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

Dear Chairwoman DeLauro,

As the Chairwoman of the House Science, Space, and Technology Committee, I am writing to encourage your continued support for our nation's research and development enterprise at the Department of Energy (DOE). Investments in clean energy innovation, from fundamental research to commercial application programs, serve to strengthen U.S. scientific and economic leadership, support the next generation of scientists and technology leaders, and seed the industries that will accelerate a just transition to a clean energy economy.

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 (OE), the Office of Cybersecurity, Energy Security, and Emergency Response (CESER), the Office of Nuclear Energy (NE), the Office of Fossil Energy and Carbon Management (FECM), and the Loan Programs Office (LPO), as well as support for a new Office of Clean Energy Demonstrations (OCED). All of the above-mentioned programs merit significant boosts to advance the development of fundamental science and energy technologies that are vital to our national security, our economy, and the environment in the decades to come. This request is a significant improvement from the past few years, and I want to take the time to highlight investments in our applied energy research and development programs that address all sectors of the economy.

I am very pleased to see that the president's budget request includes robust support for advanced nuclear energy technologies, renewable energy, electric vehicles, green hydrogen, innovative approaches to building retrofits, among many other important areas. Applied program offices

such as EERE, OE, NE, ARPA-E, and a revitalized Office of Fossil Energy and Carbon Management (FECM), are critical stops on the road to 100% net zero by 2050 and merit full support and funding. FECM is also critical as it ensures a seamless transition to a clean economy through research to reduce methane leaks, plugging abandoned oil and gas wells, and carbon removal technology. According to a recent IPCC report, carbon removal technologies will be necessary to limit warming to 1.5 °C.[1]

In addition, I am encouraged by the Administration's strong support of the Loan Programs Office and encourage you to strongly support this request as well. A particularly notable highlight is the $150 million request for the credit subsidy costs that are associated with an additional $1.5 billion of guaranteed loan authority for innovative technologies such as electric vehicle infrastructure, carbon management, and many other clean energy projects. In addition, I am heartened to see the administration's support of additional grants and workforce development programs for Historically Black Colleges and Universities, Tribal Colleges and Universities, and Minority Serving Institutions, and encourage your support for these initiatives. To achieve the best solutions, we need a diverse array of experts seated at the table to keep pace with our competitors and deliver benefits to all Americans.

That said, I would also like to voice my concern over the Department's proposal to establish an Advanced Research Projects Agency – Climate (ARPA-C). Although I applaud the Administration's commitment to advancing breakthrough solutions for climate and energy, an ARPA model may not be the most appropriate approach to support research that addresses the significant climate resilience and adaptation problems at hand. Successful ARPAs are uniquely focused on short-term, high-risk, high reward activities that do not have a home in other federal programs and that the private sector is unable or unwilling to support on its own. An ARPA-C is not a replacement for a substantial ongoing RD&D program in resilience, adaption, and disaster prevention. It is also important for Members of the Committee on Science, Space, and Technology to have a better understanding of how an interagency research agency residing within DOE would operate, as a program like this has never been carried out before. Finally, I would note that the President's budget justification highlights the requirement of an authorization of this agency for it to be established, and our Committee has no current plans to advance this proposal. For all of these reasons, I would strongly recommend against providing support for an ARPA-C as it stands, unless and until we are provided far more convincing information on the justification and organization of this proposed agency.

I also have significant concerns about the Administration's budget request for the DOE Office of Science, which is our nation's largest federal sponsor of research in the physical sciences and the lead federal agency supporting scientific research to secure our energy future. I urge you to consider the benefits of further funding to support some of our nation's most important science and energy research programs and facilities, consistent with H.R. 3593, the bipartisan Department of Energy Science for the Future Act, which recently passed the House by a vote of 351-68. The budget request includes a $400 million increase to a total of $7.4 billion, but this level of growth is not sufficient for the current needs of the world-class user facilities, research programs, and national laboratories stewarded by the Office. If we as a nation are serious about achieving economy-wide emissions reductions, then we must prioritize the science and

[1] https://www.ipcc.ch/sr15/chapter/spm/

innovation that can get us across the finish line. Not only is the additional funding unevenly applied across the program offices, but by DOE's own estimates, it is quite insufficient to maintain the schedule and minimize the total costs of the bulk of the Office's major construction projects. Office of Science user facilities support over 30,000 researchers from industry, universities, national laboratories, and other federal agencies. However, they are oversubscribed, and completing ongoing upgrades and other user facility construction projects stewarded by the Office would alleviate that burden. Continued support for new scientific facilities currently under construction should be a key priority, as cutting funding 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.

Lastly, I am quite concerned that the recommendations in a comprehensive, community-driven long range plan that was recently produced by the Fusion Energy Sciences Advisory Committee (FESAC) and those in a recent National Academies report entitled *Bringing Fusion to the U.S. Grid* were not reflected in the President's budget request in a meaningful way. For many years, this Committee and others of jurisdiction have recommended that the Department and the fusion research community produce a strategic plan that identifies clear priorities under several realistic budget scenarios, similar to the successful planning processes for the high energy physics community and other research programs. The Department was also required to produce such a report following passage of the Department of Energy Research and Innovation Act in 2018. So I was very pleased to see DOE and the fusion research community take this challenge on and make the tough decisions to produce a robust and achievable roadmap that would ensure U.S. leadership in this critical field over the next decade. It is therefore disappointing, and frankly perplexing, that this report from FESAC in particular appears to have had no significant impact on the subsequent budget request for fusion research from the Department. Also of note, in Section 307(d), (e), (i), and (o) of the Department of Energy Research and Innovation Act and Section 972(c) of the Energy Policy Act of 2005, both as amended in the Energy Act of 2020, the Department was directed to establish programs in alternative and enabling concepts; inertial fusion for energy applications; and milestone-based fusion concept development. The President's budget request ignores this statutory direction. The Energy Act of 2020 also authorized funds to fully support the U.S. role in the ITER Project, but unfortunately, the Administration's proposal is $79M below the authorized level required to keep this project on schedule and minimize its total cost. For these reasons, I strongly recommend that you provide funding levels for fusion research that are consistent with those in H.R. 3593, which builds on the enacted fusion research provisions in the Energy Act of 2020 and provides further guidance for these activities in accordance with the reports noted above.

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

Thank you for your consideration.

Sincerely,

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
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