OCED
Office of Clean Energy Demonstrations

THE OFFICE OF
CLEAN ENERGY DEMONSTRATIONS

Industrial Demonstrations Program
Midwest Regional Community Briefing

04/18/2024

Office of Clean Energy Demonstrations

U.S. Department of Energy

Webinar Logistics

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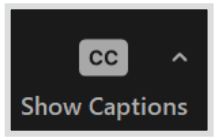

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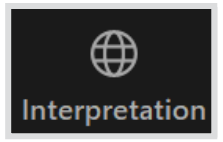

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Is this webinar being recorded?

No, this webinar is not being recorded.

Will the slides be shared?

Yes, a copy of the presentation slides will be shared via email with registrants and on the OCED website within the next week.

Midwest Regional Briefing Agenda

- **(6:00-6:30 pm CT) DOE and Industrial Demos Program Overview**
- **Project Overview Group 1 (6:40-7:20 pm CT)**
  - Kraft Heinz, Fremont, OH; Kendallville, IN; Holland, MI; Mason City, IA; Muscatine, IA; New Ulm, MN; Champaign, IL
  - Cleveland-Cliffs Steel Corporation, Middletown, OH
  - Libbey Glass, Toledo, OH
  - Owens-Brockway Glass Container, Inc., Zanesville, OH
  - Heidelberg Materials US, Inc, Mitchell, IN
  - Real Alloy Recycling, Wabash, IN
  - SSAB, Muscatine, IA
  - Diageo Americas Supply, Plainfield, IL
- **Q&A (7:20-7:50pm CT)**
- **Closing Comments (7:50-8:00 pm CT)**

OCED Overview

OCED Mission

Deliver clean energy technology **demonstration projects at scale** in partnership with the **private sector** to **accelerate deployment**, **market adoption**, and the **equitable transition** to a decarbonized energy system.”

INDUSTRIAL DEMONSTRATIONS PROGRAM SELECTION SNAPSHOT

OCED
Office of Clean Energy Demonstrations

$20+ BILLION
Total Funding
(Federal and private cost shares)

OVER
14 MILLION METRIC TONS
of avoided emissions annually

85% would reduce criteria air pollutants
(28) PROJECTS

TENS OF
THOUSANDS
total jobs

with
19 committed to union labor
PROJECTS

Selectees Delivered on Ambitious Program Priorities

Deep Decarbonization	**Target:** 50 – 75% emissions reductions per project	**Result:** Average **77% reduction** in carbon intensity & ~**14+ million MT CO2e reduced** annually
Timeliness	**Target:** Accelerate decarbonization into this decade	**Result:** Average performance period of **less than 6 years**
Market Viability	**Target:** Spur follow-on investment in lower-embodied carbon goods	**Result:** **35+ products** to be produced with lower embodied emissions; multiple with premium offtake agreements in place today
Community Benefits	**Target:** Select projects with the greatest benefit for the greatest number of people	**Result:** **85% of projects** improve air quality; investment will create **tens of thousands of jobs** across the United States

Community Benefits

Selectees described strategies and methods of accountability to ensure:

- Meaningful, two-way community and labor engagement
- Diversity, equity, inclusion, and accessibility
- Benefits to the surrounding community
- Quality jobs and workforce development
- Furthering the Justice40 Initiative

By **prioritizing community benefits**, we can ensure the next chapter in America's energy story is marked by greater justice, equity, security, and resilience.

The Inflation Reduction Act supports this goal by giving priority to projects that provide the **greatest benefit to the greatest number of people in nearby communities**.

Community & Labor Engagement

Diversity, Equity, Inclusion, & Accessibility

Greatest Benefit for the Greatest Number

Investing in the American Workforce

Justice40 Initiative

Community Benefit Commitments - Implementation Requirements per Phase

**CBPs are considered alongside assessments of engineering, procurement, and construction; business development and management; permitting and safety; and technical data and analysis.*

