Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

FY 2023 BUDGET AT-A-GLANCE

DECARBONIZING **The Agriculture Sector**

Overview

U.S. DEPARTMENT OF

ERC

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.

Enable A Net-Zero Agricultural Sector

Agriculture represents nearly 10%¹ of U.S. carbon emissions. EERE prioritizes research, development, and demonstration investments to help drive a cleaner agriculture sector while achieving our decarbonization goals. This focus includes expanding EERE's work related to reducing carbon emissions in the agricultural sector through development of biofuels, greater efficiency of off-road agricultural vehicles, on-site production of animal waste to clean energy, and better understanding and prediction of water flow to design more water and energy-efficient irrigation systems. The work will be additive and complementary to the U.S. Department of Agriculture's work.

FY 2023 BUDGET HIGHLIGHTS

EERE's FY 2023 budget request for enterprise-wide activities and programs that support the goal of decarbonizing the agricultural sector totals \$65.3 million. Highlights include:



Investments in modernizing irrigation systems with IrrigationViz. This decision support and visualization tool helps farmers and other users

redesign and reinvest in their irrigation systems to conserve water, integrate renewable energy, advance environmental stewardship and promote the economic well-being of agricultural and rural communities.



Continued support for bioenergy R&D launched in FY 2022 to study sustainable agriculture practices and help farmers maximize profits on marginal lands while providing valuable feedstocks for bioenergy production.

The budget request supports RD&D to develop sensors and tools for soil carbon monitoring and soil carbon enhancement via biochar while enabling carbon credit banking markets and other activities requiring verifiable carbon emission data.



Two pilot-scale projects that employ advance technologies to demonstrate the potential to reduce carbon emissions, including fugitive methane, from operations that produce manure and other wet wastes. The EERE Bioenergy Technologies Office will support these pilot

projects through community-scale, public-private partnerships reduce carbon emissions and address local challenges associated with waste management and disposal.



	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.