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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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July 2, 2013

The Honorable Ernest J. Moniz
Secretary
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20460

Dear Secretary Moniz:

Thank you for appearing before the Subcommittee on Energy and Power on Thursday, June 13, 2013, to testify at the hearing entitled "The Fiscal Year 2014 U.S. Department of Energy Budget."

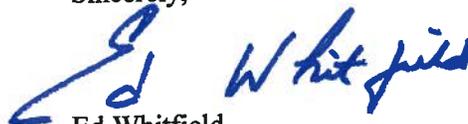
Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose 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.

Also attached are Member requests made during the hearing. The format of your responses to these requests should follow the same format as your responses to the additional questions for the record.

To facilitate the printing of the hearing record, please respond to these questions and requests by the close of business on Thursday, July 18, 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

Attachments

Attachment 1—Member Requests for the Record

During the hearing, Members asked you to provide information for the record and you indicated that you would provide that information. For your convenience, descriptions of the requested information are provided below.

The Honorable Michael C. Burgess

1. The Department of Energy's FY 2014 Congressional Budget Request Highlights shows that after "adjustments," the request for the Office of Fossil Energy Research and Development is increased by \$83.5 million. Please explain what "adjustments" refers to.

The Honorable Lee Terry

1. During the hearing, you mentioned that the Department is conducting research regarding new materials for natural gas vehicle storage tanks to increase capacity. Which office is conducting this research, and how much money has been allocated for it?

The Honorable Cory Gardner

1. Please provide an update on the use of ESPCs by the Department of Energy.

The Honorable Gene Green

1. The Administration is recommending a 37.9 percent decrease in smart grid funding. Is that because we are moving these activities elsewhere or are they truly reducing the activities for smart grid?

The Honorable Michael F. Doyle

1. In light of your support for natural gas, what are your plans for ensuring the continued success of the SECA program to ensure we develop technologies that make the most efficient use of that fuel?

Attachment 2—Additional Questions for the Record

The Honorable Ed Whitfield

1. I understand that the administration has been encouraging agencies to advance their use of Energy Savings Performance Contracts to improve the energy efficiency of Federal buildings and to reduce energy consumption. However, I also understand that only 16 companies can compete for these contracts under the current Indefinite Delivery Indefinite Quality (IDIQ) that was established to provide a stream-lined bidding process for qualified companies. Further, of these 16 qualified companies, less than 8 actively pursue programs within the federal space. There are other qualified Energy Service Companies (ESCO) who wish to participate, but they cannot because this IDIQ is closed.

What is DOE doing to ensure that all qualified ESCOs can participate on ESPC projects so the federal government can utilize energy savings techniques to reduce taxpayer dollars on Federal energy costs?

2. During the President's first term, thousands of pages of new regulations were issued by EPA affecting the production, supply, distribution or use of energy. These rules collectively cost tens of billions of dollars and effectively set national energy policy. Will you commit that under your watch DOE will independently review EPA's proposed rules to assess the impacts on the energy reliability or costs to consumers?
3. Do you agree that the impact of electricity prices affects American families and businesses, given the fundamental role of electricity in virtually everything we do?
 - a. What role do you see DOE taking to ensure federal regulatory policies do not lead to higher electricity prices for businesses and consumers?
 - b. Would you say this is an urgent issue, given the state of the power sector today?
4. One of DOE's statutory duties under the DOE Organization Act is to "promote the interests of consumers through the provision of an adequate and reliable supply of energy at the lowest reasonable cost."
 - a. As Secretary of Energy, are you concerned about the impact of EPA rules on electricity rates and gas prices for consumers?
 - b. If you have cost concerns, will you raise them with EPA?
5. In his State of the Union address this year, President Obama said "if Congress won't act soon" to pass climate legislation, he would take action.
 - a. What is your understanding of the President' second term climate change agenda as it relates to DOE?
 - b. As Energy Secretary, have you been consulted about EPA's planned greenhouse gas regulations for power plants?
 - i. What is your understanding of the Administration's plans for regulating greenhouse gas emissions from new or existing power plants?
 - ii. Should DOE have a significant role in the development of any EPA rules affecting power plants given the impacts such rules would have on national energy policy?

