

Testimony of Dr. Kathleen Hogan
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Subcommittee on Energy and Water Development

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Chairwoman Kaptur, Ranking Member Simpson, and Members of the Committee, it is an honor to appear before you today to discuss the President’s FY 2023 Budget request for the Department of Energy (“the Department” or “DOE”).

It is my privilege to serve as the Principal Deputy Undersecretary for Infrastructure, or S3. The Office of the Undersecretary for Infrastructure was established in February 2022 for the effective execution of the historic level of demonstration and deployment funding provided to DOE through the Infrastructure Investment and Jobs Act (IIJA), Pub. L. 117-58 (referred to throughout as the Bipartisan Infrastructure Law (BIL)). The Office provides skilled teams in energy planning; energy security; infrastructure financing; project development; project management; clean energy supply chains; state, community, and Tribal engagement; and other key areas critical to the success of the BIL implementation and annual appropriations. The Office engages and works in partnership with a diverse set of stakeholders as it stewards, and seeks the greatest benefits from, federal funding.

The FY 2023 Budget Request reflects DOE’s February 2022 realignment to better execute DOE’s mission and ensure that the Department has the structure needed to effectively implement the clean energy investments prescribed in the BIL and the Energy Act of 2020. The new organizational structure establishes two Under Secretaries: one focused on fundamental science and clean energy innovation and the other focused on deploying clean infrastructure. This new structure will maximize the effectiveness of BIL programs and support DOE’s ongoing work to reduce energy costs through low-cost clean resources and achieve carbon-free electricity in the U.S. by 2035 and a net zero economy by 2050. These structural changes set DOE up for success in carrying out all our missions – and to carry them forward for the coming years and decades. Our strategic realignment optimizes the world-class expertise of our talented staff and will maximize our ability to accelerate the technologies needed to grow clean energy jobs and fight the climate crisis.

I would like to highlight that the resources provided through the FY 2023 Budget will complement, not duplicate, the \$62 billion Congress provided the Department in the BIL. This \$62 billion is a down payment that will supercharge DOE’s work on clean energy demonstrations, advanced manufacturing, grid infrastructure, and low-income home weatherization. The FY 2023 Budget complements the BIL to bolster the Department’s resources

to cut energy costs for households and businesses, advance clean energy innovation, and generate good-paying, union jobs.

Executing the provisions of the infrastructure legislation is one of the Department's highest priorities. It is critical that this historic funding is executed in a manner that fulfills the needs of the American people in order to meet the Administration's goals of delivering clean affordable energy, creating quality jobs, and delivering benefits to all communities across the country, including those communities frequently left behind. The office structure of DOE before our realignment evolved out of our historic focus on R&D. Continuing our critical and enduring energy innovation programs while establishing new major demonstration and deployment missions requires a structure reflecting that tomorrow's DOE will carry out the full spectrum of research, development, demonstration, and deployment.

The Under Secretary for Science and Innovation will continue critical work advancing the technologies needed to meet our energy and climate goals. The new Under Secretary of Infrastructure will build specialized capabilities managing large-scale demonstration and deployment programs aimed at bringing technologies to the market. The offices within these two Under Secretariats will work closely together to innovate, demonstrate, and deploy solutions that meet the Nation's climate and energy goals.

The focused, coordinated missions of our realigned structure will position the Department to most effectively implement the BIL programs – and, more broadly, to benefit all Americans by catalyzing innovation, modernizing our infrastructure, and helping to address some of our toughest challenges.

The FY 2023 Budget Request includes \$2.1 billion for the new Office of the Under Secretary for Infrastructure focused on clean energy infrastructure — large-scale demonstration and deployment. The new office centralizes existing program offices focused on major demonstration and deployment with newly created offices. The existing offices that moved to the new Under Secretary include DOE's Loan Programs Office (LPO); Office of Indian Energy (IE); Office of Clean Energy Demonstrations (OCED); Office of Cybersecurity, Energy Security, and Emergency Response (CESER); State and Community Energy Program (SCEP); and the Federal Energy Management Program (FEMP). The new Office also includes the four Power Marketing Administrations.