Negotiations Conducted

Go/No-Go Decisions

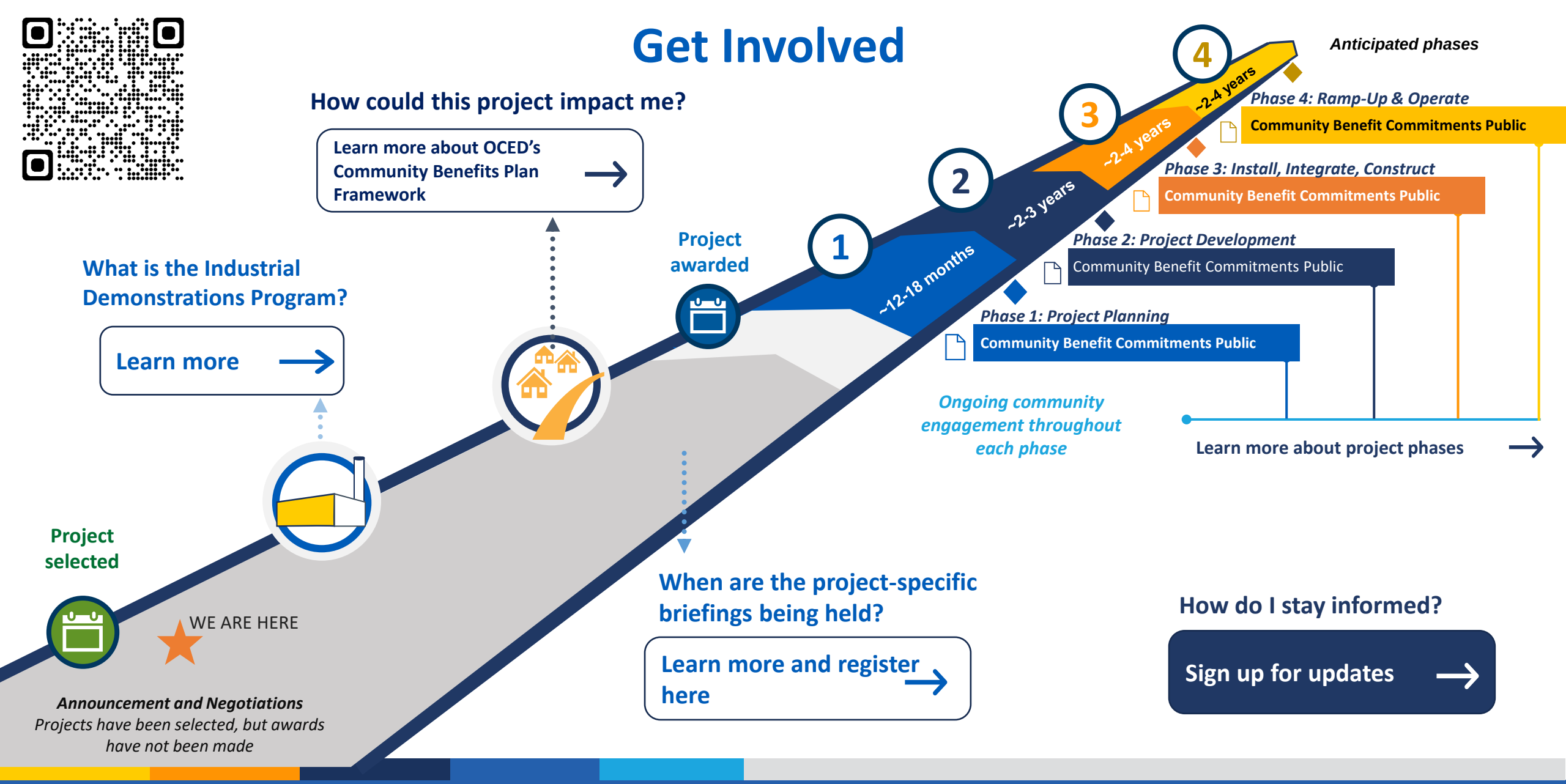
Get Involved

How could this project impact me?

Learn more about OCED's Community Benefits Plan Framework →

What is the Industrial Demonstrations Program?

Learn more →



When are the project-specific briefings being held?

Learn more and register here →

How do I stay informed?

Sign up for updates →

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Community Benefit Commitments Public
Go/No-Go Decisions

Next Steps – Negotiations

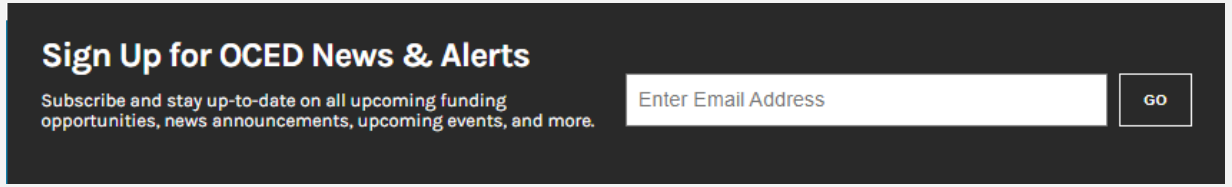
Award Negotiations: OCED will begin the negotiations process with project selectees.

