

TESTIMONY OF DR. KATHLEEN HOGAN
PRINCIPAL DEPUTY UNDER SECRETARY FOR INFRASTRUCTURE
U.S. DEPARTMENT OF ENERGY
BEFORE THE
SUBCOMMITTEE ON ECONOMIC POLICY
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS
UNITED STATES SENATE
REGARDING
THE ECONOMIC IMPACT OF FEDERAL INVESTMENTS IN MASSACHUSETTS
OCTOBER 20, 2023

Introduction

Thank you, Chair Warren, for this opportunity to provide an update on the Department of Energy’s (DOE or the Department) progress in implementing the Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law (BIL), and the Inflation Reduction Act (IRA).

These bills are truly historic investments in renewing American infrastructure for decades to come. We are together rebuilding American manufacturing and increasing American competitiveness. We are creating millions of lasting, good-paying jobs and helping communities across the country to tackle huge challenges and take advantage of opportunities. We are assisting communities in realizing the impacts of rapid energy technology transitions and ensuring that cities and towns have access to new energy technologies that can reduce families’ and businesses’ energy bills as quickly as they can be deployed.

We at the DOE feel a sense of urgency so that our fellow Americans in all parts of our country can benefit from these laws. We understand that we are entrusted with investments being made by our fellow taxpayers. By implementing the BIL and IRA, DOE will strive to lower energy costs for Americans, improve reliability and energy security, and ensure America is positioned to lead the world in manufacturing the energy technologies of the future.

Overview of BIL and IRA Energy Provisions

Through the BIL, Congress provided more than \$62 billion for programs under the purview of the Department of Energy. The BIL requires DOE to stand up 60 new programs – including 16 demonstration and 32 deployment programs – and expands funding for 12 existing research, development, demonstration, and deployment (RDD&D) programs. The BIL also provides funding for many programs authorized by the bipartisan Energy Act of 2020, including Long-

Duration Energy Storage demonstrations, the Advanced Reactor Demonstration Program, carbon capture demonstration and pilot programs, industrial emissions demonstrations, and more.

In the IRA, Congress invested approximately \$35.5 billion in programs administered by the Department of Energy, including \$8.8 billion for the Home Energy Rebates Program, nearly \$6 billion for industrial decarbonization, and increased loan authority for our Loan Programs Office (LPO) to help bolster burgeoning American innovation and domestic energy production.

This longer-term, demonstration- and deployment-focused mandate given to the Department by Congress also reflects a departure from other infrastructure packages in recent history, like the American Recovery and Reinvestment Act, which were more focused on research and development initiatives. The impacts of these new BIL and IRA investments will touch every corner of the country through competitive grants, formula funding, rebates, and loan programs that are thoughtfully designed and diligently administered by DOE experts, including career civil servants. Awards and selections to negotiate awards are also made by career officials via a merit-based process, with program integrity at the top of mind.

Taken together, the BIL and IRA are projected to save American families between \$27 billion and \$38 billion on their electricity bills from 2022 to 2030, relative to a scenario without BIL and IRA. American businesses are also projected to save on their electricity bills, with a 13 to 15 percent projected reduction in commercial electricity spending in the same time period.

Progress in Implementation

While only a portion of BIL and IRA appropriations were or will be obligated in Fiscal Years 2022 and 2023, DOE has been working expeditiously to deliver the greatest impact from these historic packages. As of October 17, 2023, the Department has released a total of 111 funding opportunities worth more than \$72 billion in initial investments for BIL and IRA programs. We also conditionally awarded \$1.1 billion in credits for zero-emission nuclear energy generation, made available \$4.25 billion in formula funding to state and local governments and Tribal Nations for energy efficiency and other clean energy projects, and selected nearly \$3 billion in awards for battery material processing, manufacturing, and recycling for negotiation. While continuing to carry out important programs outside of the BIL and IRA's purviews, the Department has built new internal organizational structures and operations to best facilitate the effective and efficient implementation of these laws.

