

Congress of the United States

House of Representatives

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

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April 1, 2019

The Honorable Nita Lowey
Chairwoman
Committee on Appropriations
H-307, The Capitol
U.S. House of Representatives
Washington, DC 20515

Dear Chairwoman Lowey,

As the Chairwoman of the House Science, Space, and Technology Committee I am writing to encourage your continued support for our nation's science and technology infrastructure at the Department of Energy (DOE). Investments in the Office of Science, the energy technology programs, ARPA-E, and the loan programs serve to strengthen U.S. scientific and economic leadership as they advance innovation across a wide range of research areas, support the next generation of scientists and technology leaders, and seed the industries that will accelerate our transition to a clean energy economy.

We have seen how government-supported research can pay off when it comes to energy development. DOE-supported research was key to the development of utility-scale solar, high-efficiency gas turbines for coal plants, nuclear reactors, and the directional drilling and hydraulic fracturing technologies and techniques that have led to the shale gas boom of today. However, we should remember that those achievements required decades of consistent federal investment.

That is why I am requesting that you continue to provide strong support for the DOE Office of Science, the Office of Energy Efficiency and Renewable Energy (EERE), the Advanced Research Projects Agency – Energy (ARPA-E), the Office of Electricity, the Office of Cybersecurity, Energy Security, and Emergency Response, the Office of Nuclear Energy, the Office of Fossil Energy, and the Loan Programs Office. All of these programs merit significant boosts to advance the development of fundamental science and energy technologies that will be vital to our national security, our economy, and the environment in the decades to come.

In its third budget request, the current Administration has continued to propose deep cuts that cede American leadership in emerging innovation, and ignore the value of clean energy technologies. It is up to Congress to show the world that we are serious about addressing climate change and transforming our energy sector by seizing this unique opportunity. Investing in clean energy technologies is crucial to American economic competitiveness. It is my hope that America can be a leader in clean energy technology, but if we go down the path this Administration has laid out thus far, we are destined to rely on other countries for the next generation of energy technologies, and abdicate our responsibility in fighting climate change.

The innovative programs at the Department of Energy, with their unmatched talent, world-class facilities, and unique role in taking on technology challenges that the private sector cannot or will not address alone, are some of our most effective tools for ensuring our long-term economic growth, for protecting our environment, and for promoting our energy security. Your support at this time is vital, and greatly appreciated.

The DOE Office of Science is our nation's largest federal sponsor of research in the physical sciences and the lead federal agency supporting fundamental scientific research to secure our energy future. The Office received \$6.585 billion in the fiscal year (FY) 2019 from the Energy and Water Development and Related Agencies Appropriations Act, 2019, but the Administration's current request proposes a \$1.1 billion cut for FY 2020. I believe that, at a minimum, the Office of Science should receive funding increases at greater than inflationary levels for FY 2020. Within the Office of Science, continued support for new scientific facilities currently under construction should be a key priority, as cutting below the previous DOE-approved project profiles will not only delay cutting edge research but ultimately increase the total cost of these facilities to taxpayers, largely due to the ongoing cost of maintaining facility construction personnel. I also strongly recommend continued support for the full range of activities overseen by the Biological and Environmental Research program, including its incredibly important climate research activities. In addition, the Department should expand support for innovative concepts in fusion energy, including various promising approaches to inertial fusion energy production that are not part of the National Nuclear Security Administration's stockpile stewardship program, and fully support the U.S. role in the ITER Project, especially given the project's substantial management improvements and overall progress over the last four years. Unfortunately, the Administration's proposal of \$107 million for the U.S. contribution to ITER is far below the levels that DOE itself has projected are required to keep this project on schedule and minimize its cost. Due to the previous shortfalls in meeting the U.S. commitments to this project, this required investment is now \$280 million at a minimum in FY 2020, including \$100 million for the cash contribution to the ITER Organization. I strongly recommend that you provide at least this level of funding to honor our

international commitment to this project, and avert the significant financial, diplomatic, and scientific impacts of undermining its continued progress.

ARPA-E, the Loan Programs Office (LPO), and the Energy Innovation Hubs are also critically important components of the American energy innovation ecosystem fostered by the Department. Yet the Administration has proposed the outright elimination of ARPA-E, LPO, and the two Hubs supported by EERE's Advanced Manufacturing Office in its budget request. ARPA-E, LPO, and the Hubs model all have strong records of success to justify not only their existence, but increased investments (in the case of ARPA-E and the Hubs) and increased leveraging of current statutory loan and loan guarantee authorities (in the case of LPO) going forward. It is my hope that you will take into account the notable records of success of these programs and increase their funding above inflationary levels for FY 2020.

I also strongly support continued funding for the wide range of activities within the Office of Energy Efficiency and Renewable Energy, the Office of Electricity, the Office of Cybersecurity, Energy Security, and Emergency Response, the Office of Nuclear Energy, and the Office of Fossil Energy. In the FY 2020 budget proposal, many of these offices would experience massive cuts. EERE would be cut by 85.6% (or \$2 billion), Nuclear Energy would be cut by 37.9% (or \$502 million), and Fossil Energy R&D would be cut by 24.1% (or \$178 million). Essentially the only justification that the Administration has provided for all of these drastic cuts is that the government should only support "early-stage" research. Yet no clear definition is provided for "early-stage" research given that the term is used quite inconsistently throughout the budget request, and there is no evidence whatsoever that a careful analysis was carried out to determine which of these eliminated activities will likely be supported by the private sector alone at a sufficient pace to meet our national economic, environmental, or security needs.

Two welcome exceptions to an otherwise dismal Budget Request are that the Office of Electricity and the Office of Cybersecurity, Energy Security, and Emergency Response would both receive proposed budget increases of 17.3% (\$27 million) and 30% (\$30 million), respectively. These programs are especially important to the development of a modern, clean, and secure electricity transmission and distribution system. The Administration has also proposed \$105 million for an Advanced Energy Storage Initiative, which would build upon efforts to improve electrical energy storage, and collaborate with a broad group of energy offices. While we would like additional details on the Initiative, we are supportive of efforts to advance new energy storage solutions and take a holistic approach that collaborates across the full range of relevant energy program offices.

In a rapidly changing global marketplace, with other countries that do not always play by the same rules, the only thing we can know for sure is that the future of the U.S. economy will be dictated by our commitment to pushing the frontiers in all fields of science and technology. In

the face of serious and diverse economic and environmental threats, especially climate change, we should do what it takes to secure our position as the global economic and clean energy technology leader. A key to this leadership is sustained strong investments across the science and energy technology programs at DOE.

Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink that reads "Eddie Bernice Johnson". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

Eddie Bernice Johnson
Chairwoman
Committee on Science, Space, and Technology

cc:

The Honorable Kay Granger
Ranking Member
Committee on Appropriations

The Honorable Frank Lucas
Ranking Member
Committee on Science, Space, and Technology

The Honorable Marcy Kaptur
Chairwoman
Subcommittee on Energy and Water Development, and Related Agencies
Committee on Appropriations

The Honorable Mike Simpson
Ranking Member
Subcommittee on Energy and Water Development, and Related Agencies
Committee on Appropriations