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ONE HUNDRED THIRTEENTH CONGRESS
Congress of the United States
House of Representatives

COMMITTEE ON ENERGY AND COMMERCE

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May 31, 2013

Dr. Jonathan Lesser
President
Continental Economics, Inc.
6 Real Place
Sandia Park, NM 87047

Dear Dr. Lesser:

Thank you for appearing before the Subcommittee on Energy and Power on Thursday, May 9, 2013, to testify at the hearing entitled "American Energy Security and Innovation: Grid Reliability Challenges in a Shifting Energy Resource Landscape."

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 by the close of business on Friday, June 14, 2013. Your responses should be e-mailed to the Legislative Clerk in Word format at Nick.Abraham@mail.house.gov and mailed to Nick Abraham, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515.

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

Sincerely,



Ed Whitfield
Chairman
Subcommittee on Energy and Power

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

Attachment

The Honorable Edward J. Markey

1. In testimony before the Committee, you spoke of “The potential loss of thousands of megawatts of intermittent generation in a short time, which has occurred in the past.”
 - a. Have modern weather forecasting and grid planning and dispatch tools allowed grid operators to better anticipate and respond to changes in output from intermittent renewable generators?
 - b. How much warning do grid operators typically have today regarding these types of changes in output and how does this compare with the amount of warning time operators have to deal with forced outages from conventional nuclear and fossil generators?
2. Two nuclear plants in Illinois have shut down abruptly in recent weeks, one with a capacity of over 2,200 MW and another with over 1,000 MW of capacity.
 - a. What level of fast-acting reserves must be held in reserve around the clock, 365 days a year to ensure system reliability when large conventional power plants suddenly go completely offline in this manner?
 - b. Do rate payers typically pay for these reserves?
3. Utilities can and do charge wind plants for integration costs. Do utilities typically charge the owners of conventional power plants for the integration costs associated with their forced outages?
 - a. Do you believe they should?
 - b. Why or why not?
4. On the PJM system, how do the changes in wind output over the course of an hour typically compare to the magnitude of changes in electricity demand over the course of an hour? Could you provide me with data that would allow me to compare these changes for an hour long period that occurs during:
 - a. a typical spring or fall day
 - b. a winter night
 - c. a summer day
5. You testified at the hearing that “There is a small impact on emissions because of renewables, but it is very small because you have to operate the remaining parts of the power grid more inefficiently by cycling conventional plants up and down...it’s less efficient, therefore there are more emissions.”
 - a. Are there any peer-reviewed studies that support this claim?
 - b. The National Renewable Energy Laboratory (NREL) examined data from continuous emission monitors at nearly every fossil-fired power plant in the Western U.S. and found that renewable energy produces the expected emissions reductions and has no negative impact on the efficiency of other power plants. Do you disagree with NREL’s conclusions? If so, please submit data and analysis to substantiate these views.