6. Do you believe renewable energy sources such as solar, wind, and geothermal can completely replace traditional sources of energy like coal, nuclear, and hydropower? If so, would such a transition come with an increase in energy prices?
7. Under your leadership, will DOE facilitate the continued use of coal as part of your national energy plan? If so, how?
8. In addition to CCS technologies, what is your position on advanced coal combustion technologies, such as ultra-supercritical coal combustion and advanced ultra-supercritical coal combustion technologies? Will DOE be supporting these types of highly efficient, low-emitting technologies in addition to CCS? If so, how?
9. During your confirmation hearing, you indicated support for additional research into beneficial uses for CO₂, rather than just sequestration. The President's budget requests approximately \$276 million for carbon capture and storage research. If Congress provides this funding, how much do you intend to allocate for research into beneficial uses of CO₂?
10. The budget for the Office of Energy Efficiency and Renewable Energy (EERE) is almost double the budgets of the Offices of Nuclear, Fossil Energy, and Electricity combined.
 - a. Wouldn't you agree that the Offices of Nuclear Energy, Fossil Energy, and Electricity have critical roles to play in shaping future U.S. energy policy?
 - b. The EERE budget request is a 55.9% increase from the FY 2013 EERE budget request. How does this reflect the President's "all-of-the-above" energy strategy?
 - c. Under your leadership, how do you plan to ensure that future budgets do a better job of allocating funds to the various offices more equitably, rather than concentrating the vast majority of taxpayer dollars within the Office of EERE?
11. Before an LNG export terminal is permitted to trade with a non-free trade country, DOE must certify that the exports are in the public interest. Section 3A of the Natural Gas Act creates a rebuttable presumption that a proposed export project is in the public interest. In other words, DOE must grant the application unless interveners show that the project is not consistent with the public interest.
 - a. Who within DOE will be making the final decision on the pending LNG export projects?
 - b. Acting Assistant Secretary of Fossil Energy, Christopher Smith, testified before Congress on the wide range of public interest criteria considered by DOE. Please share with the Committee the guidance document that DOE is currently using to conduct the public interest analysis. We are interested in the document describing DOE policy regarding "criteria weighting."
 - c. Are there any plans to codify the guidance?
 - d. How will one decision -- either a rejection or approval of a project -- impact the review process for subsequent applications?
12. This budget raises questions about the Administration's energy priorities.

- a. Please justify requesting **15 times** more on batteries and electric cars (\$575M) than on cybersecurity for the electric grid (\$38M).
- b. Please justify requesting **9 times** more on wind energy (\$144M) than on energy infrastructure security and restoration (\$16M).
- c. Please justify requesting **17 times** more on building efficiency (\$300M) than on developing new natural gas technologies (\$17M).
- d. The DOE budget priorities do not seem to be aligned with current and future U.S. energy needs and opportunities. Under your leadership, how do you plan to ensure that future budgets are better aligned with the nation's energy needs and priorities?

The Honorable Fred Upton

1. The increase in domestic gas production and unconventional oil promises to transform America's energy future from one of perceived scarcity to one of abundance. What do you see as DOE's role in ensuring this future comes to pass?
 - a. What role do you see for DOE in finding new and more efficient ways to produce fossil energy – oil, gas, coal – and to use it for the benefit of American prosperity over the next 50 years?
 - b. You testified about shifting America's cars and trucks off oil entirely. How do you reconcile this effort with ensuring the United States takes advantage of its abundant energy resources? Do you see the U.S. turning away from some of its resources?
 - c. What future do you see for coal in this nation, and what do you believe DOE's role should be to enhance this abundant resource?
2. The U.S. is currently the world's largest producer of natural gas and has a chance to surpass Saudi Arabia as the world's largest oil producer by 2020. Under your leadership, how will DOE facilitate this energy transition and take full advantage of the nation's new energy abundance?
3. You note in your testimony that you are reviewing DOE organization and management practices to develop options to improve how the Department performs its missions.
 - a. Would you briefly elaborate on potential changes that may improve how the Department tackles its most pressing management challenges, such as environmental cleanup?
 - b. Would you work with this Committee as you undergo this effort? And will you commit to DOE appearing before the Committee in the near future to outline in more detail your management changes?
4. How do you plan to improve integration of energy and science programs, as you reference in your testimony?
5. How do you plan to address safety and security challenges across the DOE complex?
6. You note that you will work with the Administration to produce a Quadrennial Energy Review. My understanding is this review is modeled on the Defense Department's legislatively-mandated Quadrennial

Defense Review, which sets a long-term course for DOD as it assesses the threats and challenges the nation faces.

