



Energy Efficiency Means Business

February 24, 2022



Energy Efficiency Means Business

US. Department of Energy (DOE) Energy Efficiency and Renewable Energy (EERE)

- Buildings Technology Office
- Advanced Manufacturing Office

EERE BUILDINGS TECHNOLOGY OFFICE (BTO)

Improve Energy Performance and Efficiency in U.S. Building Inventory

- ❑ 129 Million Buildings
- ❑ 35%-40% of U.S. Carbon Emissions
- ❑ 74% of Nation's Electricity Use
- ❑ 39% of Nation's Total Energy Use
- ❑ Residential and Commercial
- ❑ Emerging Technologies
- ❑ Residential and Commercial Buildings
- ❑ Appliance and Equipment Standards
- ❑ Building Energy Codes

EERE BUILDINGS TECHNOLOGY OFFICE (BTO)

Improve Energy Performance and Efficiency in U.S. Building Inventory

- ❑ Residential Building Integration
 - ❑ 20% U.S. GHG Emissions
 - ❑ Advanced Building Construction
 - ❑ Building America
- ❑ Commercial Building Integration
 - ❑ 16% U.S. Carbon Emissions
 - ❑ 30% of Energy Used Wasted
 - ❑ Goal: 30% Reduction in Energy Use by 2030 (based on 2010 levels)
 - ❑ Goal: Zero Commercial Building Emissions by 2050
- ❑ Emerging Technologies
 - ❑ Building Electric Appliances, Devices, and Systems
 - ❑ Building Controls
 - ❑ Building Equipment
 - ❑ Thermal Energy Storage
 - ❑ Lighting R&D
 - ❑ et. al.

EERE BUILDINGS TECHNOLOGY OFFICE (BTO)

Improve Energy Performance and Efficiency in U.S. Building Inventory

- ❑ Appliance & Equipment Standards
 - ❑ 13% of home energy use
 - ❑ Save consumers \$320 annually on energy bills
 - ❑ Washers: 75% less energy
 - ❑ Dishwashers: More than 53% less energy
 - ❑ Furnaces: 10% less energy

- ❑ Building Energy Codes
 - ❑ DOE advances and supports residential and commercial building codes
 - ❑ ASHRAE and International Code Council (ICC) develop national model codes. ASHRAE for commercial and ICC develops the International Energy Conservation Code covering commercial and residential
 - ❑ Generally adopted at the state level



Energy Efficiency Means Business

EERE BUILDINGS TECHNOLOGY OFFICE (BTO)

Improve Energy Performance and Efficiency in U.S. Building Inventory

Fiscal Year	Appropriation
2012	\$214.7 Million
2013	\$204.6 Million
2014	\$173.6 Million
2015	\$168.2 Million
2016	\$200.5 Million
2017	\$199.1 Million

Fiscal Year	Appropriation
2018	\$220.7 Million
2019	\$226 Million
2020	\$285 Million
2021	\$290 Million
2022 (requested)	\$382 Million; \$530 Million
2023	\$

EERE BUILDINGS TECHNOLOGY OFFICE (BTO)

Improve Energy Performance and Efficiency in U.S. Building Inventory

Infrastructure Investment Jobs Act

- ❑ \$225 Million in DOE grants to states for training codes officials and builders to improve the implementation of modern building energy codes
- ❑ \$3 Billion for the Smart Grid Investment Matching Grant Program and provides opportunity for funding of projects and development of initiatives connected to smart grid functions for buildings, facilities, equipment, and appliances.
- ❑ \$40 Million workforce training for buildings-related trades to meet innovative energy management needs at residential and commercial buildings
- ❑ \$10 million for higher education institutions for training and development that facilitates energy efficiency design and implementation in the built environment, including research and development.

EERE BUILDINGS TECHNOLOGY OFFICE (BTO)

Improve Energy Performance and Efficiency in U.S. Building Inventory

Budget Reconciliation

- \$300 million to state and local governments to adopt residential and commercial building codes
- Tax Policy: 25C; 45L; 179D



Energy Efficiency Means Business

EERE ADVANCED MANUFACTURING OFFICE (AMO)

Industrial Energy Efficiency and Environmental Performance
in the Industrial and Manufacturing Environment

EERE ADVANCED MANUFACTURING OFFICE (AMO)

Industrial Energy Efficiency and Environmental Performance
in the Industrial and Manufacturing Environment

- ❑ R&D
 - ❑ Innovative R&D projects
- ❑ R&D Consortia
 - ❑ Public, private, academia
- ❑ Technical Partnerships
 - ❑ CHP adoption
 - ❑ Energy intensity reduction resources
- ❑ Industrial Decarbonization
 - ❑ Deployment of proven concepts in the industrial sector
- ❑ Energy Management
 - ❑ Assessment and measurement tools
- ❑ Better Plants
 - ❑ Pledge to reduce portfolio-wide energy intensity 25% over 10 years
 - ❑ Over 250 participants
- ❑ Industrial Assessment Centers
 - ❑ Energy assessments for small and medium-sized manufacturers
 - ❑ Typically \$130,000 in energy savings for the business, \$50,000 in first year

EERE ADVANCED MANUFACTURING OFFICE (AMO)

Industrial Energy Efficiency and Environmental Performance
 in the Industrial and Manufacturing Environment

Fiscal Year	Appropriations
2012	\$112.7 Million
2013	\$114.3 Million
2014	\$175.4 Million
2015	\$194.2 Million
2016	\$228.5 Million
2017	\$257.5 Million

Fiscal Year	Appropriations
2018	\$305 Million
2019	\$320 Million
2020	\$395 Million
2021	\$396 Million
2022 (requested)	\$550.5 Million; \$800 Million
2023	\$

EERE ADVANCED MANUFACTURING OFFICE (AMO)

Industrial Energy Efficiency and Environmental Performance
in the Industrial and Manufacturing Environment

Infrastructure Investment Jobs Act

- ❑ \$550 Million
 - ❑ Industrial Assessment Centers (IAC)
 - ❑ Grants to Implement IAC Findings
for Small to Medium-Sized
Manufacturers

ALLIANCE
TO SAVE ENERGY
using less. doing more.