I would like to highlight some key program accomplishments across these offices from FY 2022 to show how our appropriated funding is being put to good use:

- The Weatherization Assistance Program (WAP) has completed approximately 15,000 retrofits in FY22 through Q2, delivering meaningful cost savings to these households.
- The State Energy Program's Better Buildings Challenge has helped over 950 private and public-sector Better Buildings partners collectively save more than 2.2 quadrillion British thermal units (QBtu) of energy since the start of the program. This amounts to a savings

of more than \$13 billion and 130 million tons of CO₂. Partners also have reduced their water use by more than 10.2 billion gallons.¹

- The Industrial Assessment Centers, which will be managed through the new Manufacturing and Energy Supply Chains Office, conducted 502 assessments in FY21 and FY22 year-to-date, generating 3,250 recommendations. In addition, there are 545 engineering students participating in the program across 32 centers, of which seven are Minority Serving Institutions.
- IE announced nearly \$9 million in funding to 13 American Indian and Alaska Native communities for 14 projects that will harness their vast undeveloped solar, hydro and geothermal energy resources, reduce or stabilize energy costs, and increase energy security and resilience on Tribal lands.
- FEMP awarded \$13 million in Assisting Federal Facilities with Energy Conservation Technologies (AFFECT) grants to federal agencies that will result, through partner agency cost sharing and private financing, in a \$725 million investment and reduce costs and greenhouse gas emissions.

Further, as of April 2022, LPO has 77 active applications with a total of nearly \$79.6 billion of requested financing. We recently announced three conditional commitments in three different states over the past few months to support clean hydrogen and carbon utilization, critical mineral manufacturing, and clean hydrogen production and storage technology deployment.

- Up to \$1.04 billion to Monolith Nebraska, LLC, in Hallam, Nebraska, to build the United States' first-ever commercial-scale facility to deploy methane pyrolysis technology that converts natural gas into carbon black and hydrogen. The project anticipates creating approximately 1,000 construction jobs and 75 permanent jobs in Nebraska.
- Up to \$107 million to Syrah Technologies, LLC, to expand its graphite processing facility in Vidalia, Louisiana. The facility is expected to produce enough natural graphite-based active anode material for approximately 2.5 million EVs by 2040, saving an estimated 970 million gallons of gasoline. The project would create approximately 150 construction jobs and 98 good-paying, highly skilled operations jobs in Louisiana.
- Up to \$504.4 million for the Advanced Clean Energy Storage Project, which would be a first-of-its-kind clean hydrogen production and storage facility capable of providing long-term seasonal energy storage, in Delta, Utah. The project would benefit Utah by creating up to 400 construction and 25 operations jobs.

CESER continues to lead public and private-sector partnerships to inform cybersecurity, energy sector security, and resilience policies at the Federal and State levels. The office has initiated a new Energy Threat Analysis Center (ETAC) pilot, which will enable us to jointly collaborate with industry, CISA's Joint Cyber Defense Collaborative (JCDC), and the Intelligence Community to jointly analyze threats and determine the relevant mitigation measures for energy systems. DOE has also been working on numerous efforts to address supply chain security issues in the energy sector. Following the passage of the BIL, we are bringing those efforts together and looking to expand them in FY23 under the "Energy Cyber Sense" banner, which will focus on addressing cyber threats to critical hardware and software used in the energy sector. CESER has

¹ [DOE BBI 2021 Progress Report.pdf \(energy.gov\)](#)

also just launched a new initiative focused on vehicle-to-grid charging infrastructure and cybersecurity, engaging with clean energy companies on cybersecurity and developing cyber training specific to their systems.

Funding for the Under Secretary for Infrastructure's programs is critical to reducing energy costs for households and businesses, rounding out DOE's portfolio of innovation investments, and ensuring a clean, safe, resilient, and secure energy system. The FY 2023 budget request includes:

- \$90 million for the Grid Deployment Office to catalyze the development of new and upgraded high-capacity electricity transmission and distribution systems nationwide, working with electricity system partners and stakeholders to ensure a reliable, resilient, and equitable grid that connects consumers to lower-cost and cleaner electricity options. The FY 2023 request supports two new programs, the Wholesale Electricity Market Technical Assistance and Grants, to improve electricity markets, and the Interregional and Offshore Transmission Planning programs, which will address barriers to offshore wind deployment.
- \$727 million for the State and Community Energy Program to work more closely with states, localities, and communities to reduce energy costs for households and businesses, deploy low-cost clean energy solutions, weatherize at least 50,000 homes through the WAP, and improve energy system planning;
- \$27 million for Manufacturing and Energy Supply Chains to support U.S. competitiveness in manufacturing next-generation energy technologies, ensure a strong energy industrial base, build resilient domestic supply chains, and help small- and medium-sized manufacturers improve productivity and competitiveness, reduce waste, and save energy;
- \$214 million for OCED to initiate a new program to support full-scale and commercial-scale clean energy demonstrations that address integration issues of renewable energy into the U.S. transmission and distribution grids. OCED will also house the Advanced Reactor Demonstration Program, which focuses on the construction of demonstration reactors in the near- and mid-term that are safe and affordable to build and operate;
- \$170 million for the FEMP to help federal agencies meet their building infrastructure and fleet modernization needs, by accelerating the implementation of energy and water conservation measures and improving energy resilience, including by funding the AFFECT program and launching the Net-Zero Labs Initiative to support the National Laboratories in decarbonization projects.
- \$150 million for the IE Policy and Programs for financial and technical assistance to promote energy development, efficiency, and use, reducing or stabilize energy costs, strengthening energy and economic infrastructure, transitioning the national Tribal Colleges and Universities to renewable energy, and bringing electrical power and service to Indian land, homes, and Alaskan Native communities;