In February of this year, DOE celebrated the one-year anniversary of our strategic departmental realignment, which created the new Under Secretary for Infrastructure and three new offices – the Grid Deployment Office, the Office of Manufacturing and Energy Supply Chains, and the Office of State and Community Energy Programs. This Under Secretariat also includes the BIL-created Office of Clean Energy Demonstrations, as well as mission-aligned program offices, like the Loan Programs Office (LPO), the Office of Cybersecurity, Energy Security, and Emergency Response, the Office of Indian Energy Policy and Programs, the Federal Energy Management Program, and the Power Marketing Administrations. This new structure helps maximize the efficacy of BIL and IRA programs and boosts DOE's ongoing work to reduce energy costs through low-cost clean

energy resources, stimulate American manufacturing and industrial competitiveness and create jobs, increase equity and environmental justice, and support meeting ambitious climate goals.

Since its implementation, the strategic realignment has allowed the Department to be nimbler and more responsive in its deployment of BIL and IRA, and to meet the challenges of implementing these historic laws. In addition, these structural changes set DOE up for success in carrying out all of our missions – and to carry them forward for the coming years and decades. The energy transition, which is already well underway, creates a massive opportunity to lower energy costs for American families, boost American manufacturing competitiveness, and maximize community benefits of new energy projects, especially in disadvantaged communities and those that have historically relied on the fossil fuel industry.

Seizing this opportunity requires active engagement with the private sector and communities as we deploy and oversee this unprecedented level of Federal clean energy investment, including in some areas and types of activities that are new to the Department. Our strategic realignment optimizes the world-class expertise of our talented staff and maximizes our ability to bring in new talent and skillsets that will serve the American public for decades to come.

We have also partnered with the Department of Transportation to stand up the Joint Office of Energy and Transportation, which aligns resources and expertise across our two departments to reach the President’s goal of deploying a robust network of electric vehicle chargers, zero-emission fueling infrastructure, and providing technical assistance for zero-emission transit and school buses.

Program and Initiative Highlights

Clean Energy Demonstrations

The Bipartisan Infrastructure Law directed DOE to establish the Office of Clean Energy Demonstrations, also known as OCED, which was officially stood up in December 2021. OCED’s mission is to deliver clean energy demonstration projects at scale in partnership with the private sector to accelerate deployment, market adoption, and the equitable transition to a decarbonized energy system.

Over the past several months, OCED has made selections for the negotiation of awards of large-scale demonstration projects to further advance our progress in the clean energy transition, including up to \$325 million for 15 projects across 17 states and one Tribal Nation to accelerate the development of long-duration energy storage technologies; up to \$1.2 billion for the nation’s first direct air capture demonstrations in Texas and Louisiana; and, most recently, up to \$7 billion for 7 projects spanning across 16 states to establish Regional Clean Hydrogen Hubs – a once-in-a-generation opportunity to lay the foundation for the clean hydrogen future.

Building a Better Grid

Earlier this year, the Department celebrated the anniversary of the Building a Better Grid Initiative, which is enabled by the Bipartisan Infrastructure Law and administered by the Grid Deployment Office – one of the new offices established under the strategic realignment, tasked with ensuring

the reliability and resilience of our electric grid. The focus of this initiative is to catalyze the nationwide development of new and upgraded high-capacity transmission lines and support investments to modernize the flexibility and resilience of the distribution system. These efforts will create a more resilient electric grid, which is essential to increasing energy reliability and resilience, giving more families and businesses access to lower-cost electricity and enabling the benefits of the huge amount of new clean energy coming online as we move toward our 2035 decarbonization goals.

The initiative encompasses the Grid Resilience State and Tribal Formula Grant program. To date, GDO has awarded 48 states, 49 Tribal entities, three territories, and the District of Columbia a combined total of more than \$748 million. In September 2023, more than \$9 million was awarded to the Commonwealth of Massachusetts. Under the administration of the Massachusetts Clean Energy Center (MassCEC), Massachusetts will hold a competitive selection process to identify and fund projects that can improve energy reliability and resilience while reducing the cost and number of outages for communities and underserved populations. MassCEC will also support clean energy and decarbonization solutions, including building electrification.

As part of this award and in line with the President’s Justice 40 initiative, MassCEC has committed to advancing their and the Massachusetts Department of Energy Resources’ equity, environmental, and energy justice priorities, as well as creating good-paying jobs with the free and fair choice to join a union.

Strengthening America’s Supply Chains and Reshoring the Industrial Base

As part of the departmental realignment, DOE created the Office of Manufacturing and Energy Supply Chains (MESOC), which is tasked with strengthening and securing manufacturing and energy supply chains needed to modernize our country’s energy infrastructure to support a clean and just energy transition and maximize the use of materials and services made in America.

