Memorandum

March 4, 2013

TO: Members, Subcommittee on Energy and Power

FROM: Committee Staff

RE: Hearing on "American Energy Security and Innovation: The Role of a Diverse Electricity Generation Portfolio"

On March 5, 2013, at 10:00 a.m. in room 2322 of the Rayburn House Office Building, the Subcommittee on Energy and Power will hold a hearing entitled "American Energy Security and Innovation: The Role of a Diverse Electricity Generation Portfolio." The hearing will focus on the critical role that fuel diversity in the nation's electricity generation mix plays in ensuring affordable and reliable electricity for American consumers.

I. UPDATED WITNESSES

The invited witnesses are:

Mr. Mark C. McCullough
Executive Vice President-Generation
American Electric Power

Mr. Marc S. Gerken, PE
President and CEO
American Municipal Power, Inc.

Mr. William M. Mohl
President
Entergy Wholesale Commodities

Mr. Robert Gramlich
Interim Chief Executive Officer
American Wind Energy Association

Mr. Benjamin G.S. Fowke III
President and CEO
Xcel Energy

Mr. John C. McClure
Vice President Government Affairs and
General Counsel
Nebraska Public Power District

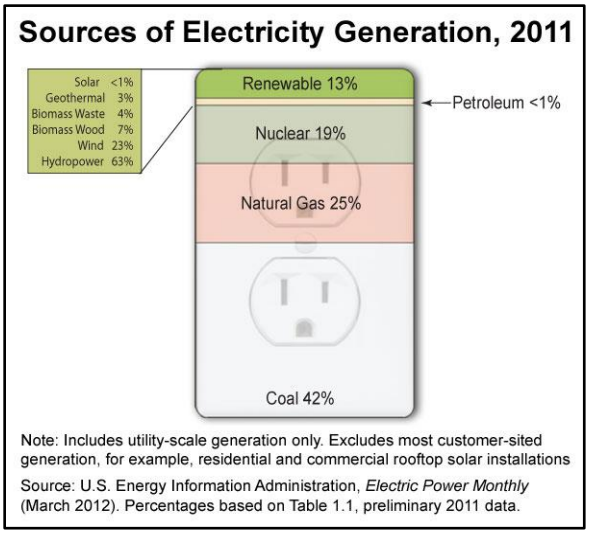
**Additional witnesses may be announced.*

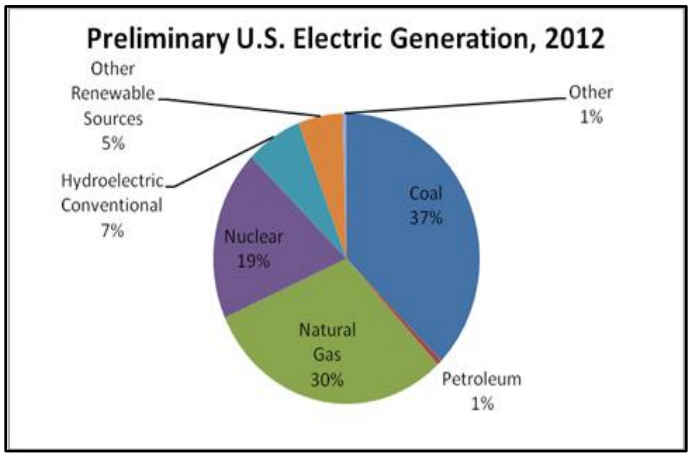
II. BACKGROUND

Unlike other commodities, electricity cannot be economically stored and must be generated as it is needed, while supply must be kept in constant balance with demand. Deviations from this constant balancing of supply and demand can impair the reliability of the electric grid, and delivery interruptions or supply shortages can increase prices for consumers.

The ability to generate electricity from a diverse range of fuel resources can protect against such risks, and the United States has historically relied upon a broad mix of fuel resources.

U.S. electricity is currently generated from a diverse combination of resources, namely coal, natural gas, nuclear power, hydropower and renewables such as biomass, geothermal, solar, and wind. Coal, natural gas, and nuclear power provide the vast majority of the nation's "baseload" electricity, which is power that is provided continuously and is available 24 hours-a-day to meet demand. According to the Energy Information Administration (EIA), approximately 94 percent of U.S. electricity was generated by coal, natural gas, nuclear and hydropower in both 2011 and 2012, with the remainder generated by non-hydropower renewables. Below is information from EIA depicting sources of generation for 2011, as well as preliminary data for 2012:[1]





The nation's generation fleet, however, is experiencing a dramatic shift, spurred by low natural gas prices and a suite of new environmental regulations affecting the power sector. This shift will largely occur over the next 3-to-5 years as natural gas prices are expected to remain

[1] The EIA data for 2012 is preliminary and subject to change.

low and recent environmental regulations accelerate the retirement of a significant portion of the nation's coal-fired power plants.[2] In addition, pending regulations if finalized as proposed would prohibit the construction of new coal-fired power plants that do not have carbon capture and sequestration capabilities, effectively phasing out the use of coal as a generation resource in the United States.[3] This dramatic shift away from the use of coal has significant implications for the diversity of the U.S. electricity generation portfolio, for electricity suppliers, and for their customers.[4] *See* Appendix. As the U.S. incorporates greater amounts of intermittent renewable resources into the nation's generation mix, the need to maintain diversity in the baseload power portfolio is critical.

