

# United States Senate

WASHINGTON, DC 20510-4804

COMMITTEES  
APPROPRIATIONS  
ARMED SERVICES  
ENERGY AND NATURAL RESOURCES  
VETERANS' AFFAIRS

April 12, 2019

The Honorable Gene L. Dodaro  
Comptroller General of the United States  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, D.C. 20548

Dear Mr. Dodaro:

I am writing to request that the Government Accountability Office (GAO) initiate a review of the U.S. Department of Energy's (DOE) energy technology research, development, and deployment (RD&D) programs with a specific focus on whether the Department is setting and achieving goals for technology readiness, commercialization, de-risking, and deployment. The DOE has a storied history of successful RD&D efforts, spanning from the birth of civilian nuclear power to the hydraulic fracturing boom to the achievements of SunShot and LED lighting research. And, in each instance, DOE efforts led to lowered costs for those new technologies and, ultimately, commercialization. In the context of addressing climate change, growing the U.S. economy, and strengthening U.S. competitiveness and security, the need for DOE's energy research, development and deployment has never been greater.

In this context, I request that the GAO review the DOE's efforts to set, execute, and evaluate goals for energy technology research, development, and commercialization to scale. Ensuring that DOE's RD&D efforts have made and continue to make an impact in U.S. energy markets and toward our shared national goals is critical. The review should include each applied energy office, including the Offices of Cybersecurity, Energy Security, and Emergency Response; Electricity; Energy Efficiency and Renewable Energy; Fossil Energy; and Nuclear Energy; as well as each office's subcomponents. The review should also consider how—and how well—DOE addresses the so-called “valley of death” and other obstacles to financing and commercializing technologies at each stage of its RD&D activities and across its portfolio, including programs such as the Office of Technology Transfer and technical assistance programs like those administered by the Office of Indian Energy Policy and Programs.

I ask that the GAO pursue answers to the following questions:

1. Do all of DOE's RD&D programs and relevant investment or financing programs (e.g., LPO or ARPA-E) have robust goals? What processes do the program offices set to reach those goals?
2. In the past 10 years, what technology development and deployment goals have DOE program offices met, exceeded, or missed?
3. How does the pace of funding awards, closing loans or loan guarantees, and providing technical assistance align with meeting those goals? And has that pace been consistent over time?

4. Has the obligation of funds slowed, and if so, why?
5. How does DOE evaluate its RD&D contribution to commercialization of new technologies?
6. How have the goals set by DOE enabled it to make an impact on larger national objectives such as competitiveness, innovation leadership, economic growth, reducing the U.S. contribution to climate change, and others?

I believe securing the ability of DOE to set science-based, clear, and attainable goals for technology development and commercialization is a vital matter to U.S. national security, lowering GHG emissions, and economic competitiveness.

Sincerely,

A handwritten signature in blue ink, appearing to read "Joe Manchin III", with a long horizontal flourish extending to the right.

Joe Manchin III  
United States Senator