

**Testimony for the Record**

**The Honorable Daniel R Simmons**

**Assistant Secretary  
Energy Efficiency and Renewable Energy**

**FOR A HEARING ON**

*Management and Spending Challenges within the Department of Energy's  
Office of Energy Efficiency and Renewable Energy*

**BEFORE THE  
UNITED STATES HOUSE  
COMMITTEE ON SCIENCE SPACE AND TECHNOLOGY  
SUBCOMMITTEE ON ENERGY  
AND  
SUBCOMMITTEE ON INVESTIGATIONS & OVERSIGHT**

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## **Introduction**

Chairwoman Fletcher and Ranking Member Weber of the Subcommittee on Energy, and Chairman Foster and Ranking Member Norman of the Subcommittee on Investigations and Oversight, and members of the Subcommittees, thank you for the opportunity to testify before you today.

As the Assistant Secretary of the Office of Energy Efficiency and Renewable Energy (EERE), I oversee a broad portfolio of renewable energy, energy efficiency, and transportation programs primarily focused on funding technology research and development through competitive solicitations open to the public as well as management and operations contracts with the National Laboratories, which play a central role in advancing America's leadership in scientific research and development. Knowledge generated by EERE research and development helps drive down the costs of new technologies, supporting the efforts of U.S. industries, businesses, and entrepreneurs in deploying innovative energy technologies. Affordable, reliable energy gives Americans the competitive edge needed to excel in the rapidly changing global energy economy.

In 2017, utility-scale photovoltaic solar achieved the U.S. Department of Energy (DOE) goal of 6 cents/kWh three years ahead of schedule, thanks in part to EERE-funded innovations. Since 2008, the cost of onshore wind has declined by 55%, electric vehicle battery costs have declined by 80%, and the cost of LED lightbulbs has declined by over 90%. These are a few examples of the significant cost reductions we've seen so far, and costs continue to fall.

I'd like to take this opportunity to reiterate my commitment to efficiently and responsibly execute congressionally appropriated funds.

## **EERE Highlights**

During my time at DOE, appropriations for EERE have increased by 37%. Significant increases in appropriations can lead to challenges in execution; however, we are off to a great start in executing our record-high FY 2020 appropriations. We took immediate action and instituted a new planning process this year to expedite the release of funding opportunity announcements (FOAs) and better position ourselves to execute resources in a manner supportive of Administration priorities and consistent with Congressional guidance in conference report language as early as possible. We started this effort in FY 2019, when EERE moved almost exclusively to aggregating its FOAs into larger, multi-topic solicitations to streamline FOA development and issuance processes. In FY 2020, EERE has instituted a more rigorous scenario planning process to reconcile conflicting House and Senate marks in order to mitigate delay in finalizing our FOA topics after FY 2020 appropriations were enacted.

As a result of these efforts, on January 23, 2020, only 22 working days after the enactment of FY 2020 appropriations, DOE announced nearly \$300 million in funding for research and development of sustainable transportation resources and technologies. This investment is split up between three separate FOAs, issued on behalf of the three transportation offices: the Vehicle, Fuel Cell, and Bioenergy technology offices. Just this week, we announced three additional

FOAs totaling \$169 million in funding to advance renewable power technology research and development on behalf of the Solar Energy and Geothermal technology offices. This is the first time in at least six years that EERE has been able to announce such a large percentage of our FOAs so early in the fiscal year.

Last week, EERE issued a notice of intent (NOI) to release a \$20 million FOA later this month to promote workforce development to prepare the next generation of scientists and engineers.

We expect to release the remainder of our FY 2020 FOAs in the coming months.

### **EERE's Commitment to Executing Funds**

DOE fully intends to utilize its appropriated research funding to invest in new technologies and innovation consistent with both congressional guidance and administration priorities. The majority of prior year funds that we carried into FY 2020 are associated with competitive FOA awards that are under review or being actively negotiated.

EERE is making significant progress towards executing prior year funds. This progress was made possible by accelerating the release of our FY 2020 FOAs, and our progress will continue as we make additional upcoming announcements.

### **EERE Collaboration in DOE and Around the World**

We live in the most exciting time for energy technologies in the history of the world, with more competitive and affordable sources of energy than ever before. But affordable energy does not matter if we cannot integrate these new sources of generation into the energy system. This is why EERE is focused on enhancing grid reliability and resilience through energy integration and storage.