III. ISSUES

The following issues will be examined at the hearing:

- The role of fuel diversity in providing affordable electricity.
- The role of fuel diversity in maintaining electric reliability.
- Challenges to maintaining fuel diversity in the nation's electricity generation portfolio.
- Advanced, efficient technologies that can help maintain a diverse electricity mix.
- Potential impacts of reduced fuel diversity on consumers.

IV. STAFF CONTACTS

If you have any questions regarding this hearing, please contact Patrick Currier or Mary Neumayr at (202) 225-2927.

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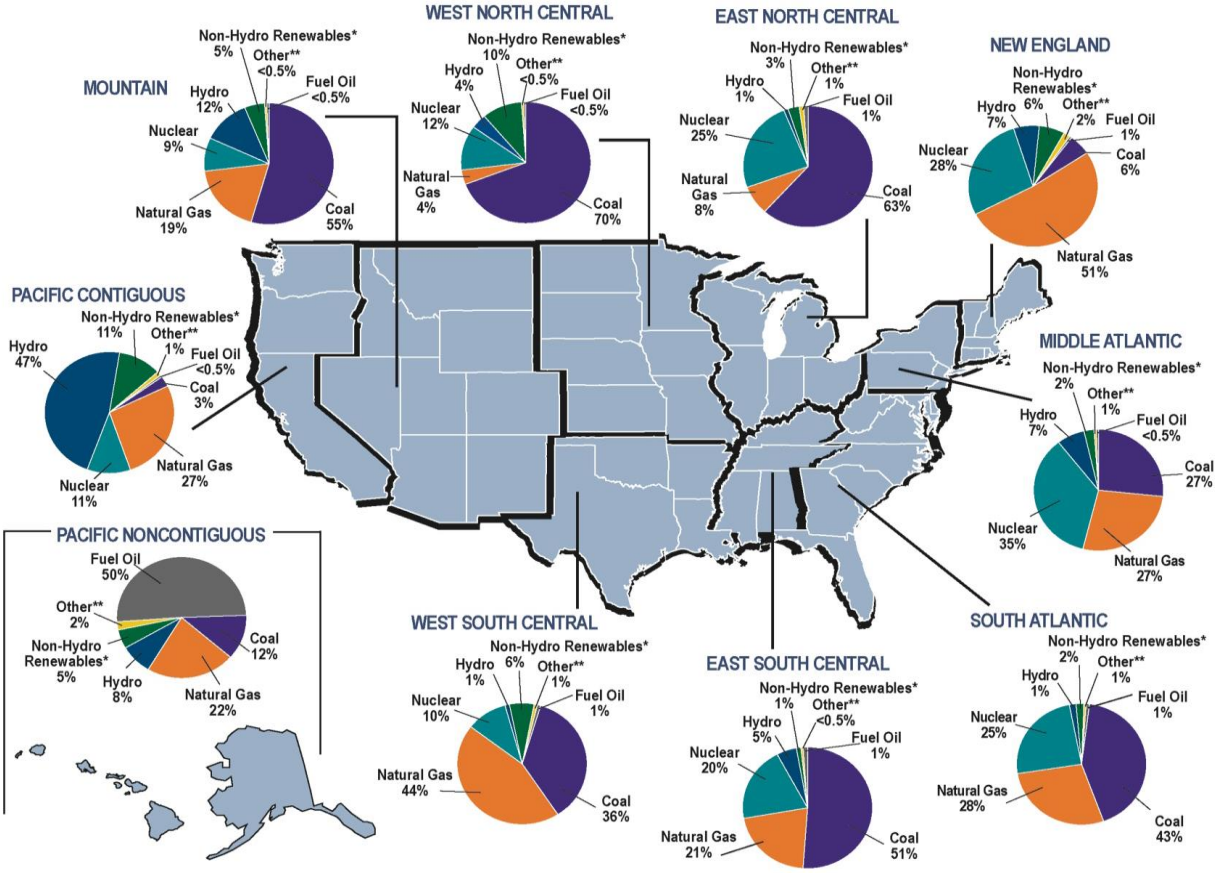
[2] North American Electric Reliability Corporation, "2012 Long-Term Reliability Assessment," (Nov. 2012) (finding that over 70,000 megawatts of fossil-fuel fired generating capacity will retire over the next 10 years, 90% of which will retire over the next 5 years).

[3] Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units, Notice of Proposed Rulemaking, 77 Fed. Reg. 22,392 (April 13, 2012).

[4] Witnesses have previously testified before the Subcommittee on Energy and Power regarding the importance of fuel diversity to providing affordable and reliable power to customers. *See, e.g.*, Testimony of Thomas F. Farrell II, (July 16, 2012) ("The history of the [electric] industry provides ample evidence that fuel diversity has a direct and important impact on the affordability and reliability of electric service"); Testimony of Anthony F. Earley, Jr., (April 15, 2011) ("It is vital that we remember that a diverse supply of energy has served us well in the past and will be equally important in the future to maintain our energy security and maintain competiveness in the marketplace").

APPENDIX

Different Regions of the Country Use Different Fuel Mixes to Generate Electricity



* Includes generation by agricultural waste, landfill gas recovery, municipal solid waste, wood, geothermal, non-wood waste, wind, and solar.

** Includes generation by tires, batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

Sum of components may not add to 100% due to independent rounding.

Source: U.S. Department of Energy, Energy Information Administration, Power Plant Operations Report (EIA-923); 2011 final generation data.

February 2013