After Award: ***IF the projects receive an award (successful negotiations)***

- Awarded projects will enter into a cooperative agreement with OCED
- Phase 1: Detailed Project Planning begins
  - OCED will work with the awarded project partners starting in Phase 1 to ensure compliance with the National Environmental Policy Act (NEPA)
  - Local communities (state, local and community stakeholders) will have the opportunity for ongoing engagement with OCED and the awardee(s)

For more information

- **For questions regarding IDP projects email engage_industrialdemos@hq.doe.gov**
- **OCED Website & Newsletter Sign-up energy.gov/oced**
  Scroll to bottom to sign up here:



- **OCED Exchange (RFIs, NOIs, and FOAs) oced-exchange.energy.gov**
- **Follow us on LinkedIn linkedin.com/company/doe-oced/**

IDP Resources

Industrial Demonstrations

- Program Page
- Press Release
- Overview of Selected Projects
- Local Engagement Opportunities
- OCED CBP fact sheet

Additional Resources

- NEPA Resources
- Industrial Decarbonization Pathways to Commercial Liftoff Reports
- DOE Industrial Decarbonization Roadmap

Justice40 Resources

- Justice40 Initiative
- Energy Justice Dashboard (BETA)
- Climate and Economic Justice Screening Tool

Projects in the Midwestern Region

Ground Rules for Discussion

- The projects are grouped into one set of five and one set of six so attendees can participate for the projects they are specifically interested in learning about.
- Representatives have 5 minutes each to cover their projects.
- After each set of projects, we will answer questions posed in the Q&A feature, moderated by the third-party facilitator.
- Submit questions using the Q&A feature.
  - You can also see and upvote other questions that have been asked.
- Reserve judgement
- One idea at a time
- It is okay to build on the ideas of others
- Clarifying questions are okay

Project Overviews

6:40 – 7:20 pm CT

- Kraft Heinz, Fremont, OH; Kendallville, IN; Holland, MI; Mason City, IA; Muscatine, IA; New Ulm, MN; Champaign, IL
- Cleveland-Cliffs Steel Corporation, Middletown, OH
- Libbey Glass, Toledo, OH
- Owens-Brockway Glass Container, Inc., Zanesville, OH
- Heidelberg Materials US, Inc, Mitchell, IN
- Real Alloy Recycling, Wabash, IN
- SSAB, Muscatine, IA
- Diageo Americas Supply, Plainfield, IL

Delicious Decarbonization: Integrated Electrification for KH Plants in the U.S.

The Kraft Heinz Company

Midwest – 7 Sites across 6 States: IL, IN, IA, MI, OH, MN

- Kraft Heinz is one of the largest Food and Beverage companies in the world with an unparalleled portfolio of iconic and new brands
- **2021: Commitment to achieve Net Zero by 2050, 2021** KH was named 'Industry Mover' by S&P Global Sustainability Yearbook
- Sites are home to **Heinz Ketchup and Sauces**, **Kraft Mac n Cheese**, **Velveeta**, **Jello**, **Jet Puffed Marshmallows**, **Kraft Caramels**
- Champaign, IL; Muscatine and Mason City, IA; Kendallville, IN; Holland, MI; Fremont, OH; New Ulm, MN
- **73%** of GHG emissions of Net Zero DOE project (10 sites) and **33%** of GHG of NA manufacturing

Technology Snapshot

- Move away from generating hot water via natural gas produced steam
- Heat pumps and heat exchangers will be used to recover waste heat from air/ammonia compressors and chillers
- 5 of the sites will incorporate solar PV technology and 3 sites solar thermal
- Any culinary grade steam will be generated via electric boilers
- Transition all procured electricity to 100% renewable sources
- **KH cost share: 113.1 MM**; **KH share for the 10 DOE program sites : 180MM**
- 2024/2025: Eng. feasibility studies & project dev. Construction 2026-2029, Operational: 2029

Federal Cost Share

~ $108.6 MM

Value and Impacts

- BL year 2022 emissions: ~**225,000 MT CO2e**, will be reduced by **close to 100%**
- Decarbonization design/approach can be replicated at our other KH plants
- Findings will be shared with broader F&B industry to inform net zero strategies in that sector

Carbon Emission Reductions

***~100%** of CO2e emissions will be reduced (**225,000 MT CO2e**)*

Delicious Decarbonization: Integrated Electrification for KH Plants in the U.S.