- a. Why is this review critical to DOE's mission?
 - b. To the extent the defense review is guided by the fundamental policy of providing for the common defense of Americans, do you see the purpose of the energy review as providing for American prosperity and energy security?
 - c. What is the time frame?
 - d. Will you work with this Committee to ensure this review is focused appropriately?
7. Part of DOE's core mission involves defense programs and national security, but those programs should be performed within the overall framework of civilian control and development of nuclear technology, under the Atomic Energy Act.
- a. There has been pressure over the past few years to place DOE's NNSA programs within the Department of Defense, separate them as an independent agency, or otherwise silo them from DOE's core mission. How do you ensure that defense programs and other important security missions are performed within the framework of DOE's broad mission?
 - b. What can you do to increase the translation of important physics and other national weapons research to civilian benefit?
8. How do you, as Energy Secretary, most effectively manage the diverse missions of the Department in a way that protects taxpayer funds and ensures safety and security across the complex?
9. Over the past year, there have been serious security shortcomings identified at the National Nuclear Security Administration (NNSA) and DOE, underscored by the breakdown at the Y-12 site in Tennessee.
- a. Would you elaborate on what you think is necessary to restore accountability and strong oversight of the nation's nuclear weapons facilities?
 - b. What is necessary to ensure the national weapons labs operate with a consistent safety and security culture?

The Honorable Joe Barton

By passing Section 999 of the Energy Policy Act of 2005 (EPAct), Congress directed the U.S. Department of Energy (DOE) to support a program to improve domestic energy production, protect the environment and increase U.S. jobs. The program has established a successful track record of public, private and academic cooperation—with oversight from the National Energy Technology Laboratory (NETL) and a Federal Advisory Committee. Since 2006, the EPAct Section 999 program has been managed by the Research Partnership to Secure Energy for America (RPSEA) -- a consortium of over 160 organizations of leading researchers and experts in industry and academia.

1. Please describe how the Section 999 program has worked as intended to improve technology and environmental safeguards related to energy production.

2. Which areas of program administration do you believe need improvement?
3. Program participants have expressed concerns that DOE has failed to award Section 999 program funding in a timely manner. I understand these delays have resulted in lost opportunities for much needed field testing and R&D projects.
 - a. Please describe the role DOE Office of Fossil Energy will play in implementing Sec. 999.
 - b. What administrative changes will you make to improve implementation of Sec. 999 and ensure timely decision-making?

The Honorable John Shimkus

1. A New York Times article earlier this year relating to power shortages in New England noted the importance to the region of being able to import power from the Indian Point nuclear facility, quoting one individual as saying: “Without Indian Point, New England would have been toast.”
 - a. This situation in New England was due to an overdependence on gas. Would you agree this reflects why it is important to have fuel diversity?
 - b. In your view, do nuclear facilities play a critical role in ensuring the reliability of the grid?
 - c. Do you agree that if our country wants to continue to have affordable, reliable electricity, federal policies should support fuel diversity?
2. In your testimony, you refer to doubling the use of renewable electricity generation by 2020. Do you have any goals for the growth of nuclear energy?
3. DOE’s core mission derives from the Atomic Energy Act of 1954, in which Congress established the policy of promoting the civilian development and control of nuclear energy towards “improving human welfare, increasing the standard of living, strengthening free competition in private enterprise, and promoting world peace.”
 - a. Do you see this as an important element of DOE’s current mission?
 - b. If so, what will you do to invigorate this mission at the agency?
4. Federally sponsored research at Argonne labs tells us that vehicle components on Flex Fuel Vehicles (FFVs) and Gasoline vehicles are mostly identical. So based on DOE funded scientific reports, most every vehicle on the road today can already use or could be converted to E85 with the advancement of EPA certified technologies.

