



# IEDO – Technical Assistance and Workforce Development subprogram

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Industrial Efficiency and Decarbonization Office

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# Manufacturers Need for Technical Assistance

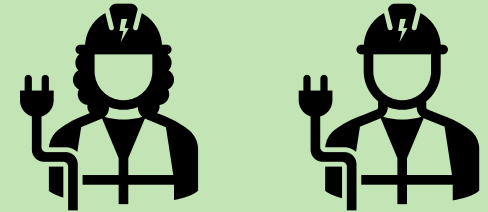
Decarbonizing the industrial sector requires deploying new technologies and processes.



Manufacturers need assistance managing significant change and implementing new technology in a cost-effective way.



As the pace of industrial decarbonization accelerates, workers need resources to stay informed and receive ongoing training about new solutions and technologies.



R&D portfolio demonstrates innovative energy and efficiency technology for industry



TAWD picks up the baton for the next leg of the race toward deployment at scale



# IEDO's Technical Assistance Efforts



Public /private partnerships to help manufacturers and industrial organizations set and achieve long-term energy intensity reduction goals



Education and training for the current and future manufacturing workforce



No-cost tools and resources for manufacturers to reduce GHG emissions and improve energy efficiency and competitiveness



End-user support, stakeholder engagement, and technical services for the industrial sector

**TA WORK PRODUCTS  
INCLUDE:**

**ENERGY  
ASSESSMENTS**

**PEER-TO-PEER  
NETWORKING**

**TOOLS &  
TRAINING**

**TECHNOLOGY  
SCREENING**

**PROJECT  
PROFILES**



# Technical Assistance and Workforce Development Activities

## CORE PROGRAMS



ONSITE  
ENERGY



BETTER PLANTS  
BETTER CLIMATE  
CHALLENGE



STRATEGIC ENERGY  
MANAGEMENT

50001 READY  
SEP 50001

## KEY INITIATIVES

*Education and  
Workforce  
Development*

*Energy  
Intensive  
Pilot*

*Industrial  
Technology  
Validation*

*Technical  
Assistance Tools*

# Multiplying Our Impact

## U.S. Industrial Sector

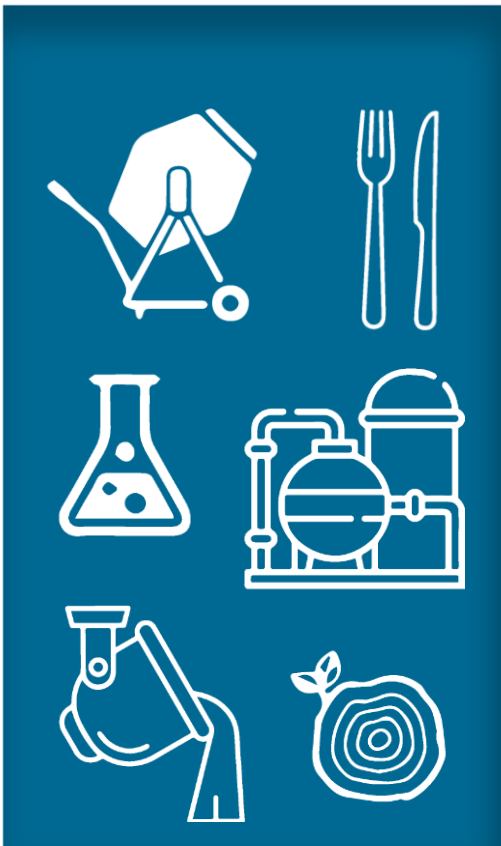
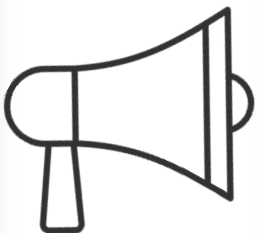
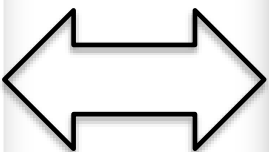
### Partners

