

BIL and IRA Implementation at DOE

Under Secretary for Infrastructure



Agenda

- Introduction to The Under Secretary for Infrastructure
- Overview of BIL and IRA
- Q/A Discussion

Our Mission

Catalyzing the nation's equitable transition to a clean, secure, affordable, and resilient energy system



Lowering energy bills for households and businesses



Creating good jobs and boosting energy supply chains and domestic manufacturing



Advancing world-class, next generation clean energy technology demonstrations



Making the energy system more secure, reliable, and resilient

Congress has given DOE new mandates and unprecedented funding



Our Offices Are Organized Around These New Investments

Power Marketing Administrations

S3: Under Secretary for Infrastructure

Grid Deployment Office (GDO)

- Transmission and Distribution grid programs
 - Grid resilience formula grants
- Hydro-electric upgrades
- Civilian nuclear credit

Manufacturing and Energy Supply Chains (MESC)

- Battery manufacturing & recycling
- Critical minerals processing
- DPA manufacturing

U.S. DEPARTMENT OF ENERGY

- Industrial sector decarbonization
- Industrial Assessment Centers
- Clean energy manufacturing in energy communities

State and Community Energy Programs (SCEP)

- Weatherization Assistance
- State Energy Program
- Energy Efficiency & Conservation Block Grants
- Whole home and electrification rebates
- Building energy code updates
- Workforce training programs
- Clean energy for schools & nonprofits

Indian Energy Policies and Programs (IE)

- Technical assistance
- Implementation grants

Clean Energy Demonstrations (OCED)

- Regional Clean Hydrogen Hubs
- Long-duration energy storage demonstrations
- Carbon management (capture, transport, geological storage)
- Direct-air capture
- Mine lands clean energy demonstration
- Rural/Remote Energy Improvement
- Industrial decarbonization demonstrations
- Advanced Nuclear Reactor Demonstrations

Loan Programs Office (LPO)

- Tribal Energy Loans/Guarantees (\$20B)
- 1706 Energy Community
 Infrastructure Reinvestment
- Large-Scale Clean Energy & Manufacturing Projects
- CO2 Transportation
 Infrastructure Loans

Cybersecurity, Energy Security, Emergency Response (CESER)

- Cybersecurity rural/Municipal Utility Grants
- Base energy security & emergency response programs

Federal Energy
Management (FEMP)

Federal building + fleet decarbonization

We are embedding key DOE priorities into our work

Justice 40

 Meet or exceed the objectives of the Justice40 initiative that 40% of benefits accrue to disadvantaged communities

Diversity, Equity, Inclusion, and Accessibility

 Equitable access to wealth building opportunities (teaming, access to good jobs, business and contracting opportunities, etc.)

Good Jobs

 Create good-paying jobs to attract and retain skilled workers and ensure workers have a voice on the job over decisions that affect them (wages, working conditions, safety, etc.)

Workforce and Community Agreements

Meaningful engagement with community and labor partners leading to formal agreements



*In most cases, Community Benefits Plans equate to 20% of the technical merit points for project proposals

FUNDING ANNOUNCED

- Hydrogen Hubs
- Grid Programs
- Transmission Facilitation Program
- Battery Supply Chains
- Weatherization
- State Energy Program
- Long Duration Energy Storage
- Carbon Management Programs
- Advanced Reactor Demos
- State Revolving Loan Funds
- Civil Nuclear Credit
- Energy Efficiency and Conservation Block Grants
- Direct Air Capture Hubs
- Energy Improvements in Rural and Remote Communities
- Industrial Decarbonization



Where we're going – \$53B more



- Advanced Energy Manufacturing & Recycling Program
- Energy Infrastructure Reinvestment Program
- Transmission Financing
- Home Energy Rebates
- Building Energy Code improvements
- Hydroelectric Incentives
- Federal Building Decarbonization (AFFECT)

A Few Highlights

Battery Manufacturing and Recycling Selections

- Oregon-based Entek was selected for a \$200 million grant from the BIL to expand their battery component manufacturing capacity.
- At full operation, this facility will be capable of producing enough material for 1.4 million EVs annually.

