FY 2025 Recommendations:

U.S. House Appropriations Subcommittee on Energy and Water Development and Related Agencies

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On behalf of the 10,000 men and women of the American Nuclear Society (ANS), I am pleased to provide recommendations for FY 2025 appropriations levels for nuclear programs under the Subcommittee's jurisdiction. We continue to be grateful to the Committee for its strong and consistent support for the advancement of U.S. nuclear energy, science and technology.

The U.S. nuclear enterprise has made significant strides toward sustaining our existing nuclear fleet and deploying a new generation fission and fusion technologies at scale. For FY 2025, we believe the Committee can continue this success by pairing modest growth in nuclear fission and fusion research, development, education and workforce funding with the judicious use of the $1.38 billion balance remaining in the Civil Nuclear Credit program to support first of a kind advanced reactor deployments.

ANS recommendations called out in the written testimony below reflect specific increase requests or support for priority FY 2025 toplines requested by the Administration. For further information or questions, please contact John Starkey, ANS Director of Public Policy, jstarkey@ans.org.

[1] The American Nuclear Society is the premier organization for those who embrace nuclear science and technology for their vital contributions to improving people's lives and preserving the planet. ANS membership is open to all, and current membership consists of individuals from all walks of life; including engineers, doctors, students, educators, scientists, soldiers, advocates, government employees, and others. ANS is committed to advancing, fostering, and promoting the development and application of nuclear sciences and technologies to benefit society.

DOE Office of Nuclear Energy

NEUP, SBIR/STTR and TCF (FY25 Recommendation: $143.4 million)

ANS strongly supports the Administration's request for this category. Specifically, the NEUP program; for over a decade, NEUP has served as the primary vehicle through which DOE supports nuclear energy related R&D at America's college and universities. These awards have created numerous collaborations between universities, national labs, and industry partners. They have also led to some of the most innovative advanced reactor designs being developed today. NEUP continuance is crucial for the development and scale up of our future nuclear workforce.

DOE OCED; Advanced Reactor Demonstration Program (FY25 Recommendation: $597.2 million) Demonstrating the next generation of advanced reactors will support both domestic deployment and export of U.S. technology and enable broad U.S. leadership in new and innovative advanced nuclear technologies. For FY2025 ANS recommends $350 million to be split between both ARDP demonstration projects. ANS also recommends $65 million for the National Reactor Innovation Center (NRIC).

Fuel Cycle R&D; Advanced Nuclear Fuel Availability Program (FY25 Recommendation: $150 million) Within this subprogram ANS requests that no less than $27 million be made available for EBR-II processing for HALEU. The EBR-II allocation would move from Materials Recovery and Waste Form Development to the Advanced Nuclear Fuel Availability subprogram.

Fuel Cyle R&D; Next Generation Fuels (FY25 Recommendation: $43.3 million)

ANS supports the Administration's request for this subprogram. ANS also requests that no less than $20 million be provided for an advanced metallic fuels program.

DOE NE; DOE MESC - Advanced Nuclear Supply Chain (FY25 Recommendation: $30 million) Congress should direct DOE to establish a program focused on the supply chain needed to deploy advanced reactors.

DOE NE; DOE MESC - Advanced Methods for Manufacturing (FY25 Recommendation: $10 million) ANS recommends funding the crosscutting technology development program at $42.78 million, including $10 million for advanced manufacturing methods.

Fuel Cycle R&D, Accident Tolerant Fuels (FY25 Recommendation: $161 million) Includes $15 million for ceramic cladding fuel and $146 million for ATF industry cost shares.

Idaho Sitewide Safeguards and Security (FY25 Recommendation: $160 million)

Nuclear Energy Enabling Technologies (FY25 Recommendation: $120 million)

ANS requests up to $120 million for NEET subprograms. This request includes $45 million for National Science User Facilities and no less than $15 million for Computational Support.