The Kraft Heinz Company

Community Benefits – this project will allow us to:

- Generate **327 construction jobs and 7-10 permanent jobs**, while also enhancing workforce development and training centers.
- Create a **Community Engagement Steering Committee** at each plan to solicit and act on feedback from community stakeholders and plant employees regarding any concerns about the project.
- Invest in and continue to support the promotion of **DEIA initiatives** for hiring and services through inclusive candidacy and job types.
- Compliment **local ESG goals, e.g.,**:
  - **City of Urbana-Champaign's Climate Action Plan** aims to reduce 80% GHG emissions by 2050
  - **Muscatine County** enhances environmental quality through robust air/water quality standards
  - **Holland's Community Energy Plan** aims to achieve 10 metric tons CO2/person/year by 2030
  - **New Ulm City Council & New Ulm Public Utility** aim to improve water quality and reduce community reliance upon natural gas through implementation of community **anaerobic digestor** (KHC will provide waste materials for the digestor and be one of the off takers)
  - **Sandusky County Economic Development Corporation** supports environmental advancement, workforce training, and hiring processes
  - **All utilities** supplying electricity to these plants have n**et zero goals on or before 2050**.
- Expand and enhance **existing community partnerships**

See box to the right using New Ulm as an example ==>

	New Ulm Economic Development Group through which plant manager provides guidance on current workforce needs and discusses human capital landscape; New Ulm City Council; New Ulm Mayor's Office; participation in the New Ulm Chamber of Commerce annual career expo to showcase jobs in New Ulm to 400+ high school students; Mfg CEO Peer Network
	New Ulm Business Resource Innovation Center; United Way; New Ulm Food Shelf; Brown County Free Fair; Octoberfest
	Representation on New Ulm Public School – Eagle Enterprise (Center for Technical Education) board, which provides technical trade skills for 9 -12 grade students; recruiting relationship with New Ulm public, private, and parochial schools to provide career opportunities to students; educational partnerships with Martin Luther College – New Ulm, Minnesota State University – Mankato, and South Central Community College – Mechatronics Department to provide informal apprenticeships, tours, and part time work; Career Expo

Delicious Decarbonization: Integrated Electrification for KH Plants in the U.S.

Contact Information

The Kraft Heinz Company

Project Email

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Person of Contact

Julio Quintana-Castillo

[Other Method of Contact]

Media@KraftHeinz.com (Press contact Information)

To contact OCED about this project, please email us at

engage_industrialdemos@hq.doe.gov

MIDDLETOWN WORKS DRI PLANT AND ELECTRIC MELTING FURNACES

Cleveland-Cliffs, Middletown, Ohio

Project Overview: Replace Blast Furnace with Direct Reduced Iron Plant and Melting Furnaces

Cleveland-Cliffs Middletown Works Steel Mill

- Fully integrated steel plant produces 2.9 million tons steel slabs and 5 million tons of hot rolled steel per year
- Employs 2,100 union workers, 400 salary workers, and numerous union trades people
- Major steel supplier for exposed flat rolled steel applications including outer automotive skins and appliance panels

Technology Snapshot

- First of a kind flex-fuel hydrogen ready direct reduced iron plant directly coupled to two electric melting furnaces to replace coke-fueled blast furnace
- Near zero GHG emissions with green hydrogen and clean electrical power source
- First iron production target Q3 2028 / Expect project complete Q4 2029

Federal Cost Share

$500,000,000

Value and Impacts

- Steel production with lower GHG emissions to meet manufacturers demand for low carbon steel
- Reduction in air emissions and water usage: increased community benefits
- ~20% reduction in the cost of producing steel slabs with natural gas
- Production of slag for cement industry decarbonization efforts

