



Redding Electric Utility

M E M O R A N D U M

TO: Department of Energy
FROM: Redding Electric Utility
SUBJECT: **PROPOSED CHANGES TO THE WESTERN AREA POWER ADMINISTRATION**
DATE: August 15, 2012

Introduction

Redding Electric Utility (Redding) appreciates the opportunity to provide written comments addressing Department of Energy (DOE) Secretary Steven Chu's March 16, 2012 memo ("DOE Memo") directing changes to the Power Marketing Administrations (PMAs) and also addressing DOE and the Western Area Power Administration's (WAPA) subsequent "Defining the Future" initiative workshops. The changes outlined in the DOE Memo could have significant impacts on Redding customers and threatens the model of local control, which stands as the core principle of publicly owned utilities.

While Redding recognizes that the electric utility industry is dynamically changing, Redding strongly believes that most, if not all, of the issues touched upon in the DOE Memo to move the "grid" into the 21st century are already being addressed on a regional level. In short, Redding believes that DOE is looking for a problem to match a predetermined one-size-fits-all solution, without acknowledging regional, state, and local differences. As such, Redding recommends DOE scrap its "Defining the Future" initiative and put aside the foregone conclusions that appear to have influenced the directives outlined in the DOE Memo. All future efforts to define future regional needs and goals must begin with an open dialogue between the PMAs' and their customers.

Redding is More than Just a WAPA Customer

WAPA is one of the four PMA's that sells the excess energy output of federal hydroelectric projects at cost-based rates to not-for-profit utilities, known as "Preference Customers," in accordance with statutory directives enacted by Congress. There are five regions within WAPA; each region is unique and WAPA has created a cost-effective, flexible partnership with its customers to deal with the individual issues specific to their area.

WAPA's Sierra Nevada Region (SNR) primarily markets the output from the Central Valley Project (CVP), including hydropower from Shasta, Trinity, and Folsom dams. Located at the base of Shasta Dam, Redding receives nearly 8% of the electricity output from the CVP hydro system; this equals roughly 30% of Redding's power supply. Federal hydropower from the CVP system is the most cost-effective, renewable, and carbon-free resource in Redding's power supply portfolio.

SNR owns and operates a system of transmission facilities to deliver power to projects and preference customers from the CVP. Redding's two direct connections deliver Redding's 8% slice of the total energy generated from the CVP system. As a "direct connect customer", Redding not only receives CVP preference power, but Redding also purchases additional transmission service from SNR's 230kV transmission facilities to import firm and shaped renewable wind power from the Pacific Northwest. Redding's long-standing interconnection and contractual rights to SNR's long-term transmission service is a vital element of Redding's aggressive investments to facilitate integration of renewable resources like wind, small hydroelectric, biomass and solar generated power in order to meet California's 33% renewable standard.

Public power investments of large capital in renewable and efficient generation require long-term, stable partners. With the support of SNR, Redding has spent over \$200 million in the last 20 years to add 170 MW of combined-cycle gas-fired generation to ensure that Redding's customers have local, reliable, and cost-effective power resources. Redding's ability to plan for and develop these local reliable resources is enhanced by Redding's stable and consistent relationship with SNR. Redding maintains its relationship with SNR through periodic meetings hosted by SNR that allow discussion and collaboration amongst SNR's customers. These meetings range from informational customer meetings to technical/operations coordination meetings and have proven effective towards addressing issues within the SNR system as they arise. This collaborative approach is the best way to face the challenges of the future.

Redding believes that some of the directives contained in the DOE Memo, if implemented, would violate long-standing binding service contracts that Redding has with SNR. Within the SNR region, the CVP generation is fully committed and the CVP transmission is fully subscribed to long-term uses. Therefore, the new unfunded directives being explored by DOE would result in a taking of CVP generation and transmission that is contractually committed to SNR existing customers, like Redding, who rely on these commitments.

DOE's Proposed Directives are Outside the Scope of the PMA's

Redding is concerned that the DOE Memo suggests new unfunded directives outside the existing statutory authority and mission of the PMAs that would likely impose socialized additional costs related to integrating intermittent renewable resources. Redding favors all utilities investing in renewable resource integration, but is concerned that the DOE Memo will spread the costs of integration on all customers, regardless of whether the customer is utilizing the new programs, and without regard for existing renewable resource integration investments by customers, like Redding. The Core Mission of WAPA is to: "Market and deliver clean, renewable, reliable, cost-based Federal hydroelectric power and related services." The DOE Memo proposes to alter this mission; however the DOE Memo lacks specific policy direction and sidesteps Congressional authority.

