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**Testimony on “Increased Electricity Costs for American Families and Small Businesses:
The Potential Impacts of the Chu Memorandum”
April 26, 2012**

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

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

APPA participates in a wide range of legislative and regulatory forums. It advocates policies that:

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

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

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

The four PMAs – the Bonneville Power Administration (Bonneville or BPA), Western Area Power Administration (Western or WAPA), Southwestern Power Administration (Southwestern or SWPA) and Southeastern Power Administration (Southeastern or SEPA) –market wholesale power to approximately 1180 public power systems and rural electric cooperatives in 33 states, serving over 40 million electricity end-users. Electricity customers in the following states receive a portion of their power from the PMAs: BPA: Washington, Oregon, Idaho, Montana (part). WAPA: Arizona, California, Colorado, Iowa, Kansas (part), Minnesota, Montana (part), North Dakota, Nebraska, New Mexico, Nevada, South Dakota, Texas (part), Utah, Wisconsin, Wyoming. SWPA: Arkansas, Kansas (part), Louisiana, Missouri, Oklahoma, Texas (part). SEPA: Alabama, Florida, Georgia, Illinois, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia.

APPA members, as purchasers of significant quantities of wholesale power marketed by the PMAs, are directly impacted by changes to the federal power program. The PMAs, as described above, are based on a system of cost pass-throughs, whereby federal investment is repaid, plus interest, through electricity rates. As the costs to the federal government to provide these essential hydropower services increase, wholesale and retail electricity rates are raised correspondingly. APPA has consistently opposed changes to the structure and mission of the PMAs that would have resulted in higher electricity rates for its members and their customers. These changes have often been attempts to either privatize the PMAs, or to raise the federal wholesale rates to market-based rates, as opposed to the cost-based rate methodology under which the PMAs have operated so effectively for so long. Today, however, PMA customers face a more subtle, yet equally problematic, challenge.

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

the changes proposed by Secretary Chu would in fact both increase costs to federal hydropower customers and violate the historic, and highly effective, principles under which the PMAs have operated.

Secretary Chu proposes the following four changes to the PMAs:

First, he would require the forced implementation of new transmission through third party financing mechanisms (WAPA, SWPA) and borrowing authority (WAPA). Section 1222 of Energy Policy Act of 2005 (EPAAct05) authorizes WAPA and SWPA, and the Transmission Infrastructure Program (TIP) created in the 2009 American Reinvestment and Recovery Act (ARRA) authorizes WAPA, to partner with non-customer groups to develop transmission within their systems. The Section 1222 authority has never been used (although WAPA and SWPA are currently evaluating applications for its use) and TIP has been criticized in a report by DOE's Inspector General for mismanagement and not being operated in a transparent and efficient manner.

Despite both the explicit flexibility in Section 1222 for the relevant PMAs to exercise discretion regarding the use this authority and the problems identified with the TIP program, Secretary Chu nevertheless seeks to mandate these programs by administrative fiat. EPAAct05 and the ARRA authorized, but did not mandate, third party financing mechanisms, clearly allowing the PMAs, in collaboration with the customers, to balance the interests of their existing hydropower customers with third party financing proposals. In this new centralized mandatory regime directed from DOE headquarters, however, PMA customers could be forced to take on the costs of all system-wide transmission upgrades. Any benefit they would receive from these improvements would certainly be incommensurate with the costs they would be forced to pay. This is a blatant violation of the "beneficiary pays" principle, which has consistently governed enhancements to PMA operations.

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

Second, Secretary Chu proposes to "improve the PMAs' rate designs." To do so, he envisions changing the PMAs' rate structures to incentivize programs for energy efficiency and demand response, the integration of variable resources, and preparation for electric vehicle deployment. In this context, the word "incentive" is simply synonymous with and a euphemism for cost-shifting. APPA is concerned that both these "incentives" and the restructuring of the PMA rates will artificially and inappropriately raise the cost of providing federal hydropower, resulting in corresponding wholesale and retail rate increases. This proposal essentially means PMA

customers would be subsidizing wind development and energy efficiency and demand response programs, whether or not they receive any benefits from these programs. Furthermore, energy efficiency, demand response, and electric vehicle integration are primarily retail issues, not wholesale issues – the PMAs provide power at wholesale, while retail decisions are made at the local and state levels. In effect then, Secretary Chu’s proposal would substantially encroach on the jurisdiction of state utility commissions, state legislatures, and local governments.

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

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

A major concern with the creation of an EIM is its potential to quickly evolve into a Regional Transmission Organization (RTO). Public power utilities located in areas of the country with electricity markets run by RTOs and Independent System Operators (ISOs) – collectively referred to as “RTOs” – have experienced ongoing difficulties that adversely affect the consumers they serve. These problems include: complex and costly market-pricing mechanisms; price volatility; an absence of cost-effective measures to assure generation resource adequacy (i.e., the availability of back-up power); limited data availability; increased participation by financial entities that do not produce power or serve load (i.e.; customers); findings of price

manipulation without compensation to consumers; governance structures that are not always responsive to stakeholder concerns; and, burdensome administrative costs. The Federal Energy Regulatory Commission (FERC), the entity in charge of regulating the RTO markets, has not recognized or addressed these concerns despite its mandate under the Federal Power Act to ensure that wholesale electricity rates are just and reasonable. The creation of an EIM sets the West on the path to energy markets that are subject to significantly increased jurisdiction by FERC, which would in turn result in a loss of jurisdiction to state and local authorities.

WECC's stated intent is that such an EIM would not be a federally jurisdictional entity such as an RTO like those in the East. However, this ignores the history of RTOs, which developed incrementally, step-by-step, beginning with energy imbalance markets and expanding to include other complex and costly markets. The only other case where an EIM is operated without the more complex RTO markets is the Southwest Power Pool (SPP), which recently filed a request with the FERC to incorporate many of the problematic features of a full-blown RTO. This is an example of how an EIM is likely to lead to an RTO and should serve as a warning to the West to reject any EIM proposal. In the West, an RTO was a central feature of Enron's business plan, but the proposal was soundly defeated (except in California, which has an intrastate RTO, known as the CAISO) in the lead up to passage of the Energy Policy Act of 2005.

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

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

Currently, electricity in the region is sold under regulated rates that are based on costs. Utilities either provide generation from resources they own or they purchase power through competitively

negotiated bilateral contracts for power. The movement from cost-based to socialized market-based pricing will only lead to higher costs for customers. In this proposal, Secretary Chu also recommends the PMA take steps in addition to EIM such as coordination with balancing authorities, cooperation between public and private power, and regional planning. Such activities would result in significant duplication of effort (and cost) because the PMAs are undertaking many (if not all) of these steps already.

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

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

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