Carbon Emission Reductions

Reduce Scope 1 CO_2e emissions by >1 million tonnes per year

MIDDLETOWN WORKS DRI PLANT AND ELECTRIC MELTING FURNACES

Cleveland-Cliffs, Middletown, Ohio

Community Benefits

- Generate 1,200 construction jobs at peak construction and 170 permanent jobs, with hourly workforce represented by IAM Local 1943
- Construction will prioritize using union labor and Cliffs will work with the IAM Local 1943 to develop training programs that ensure a skilled workforce to operate and maintain the new technology
- Cliffs will keep community members apprised of project development via a dedicated website that will communicate stakeholder engagement opportunities
- Cliffs will dedicate financial and other resources to support housing initiatives that align with the City of Middletown's goal to build resilient neighborhoods
- Cliffs will proactively initiate discussions with community stakeholders regarding a Community Benefits Agreement
- Cliffs will allocate up to $200,000 to support community initiatives, including housing and neighborhood revitalization
- Cliffs will utilize its Community Inquiry Program and ensure project team is incorporating community feedback in project planning
- Collaborate with local partners to advance diverse supplier outreach
- Annually track employee and supplier metrics to assess if DEIA objectives are being met
- Reduce air emissions and water usage

MIDDLETOWN WORKS DRI PLANT AND ELECTRIC MELTING FURNACES

Cleveland-Cliffs, Middletown, Ohio

Contact Information

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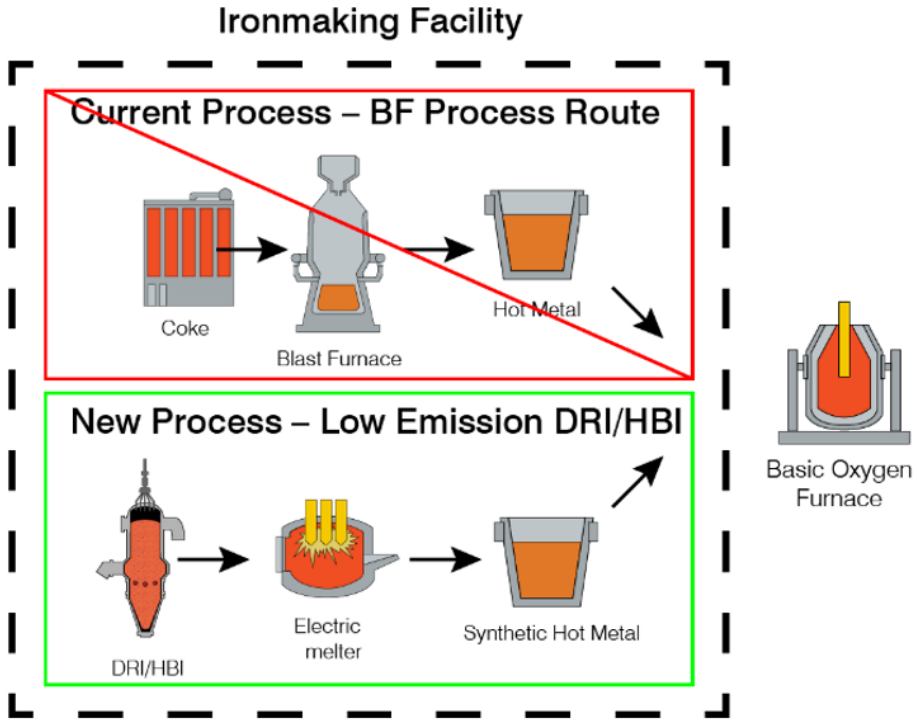
Cleveland-Cliffs_Projects@iprglobal.net

Person of Contact
Martin Mulhall, Sr. Director – Engineering
Cleveland-Cliffs Steel Corporation

Project Website
https://airtable.com/apppH7ps234IxSSOM/pag8cDteWqPIpGUd8/form

To contact OCED about this project, please email us at
engage_industrialdemos@hq.doe.gov



Demonstration of Low-Emission Glass Furnace Technology with Flexible Fuel Source

Libbey Glass, Toledo Ohio

Project Overview

Libbey Glass Toledo Plant

- Since 1818, Libbey has been the vanguard of artistry and innovation in American glassmaking. From our roots in Toledo, Ohio, to our place as a worldwide tabletop leader, we continue to empower chefs, mixologists and home entertainers to craft moments that matter with beautiful and durable tabletop products.

Technology Snapshot

- This five-year project replaces four outdated furnaces, which utilize natural gas and air, with two larger and more efficient hybrid furnaces.
- Modern Oxy-fuel technology will be augmented with electric melting for up to 80% of the energy to produce the glass for tableware.