WAPA Power Must Remain Cost-Effective

Redding does not believe the PMAs can continue providing energy at cost-based rates while also "reducing costs to consumers" under the directives outlined in the DOE Memo. The PMA's follow a *beneficiary pays* principle and Redding disagrees with any attempt to usurp this methodology. Redding's customers do not want to fund DOE's objectives that may not provide them with any benefit.

The costs of CVP power are approaching market based rates when you add in the additional water and power contributions made to the CVP Improvement Act (CVPIA). CVP power customers have paid over 40% of the more than \$1.5 billion that has been spent on CVPIA restoration activities since it was

created in 1992. Maintaining the economic viability of CVP power is crucial to ensuring contributions to the CVPIA are maintained and restoration activities are able to continue throughout northern and central California.

DOE's Goals are Unnecessary

The DOE Memo fails to acknowledge PMA initiatives that are already underway. The PMAs are, in fact, addressing transmission upgrades at the same pace, or in advance, of other electric utilities in the U.S. Redding is aware of no evidence that the PMAs are behind other utilities or not in compliance with federal policy regarding transmission investment. The PMAs are also working to transition to a transmission system that provides additional flexibility, particularly to increase levels of renewable resources such as wind and solar.

A prime example of the mischaracterization of the PMAs' advances in these areas is the DOE Memo's directive for PMA planning to include intra-hour scheduling. In actuality, this step has already been taken; WAPA implemented intra-hour scheduling in 2011¹. The DOE Memo also fails to recognize that a number of other "bottoms-up" approaches to improve transmission flexibility and integrate variable renewable resources are already underway in the West, including: the Intra-Hour Transaction Accelerator Platform (ITAP) to facilitate intra-hour transactions; Dynamic Scheduling Systems to allow participants to trade capacity and energy on a dynamic basis; greater use of balancing reserves to support variable resources; and improved forecasting of wind and solar availability. Other tools to help reduce the system control burden associated with maintaining the balance between load and generation have also been developed, such as the ACE Diversity Interchange (ADI) and Balancing Authority Reliability-based Controls (BARC). Similarly, with regard to synchrophasors, WAPA is participating in the Western Interconnection Synchrophasor Program (WISP), under the auspices of the Western Electricity Coordinating Council (WECC).

Furthermore, the DOE Memo proposes new retail level directives that would trample on state and local decision making processes, such as through the creation of a rate structure to incentivize energy efficiency, demand response, and the deployment of electric vehicles.

Recent California mandates for renewables, energy efficiency, conservation, carbon reduction, and electric cars have added significant costs to all California electric ratepayers. As a direct consequence, California ratepayers are already paying some of the highest electric rates in the country, which is further impeding the State's ability to recover from the economic recession. Duplicative and unnecessary DOE directives would push additional costs on WAPA's customers and would create a scenario whereby Redding's customers would end up paying twice, with no additional benefits.

Since 2001, Redding has invested nearly \$14 million in customer energy efficiency rebates, reducing the local peak demand by more than 6%. Redding is already working closely with the City's auto dealerships so that Redding's distribution system is ready for electric vehicle integration. Implementing DOE's top-down directives into the retail side of the electric business will undoubtedly create confusion and duplicative costs.

¹ WAPA Annual Report 2011.

DOE Cannot Disregard California's Laws

As stated above, retail providers in California are already subject to significant mandates in comparison to utilities in other states. California's 33% Renewable Portfolio Standard (RPS) requires utilities to procure a majority of their new renewable resources from within California, boosting the need for new renewable generation. California's greenhouse gas law, AB 32, requires utilities to transition to lower carbon resources. The value of Redding's CVP contract is crucial to Redding's ability to comply with these laws. If CVP power is reduced, Redding would be obligated to find an alternative baseload resource to compensate, most likely from a thermal resource. Thus, DOE's ideals threaten to violate California's renewable and greenhouse obligations.

Water from the CVP is prioritized for three purposes – regulate rivers, improve flood control and navigation, provide water for irrigation and domestic use, and lastly for power generation. The California Delta Stewardship Council is currently undergoing an investigation to divert CVP water into the Delta during the spring. The Stewardship Council's proposal, which Redding does not support, would create deadpool storage in the CVP rim reservoirs 50% of the time. DOE must acknowledge the "water first" requirement of the CVP in California.

DOE Cannot Use the CVP to Integrate Variable Energy Resources

Utilities that procure variable energy resources to meet California's renewable energy goals are also procuring the associated firming contracts at the same time. Integrating renewable resources is already being explored within SNR. WAPA is fully engaged in new technologies and renewable integration; however there are currently no variable energy resources within the SNR generation queue further documenting the difference in PMA regions and subregions.

CVP generation is a fully obligated resource. The firming of variable energy resources cannot utilize an already obligated resource; renewable developers must develop new resources or find unobligated resources to meet their firming requirements – subsidized transmission and generation is not an option.

