
**Additional Questions for Record**

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**Subcommittee Hearing on:**
**American Energy Dominance: Dawn of the New Nuclear Era**

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This document is Judi Greenwald's response to the additional questions for the record for the Energy and Commerce's Subcommittee on Energy hearing entitled "American Energy Dominance: Dawn of the New Nuclear Era," which took place on January 7, 2026. The questions are reproduced with the responses below.

**The Honorable Troy Balderson (R-OH)**

1. We've seen several technology and data center companies make big bets on SMR technologies. These are companies with a history of investing in early-stage, innovative technologies that become commercialized and are widely used today. Why do you think these bets are being made on SMR technology today?

   **Response:** Large data center companies have been investing in nuclear companies because nuclear energy offers all the features that these companies are looking for: a scalable, land-efficient, reliable, dispatchable, carbon-free energy source.

   a. How important is it for us to accelerate both permitting and technology development of SMRs to win the AI race with China?

      **Response:** Accelerating permitting and development, specifically concrete steps towards deployment, will be critical for competing with China. To become fully commercial products with competitive prices, SMR technology must first be demonstrated at scale and then built several times in series to get to "nth of a kind" performance and costs. Demonstrations and early commercial units help vendors understand complexities, overcome challenges, and ultimately reduce costs. In parallel, the Nuclear Regulatory Commission and license applicants must become more efficient at licensing while maintaining high safety standards.

      China has demonstrated several advanced nuclear technologies, such as the HTR-PM, and continues to build. For the US to compete, shortening deployment timelines will be key.

   b. Would the growth of SMRs as the next wave of carbon-free power technologies be possible without data center growth in the United States?

**Response:** The hyperscalers and other data center developers have been key partners in deploying the early commercial SMR units. Many hyperscalers are willing to enter into long-term power purchase agreements, enabling reactor vendors and project developers to quantify project cash flows for a significant fraction of a plant's lifetime. This leads to projects that are easier to finance than those with uncertain offtake agreements. Some hyperscalers are also interested in investing in or purchasing power from an "order book" of multiple plants over time, further helping to accelerate deployment. While other large load users and utilities are valuable offtakers of nuclear power, data centers are playing an outsized role because their power demand is growing rapidly and they value clean, firm power.

2. How should the US Department of Energy best allocate loan credit authority through the Office of Energy Dominance Financing to accelerate small modular reactor development?

**Response: T**he Office of Energy Dominance Financing (EDF) is a critical tool for commercializing SMR technology. Early mover SMRs may be perceived as high-risk investments by private providers of project capital, with private lenders and equity investors preferring to wait until later buildouts after construction and/or operational outcomes can be observed. This approach is consistent with standard risk profiles of project financiers, but it means there is a lack of capital for early mover SMR projects. If these initial projects cannot secure financing to build the SMRs, then the technology will not mature to the point that private finance views it as an attractive option.

By allocating lending authority and credit subsidy to FOAK SMR projects, EDF could step in and fill this funding gap between early mover and fully commercial projects. Credit subsidy should be directed to early mover projects that would most benefit from this financing stream—i.e., projects that might be too "risky" for private financiers but are ready for full-scale commercial deployment. It would be particularly helpful if EDF would focus on projects that were part of an order book – a series of projects of the same type of SMR that could benefit from learning by doing and bringing down costs over time. Doing so would make EDF one of the most important tools for commercializing SMR technology and a catalyst for a robust nuclear energy industry.

3. Accelerating capacity in the near term is critical. While constructing new nuclear facilities is imperative, more needs to be done to improve the output of existing nuclear facilities. How can the United States Department of Energy and the Office of Energy Dominance Financing encourage investments that improve efficiencies from existing nuclear facilities through uprates to support meeting demand in the near term?

   **Response:** Providing loans to utilities that are looking to uprate nuclear projects would facilitate the addition of nuclear capacity onto the grid. EDF's recent loan announcements and the new UPRISE Program are good examples of support for uprates at the existing fleet of powerplants. For more on Uprise, see here: https://www.energy.gov/ne/articles/nations-nuclear-reactor-fleet-rise

**The Honorable Diana Harshbarger (R-TN)**

1. As part of the NRC's rigorous license and permitting process for commercial reactors, the Advisory Committee on Reactor Safeguards (ACRS) provides their own safety reviews and reports their findings to the NRC. Is it correct that ACRS is unnecessarily involved in some licensing actions? How can Congress ensure the vital role of the ACRS is effectively focused on the most safety-significant or new technologies?

