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The Honorable Ed Whitfield
Chairman
Subcommittee on Energy and Power
Energy and Commerce Committee
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Whitfield:

The American Public Power Association (APPA) welcomes the opportunity to submit this statement for the record in relation to the House Energy & Power Subcommittee hearing on "American Energy Security and Innovation: The Role of a Diverse Electricity Generation Portfolio."

APPA is the national service organization representing the interests of over 2,000 municipal and other state- and locally-owned, not-for-profit electric utilities throughout the United States (all but Hawaii). Collectively, public power utilities deliver electricity to one of every seven electricity consumers (approximately 47 million people), serving some of the nation's largest cities. However, the vast majority of APPA's members serve communities with populations of 10,000 people or less.

Overall, public power utilities' primary purpose is to provide reliable, efficient service to local customers at the lowest possible cost, consistent with good environmental stewardship. Public power utilities are locally created governmental institutions that address a basic community need: they operate on a not-for-profit basis to provide an essential public service, reliably and efficiently, at a reasonable price.

The Importance of Fuel Diversity for Electric Generation

APPA commends Chairman Whitfield for holding a hearing on the need for fuel diversity for electric generation. This is an issue the association has long supported. APPA members generate from a large number of fuel sources, including coal, natural gas, nuclear, hydropower, wind, solar, and biomass (among others). They recognize the need to diversify their resource portfolio as a means of risk management. Utilities know that if they are too reliant on one source, they can leave themselves open to disruptions and price volatility. Thus APPA is strongly supportive of policies that allow for the widest use a variety of fuels to ensure reliability of the electric grid and low-cost power to customers. It is important that Congress examines the implications of federal policies that reduce fuel diversity.

Natural Gas Is Becoming the Dominant Fuel Source for Electric Generation

As the subcommittee is well aware, there are a variety of factors driving electric utilities away from the use of coal-fired generation. The Environmental Protection Agency (EPA) has issued several regulations, such as utility MACT, that are driving utilities to retire coal-fired power plants and replace them with natural gas-fired ones. At the same time, the low cost of natural gas in the U.S., due to increased production, is making the use of coal for generation uneconomic, particularly when factoring in the regulatory landscape. Just a few years ago, coal was the predominant fuel type used for electric

generation. Today, its share continues to decline as electric generation from natural gas and renewables such as wind and solar increase. The use of coal for electric generation in the U.S. will further decline when EPA finalizes its New Source Performance Standards (NSPS) for greenhouse gas (GHG) emissions from new power plants.

A January 2013 APPA report examining new generation capacity in the U.S. highlights these trends in the industry. It finds that "the share of coal-fired capacity continues to diminish, as solar and nuclear, in addition to wind and natural gas, have surpassed it in the under construction category."[1] Over 40% of new plant construction is natural gas, with 19.1% wind, 12.7% solar, and 11.4% nuclear.[2] In addition, since 2007, the share of coal plants under construction has dropped dramatically. The report also notes that natural gas has the largest share of operating capacity (43.4%), with coal at 30%.[3] The operating capacity of coal will continue to drop as more coal-fired plants are retired due to age, EPA regulations, and the lower price of natural gas. In 2012 alone, over 12,200 MW of capacity were retired. Two-thirds of that retirement was coal-fired.[4]

There will be long-term implications from the greater use of natural gas for electric generation. Utilities are spending hundreds of millions of dollars to convert existing coal facilities to natural gas or to construct new natural gas plants. They are also using natural gas generation to back up wind and solar power, variable energy sources that cannot be relied on to generate power at all times. These are long-term investments being made to generate cleaner power, but that increase the risk of greater volatility in electricity prices for consumers, and potentially reduce electric reliability. As a commodity, natural gas is subject to price volatility. Prices may be low today, but can easily rise in the years to come due to a variety of factors including regulations on fracking, increased utility demand, exports, and increasing use in the transportation sector.

In addition, it is not clear yet whether there will be sufficient infrastructure or storage to accommodate the greater use of natural gas by electric utilities.[5] While the Federal Energy Regulatory Commission is examining how to promote greater coordination between the electricity and natural gas industries, no one knows whether all the changes needed for fuel switching on this scale can be accomplished in the time needed to comply with EPA regulations. As is evidenced in New England, a region of the country heavily dependent on natural gas for electric generation, there are issues with pipeline capacity and competing demand for gas for home heating. Electricity prices in the region were four to eight times higher than normal in February 2013 because of the lack of fuel diversity.[6]

And New England is not the only region of the country with potential reliability concerns. A January 2013 EPA Compliance Update by the Midwest Independent System Operator (MISO) states the ISO has concerns about whether there is sufficient resource adequacy in the Midwest beginning in 2016. With the significant number of coal-fired generation retiring due to EPA regulations and low natural gas prices, MISO projects there will be a potential 11.7 GW shortfall of resource adequacy in the winter of 2016 and