MESOC administers the Industrial Assessment Centers (IAC) program, a collective of 37 universities across the country – including the University of Massachusetts Amherst – that conduct energy assessments for small- and medium-sized manufacturers to identify opportunities to improve productivity and competitiveness, reduce waste, and save energy. IACs train the next-generation of energy savvy engineers, more than 60 percent of which pursue energy-related careers upon graduation. The UMass Amherst is one of the longest-serving universities in the IAC program.

Through the BIL, DOE is expanding the IAC program to community colleges, trade schools, and union training programs to expand access to energy- and manufacturing-related career pathways while providing hands-on support to small- and medium-sized manufacturers. The BIL also invests in IAC Implementation Grants, which provides funding to small- and medium-sized manufacturers to help implement recommendations provided by IAC assessors.

Working with State and Community Partners to Drive Decarbonization

DOE’s Office of State and Community Energy Programs, also known as SCEP, works with our partners at the state and local level to deploy clean energy resources through BIL and IRA

resources, such as the Renew America's Schools Program, the Home Energy Rebates Program, and the Energy Efficiency and Conservation Block Grant Program, as well as existing programs that have been bolstered by the BIL, including the Weatherization Assistance Program and the State Energy Program.

The Bipartisan Infrastructure Law invested a tremendous \$3.5 billion into the Weatherization Assistance Program (WAP), which reduces energy costs for low-income households by increasing the energy efficiency of their homes, while ensuring their health and safety. Of this total, more than \$80 million was allocated to Massachusetts; the Commonwealth has received 50 percent of those funds to date.

Similarly, BIL invested \$500 million into the longstanding State Energy Program which assists states in meeting their energy objectives, through which Massachusetts is receiving \$7.7 million.

In June, SCEP announced selectees for the Renew America's Schools program, which will fund infrastructure upgrades at K-12 public school facilities while prioritizing high-need school communities. For example, Natick Public Schools in Natick, Massachusetts, will receive more than \$2 million in BIL funding to fully electrify Bennett-Hemenway Elementary School, while also adding an air-to-water heat pump, replacing aging rooftop units, and installing a state-of-the-art building automation system. As part of this project and in line with the President's Justice 40 initiative, Natick has committed to providing project-based training on building electrification to 20 disadvantaged students in partnership with the Keefe Tech Regional Vocational School's HVAC-R program.

Further, SCEP has announced awards to Massachusetts cities and towns through the BIL-funded Energy Efficiency and Conservation Block program totaling about \$1 million to date with funds for Boston and Littleton. These efforts seek to improve building efficiency and increase electric load flexibility. More awards will be coming at the local level as DOE addresses applications a rolling basis.

The IRA included \$8.8 billion in rebates for home energy efficiency and electrification projects. These home energy rebates will help American households save money on energy bills, upgrade to clean energy equipment and improve energy efficiency, and reduce indoor and outdoor air pollution. DOE estimates that these rebates will save households up to \$1 billion on energy bills each year and support more than 50,000 jobs. On July 27, DOE issued Home Energy Rebate Program Requirements and Application Instructions for states to receive their full allocation to establish their rebate programs.

Driving Renewable Energy RDD&D

The Bipartisan Infrastructure Law provided appropriations for several renewable power programs that were recently reauthorized under the Energy Act of 2020. These appropriations directed DOE's Office of Energy Efficiency and Renewable Energy (EERE) to conduct cutting-edge research, development, demonstration, and deployment (RDD&D) of renewable power technologies.

For example, in May 2023, DOE's Wind Energy Technology Office (WETO) announced a \$1.07 million BIL-funded Small Business Innovative Research (SBIR) award to Massachusetts-based Triton Systems, Inc., with which Triton Systems will continue development of a first-of-its-kind helical anchoring system with a unique subsea installation tool to help maximize the efficiency of anchoring offshore wind systems. With support from a previous SBIR award, Triton Systems analyzed mooring configurations, analyzed soil and rock on the ocean floor, refined their tool design, and conducted an offshore installation methodology assessment.

Conclusion

Thank you again for the invitation to provide testimony before you today on the historic impact of the Bipartisan Infrastructure Law and Inflation Reduction Act on our economy. These laws provide an unparalleled catalytic investment to our nation's infrastructure and energy security, and the Department looks forward to continuing our work together in implementing them with efficiency and integrity.