- \$162 million, net of offsetting collection, for LPO, which includes \$150M for the Title 17 Innovative Technology Loan Guarantee Program credit subsidy costs, associated with an additional \$5 billion of loan guarantee authority open to a range of eligible projects that will help drive innovation, increase U.S. competitiveness, and support domestic manufacturing and supply chains; and
- \$202 million for CESER, which leads the Department’s efforts to secure U.S. energy infrastructure against all hazards, reduce the risks of and impacts from cyber events and other disruptive events, and assist with restoration activities.

LIHEAP Advantage

The budget request includes \$100 million for this new pilot program, known as the Low-Income Home Energy Assistance Program (LIHEAP) Advantage Pilot, to invest in home energy efficiency and energy cost-saving retrofits, including distributed energy solutions. The LIHEAP Advantage Pilot program will use innovative ways to design and expand the combined impact of WAP, the Department of Health and Human Service’s LIHEAP program, and related low-income energy assistance programs. More than 33 million households are eligible for energy assistance through LIHEAP to help them cover often-burdensome energy bills. These households could save significant money on their bills if they had access to energy-saving retrofits. The LIHEAP Advantage Pilot will save low-income households money on their bills through energy efficiency and clean energy, thereby reducing the demand for LIHEAP bill assistance and enabling taxpayer dollars to support even more people in need. The upgrades will also make the homes more comfortable and reduce harmful indoor air pollution. Additionally, programs like the State Energy Program and Energy Future Grants will help communities, states, municipalities, and Tribes improve energy planning and meet energy needs with low-cost clean energy.

Office of Clean Energy Demonstrations

DOE’s FY 2023 Budget Request supports the BIL-established OCED, which will accelerate clean energy innovation through major demonstrations of the clean energy technologies that have been invented and improved by the National Labs and DOE’s R&D programs. OCED will support scale-up of technologies including clean hydrogen, carbon capture, grid-scale energy storage, advanced nuclear reactors, and more.

The FY 2023 Budget Request provides \$214 million for OCED, which will serve as a project management center of excellence supporting the applied programs and other offices as needed to ensure a consistent approach to implementing capital-intensive late-stage technology demonstrations across DOE. OCED is implementing the more than \$20 billion appropriated in the BIL for the new office to deliver cutting edge clean technologies to communities and businesses across the country. These clean energy demonstrations will fund projects totaling hundreds of millions or multiple billions of dollars in scale and will unlock massive follow-on investment from the private sector to deploy these technologies, delivering clean energy to communities across the country.

With FY 2023 funding, OCED will initiate a new \$150 million program to support full-scale and commercial-scale clean energy demonstrations that address integration issues of renewable energy into the U.S. transmission and distribution grids. OCED will also provide \$25 million for the Advanced Reactor Demonstration Program, which focuses on the construction of demonstration reactors in the near- and mid-term that are safe and affordable to build and operate.

Demonstration projects prove the effectiveness of innovative technologies in real-world conditions at scale in order to pave the way toward widespread adoption and deployment. The founding of this office represents a new chapter that builds on DOE's expertise in clean energy research and development. OCED expands DOE's scope to fill a critical innovation gap on the path to net-zero emissions by moving clean energy technologies out of the lab and into local and regional economies across the country, proving the value of technologies that can deliver for communities, businesses, and markets.

OCED's BIL programs also include billions of dollars to invest in clean energy demonstration projects in rural areas and economically hard-hit communities that are experiencing the first and worst impacts of climate change. The office will consistently engage environmental groups, labor, and communities to help shape program development and execution. In addition to the large-scale projects, DOE will continue to support many smaller-scale pilots and demonstrations that are needed to meet the Administration's climate goals.

Conclusion

In conclusion, I would like to thank the Committee for its continued support and look forward to working with you to achieve these ambitious yet necessary goals.

Thank you for the opportunity to be here today. I am happy to answer your questions.