Federal Cost Share

Up to $45.1 million

Value and Impacts

- Reduces up to an estimated 60% of carbon dioxide emissions in addition to other greenhouse gas and particulate emissions
- Demonstrates new decarbonization capabilities in the high temperature, difficult to decarbonize glass industry
- Provides workforce development opportunities in disadvantaged communities under the Justice40 initiative
- Supports glass products, one of the most recyclable materials on the planet.

Carbon Emission Reductions

Avoiding up to 20,000 tons per year while also reducing NOx, SOx and particulate emissions

Demonstration of Low-Emission Glass Furnace Technology with Flexible Fuel Source

Libbey Glass, Toledo Ohio

Community Benefits

Workforce Development

- Generates approximately 268 construction jobs, while also enhancing workforce development and training for core workforce.
- Engaging labor organizations and our local community by increasing apprenticeship and skilled trade opportunities
- Integrating with community partners and educational institutions, dedicated to empower and enhance career readiness, with skills development within our surrounding disadvantaged communities.

Air Quality

- Drives reduction in air emissions such as NOx, SOx and particulate matter in addition to the reduction in carbon dioxide emissions

Image Credit: Libbey Glass

Demonstration of Low-Emission Glass Furnace Technology with Flexible Fuel Source

Libbey Glass, Toledo Ohio

Contact Information

Project Email

ManufacturingInnovation@Libbey.com

Person of Contact

Jim Burmeister
Chief Financial Officer

Image Credit: Libbey Glass

To contact OCED about this project, please email us at

engage_industrialdemos@hq.doe.gov

Glass Furnace Decarbonization Technology

O-I Glass, Inc. - Tracy California, Zanesville Ohio, Toano Virginia

Project Overview

O-I Glass, Inc ("O-I")

- One of the world's leading manufacturers of glass containers
- 69 manufacturing plants in 19 countries including 14 in the USA
- Vision to be the most innovative, sustainable, and chosen supplier of brand-building packaging solutions

Technology Snapshot

- Integrating 5 emerging sustainability technologies into each glass furnace
- Utilizing 2 waste heat recovery technologies
- Increasing electrification
- Project timeline 2024 - 2028

Federal Cost Share

Up to $125 Million

Value and Impacts

- Demonstrates O-I's commitment to Sustainability
- Supporting our Customer's Scope 3 Emission Reduction Targets
- Supporting O-I's 2030 GHG Reduction Goal of 25%
- Reducing scope 1 emissions by approximately 40%, on average for rebuilt furnaces

Carbon Emission Reductions

Avoiding up to 48,000 tons per year equal to 11,424 cars per year

Glass Furnace Decarbonization Technology

O-I Glass, Inc. - Tracy California, Zanesville Ohio, Toano Virginia

Community Benefits

- Up to approximately 1200 construction related jobs.
- Will develop a Community Benefits Plan through direct engagement with local communities to address impact and local community needs.
- O-I and its charitable contributions would continue to support the communities through local investments in organizations, including the United Way, that address the communities' social needs, arts and culture, education and career development, and environmental impact related to glass recycling and beyond.
- The sustainability technologies also are expected to reduce NOx air emissions

Image Credit: O-I Glass

Glass Furnace Decarbonization Technology

O-I Glass, Inc. - Tracy California, Zanesville Ohio, Toano Virginia

Contact Information

Project Email

Glass.furnace.decarbonization.project@o-i.com

Contact Person

John Jenkinson, Project Management Office Leader, O-I Glass, Inc.

Image Credit: O-I Glass

To contact OCED about this project, please email us at

engage_industrialdemos@hq.doe.gov

Mitchell Decarbonization Project

Heidelberg Materials' Mitchell Cement Plant, Mitchell, Indiana

Project Overview

Mitchell Cement Plant, Mitchell, Indiana

- Longstanding history in region, producing cement since the early 1900s
- Recently completed construction of the newest, most modern cement plant in North America
- More than tripled the former clinker production capacity and is now at 7,000 mtpd

Technology Snapshot

- Carbon Capture via MHI's KM CDR Process™ and KS-21™ amine solvent
- Confirmed capture rate of 95-98% which is above the industry standard
- Safe storage in one or more deep geologic formations beneath the cement plant
- Engineering completion by Sept. 2026, commissioning and full operation by 2030

