I would be happy to provide that for the record.

Mr. DEFAZIO. All right. Thank you. I just want to get straight on the 115, 120 nitrogen issue. I mean, are you feeling—is it just the legal constraints or is your agency convinced that the preponderance of the evidence is that 120 is detrimental, and therefore you wouldn't want to go there even if you weren't concerned about further litigation?

Mr. WRIGHT. I think it is both.

Mr. DEFAZIO. Yes.

Mr. WRIGHT. So the biological opinion says that we will comply with the water quality standards as adopted by the States of Oregon and Washington. And so the adopted standard right now is Oregon different from Washington. But a majority of the facilities are, of course, in Washington.

So it is a matter of complying with the law. But in addition to that, our view has been that excessive levels of gas can have a negative impact on salmon and steelhead. And the fundamental prob-

lem that you have is there is a curve out there, and the curve is you put more gas in the river, and you get increased risk. And the question just is where do you draw the point on that curve that says that is the straw that breaks the camel's back.

Given the substantial investment that we are making in the salmon and steelhead restoration, we have been reticent to draw that place in the curve in a place where we might be putting at risk the hundreds of millions of dollars a year investment that we are making in salmon restoration.

Mr. DEFAZIO. I find it interesting that Oregon would have a higher standard, Washington a lower standard. Yet as I understand it, Oregon is the one outlier in the pending Federal litigation among the affected states who does not agree with the proposed biological opinion. Is that because they want a higher dissolved nitrogen standard?

Mr. WRIGHT. Well, to be fair to Oregon, their view in the litigation has been that additional spill would be a good thing. And so I think that their position with respect to the state's position on gas——

Mr. DEFAZIO. Oh, it is a good thing even with higher nitrogen, in Oregon's view?

Mr. WRIGHT. Oregon has been of the view that increasing spill does increase juvenile survival, and that they have been less concerned about the gas impacts than the potential benefits from spilling fish. Now, that has been different from Washington's view and different from our view.

Mr. DEFAZIO. Thank you.

Mr. MCCLINTOCK. Mr. Garamendi.

Mr. GARAMENDI. A fascinating issue. I hope you can resolve it in Oregon. We have similar issues in California with our downstream flows, temperature and the like.

I want to go to conservation here. Clearly, it is the cheapest, the best, and the most immediate available. I just stepped out into the hallway and noticed the window that I was standing next to has to be about a 1920 to 1930 model window, single pane. I was just thinking about a public-private partnership where maybe we get a private entity to come in and take us and enjoy some of the benefit of the savings that would inure if we were to replace the windows in at least these two buildings, the Longworth as well as the Cannon.

We will have to talk to Mr. Lungren about that, Tom, when we get back on the airplane going to California.

Mr. DEFAZIO. Rayburn is also single pane, even though it was built in the 1960s.

Mr. GARAMENDI. OK. We will change out all the windows and get a private contractor in to do it, and let him benefit with some of the cost savings.

Just a question—just not a question, a comment. California energy standards, among the highest in the nation, if not the highest, have allowed the state to actually maintain the same per capita energy consumption, even though we have had enormous growth in the population over the last 20 years, 25 years, since it was put in place. We ought to have a national energy standard.

If we take a look across the nation, certain Midwest States have very cheap power and extraordinary energy consumption in their homes. And so just something we ought to be thinking about if we want to meet the entire nation's demand.

I want to go really the—I guess I am stuck on conduit today. It just keeps coming back. Somebody handed me a piece of conduit 10 years ago and said, if we did this, we wouldn't need to build an additional power plant. I really want to get into that. I would like to have the analysis done by the two, I guess all three of you, on conduit. How much more energy can we push through the lines, taking into account, yes, you have to be on both sides. You have your substations and switching and so on and so forth.

And the other issue, which I don't think we are going to get an answer to today, has to do with the integration of the green energy sources together with the baseload power, which hydro does have flexibility, but again nuclear.

And finally, on the nuclear issue, it seems to me that we will be building nuclear power plants, notwithstanding the Fukushima issue, if not here, then other nations will. That brings us to what are we going to do with the used nuclear fuel, of which about 95 percent will remain, even with the French recycling. What do we do with that? How do we handle it? Do we stick it in the ground someplace and walk away, or do we close the nuclear cycle? And if any of you gentlemen are involved in that, could you please for the record speak briefly to that?

These are issues that are not going to be answered today. National energy standards, similar to what California has, we ought to do it, Tom. I should say Mr. Chairman. Excuse me for being more familiar. We are just Californians here today, so we are talking down home. And then the issue of how we deal with the integration of the green, the renewables. I think we really need to spend a lot of time on that. Various kinds of storage systems. I was thinking of water pumping into various reservoirs, and then being released later, something that is used in California, I think in other states also.

Perhaps more of that, and this is part of what I know the Chairman is interested in, this off-stream storage, which is part of what we are going to have to do. And then I guess I am talking and not asking questions. I am sorry, gentlemen. But for the record, if you could provide some insight into these issues. I will yield back my time, Mr. Chairman.

Mr. MCCLINTOCK. Well, thank you. And that concludes the hearing today. I want to thank our witnesses for sharing their valuable time and the insight into these issues. Members of the Subcommittee may have additional questions for witnesses. In fact, I can personally guarantee it. And we would ask that you respond to these in writing. The hearing record will be open for ten business days to receive these responses.

And if there is no further business to come before this Subcommittee, without objection, the Committee stands adjourned.

[Whereupon, at 11:31 a.m., the Subcommittee was adjourned.]

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