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Statement
Quadrennial Energy Review
Second Installment
Electricity: Generation to End-Use
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The American Public Power Association (APPA) is the national service organization for the more than 2,000 not-for-profit, community-owned electric utilities in the U.S. Collectively, these utilities serve more than 48 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. We assist our members in providing reliable electric service at a reasonable price with appropriate environmental stewardship. 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 entities formed by public power utilities to provide them wholesale power supply and other services) and state, regional, and local associations that have purposes similar to APPA.

Collectively, public power utilities deliver electricity to one of every seven electricity customers. We serve some of the nation's largest cities, including Los Angeles, CA; San Antonio, TX; Austin, TX; Jacksonville, FL; and Memphis, TN. However, most public power utilities serve small communities of 10,000 people or less.

In terms of public power's generation portfolio, in 2014 these utilities generated 173.3 million megawatt-hours (MWhs) of electricity from coal; 80.2 million MWhs from natural gas; 68.2 MWhs million from nuclear; 66.8 million MWhs from hydropower; and 8.7 million MWhs from other sources such as non-hydropower renewable energy like wind, solar, and geothermal. It is important to note, however, that public power utilities supply approximately 15 percent of electricity to end-users in the United States, but they only produces 10 percent of the megawatt-hours generated. To make up the difference, public power utilities purchase power at wholesale from other entities such as other public power utilities (some of which do have extra power to sell), investor-owned utilities, independent power producers, Regional Transmission Organizations (RTOs), rural electric cooperatives, federal power marketing administrations, and the not-for-profit Tennessee Valley Authority.

APPA appreciates the opportunity to provide the following statement for the Department of Energy's (DOE) Quadrennial Energy Review (QER) first stakeholder meeting of the second installment. We plan to provide DOE, once the comment period is open, with more extensive and in-depth analyses, reports, testimony, and other documents, just as we did with the first

installment of the QER. These submissions will be, among others, on issues such as: 1) EPA's Clean Power Plan and its impacts on public power; 2) wholesale electricity and mandatory capacity markets; and 3) distributed generation.

This installment of the QER is focused on electricity, from generation to end-use. Many public power utilities have been providing highly reliable and affordable electric service for over 100 years. Both APPA and our members will be heavily engaged in this phase of the QER to educate DOE and others in the Administration on what it takes to deliver this essential service. APPA itself is a proven leader in the electricity arena. In fact, last year APPA celebrated its 75th anniversary. As CEO, I am proud of our association's strong record of advocacy, technical expertise, and member service.

To build on this great foundation for the future, much like DOE building on the first installment of the QER, APPA in 2015 undertook a strategic planning process. We focused on the current and future needs of public power utilities and their customers, especially in the face of the changes our industry is experiencing. We see four factors causing the electric utility industry to change: 1) evolving customer preferences; 2) new technologies; 3) increased government regulation; and 4) utility workforce issues. The strategic plan was aptly named *Power with Purpose*. It reflects the attitude of our members and of the APPA staff, as our utility members bring a strong purpose to the delivery of electric power to their customers. APPA brings the same purpose to the advocacy, education, communications, and programs we provide on behalf of our members.

Power with Purpose delineates six strategic initiatives focusing on key industry issues. While none of these initiatives are completely new for APPA, the plan helps us to prioritize our activities and communicate them to our members and interested parties such as fellow trade associations, policy makers such as DOE, and the media. The six initiatives are:

1. *Raising Awareness of Public Power*;
2. *Public Power Forward;*
3. *Increased Federal Regulation;*
4. *Security/Cyber and Physical Preparedness;*
5. *Continuing Research and Development; and*
6. *Workforce Planning*

Public Power Forward will help our members address emerging technologies, evolving markets, customer-owned generation, demand response, energy efficiency and other regulatory changes that are re-shaping relationships between utilities and their customers. Policy changes that are being proposed as a result of the new developments mentioned above could cause challenges to the public power business model and relationships with our customers and communities.

Another initiative is to address increased federal regulation. APPA will advocate at the federal level to limit proposed legislative and regulatory intervention in issues that are best handled at

the state and local levels. We believe that the federal government's primary role in addressing innovative technologies is to help with research and development, in partnership with utilities. We do not believe the federal government should be in the business of choosing technologies and fuels, or preferring certain companies over others.

APPA has also expressed strong concerns over the past 10 years about the restructured wholesale electricity markets operated by RTOs. Many APPA members face the complexity and costs of operating in these markets on a day-to-day basis. Adding to our concerns are the time-consuming and resource intensive stakeholder processes, and the lack of transparency in the governance processes of some of these RTOs. The most problematic of the RTO-operated markets are the mandatory capacity markets that are operated by the RTOs in the East (PJM Interconnection, ISO New England (NE) and parts of the New York ISO (NYISO)).