However, DOE’s Clean Cities sponsors a program that discourages converting existing vehicles even with EPA certified technology claiming ethanol is bad for vehicles, fuel is too expensive, and conversion cannot be done economically. DOE claims most every fuel line and engine component must be modified while EPA has concluded these changes are not needed.

- a. We have been working on legislation for blender pumps and making higher concentrations of ethanol available e.g., E15, E20, E30 in support of the Energy Independence Act. What does your own

research show regarding ethanol compatibility with vehicles on the road today? What is the material compatibility issue you have found with modern vehicles?

5. I'm troubled with the widely held misconception that our nations' vehicles would be damaged by the use of any ethanol because of the belief that fuel lines and gaskets on FFVs are somehow special and different from gasoline vehicles. I'm not aware of any example where ethanol has created corrosion problems in modern vehicles since the introduction of E10 and E85.
 - a. What material compatibility issues has DOE found on vehicles produced since the introduction of E10 and OBDII?
 - b. Have you identified any specific parts on popular vehicles or any vehicles produced on the last 15 years that are not compatible with gasoline blended with ethanol. If so, how many of these vehicles are on the road today?
6. Is DOE aware of any car manufacturers using fuel line materials that are compatible with E10 but not compatible with higher concentrations of ethanol? If so, has there been any scientific research done to confirm your findings?
7. DOE publishes guidance and tools for consumer and fleet managers on E85 fuel economy and other fuels. The guidance would lead consumers to believe that using E85 will only result in more cost to them as the guidance unfairly punishes ethanol. For example, a "28% loss in fuel economy". Does DOE have any support for this guidance with consumer fuels?
8. EPA has certified Compressed Natural Gas (CNG) and E85 conversion technologies yet DOE consumer awareness programs only support and promote CNG conversion technology.
 - a. What is the basis for this policy?
 - b. What is DOE's experience in cost, performance, emissions, and available infrastructure with these two alternative fuel options?
 - c. What is the experience in the Federal fleet?
9. GSA reports to Congress show only 3% of the fuel purchased by the Federal Government is E85 while almost 1/3 of the fleet are flex fuel capable; *no one is using the fuel in the Federal fleet*. What has DOE done to work with agencies such as USDA, DOJ, Armed Forces, and Post Office to ensure they are utilizing fuel for these flex fuel capable vehicles? What progress has been made?
10. Those same GSA reports show us that when the Federal Government does purchase ethanol fuels they pay too much wasting tax payer dollars. Fleets spent over \$4.00/gallon on E85 while national market prices were below \$3.00.
 - a. What is DOE doing to assist other agencies in purchasing fuel for their fleets?
 - b. What do you believe is contributing to the higher than average price being paid by federal fleets for E85 costing the taxpayers a premium over market costs?

The Honorable Robert E. Latta

1. Advances in innovative technologies have played a major role in unlocking the vast oil and gas energy resources that have contributed to our new energy renaissance.
 - a. In your role as Secretary of Energy, how will you facilitate the private sector's ability to maximize our resource abundance through advanced technologies?
 - b. Under your leadership, will DOE support the use of traditional energy resources – such as fossil fuels and nuclear energy – in advanced and innovative ways? How so?
2. Does DOE's all of the above approach to energy include coal? Will this require the use of carbon, capture and storage (CCS) technology? When do you expect CCS technology to be commercially available and economically viable? Is it fair to the coal industry to advocate an energy policy approach that requires technology not yet economically feasible to use?