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[1] *See* APPA Report on New Generating Capacity: 2013 Update, January 2013, available at
[2] *Id.* at 2.
[3] *Id.* at 15.
[4] *Id*. at 17.
[5] A July 2010 APPA Study by the Aspen Environmental Group, Implications of Greater Reliance on Natural Gas for Electricity Generation, examines the impacts on natural gas and deliveries to electric utilities from fuel switching.
[6] *See* In New England, a Natural Gas Trap, New York Times, February 15, 2013, available at http://www.nytimes.com/2013/02/16/business/electricity-costs-up-in-gas-dependent-new-england.html?_r=0

a 3.5 GW one in the summer of 2016.[7] MISO anticipates increased utilization of natural gas fuel generation that will result in "changes to the system's generation configuration and concerns about the ability of the current pipeline infrastructure's ability to deliver enough gas."[8]

The subcommittee should be concerned about trends in the electric industry that are reducing fuel diversity. One of the key benefits of using coal for electric generation is that it can be stockpiled at the utility and readily available when needed. Utilities cannot store natural gas in the same manner. While there are many benefits to using natural gas for electric generation, over-reliance on the fuel source, especially in areas of the country that lack pipeline capacity or storage, can result in price spikes to consumers and impact reliability if natural gas is not available to meet demand. APPA believes Congress should adopt policies that promote as much fuel diversity as possible while also protecting the environment.

Other Ways Congress Can Promote Fuel Diversity

Congress should consider legislation that promotes the development of other fuel sources for electric generation such as hydropower and nuclear, or that reduces demand for electricity through energy efficiency or demand response. Such legislation would include bills to streamline hydro relicensing requirements and other regulations limiting or preventing the expansion of hydro power, and to address nuclear waste. Removing impediments to their expansion as a fuel source would also promote fuel diversity.

According to U.S. Energy Information Administration (EIA) data from 2011, hydropower is the nation's largest source of clean, renewable electricity, accounting for 62% of domestic renewable generation and 8% of total electricity generation. Despite the beneficial use of hydropower, most dams were built decades ago, for purposes other than power generation—only 3% of the country's approximately 80,000 dams currently have facilities that generate electricity. Thus, there is substantial potential to add renewable electric generation to non-power dams by installing electricity generation equipment at those sites, as well as to existing municipal, industrial, and agricultural water distribution conduits/canals.

Legislation to modernize and streamline the licensing process for new hydropower units on existing dams, for new hydropower technologies, such as marine hydrokinetic, and for relicensing of existing facilities to allow for efficiency upgrades could significantly increase this clean, renewable source. APPA has, therefore, supported several bills that have been or will be considered in the House, including Rep. Cathy McMorris Rodgers' bill, S. 267, the Hydropower Regulatory Efficiency Act, that came through this subcommittee and full committee, and recently passed the House with overwhelming bipartisan support. We applaud the subcommittee's leadership on this important issue.

With regard to nuclear waste, the broader electric sector, public power included, has long sought a solution to storage of waste, either in a permanent repository or in long-term on-site facilities. At the same time, the industry has contributed billions of dollars to the federal government to create a permanent repository, an outcome that has not been achieved. Resolution of both the financial and policy uncertainty surrounding this issue would have a positive impact on developing new nuclear power plants as well as upgrading existing plants.

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[7] See MISO EPA Compliance Update, January 11, 2013, available at https://www.misoenergy.org/Library/Repository/Communication%20Material/Power%20Up/EPA%20Compliance%20Update.pdf.

[8] https://www.misoenergy.org/WhatWeDo/StrategicInitiatives/Pages/EPACompliance.aspx

Energy efficiency also has a role in fuel diversity since it helps to reduce demand for electricity. Congress should consider energy efficiency legislation, such as S. 1000, which was introduced in the last Congress, by Senators Shaheen (D-NH) and Portman (R-OH), that would improve efficiency in a number of areas. The goal of this and other similar measures is to ensure we are using energy as efficiently as possible throughout our economy so as to minimize the need to expand our fleet of power plants.

Low-cost, reliable electricity is a critical component of our nation's economy and crucial to everyday lives. APPA members believe there is great value in diversifying their resource portfolios to ensure price stability and electric reliability. It is important that Congress does all that it can to promote fuel diversity, as well as examine the implications of any federal policies that reduce fuel diversity.

Thank you again for this opportunity to submit a statement for the record and we welcome any questions you might have.

cc: The Honorable Bobby Rush
The Honorable Fred Upton
The Honorable Henry Waxman