In the context of wholesale electricity markets, a capacity market is a mechanism to provide revenue to a power plant owner to stand ready to supply power when needed, or to customers who agree to curtail their load. An electric power utility or other load-serving entity (LSE) (which is an entity that provides electricity to end-users, including a utility or alternative supplier serving utility's customers) purchases or owns capacity to ensure a reliable supply of power during peaks in demand (generally the hottest and coldest times of the year). The LSE needs to have in place sufficient capacity to meet the projected peak demand plus a reserve margin, as determined by regional reliability entities. This helps ensure that the regional grid operator can "keep the lights on" and adhere to the statutory obligations under the Federal Power Act's Section 215.

In these mandatory markets, capacity must be bought and sold through the RTO market. Capacity that is owned or contracted bilaterally must still be offered into, and must clear the capacity auctions. The price paid for capacity purchased through the auction is set by the RTO. PJM and ISO-NE both operate a "forward" market where capacity is procured three years in advance for a one-year period. The capacity auctions in the NYISO are shorter term and are procured close to the period when the capacity will be needed.

The Midcontinent ISO (MISO)'s capacity market is voluntary and LSEs can choose whether or not to participate. Neither the California ISO nor the Southwest Power Pool operates a capacity market. The Electric Reliability Council of Texas (ERCOT) functions as an RTO, but is not under FERC's jurisdiction because of the intrastate nature of its grid, and does not operate a capacity market.

While RTO markets for capacity are described as "competitive," they are highly mechanized, centrally administered constructs governed by thousands of pages of complex rules. Transactions in these markets are opaque, with little meaningful data available to the public. RTO-operated wholesale electricity markets are ostensibly regulated by the Federal Energy

Regulatory Commission (FERC), but FERC heavily defers to the RTOs to manage the "markets" under their purview.

LSEs in regions without mandatory capacity markets meet their reliability requirements through ownership and bilateral contracts -- and generators recoup the costs of providing capacity through these mechanisms. In contrast to the RTO-operated mandatory capacity markets, such long-term contracts are generally procured and negotiated through competitive processes. Procuring capacity through long-term bilateral contracts and ownership is important for maintaining adequate capacity, and necessary to obtain financing for new power plants, including carbon-free generation such as nuclear and renewable energy projects.

Capacity prices in mandatory capacity markets have increased the cost of electricity and account for a growing share of the total electricity costs paid by consumers and businesses. In theory, capacity payments cover a power plant's fixed capital costs and other costs not recovered through electricity sales in energy and other markets. But these markets have not demonstrated that they incentivize investment in either the types of generation necessary to achieve a reliable and diverse supply of power, or generation where it is most needed on the grid. Moreover, they do not exhibit any of the features of competitive markets, and are instead administrative constructs requiring elaborate rules and processes. The RTOs have continually tweaked the rules in an attempt to address increasing reliability concerns in light of: pending coal and nuclear retirements; an increased reliance on natural gas; poor performance of generators during the 2014 winter; and new environmental regulations. Often these rule changes have not improved the markets, but instead have simply increased the revenue paid to owners of existing generation resources, who have a strong interest in maintaining a regime that limits competition from new entrants and props up capacity prices. APPA stands ready to work with DOE to address the shortcomings of these administrative constructs.

Efforts to address increased federal regulation are also needed to eliminate or minimize adverse impacts of new regulations on our members and their retail customers. In just the last few years alone, we have seen a large increase in energy policies and regulations that affect all areas of utility operations, and this trend is likely to continue. We will continue to emphasize public power's positions on priority issues such as the EPA's 111(d) Clean Power Plan (CPP) regulation on existing power plants; increased use of distributed generation; energy efficiency; demand response; tax-exempt financing; and the utility of the future.

APPA believes that the CPP final rule, while a definite improvement over the proposed rule, still tries to do too much too fast for public power utilities and their customers in many states. In so doing, the final rule has a high potential for creating stranded costs and curtailing the remaining useful life of existing electric generating units (EGUs), increasing operating costs, unduly adding new costs for relating infrastructure, and ultimately raising electricity bills for millions of consumers. In fact, increases in some states could be as much as 30 percent according to recent studies.

Moreover, EPA has not adequately considered the costs added by the aforementioned problems of wholesale energy and capacity markets administered by RTOs, or the impediments to investment in new resources posed by these markets. Electricity costs to consumers continue to rise in every region of the country, but they are rising faster in regions where these markets are being administered.

APPA further believes that the CPP goes far beyond what is legally permissible under the Clean Air Act (CAA). We have joined many others that are seeking judicial review, and a stay of the rule pending that review.

However, we recognize that the EPA is defending the Rule publicly, and in court, and is unlikely to heed to calls to withdraw the CPP and issue a new proposal consistent with its CAA authorities. Therefore, APPA provided on January 21, 2016, extensive comments to the EPA recommending changes to address the feasibility and key design elements of the Proposed Federal Plan and Trading Plan Rule.

