## U.S. Senate Committee on Energy and Natural Resources Questions for the Record Submitted to Mr. Lane Genatowski 116<sup>th</sup> Congress

## **Questions from Ranking Member Joe Manchin III**

**Question 1:** You have had a long career as an investment banker. But the job of the Director of ARPA-E is different from that of an investment banker. ARPA-E was created to finance new transformational technologies that are unable to obtain private sector financing because they are thought to be too risky. Obviously, government-backed financing is different from the sort of financing done in the private sector. I am concerned that you will view ARPA-E through the prism of an investment banker when it should be viewed with the goal of working to achieve scientific breakthroughs. Please describe specific experience and expertise you hold that is applicable to the mission and administration of ARPA-E. What assurances can you provide the Committee that you will oversee ARPA-E in line with its mission?

<u>Answer 1</u>: If confirmed, my background would be valuable to advancing ARPA-E's mission to overcome long-term, high-risk technological barriers in the development of energy technologies. In my experience as an investor and as a banker, I invested in geothermal projects as well as pollution control systems at coal-fired electric and nuclear generating plants. I have firsthand experience in recognizing utility and energy industry opportunities. I have raised capital for companies so they can continue to innovate in the energy sector and have helped them navigate the so-called "valley of death" – to broad adoption and financial success.

Early involvement of strategic well-funded end-users can help address those market challenges for energy projects, which depend on factors such as the final product cost, installed competitive equipment base, its embedded cost, and the innovative nature (or not) of the end-user group. If confirmed, in addition to my extensive experience with energy technologies across the spectrum, I will rely on the scientific staff already in place at ARPA-E and in the DOE complex for technical and scientific advice. The work of the world-class scientists at the Agency and the Department will keep ARPA-E an effective research and development Agency. ARPA-E has a unique and valuable role in the energy research landscape and I commit to overseeing ARPA-E in line with its mission and goals.

**Question 2:** Although the Title XVII Innovative Energy Loan Guarantee Program is separate from ARPA-E, the two share similar missions in fostering new, innovative energy technologies. If confirmed, how would you plan to work with the Loan Programs Office to ensure that the two departments are working in a complementary fashion?

<u>Answer 2</u>: I am not familiar in any detail with the Title XVII Loan Program, which is a responsibility of the Under Secretary for Energy. I am aware that the ARPA-E enabling statute requires that the activities of the office be coordinated with the Department's other programs and laboratories to avoid duplication of the work being done by the other research programs and agencies. If confirmed, I will familiarize myself with mission and activities of the Loan Program Office and pledge to work in a collaborative manner on projects that show a credible path to end-user acceptance.

**Question 3**: Last year, the Administration proposed eliminating both ARPA-E and the Title XVII Innovative Energy Loan Guarantee Program. What assurances can you give the Committee that, if confirmed, you will work to fulfill ARPA-E's mission and not shut down the program?

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<u>Answer 3</u>: If confirmed, I will follow the law, which sets up ARPA-E as a separate agency within the Department with its Director reporting directly to the Secretary. The law further makes clear that the budget of the agency is separate and apart from the rest of the budget of the Department. I pledge to fulfill ARPA-E's mission and utilize all funds as appropriated and directed by Congress.

**Question 4**: Since January 2017, ARPA-E has released projects on a broad range of technologies—from power converters (CIRCUITS) and heat exchangers (HITEMMP) to natural gas fuel cells (INTEGRATE) and macro-algae (MARINER), to name a few. These projects have diverse applications across the energy sector and illustrate the agency's dedication to pursuing all energy technologies, including carbon capture, nuclear, renewables, efficiency, storage and more. If confirmed, how do you plan to initiate new projects that will advance energy technologies that aid economic growth and American competitiveness while maintaining U.S. leadership in creating solutions that will achieve significant reductions in greenhouse gas emissions?

Answer 4: A new project or program area, such as ones that achieve significant reductions in greenhouse gas emissions, should show key ARPA-E attributes. This would include significant impact to ARPA-E's mission, translating science into transformative technologies, showing a credible path to end-user acceptance, and be an activity not funded or researched elsewhere. ARPA-E's mandate is to fund projects to reduce energy imports from foreign countries, reduce emissions, improve efficiencies in all economic sectors, and ensure that the U.S. maintains a technological lead in advanced energy technologies. I believe technologies such as Carbon Capture Utilization and Sequestration (CCUS) fit that profile. ARPA-E should fund all types of energy projects, including wind, hydropower, geothermal, CCUS, storage, nuclear, and solar, among others. U.S. technological and scientific innovations will create U.S. jobs in every energy sector.

## **Question from Senator Mazie K. Hirono**

**Question:** The pace of ARPA-E awards has slowed considerably under the Trump Administration – having frozen entirely in early 2017 to spending only 80 percent of FY 2018 funding by December 2018, well after the end of that fiscal year. Will you commit to making funding available to researchers and industry in an expedited manner and within the fiscal year in which it is appropriated?

**Answer:** As a nominee, I have not been involved in any ARPA-E action. If confirmed, I commit to making funds as appropriated by Congress available to researchers and industry in an expedited manner and within the fiscal year in which it is appropriated.