The Honorable Pete Olson

1. Our Committee had a hearing earlier this year in which we heard from a broad range of electricity providers. They all testified that fuel diversity in the nation's electricity sector is important for ensuring low cost, reliable electricity.
 - c. Do you agree that fuel diversity is important to keeping electricity prices low?
 - d. Do you agree that fuel diversity is important for reliable electric service?
 - e. Do you agree that fuel diversity is important for keeping the lights on and restoring electricity quickly during major weather events or natural disasters?
2. California has been pursuing its own climate policies, including a cap-and-trade program and renewable energy mandates. Concerns have been raised about electricity reliability because of the state's growing reliance on wind and solar and a shrinking number of conventional plants. These concerns have increased due to the unexpected announced closure of the San Onofre nuclear power plant.
 - a. While California regulators have said they don't anticipate blackouts this summer, do you have any concerns about electricity reliability in that state?
 - b. Do you have any concerns about potential cost increases for Californians as they are mandated to use more and more renewable power?
3. Especially in competitive markets, several planned new full-scale nuclear plants around the country have run into some economic trouble and have been cancelled or put on hold. However, there are a number of companies working on novel new Small Modular Nuclear Reactors that could be more economically viable. One of the companies working on SMRs—NuScale—is actually partnered with Fluor, a firm headquartered in my district.
 - a. I know that DOE has an ongoing grant program for SMR, but I would just like to hear your thoughts on this technology and really, how your budget reflects the future of nuclear power.

The Honorable David B. McKinley

1. Last year EPA proposed greenhouse gas standards for new power plants that would effectively ban new coal plants in the U.S. by requiring that they install carbon capture and storage (CCS) technology that is not commercially available.
 - a. Do you agree that coal has for decades played a critical role in providing affordable, reliable electricity in the U.S.?
 - b. Do you support EPA's proposal to ban construction of any new coal plants in the U.S. for the foreseeable future?
2. Over 41,000 megawatts of coal-fired generation have been scheduled to shut down due to EPA rules.
 - a. Did DOE anticipate that so much capacity would be retiring in the very near-term?
 - b. Are you concerned about the potential impacts on grid reliability?
 - c. Are you coordinating with FERC and EPA to ensure that no outages occur?

The Honorable Cory Gardner

1. As Secretary of Energy, will you encourage the Administration to open up new areas to domestic production as a part of national energy plan to capitalize on our nation's newly discovered oil and gas abundance?

The Honorable H. Morgan Griffith

1. The DOE FY 2014 Budget provides \$276 million for coal R&D programs, a 23% reduction from FY 2012.
 - a. Based on DOE's current projections, what is a realistic date by which CCS could be developed and deployed on a commercial scale?
 - b. In your view, is CCS currently a workable option on a large commercial scale?
 - i. *If yes*, what facilities demonstrate that?
 - ii. Of those facilities, which is the most promising in your view?
2. Given the strict new regulations coming out of EPA that effectively prevent the construction of any new coal plants, what is DOE doing (outside of CCS research) to ensure that coal will remain a part of the US energy portfolio?
3. If the upcoming tests on Coal-Direct Chemical Looping at the National Carbon Capture Center in Wilsonville, Alabama are successful, what plans does DOE have to support additional testing on a larger scale and/or what plans does DOE have to help facilitate applying this technology on a commercial scale at a power plant?

The Honorable Eliot L. Engel

1. Mr. Moniz, in your testimony you mentioned electric vehicles. Can you expand on what other types of alternative fuels you foresee being developed and funded through the Energy Security Trust?

You also spoke of the recent release of eGallon, which as you mentioned would give the “fuel cost” equivalent for operating an electric vehicle. I think this a positive development. Educating people regarding alternative fuels and their relative costs helps bring people and our country towards large scale usage of alternative fuels.

2. Is the department going to release similar cost comparisons for other types of fuels, such as methanol or ethanol?

In your testimony you spoke about the decreases in carbon emissions due to the large increase in natural gas production, specifically from hydraulic fracturing. While the drop in carbon emissions is a positive sign, fracking brings with it other concerns.

3. Can you address what, if any, steps the Department of Energy is taking to deal with environmental concerns that are a result of fracking, such as methane leaks and groundwater contamination?

I know you are also a proponent of nuclear power, and while I am not opposed to nuclear power, I have many concerns with the current safety records of plants. For instance, at Indian Point, near my district, there is over 3 times more spent nuclear fuel in pools than was at Fukushima. This is one of the reasons I will soon be reintroducing my dry cask storage act, which would speed up the process of getting fuel out of the pools and into more stable and secure dry casks.

4. Can you comment on what steps the Department is taking to make nuclear power as safe as possible?