   **Response:** ACRS is statutorily mandated by the Atomic Energy Act of 1954, as amended. Current law requires ACRS to "review each application under section 103 or section 104b for a construction permit or an operating license for a facility, any application under section 104c for a construction permit or an operating license for a testing facility, any application under section 104a or c specifically referred to it by the Commission, and any application for an amendment to a construction permit or an amendment to an operating license under section 103 or 104a, b, or c specifically referred to it by the Commission". The requirement for ACRS to review everything made sense when it was first created, but now that NRC has decades of experience, NIA's view is that it makes more sense for ACRS to focus its valuable time and expertise on reviewing novel and safety-significant issues. NIA did extensive research and made several recommendations for ACRS reform in our 2023 report, *Improving the Effectiveness and Efficiency of the Advisory Committee on Reactor Safeguards*. One specific recommendation in the report is that "Congress should revise the ACRS' statutory mandate in the Atomic Energy Act to

emphasize that the ACRS should review only novel and safety-significant issues at the direction of the Commission and remove the requirement that the ACRS review all construction permit and operating license and renewal applications".

**The Honorable Diana DeGette (D-CO)**

1. Last Congress, former Energy Subcommittee Chairman Jeff Duncan and I passed the bipartisan ADVANCE Act to accelerate the deployment and licensing of nuclear energy. One of the provisions I authored was designed to enhance the ability of the NRC to attract and retain expert and experienced staff.
    a. Do you believe it is important to the future success of the American nuclear industry that the NRC be able to attract and retain the best talent possible?

    **Response: Y**es. The Nuclear Regulatory Commission must be fully staffed and highly qualified to deliver timely reviews, manage complex programs, and uphold the safety and credibility of the U.S. nuclear energy enterprise. Adequate staffing and expertise at the NRC are essential for predictable licensing, effective program execution, and maintaining U.S. leadership in nuclear safety and innovation. Without fully staffed and technically strong NRC teams, project timelines slip, regulatory certainty erodes, and national nuclear energy objectives cannot be met.

    b. You testified that the NRC lost more than 300 staff in 2025, at a time when the NRC's workforce had already shrunk. Is the NRC sufficiently staffed today?

    **Response:** As mentioned, over 300 staff left the NRC, or about 10% of the staff, as of July 2025. According to the NRC Weekly Information Reports, an additional 100 departures occurred since July 2025. Our tracking indicates the total departure number for 2025 to be around 420. Many of the positions vacated were senior-level staff. Insufficient training of newer staff and the departure of experienced staff pose a risk of delaying project timelines and creating communication challenges. The NRC typically maintained attrition rates at or below the historic average federal government rate of 7 to 9 percent annually. We have concerns over the institutional knowledge being lost.

The ADVANCE Act reflected bipartisan recognition that NRC has been chronically understaffed in recent years. Provisions in the ADVANCE Act were meant to help NRC grow and retain their highly technical staff at a time when its workload is expected to increase dramatically. NRC is beginning to use those new ADVANCE Act authorities, and NIA has additional recommendations for NRC to retain and attract staff, for example in our report, *Improving Nuclear Regulatory Commission Organizational Culture*.

2. Turning to the Department of Energy, at a hearing last June, Secretary of Energy Wright promised to furnish information on how the Department intended to bring three test reactors to criticality by July 4th of this year. Unfortunately, seven months later, I have yet to receive a response from him.
    a. Can you detail the importance of transparency when it comes to Department of Energy authorization of test reactors?

**Response:** The Department of Energy is moving very quickly to update and streamline their authorization process to accelerate the demonstration of new nuclear energy technologies. While NIA supports modernizing DOE's authorization process to be more efficient and effective, changes to DOE's authorization must be done transparently to ensure safety and to safeguard public trust in nuclear energy. DOE must move rapidly, but carefully, to enable the success of the pilot programs.

DOE recently released to the public a revised order 458.1 (DOE O 458.1), *Radiation Protection of the Public and the Environment*. This order establishes requirements to protect the public and the environment against undue risk from radiation associated with nuclear facilities authorized by the Department of Energy. When compared to the previous version, it is clear that DOE has made many changes, and has removed many provisions related to radiation protection, including the removal of any reference to "As Low As Reasonably Achievable" (ALARA).