Industrial Assessment Center Expansion [Example]

- A local community college wants to provide on-the-ground training opportunities for students. They apply to host an Industrial Assessment Center to give students the opportunity to embed with local manufactures and learn how to improve their processes.
- The student then takes an IAC grant and works with the business to implement their recommendation and help increase their efficiency and reduce their emissions

Weatherization Assistance Program

- Using new funding through the BIL, a local nonprofit is able to hire more contractors and provide free weatherization services to low income homeowners. Those homeowners then can save \$\$\$ on their energy bills
- Individuals can find more information on this program at the Oregon Department of Housing and Community Services website: www.oregon.gov/ohcs/energy-weatherization.

Engaging with DOE Competitive Funding Opportunities

Request for Information (RFI)

- This is your opportunity to provide feedback on how DOE designs our programs
- Help us understand challenges and opportunities
- Provide your perspective and expertise

Notice of Intent (NOI)

- Overview of DOE's proposed funding opportunity
- See where and how we are targeting spending
- Understand if a funding opportunity could be right for you

Funding Opportunity Announcement (FOA)

- Submit your proposal, project plan, and supporting documents
- Demonstrate why your project will be successful and maximize impact
- Bring together a strong applicant team

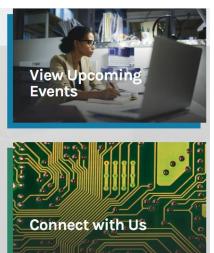
Attend Program Specific Stakeholder Engagement Events/Webinars

Technical Assistance and Engagement

SCEP State and Local Solution Center

- Resource hub for state and local governments as well as K-12 school districts
- SCEP hosts a variety of webinars with a specific focus on soliciting stakeholder input and providing information to help apply for and deploy DOE programs effectively and efficiently
- https://www.energy.gov/scep/slsc/state-andlocal-solution-center





Other TA and Assistance

- While DOE cannot provide applicants assistance in filing out applications many programs have technical assistance options to help understand technology and project options.
- Upcoming partnerships with other agencies to provide TA, including through EPA's Thriving Community Technical Assistance Centers (TCTAC)

Stay Connected

Visit energy.gov/clean-energy-infrastructure for announcements and sign up for email updates.





Browse Frequently
Asked Questions
(FAQs) for answers to
commonly asked
questions.

Find **funding opportunities** and access detailed **program information**.

Clean Energy Infrastructure Programs at Department of Energy



Q and A

Appendix

Supporting Domestic Manufacturing

Battery & Critical Material Supply Chain

- Overview: Program to fund battery supply chain manufacturing including refining, component, assembly, and recycling
- Funding: \$3 Billion remaining in program
- Eligible Entities: businesses looking to build or expand their manufacturing capacity for the energy supply chain
- Status: Funding announcement expected in Q2 of CY23

Domestic Conversion Grants

- Overview: Program to fund the retooling and conversion of existing businesses from the Internal Combustion Engine (ICE) supply chain to Hybrid/Electric/Hydrogen vehicle supply chain
- Funding: \$2 Billion
- Eligible Entities: Automobile manufacturers/component manufacturers
- Status: RFI Coming soon, Funding announcement over the Summer

Supporting Domestic Manufacturing

Advanced Energy Manufacturing and Recycling

- Overview: Grants to small/medium manufacturers to build/expand/retool for clean energy projects
- Funding: \$750 million
- Eligible Entities: Small/medium manufacturers in communities with coal plant or coal mine closures
- Status: FOA is currently open, 2nd FOA expected in Winter 23/24

Advanced Energy Project Investment Credit

- Overview: Investment tax credit to build or retrofit facilities that produce clean energy products. Credits will be allocated on a competitive basis.
- Funding: \$10 billion
- Eligible Entities: Manufacturers, with 40% of available credits going to qualifying energy communities
- Status: NOI on 2/13, full application available Q2 CY2023

Decarbonizing and Growing American Industry

Industrial Emissions Program

- Overview: Grants to support new build, retrofits, or decarbonization of carbonintensive industrial processes
- Funding: \$6.3 Billion
- Eligible Entities: Businesses in carbonintensive sectors like cement, iron/steel, paper/pulp, chemicals, etc.
- Status: FOA released on 3/8 with concept papers due on 4/21

Industrial Assessment Centers

- Overview: Funding to create Industrial Assessment Centers at community colleges and trade schools to give students hands on experience improving industrial processes, and providing grants to manufacturers to implement those improvements.
- Funding: \$550 Million
- Eligible Entities: Colleges, Universities, Community Colleges, Trade Schools, Union Training Programs
- Status: Funding coming Q2 CY2023