### IEDO

Collaboration  
&  
Development  
of Resources

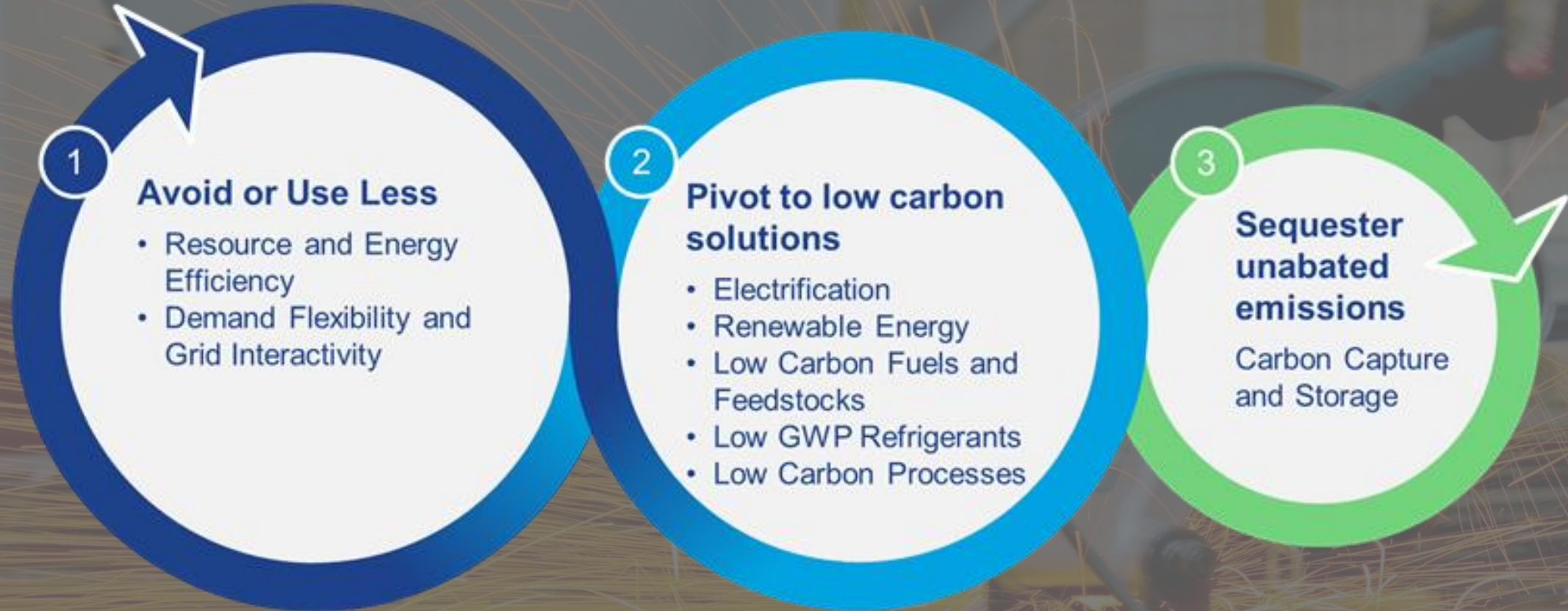
Disseminated  
to all of  
Industry

Analysis and Stakeholder Engagement



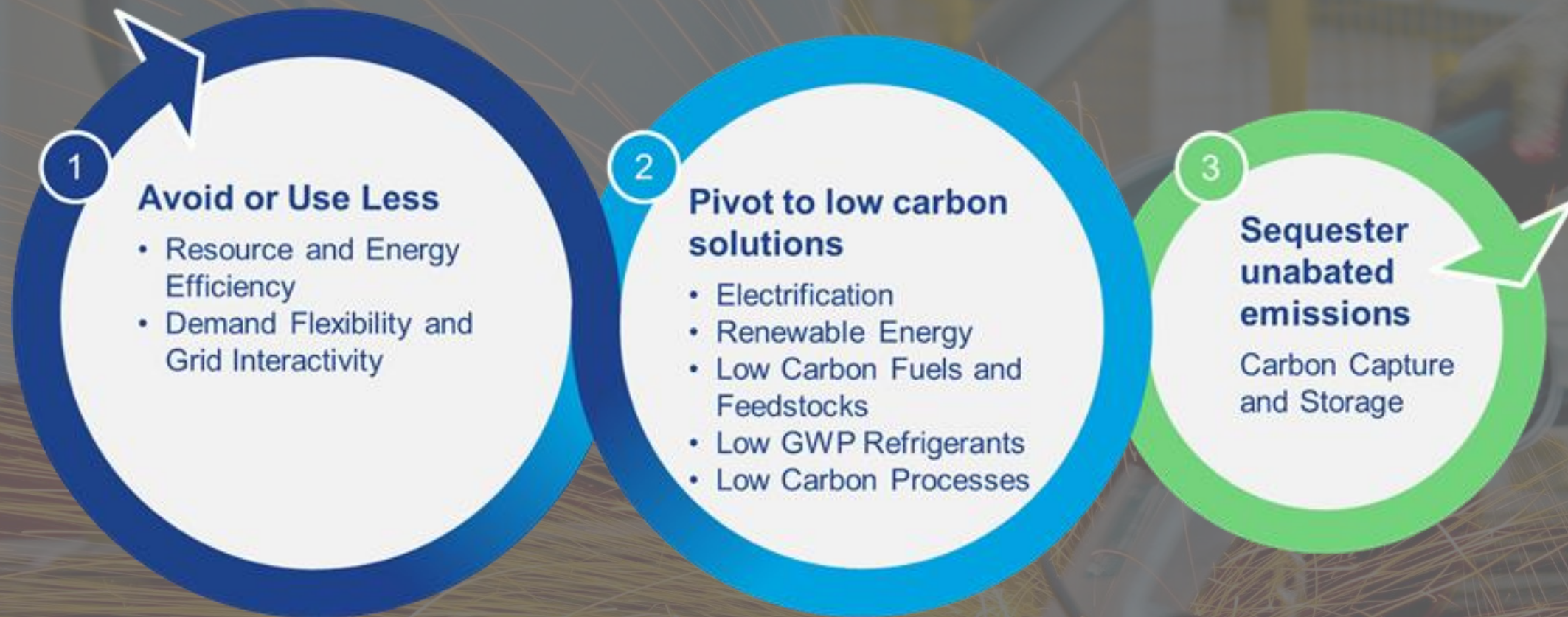


# Pathways to Decarbonization





# Pathways to Decarbonization



Better Plants

Energy Management

CHP/Onsite Energy

———— Better Climate Challenge ————

———— Workforce Development ————

# Better Plants & Better Climate Challenge

- As of 2021, industrial organizations can join the **Better Climate Challenge** and set portfolio-wide GHG emission reduction goals (50% reduction in Scopes 1 & 2, without offsets).
- Since 2011, through **Better Plants**, DOE has partnered with industrial organizations to set and achieve ambitious, long-term, portfolio-wide energy efficiency goals (25% improvement in energy intensity in 10 years).





# Onsite Energy Program

The U.S. Department of Energy's (DOE) Onsite Energy Program provides technical assistance, market analysis, and best practices to help industrial facilities and other large energy users increase the adoption of onsite clean energy technologies.

battery storage | combined heat and power | district energy | fuel cells | geothermal | industrial heat pumps  
renewable fuels | solar PV | solar thermal | thermal storage | waste heat to power | wind



# Energy Management Programs



# Energy Equity and Environmental Justice in Manufacturing

## Better Plants / Better Climate Challenge

- In-Plant Training scoring adjusted to prioritize DACs
- Recognition structure for companies that embody strong manufacturer-community relationships, prioritize DEIB, etc.
- Strategically promote Better Buildings/Plants workforce development page (internship postings, etc.) to encourage applicants from underserved populations

