U.S. DEPARTMENT OF ENERGY | Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

FY 2023 BUDGET AT-A-GLANCE

DECARBONIZING the Transportation Sector

Overview

The Office of Energy Efficiency and Renewable Energy (EERE) accelerates the research, development, demonstration, and deployment (RDD&D) of technologies and solutions to equitably transition America to net-zero greenhouse gas emissions economy-wide by 2050, creating good-paying jobs, and ensuring the clean energy economy benefits all Americans, especially workers and communities impacted by the energy transition and those historically underserved by the energy system and overburdened by pollution. To ensure its continued leadership in this transition, **EERE's FY 2023 budget request is for $4 billion**.

Decarbonize Transportation Across All Modes: Air, Sea, Rail, and Road

The transportation sector is the largest source of greenhouse gas emissions in the U.S. The sector has historically relied heavily on petroleum, which supports over 90%[1] of the sector's energy needs today. EERE will invest in developing, demonstrating, and deploying technologies that can affordably decarbonize all modes of transportation, including electrification of on-road vehicles, sustainable aviation fuel, and hydrogen fuel cells for long-haul heavy-duty trucks.

FY 2023 BUDGET HIGHLIGHTS

EERE's FY 2023 budget request for enterprise-wide activities and programs that support the goal of decarbonizing the transportation sector totals $1.11 billion. Highlights include:

Transition communities to clean transportation. Increase projects at the local level, including DOE's Clean Cities Coalition, to help communities with the transition to clean transportation. This investment will help communities build capacity at the local level to start large scale deployments, and develop best practices and case studies for broader use nationally.

Scale-up technologies for sustainable aviation fuel. Integrate and scale-up advanced bioenergy technologies to decarbonize all modes of transportation with an emphasis on sustainable aviation fuels (SAF) technologies. This investment will support RDD&D to enable the U.S. production of the airline industry's demand for SAF.

Establish a new heavy-duty Zero Emissions Vehicle (ZEV) fueling corridor initiative. Provide cross-office collaboration on maintaining programmatic alignment to the Communities to Clean Energy initiative for Transportation and the Integrated Heavy Duty ZEV Fueling and Connected Grid Demonstration project, while ensuring program activities will not subsidize fossil fuels.

Reduce the cost of batteries and secure the U.S. supply chain. Continue a strong focus on funding for battery technologies research and development to achieve programmatic performance milestones by 2030, including decreasing vehicle battery cell cost to achieve cost parity with internal combustion engines and mitigating battery supply chain risks. This investment will help establish a lithium battery recycling ecosystem to recover and reintroduce spent lithium battery materials into the supply chain, and eliminate or dramatically reduce dependence on critical materials such as cobalt, nickel, and graphite.

Produce affordable, clean hydrogen. Enable widespread adoption of hydrogen and fuel cell technologies and diverse end uses, this includes but is not limited to grid integration and stationary energy storage; transportation (e.g., trucks, marine, rail, aviation); chemicals (e.g., ammonia, synthetic fuels); industry (e.g., iron and steel making); and backup power (e.g., emergency power, data centers).

[1] Transportation Energy Data Book 39th Edition, Oak Ridge National Laboratory, 2021. Table 2.3 Distribution of Energy Consumption by Source and Sector, 1973 and 2019.

	FY 2021 Enacted	FY 2022 Annualized CR[2]	FY 2023 Request	FY 2023 Request vs FY 2021 Enacted	
				$	%
Sustainable Transportation					
Vehicle Technologies	400,000	400,000	602,731	+202,731	+50.7%
Bioenergy Technologies	255,000	255,000	340,000	+85,000	+33.3%
Hydrogen and Fuel Cell Technologies	150,000	150,000	186,000	+36,000	+24.0%
Renewable Power					
Renewable Energy Integration	0	0	57,730	+57,730	NA
Solar Energy Technologies	280,000	280,000	534,575	+254,575	+90.9%
Wind Energy Technologies	110,000	110,000	345,390	+235,390	+214.0%
Water Power Technologies	150,000	150,000	190,500	+40,500	+27.0%
Geothermal Technologies	106,000	106,000	202,000	+96,000	+90.6%
Energy Efficiency					
Advanced Manufacturing	396,000	396,000	582,500	+186,500	+47.1%
Federal Energy Management Program	40,000	40,000	0	-40,000	-100.0%
Building Technologies	290,000	290,000	392,000	+102,000	+35.2%
Weatherization and Intergovernmental Programs					
Weatherization Assistance Program	310,000	310,000	0	-310,000	-100.0%
Training and Technical Assistance	5,000	5,000	0	-5,000	-100.0%
State Energy Program	62,500	62,500	0	-62,500	-100.0%
Total, Weatherization and Intergovernmental Programs	**377,500**	**377,500**	**0**	**-377,500**	**-100.0%**
Corporate Support Programs					
Facilities and Infrastructure (NREL)	130,000	130,000	210,100	+80,100	+61.6%
21-EE-001-Energy Materials and Processing at Scale (EMAPS)	0	0	60,000	+60,000	NA
23-EE-TBD, STM Carbon Free District Heating/Cooling	0	0	31,500	+31,500	NA
Total, Facilities and Infrastructure	**130,000**	**130,000**	**301,600**	**+171,600**	**+132.0%**
Program Direction	165,000	165,000	224,474	+59,474	+36.0%
Strategic Programs	14,500	14,500	59,385	+44,885	+309.6%
Subtotal, EERE	**2,864,000**	**2,864,000**	**4,018,885**	**+1,154,885**	**+40.3%**
P.L. 116-260: Unobligated Balance Rescission	-2,240	-2,240	0	0	-100%
Total, EERE	**2,861,760**	**2,861,760**	**4,018,885**	**+1,157,125**	**+40.4%**

[2] The FY 2022 Annualized CR amounts reflect the P.L. 117-95 continuing resolution level annualized to a full year.