Energy Imbalance Market

The often stated premise of an Energy Imbalance Market (EIM) is that such a market will help integrate intermittent resources with a net benefit to all participants. DOE seems to have prejudged WAPA's decision whether to participate in an EIM and declared that EIM will be a success. Even though DOE predicts such a market "should [ultimately] reduce costs for WAPA's customers," it acknowledges that the collaborative process of instituting an EIM will increase costs immediately and in the near-term. WAPA customers are concerned about the high costs of implementation and operation of a WECC-wide EIM versus the very speculative marginal benefits. Redding is a part of the Northwest Power Pool effort to study the steps that would be necessary to get to an EIM, or whether additional scheduling tools could more cost-effectively accomplish the same goals. DOE should allow time for the completion of this utility-sponsored study prior to making a unilateral directive for WAPA.

WAPA began offering 30-minute intra-hour scheduling in July 2011. FERC's recent final rule on Integrating Variable Energy Resources requires transmission providers to offer 15-minute scheduling. WAPA customers expect WAPA will update its Tariff soon to reflect this Order, which may further rule out the need for an EIM. DOE should not circumvent the process already in place to assess the benefits and burdens of an EIM.

NERC and Reliability

SRN has had an excellent record of reliability compliance with the NERC standards. The DOE Memo implies that WAPA should become a “leader” in the industry in this area. Redding asks “why?” Each of WAPA’s five regions are meeting applicable reliability requirements. The customers that pay all of WAPA’s costs are quite satisfied with WAPA’s commitment to reliability and believe WAPA will maintain this success by continuing to work collaboratively with other electric utilities.

The DOE Memo asserts that the PMA bulk transmission infrastructure is fragile, falling apart, and blames WAPA for recent power outages regardless of whether WAPA has physical electrical connections with the affected areas. As stated above, Redding is a “direct connect customer” of WAPA. Redding’s reliability indices for 2011 (including “major events”) were as follows:

System Average Interruption Duration Index (SAIDI): 26.69 minutes
System Average Interruption Frequency Index (SAIFI): 0.29 outages

Averaging over the last ten years, these indices show that nearby non-Redding customers experience five times as many outages which last ten times longer than outages for Redding customers. Redding believes SNR has been an important contributor to the exceptional reliability experienced by Redding’s customers.

Within the SNR region, maintaining the CVP system, including both generation and transmission resources, has been a number one priority for both WAPA and its customers. In 1997, SNR, the Bureau of Reclamation, and CVP Power Customers executed an Operations and Maintenance Funding Agreement to ensure an adequate funding source was available to properly maintain the CVP power facilities. SNR customers have funded over \$127 million in transmission improvements and \$257 million to the Bureau of Reclamation within the SNR. Further, SNR, through the Transmission Agency of Northern California (TANC) and the California-Oregon Transmission Project (COTP), is participating in the Western Interconnection Synchrophasor Program (WISP). This is a voluntary WECC regional research program which has the goal of “...improving the operation or reliability of the Grid, or reducing Grid operating costs.”

Transmission Planning

WAPA is already participating in a regional transmission planning process in a way that makes sense to the separate regions WAPA serves. FERC’s Order 1000 requires WAPA to collaborate with its neighbors to develop regional transmission plans. WAPA has been a participant in efforts of West-Connect and California’s transmission planning efforts through the California Transmission Planning Group (CTPG) to become Order 1000 compliant. Given these activities, among others, Redding does not see where additional transmission planning directives are needed.

Conclusion

Redding participated in the joint DOE/WAPA “Defining the Future” initiative workshop held in Folsom on July 26, 2012. Redding provided verbal comments in the three strategy sessions designed to explore Transmission Planning and Operations; Design of Transmission Services; and Transmission Authorities, as well as in the listening session. However, Redding objects to DOE’s structuring and using these workshops in an apparent effort to find a problem with the PMAs, when one does not exist, in order to match DOE’s predetermined one-size-fits-all solution. DOE’s desire to further socialize the bulk electric system threatens to undo the collaborative and effective relationships that already exist

between the PMA's and their customers. Moving forward on any of the DOE directives will require legislative action and the full support of Congress.

Thus, Redding recommends DOE scrap its "Defining the Future" initiative, put aside the foregone conclusions that appear to have influenced the directives outlined in the DOE Memo and cease the defensive posture DOE has assumed. Any future efforts to define the future regional needs and goals must begin with an open and real dialogue, absent of preconceived outcomes, between the PMA customers within each WAPA region, DOE, and WAPA with a goal of cooperatively defining the future regional needs and goals in a cost effective manner, without duplicating existing efforts, and without violating existing laws and contractual rights. It is also imperative that Congress be fully engaged in this process.