

ONE HUNDRED FIFTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
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October 30, 2017

Ms. Patricia Hoffman
Acting Under Secretary for Science
Acting Assistant Secretary for the Office of Electricity
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, DC 20585

Dear Ms. Hoffman:

Thank you for appearing before the Subcommittee on Energy on Thursday, September 14, 2017, to testify at the hearing entitled "Part 1: Powering America: Defining Reliability in a Transforming Electricity Industry."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Monday, November 13, 2017. Your responses should be mailed to Allie Bury, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to Allie.Bury@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,



Fred Upton
Chairman
Subcommittee on Energy

cc: The Honorable Bobby L. Rush, Ranking Member, Subcommittee on Energy

Attachment

Attachment—Additional Questions for the Record

The Honorable Fred Upton

1. One of the DOE's most important roles is overseeing the national labs.
 - a. What are the national labs doing to improve grid reliability and resiliency?

The Honorable Morgan Griffith

1. In the question and answer period of the September 14th hearing on grid reliability, you stated that the Department of Energy (DOE) was working diligently to streamline the New Source Review (NSR) permitting process that is within the jurisdiction of the DOE. Can you expand on that and share the details of the work DOE is working on?

The Honorable Richard Hudson

1. The Department's August 2017 "Staff Report on Electricity Markets and Reliability" acknowledges, cost-competitive energy storage "will be critical" to balance the grid under high levels of variable renewable energy. As electricity systems move towards greater variable renewables, bulk energy storage will become increasingly important -- capturing excess electricity, including renewable energy generation, when demand and prices are low, and then utilizing that energy during peak demand times with low storage cost. New low-cost systems are currently being pioneered at the national labs, but are not yet commercially viable. Despite energy storage's large potential, the Obama Administration failed to commit the resources and expertise necessary to tackle key performance and cost barriers to the increased utilization of the technology. Historically, the Department's research programs have had the greatest impact when resources are focused on very clear, specific goals. Given the Department's focus on "doing more with less," would setting this type of technology goal ensure scant federal dollars are being efficiently utilized to meet goals important for U.S. innovation leadership? A goal, similar to the SunShot Initiative, which set out a goal in 2011 for more affordable solar power and has met nearly 90% of their original cost target in just six years (\$0.23 to \$0.06 per kilowatt-hour for utility-scale photovoltaic (PV) solar power).
 - a. Would a StorageShot fit with the Department's recent announcement on refocusing SunShot resources on resilience, reliability, and storage?
 - b. It is my understanding that current research on energy storage technology is more focused on transportation-uses. How can we bolster efforts to improve innovative grid-scale energy storage technologies?

The Honorable Jerry McNerney

1. There's been discussion about the connection between markets and reliability and resiliency. Yet not all states regulators distinguish between reliability and resiliency.
 - a. Do you believe states should make a distinction between the two?
 - b. Does the electric sector use a standard definition of resiliency in both the distribution system and bulk power system?
 - c. Are there potential benefits to having a more industry-wide accepted term or definition for resiliency?
2. DOE has entered into a cooperative cyber security capabilities program with members of APPA and NRECA.
 - a. How do you see this valuing reliability and resiliency, and are there opportunities to expand this program?
3. Does DOE collect information on power outage or power disruption causes?
4. Cyber mutual assistance is relatively new, but they have great potential to enhance electricity system coordination. Is there any role for DOE to enhance CMAs?
5. During the Energy Subcommittee hearing on September 14, you mentioned that there are barriers for utilities to share resources during emergencies, such as hurricane response efforts. Can you elaborate on what barriers exist for utilities and for the federal government on these efforts?
6. To what extent has the increased utilization of distributed energy resources, IoT devices, and other smart grid resources affected the potential sharing of customer data that that is potential threat and vulnerability information as it relates to utility-EISAC information sharing?
7. During the Energy Subcommittee hearing on September 14, you commented that improving the interruption cost estimation calculator, CAIDI, SAIDI, SAIFI, and other tools would be valuable. Are there specific changes to these that you would recommend? For example, do you believe these metrics undervalue the impact of large-scale events and economic damage?
8. There is an ever-increasing amount of distributed generation and behind-the-meter technologies and market structures being deployed across the grid. How does additional behind-the-meter activity at the distribution level potentially affect the bulk power system? Is behind-the-meter information and data being shared between utilities, state regulators, and federal entities – including FERC, NERC, and DOE? Are there areas for improvement?