INDUSTRIAL EFFICIENCY AND DECARBONIZATION OFFICE

VISION, MISSION, AND RELEVANCE TO NATIONAL PRIORITIES:

> Vision for the Future –An efficient and competitive industrial sector with net-zero greenhouse gas emissions by 2050.
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> Mission – IEDO accelerates the innovation and adoption of cost-effective technologies that eliminate industrial GHG emissions.

The Industrial Efficiency and Decarbonization Office (IEDO) supports innovation in technologies and the adoption of practices to enable the industrial sector to cost-effectively reduce greenhouse gas emissions. IEDO and its programs are critical to putting the Nation on a pathway to reduce CO_2 emissions by 50% by 2030 when compared to 2005 levels, and to achieve net-zero carbon emissions by 2050.

With 30% of primary energy-related emissions attributable to the industrial sector, IEDO builds upon a foundation of energy efficiency as a decarbonization pathway to include process electrification, use of low carbon fuels and feedstocks, and carbon capture to meet industrial emissions reductions targets. IEDO provides planning, management, and direction necessary for a balanced national program of research, development, demonstration, technical assistance, and workforce development to drive energy, materials and production efficiency, and decarbonization across the industrial sector. Engagement with a variety of stakeholders will inform office activities and include input from the Industrial Technology Innovation Advisory Committee (ITIAC) Federal Advisory Committee (FACA).

IEDO resides in the Office of Energy Efficiency and Renewable Energy within DOE's Under Secretary for Science and Innovation. IEDO reports to the Deputy Assistant Secretary for Energy Efficiency.

MAJOR PROGRAM ACTIVITIES:

Energy- and Emissions-Intensive Industries: Technology investment strategies to reduce emissions in energy-intensive and emissions-intensive industrial subsectors will be based on analysis and stakeholder engagement to inform priorities. Industrial subsectors of focus initially include chemicals; iron and steel; food and beverage; cement; and forest products. Additional analyses will be carried out to determine how decarbonization strategies can be deployed in industrial subsectors beyond the initial plan.

Cross-Sector Technologies: Technologies that address emissions across a broad range of

industries will be researched, developed, and demonstrated, such as electrification of process heat and technologies that utilize waste heat. Hydrogen and other low carbon fuels and feedstocks, direct electrification of reaction processes, as well as combined heat and power, will be investigated as a cost-effective approach to decarbonize multiple industrial subsectors. This portfolio also includes energy and emissions reductions from water and wastewater treatment.

Technical Assistance and Workforce Development: IEDO delivers technical assistance and develops partnerships with industry to increase the adoption of energy efficiency, decarbonization technologies, energy management programs, and water/waste reduction technologies and practices across the industrial sector. IEDO engages manufacturers with tools, best practices, assessments, and training resources to help overcome barriers to technology implementation and reach targets. IEDO supports workforce training and upskilling activities that prepare existing workers and attract a diverse mix of workers to the industrial jobs of the future.