A great example of this coordination is EERE's role in DOE's Grid Modernization Initiative (GMI). In November 2019, DOE announced the results of the 2019 Grid Modernization Lab Call with funding of approximately \$80 million over three years. This funding aims to strengthen, transform, and improve the resilience of energy infrastructure to ensure the nation's access to reliable and secure sources of energy, now and in the future.

Another example of Departmental coordination is the launch of the Energy Storage Grand Challenge, announced earlier this year. The Grand Challenge is a comprehensive program to accelerate the development, commercialization, and utilization of next-generation energy storage technologies and sustain American global leadership in energy storage. The Grand Challenge builds on the \$158 million Advanced Energy Storage Initiative announced in the President's FY 2020 Budget. In FY 2020, EERE plans to invest \$283 million to support this critical work.

Last year, DOE announced the launch of a Lithium-Ion Battery Recycling Prize and a \$15 million investment to establish the ReCell Center, an associated battery recycling R&D Center led by Argonne National Laboratory along with the National Renewable Energy Laboratory and

the Oak Ridge National Laboratory. These efforts aim to reclaim and recycle critical materials (e.g., cobalt and lithium) from lithium-based battery technologies used in consumer electronics, defense, energy storage, and transportation applications. The goal of the Recycling Prize and the ReCell Center is to develop technologies to profitably capture 90% of all lithium-based battery technologies in the United States. In September 2019, DOE announced the 15 winners of phase 1 of the Battery Recycling Prize.

In November 2019, DOE announced the launch of the Plastics Innovation Challenge, an EERE-led effort to accelerate innovations in energy-efficient plastics recycling technologies and develop new plastics that are recyclable-by-design. The Innovation Challenge will draw on both fundamental and applied research capabilities within the national laboratories, universities, and industry. Using a coordinated suite of funding opportunities, critical partnerships, and other programs, the Plastics Innovation Challenge sets five goals for the United States to reach by 2030, including: promoting the collection, deconstruction, upcycling, and design of plastics for recyclability; and commercialization of a domestic plastics upcycling supply chain. EERE is leading the Plastics Innovation Challenge in collaboration with the Office of Science and other DOE programs.

On January 29, 2020, EERE announced the American-Made Geothermal Manufacturing Prize. A first of its kind for geothermal technology, this prize is designed to spur innovation and address manufacturing challenges fundamental to operating in harsh geothermal environments. This prize further supports the ability of the geothermal industry to reach the potential 60 Gigawatts electric of geothermal capacity by 2050 as projected in the recently released *GeoVision* study. The Geothermal Prize is led by EERE's Geothermal Technologies Office and Advanced Manufacturing Office, and is administered by the National Renewable Energy Laboratory in partnership with the Oak Ridge National Laboratory on the American-Made Challenges platform.

EERE's collaboration extends far beyond DOE. Earlier this week, DOE signed a Memorandum of Understanding (MOU) between the United States and Norway to facilitate collaboration and leveraging of R&D advancements in hydropower between the two countries.

This MOU is just one recent example of EERE's global collaboration, and it amplifies EERE's reputation as a world leader in the research and development of energy technologies.

### **EERE Staffing Update**

All of this valuable work would not be possible without the dedication of our outstanding staff. EERE cares deeply about its staff and is actively working through the hiring process to recruit and hire additional talent. One of my top priorities upon confirmation was to address the staffing needs within EERE. In FY 2019 we developed a staffing plan to reach 625 full time equivalent employees. We worked with DOE's Office of Human Capital to leverage the STEM direct hiring authority to recruit top talent for our engineering and scientific positions. EERE participated in a job fair in June 2019, from which we were able to extend over 20 job offers.

Upon enactment of the FY 2020 appropriations, we immediately started to refine our staffing plans to identify the critical positions required to execute our increased budget. EERE recently started a campaign to reach out to our stakeholder groups and identify prospective employees eligible to be hired through the STEM direct hiring authority. EERE continues to partner with Human Capital to accelerate the posting of additional vacancy announcements for EERE's non-technical positions.

EERE's staff remains committed to executing the mission, as evidenced by the 5.8% increase since 2016 in global satisfaction as reported in the Federal Employee Viewpoint Survey. We continue to make hiring a top priority.

### **Conclusion**

I look forward to working with you to continue promoting affordable and reliable energy to enhance America's growth and energy security. Thank you for the opportunity to appear before the Subcommittees today to discuss the Office of Energy Efficiency and Renewable Energy. I look forward to your questions.