With respect to the proposed Federal Plan, APPA recommended that EPA:

- Adopt both rate-based and massed-based plans;
- Work with affected states to determine what constitutes remaining useful life of a facility on an EGU-specific basis, without determining in advance that the plan itself inherently protects an affected EGU's value;
- Establish a price safety valve;
- Include the reliability safety valve and modify it to: 1) allow it to operate for a longer time; and 2) clarify certain terms and the specific roles of reliability entities;
- Recognize renewable energy constructed after finalization of the Section 111(d) Rule;
- Allow energy efficiency projects and programs to qualify for generating credits under a rate-based plan;
- Modify the Clean Energy Incentive Program (CEIP) to allow all renewable, other non-emitting resources, and energy efficiency programs to qualify, and to make it a true incentive by not deducting the credits or allowances from a state budget;
- Allow states to submit a partial plan that determines the methodology for allocating allowances without being required to adopt the CEIP;
- Provide greater safeguards for smaller entities consistent with EPA's obligations under the Small Business Regulatory Fairness and Enforcement Act, including more time for compliance;
- Address the flaws in the Alternative Compliance Pathway and make it available in rate-based plans as well as mass-based plans; and
- Alleviate the conflict of interest that the New Source Review program creates for compliance with the Section 111(d) Rule.

With respect to the proposed Model Trading Rules, APPA recommended to EPA that it:

- Ensure broad access to wide and deep emissions trading markets for affected entities;
- Establish mechanisms to guard against market manipulation;
- Make out-of-state renewable energy widely available for compliance. APPA agrees with EPA that renewable energy from a state with a mass-based plan can be used for compliance in a state with a rate-based plan;
- Establish a conversion factor to allow states that adopt a rate-based plan to trade compliance instruments with states that adopt a mass-base plan and vice versa;
- Include all forms of biomass as eligible and pre-approved renewable energy;
- Adopt a process for adding new qualifying renewable energy;
- Allow states to determine the methodology for allocating allowances to retired electric generating units (EGUs). If a state subject to a federal plan does not submit a partial plan to take control of allowances, EPA should consult with the state on the methodology for allocating allowances to retired EGUs;
- Allow unlimited banking and borrowing of emission rate credits or allowances;
- Ensure enforcement, monitoring and verification requirements for energy efficiency programs are not burdensome and that existing state and local requirements are incorporated;
- Eliminate the requirements for set-asides to address leakage in mass-based plans. EPA has failed to demonstrate that leakage will occur; and
- Defer to and acknowledge that states have discretion to modify the model rules.

The workability of the trading program will be vital to APPA members' ability to comply with the CPP if it survives court review.

Regarding the increased use of distributed energy resources (DER), APPA believes that DER can and should play an important role in public power's energy portfolio. However, this issue is best handled at the state and local levels. APPA has and will continue to oppose any efforts by Congress or the executive branch that would impose a one-size-fits-all federal approach to these issues.

Our members work collaboratively with their customers to deploy solar distributed generation (DG) as well as community-scale solar farms. To continue fostering the growth of solar DG, it is important that solar DG customers pay their fair share of the costs of keeping the grid operating safely and reliably. Net-metering policies and feed-in tariff programs need to be designed to reflect these costs and assure that those who benefit from the grid are sharing in the cost of building and maintaining it. Additionally, consumers must be protected from deceptive or misleading sales practices.

Public power utilities are also committed to reliability and security. APPA will help our members develop an "all hazards" approach to security, disaster preparation, and response. APPA supports the enhanced ongoing dialogue between the industry and federal government on

physical security threats and potential remediation, but does not support federal mandates in this area at the distribution level. Additionally, APPA continues to support the FERC/North American Electric Reliability Corporation (NERC) relationship codified in the Federal Power Act under Section 215, which NERC has used to craft standards on electric utility cyber and physical security. We also actively participate in the Electricity Subsector Coordinating Council (ESCC), which facilitates communication and coordination between the electric sector and our federal government partners to enhance our security.

APPA will continue to use its own Demonstration of Energy and Efficiency Developments (DEED) program to enhance, expand, and leverage electric utility research and development and innovative projects. This program facilitates public power's role as a leader in new technology in the electric utility space, further engaging our membership, and creating opportunities to improve our member's operations and services.

APPA also plans to develop resources to assist members in meeting workforce challenges, attracting and retaining people to the industry, succession planning, knowledge transfer from departing employees, and training for new employees in relevant areas, including new technologies and services. APPA will support similar efforts in Congress and from the Executive Branch to enhance the skills of the energy workforce and to support diversification of that workforce.

I want to thank you again for the opportunity to address the QER this morning, and hope that the views expressed by APPA in my statement will be fully considered by DOE as you develop the second installment. APPA and its members stand committed to working with you in the days ahead.