## Energy Management

- Collaborating with Association of Energy Engineers to bring energy management professional certification exam training modules to minority serving institutions

## Onsite/CHP

- CHP in Islands, Native Lands, and Rural Communities
- Regional community engagement plans and workforce reports
- Two DEIA and EJ trainings for Onsite TAPs per year
- Onsite TAP EJ Resource Hub and equity assessments

## Ongoing Engagements with Community Stakeholders

- July 2023: DOE roundtable at Focus Hope in Detroit, MI to engage with small to medium sized manufacturing entities, community groups, and economic development partners supporting the energy manufacturing sectors.



## Communities LEAP - Manufacturing Pathway

- Collaborating with 3 communities (Duluth, MN, Jackson County, IL and Pembroke-Hopkins, IL)
- Exploring industrial decarbonization / green steel opportunity in partnership with Duluth, MN coalition.

## Controlled Environment Agriculture (CEA)

- Accelerator working with geographically diverse partners, especially in food desert communities, to conduct case studies and screen regions for CEA feasibility.



# Looking Forward

## Top Priorities over next 5 years

- Expand Better Climate Challenge
- Implement new Onsite Energy Program
- Increase TA to energy intensive manufacturers
- Upskill the manufacturing workforce
- Incorporate DEIA/EEEJ into all programs
- ★ Become a connector for manufacturers to DOE opportunities

## Areas for Further Inclusion in TAWD Programs

- Increase focus on tech-to-market activities
- Social/behavioral strategies to speed decarbonization implementation
- Strategies around equity and engaging disadvantaged communities
- Stakeholder engagement around new program activities



# Thank you

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