Fuel Cycle R&D; Office of Civilian Radioactive Waste Management – Used Nuclear Fuel Disposition R&D (FY25 Recommendation: $140 million) Funding for nuclear waste disposal should be increased and DOE should be directed to re-establish an organization to manage the program and begin implementing an integrated waste management system. This system should specifically include the creation of an International Center for Research on Spent Nuclear Fuel and High-Level Waste to enable completion of the High-Burnup Storage Demonstration Project and conduct follow on studies related to storage aging management. A more integrated program will also support the extension of existing storage licenses for longer time periods and prepare DOE for the eventual establishment of permanent disposal capability. DOE should also assist the EPA Office of Radiation and Indoor Air (ORIA) on the development of a new generic repository standard for the disposal of high-level radioactive waste.

International Nuclear Energy Cooperation (FY25 Recommendation: $13 million)

Fuel Cyle R&D; TRISO Fuel and Graphite Qualification (FY25 Recommendation: $22 million) Continued support for developing and qualifying advanced reactor fuel is necessary to support industry efforts to establish domestic commercial advanced reactor fuel fabrication.

Reactor Concepts RD&D; Light Water Reactor Sustainability (FY25 Recommendation: $45 million) ANS supports increased funding to accelerate LWR modernization efforts while continuing to support hydrogen demonstrations.

Reactor Concepts RD&D; Advanced Reactor Technologies (FY25 Recommendation: $65 million) ANS recommends $65 million for this subprogram with no less than $25 million provided for the MARVEL microreactor program.

DOE NE; Program Direction (FY25 Recommendation: $97 million)

ANS recommends $97 million for FY2025 which will allow DOE NE to continue adding experienced staff while addressing current staffing deficiencies.

CHIPS Act Provisions (FY25 Recommendation: $190 million)

In Subtitle L of the CHIPS and Science Act, ANS supports FY25 authorization levels of $55 million for Section 10743, $45 million for section 10744, and $15 million for section 10745. ANS also recommends an additional $75 million for the CHIPS and Science Act Fission for the Future provision (Subtitle P – Section 10781).

*****Nuclear Regulatory Commission (FY25 Recommendations: $40 million for Advanced Reactor Regulatory Infrastructure, $20 million for University Leadership Program, and $20 million for the Office of International Programs)** The NRC should act with urgency to ensure that nuclear regulation is efficient and does not unnecessarily limit maximizing nuclear technology's beneficial contribution to society. The Committee should emphasize that advanced

reactors are a national priority and direct the NRC to act efficiently and with urgency in enabling technology development. As that prioritization is fully consistent with the Atomic Energy Act, the Committee should direct the NRC to refresh its mission statement accordingly.

DOE Office of Science

Isotope R&D and Production Program (FY25 Recommendation: $183.9 million)

ANS supports the Administration's request for the DOE's isotope program and its mission to produce isotopes in short supply, manage DOE inventories of stable and long-lived isotopes, and conduct R&D activities on new isotope applications in medicine and industry.

Low-Dose Radiation Program (FY25 Recommendation: $20 million to support low-dose radiation research activities) Consistent with enacted appropriations, ANS recommends $20 million for this program in FY25.

Report language revision request:** *The agreement provides up to $20 million to re-establish a low-dose radiation research pilot program in coordination with the Office of Environment, Health, Safety, and Security* ***and the Office of Nuclear Energy.

Fusion Energy Sciences

Alternative and Enabling Concepts Program; INFUSE (FY25 Recommendation: $50 million) ANS supports the authorization topline of $50 million in FY25 for INFUSE. This request includes INFUSE growth above FY24 levels to at least $10 million in FY25.

Milestone-Based Fusion Development Program (FY25 Recommendation: $105 million)

ANS recommends funding of $105 million for the milestone program, the amount authorized as the program scales up.

FIRE (Fusion Innovation and Research Engine) Centers (FY25 Recommendation: $60 million) ANS supports the Administration's budget request of $60 million for new FIRE centers.