Investing in Communities

Energy Improvements in Rural or Remote Areas

- Overview: Grants for projects in rural/remote areas that increase energy efficiency or improve overall cost-effectiveness of energy generation, transmission, and distribution lines
- Funding: \$1 billion
- Eligible Entities: Utilities, state/local gov'ts, community-based organizations, Tribes, and cities, towns, and unincorporated areas with populations <10k
- **Status:** First \$300M announced March 1, concept papers due April 14

Clean Energy Demonstrations on Former Mine Land

- Overview: Up to five grants/cooperative agreements for projects that demonstrate the technical + economic viability of clean energy projects on current and former mine land
- Funding: \$500 million
- Eligible Entities: Private sector clean energy developers
- Status: Funding announcement expected later this month

Ensuring the Resiliency and Reliability of our Grid

Grid Resilience and Innovation Partnership Program

- Overview: Grants to enhance grid flexibility and improve the resilience of the power system against extreme weather
- Funding: \$10.5 billion
- Eligible Entities: Utilities, state/local gov'ts, for-profit entities, non-profit entities, institutions of higher education, public utility commissions
- Status: First \$3.8B announced in 2022, applications closed late 2022/early 2023.
 Second round of funding anticipated FY 2024.

Lowering Costs & Improving Home Efficiency for Consumers

Home Efficiency Rebates

- Overview: Rebate program administered by states and Tribes for consumers who purchase home energy efficiency upgrades that are predicted to save at least 20% of the home's energy use
- Funding: \$4.3 billion
- Eligible Entities: States, who then administer these programs to low- and moderate-income households
- Status: Currently in program design phase; first tranche of funds to states expected late 2023/early 2024

Home Electrification & Appliance Rebates

- Overview: Rebate program administered by states and Tribes for consumers who purchase high efficiency home appliances and equipment
- **Funding:** \$4.5 billion
- Eligible Entities: States, who then administer these programs to lowand moderate-income households
- Status: Currently in program design phase; first tranche of funds to states expected late 2023/early 2024

https://www.energy.gov/scep/home-energy-rebate-programs-frequently-asked-questions

Lowering Costs & Improving Home Efficiency for Consumers

EQUIPMENT TYPE	TAX CREDIT AVAILABLE FOR 2022 TAX YEAR	UPDATED TAX CREDIT AVAILABLE FOR 2023-2032 TAX YEARS
Home Clean Electricity Products		
Solar (electricity)	30% of cost	
Fuel Cells		
Wind Turbine		
Battery Storage	N/A	30% of cost
Heating, Cooling, and Water Heating		
Heat pumps	\$300	30% of cost, up to \$2,000 per year
Heat pump water heaters		
Biomass stoves		
Geothermal heat pumps	30% of cost	
Solar (water heating)		
Efficient air conditioners*	\$300	30% of cost, up to \$600
Efficient heating equipment*		
Efficient water heating equipment*	\$150	30% of cost, up to \$600
Other Energy Efficiency Upgrades		
Electric panel or circuit upgrades for new electric equipment*	N/A	30% of cost, up to \$600
Insulation materials*	10% of cost	30% of cost
Windows, including skylights*	10% of cost	30% of cost, up to \$600
Exterior doors*	10% of cost	30% of cost, up to \$500 for doors (up to \$250 each)
Home Energy Audits*	N/A	30% of cost, up to \$150
Home Electric Vehicle Charger	30% of cost, up to \$1,000	30% of cost, up to \$1,000 **
* Subject to cap of \$1200/year		

^{*} Subject to cap of \$1200/yea

Home Energy Equipment tax credits:

- Residential rooftop solar panel credits at up to 30% of cost can save roughly \$7,500 for the average household
- The average household can save more than \$9,000 over the life of their solar system, or nearly \$400 annually
- Up to a \$2,000 tax credit for purchase/installation of efficient heating, cooling, and water heating equipment, such as an electric heat pump
- Up to a \$1,200 tax credit for other home improvements that reduce energy waste
- Administered by the IRS/Treasury

^{**} The IRS will soon publish further information on eligibility requirements related to home electric vehicle chargers, but we know that credits are intended for residents in non-urban or low-income communities.