While NIA is pleased DOE released the revised DOE O 458.1 to the public, DOE must provide additional information and justification behind its revisions. DOE needs to explain why it made the changes it made and how it determined these changes would not undermine key safety standards. Additional DOE transparency is essential to ensure the public can maintain trust in DOE's commitment to rigorous, science-based radiation protection standards.

b. What is at risk when the Department of Energy refuses a Congressional oversight request on their authorization process for test reactors?

**Response:** Congressional oversight is essential to ensuring that federal agencies operate responsibly, transparently, and in accordance with the law. Oversight is a cornerstone of effective governance. It allows Congress and federal agencies to work together, follow established procedures, and maintain the trust needed to enable the successful execution of complex, long-term federal initiatives. When the Department of Energy declines to participate in oversight, it raises questions about how the agency is evaluating risk and applying safety standards.

Many in Congress share DOE'S objectives but need to have assurances that its programs and initiatives are being implemented well.

**The Honorable Doris Matsui (D-CA)**

1. During the hearing on January 7, you acknowledged that the Nuclear Waste Policy Act, as amended in 1987, does not meet the need for an effective comprehensive nuclear waste program. Can you please provide specific and detailed recommendations to this Committee for how the Nuclear Waste Policy Act should be amended to meet the nation's current and future needs regarding nuclear waste and used fuel?

**Response:** Currently, the Nuclear Waste Policy Act (NWPA) specifies Yucca Mountain as the United States' permanent spent nuclear fuel disposal facility, but NWPA must be amended for several reasons: (1) Yucca was not selected with a consent-based siting process. We now know that countries (Sweden, Finland, Canada) that are moving ahead with spent-fuel repositories are using consent-based processes; (2) Every year we don't fix this issue, U.S. taxpayers are on the hook for an additional ~$2.5B to cover the federal government's liability for spent fuel that was established under NWPA; (3) even if we filled up Yucca Mountain today, it doesn't have enough room to store all of the spent nuclear fuel that we have produced to date – not to mention the spent nuclear fuel that we will generate in the future -- so we must look towards a new site, which requires amendments to the NWPA.

NIA's specific recommendations for how to amend the NWPA include the following:

- **Amending NWPA to move beyond Yucca for permanent disposal.** The NWPA's permanent disposal requirements hinge on the use of Yucca Mountain for the nation's permanent spent fuel disposal site. This must change. The NWPA must be amended to allow for other permanent disposal sites to allow for durable progress.

- **Consolidated interim storage:** The NWPA does not clearly authorize federal consolidated interim storage facilities. Consolidated interim storage can provide a central location for the safe storage of spent fuel while a permanent disposal pathway is pursued. Congress should amend the NWPA to allow for consolidated interim storage and pass the STORE Act.
- **Make consent-based siting a requirement:** A consent-based sitting approach is critical for achieving durable, long-term progress on nuclear waste management. Establishing consolidated interim storage facilities and permanent repositories requires engagement with the states, Tribes, and local communities that would potentially host them. The NWPA should clearly define the role of these communities and states in the decision-making process to site and build an interim storage or permanent disposal facility, and outline how consent should be defined, demonstrated, and maintained over time.
- **Establish a single-purpose entity:** The NWPA should be amended to shift DOE's responsibility to manage, store, and dispose of spent fuel into a new single-purpose separate entity. This entity would be responsible for siting, licensing, building, and operating facilities for the consolidated storage and final disposal of spent nuclear fuel. This idea is not new and has been supported by experts and advocates for over a decade. The 2012 Blue Ribbon Commission on America's Nuclear Future concluded that a single-purpose entity could provide stability over the many decades needed to site, construct and operate storage and disposal facilities, and that sustained progress can be easier to achieve outside a department whose priorities shift over time.
- **Enable Access to Federal Loans:** Currently, the Office of Energy Dominance Financing (EDF, formerly DOE's Loan Programs Office) is not able to leverage their loan authority to provide loans to recycling facilities. Congress should amend the NWPA to allow EDF to provide Title 17 loans to recycling facilities, and other activities that take place at the back end of the fuel cycle.
- **Waste disposal contracts:** Revise the requirements that govern waste-disposal contracts to specify that DOE must take title to spent fuel and other waste forms regardless of their specific physical or chemical characteristics, provided the material has been safely and appropriately stored by the generator in the interim. This approach would ensure consistent treatment of diverse waste forms and enable a more predictable federal waste-management framework until the location of a final repository location, and its associated waste acceptance criteria, are known.