Federal Cost Share

Up to $500 million

Value and Impacts

- Creation of temporary construction and full-time operation jobs
- Deployment of the first cement plant in the US with full-scale decarbonization
- Production of low-carbon cement to produce low-carbon concrete for critical infrastructure projects for decades to come
- Additional emissions reductions beyond the advanced pollution control technologies already in use at the new cement plant

Carbon Emission Reductions

Avoiding 2M mt per year equal to 435,000 cars per year

Mitchell Decarbonization Project

Heidelberg Materials' Mitchell Cement Plant, Mitchell, Indiana

Community Benefits

- **Generate 1,000+ construction jobs and 25+ permanent jobs**
- **Boost** to tax revenue and local economy & businesses income during construction and continued operations
- Build on **the long history of successful community engagement** through the existing **Community Advisory Panel (CAP)** to ensure community concerns and priorities are heard and addressed
- **Promote DEIA initiatives by fostering equitable workforce development** to build capacity among the local workforce and create **quality jobs** accessible to local community members
- **Advance the knowledge of Carbon Capture and Storage (CCS)** projects through education, training partnerships and information sharing
- **Significantly reduce CO_2 emissions** with the added benefit of further reducing other emissions through the carbon capture process

Image Credit: Kendra Lankford - Heidelberg Materials

Mitchell Decarbonization Project

Heidelberg Materials' Mitchell Cement Plant, Mitchell, Indiana

Contact Information

Project Email

MitchellCCS@HeidelbergMaterials.com

Persons of Contact

Greg Ronczka – VP Environment and Sustainability
David Perkins – VP Government Affairs and Communications

Website

Mitchell Plant - Heidelberg Materials North America

To contact OCED about this project, please email us at

engage_industrialdemos@hq.doe.gov

Image Credit: Ian Nelson – Heidelberg Materials

Zero-Waste Advanced Aluminum Recycling (ZAAR)

Real Alloy Recycling, LLC – Wabash, IN

Project Overview

Real Alloy Recycling, LLC

- Real Alloy Recycling, LLC is a secondary recycler of aluminum and aluminum by-products with 14 facilities across the US
- The Wabash, IN facility specializes in recycling dross and salt cake

Technology Snapshot

- Implements innovative technology in the US to recycle salt slag from recycling operations
- Separates salt slag into re-usable materials
- General timeline is to start up within 4 years

Federal Cost Share

Up to $67.3 million

Value and Impacts

- Supports increased aluminum recycling
- Creates a completely closed loop aluminum recycling process
- Displaces $C0_2$ intensive materials by creating re-usable materials
- Converts 90kt of landfill waste into usable products
- Uses hydrogen generated in the process as a source of heat, reducing CO_2 generation

Carbon Emission Reductions

This project will further reduce the carbon intensity of aluminum recycling, which is 95% less than virgin aluminum production

Zero-Waste Advanced Aluminum Recycling (ZAAR)

Real Alloy Recycling, LLC

Community Benefits

- Generating 100 construction jobs and 9 permanent jobs in addition to the 30 quality jobs at the facility
- Investing in workforce development programs in the areas of engineering, welding, electrical, programmable logic controls (PLCs), autonomous systems, controls, and manufacturing processes
- Pursuing multiple community agreements and partnerships with a focus on workforce and safety training efforts
- Focusing on outreach efforts to minority businesses, targeted hiring efforts and enhanced DEIA training
- Appointing a Community Liaison to serve as the bridge between the project team and the community, ensuring that the concerns and views of the community are communicated

Zero-Waste Advanced Aluminum Recycling (ZAAR)

Real Alloy Recycling, LLC

Contact Information

Project Email

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Person of Contact

Ray Weaver
Vice President, Human Resources

To contact OCED about this project, please email us at

engage_industrialdemos@hq.doe.gov

Hydrogen-Fueled Zero Emissions Steel Making

SSAB: Mississippi, Iowa

Project Overview

SSAB Overview

- SSAB is a global steel company headquartered in Stockholm, Sweden; 16,000 employees in >50 countries
- North American HQ and steel mill located in Mobile, Alabama; North American R&D and steel mill located in Montpelier, Iowa. Processing facilities in Houston, TX, St. Paul, MN and Ontario, CAN

Technology Snapshot

- Develop commercial-scale green hydrogen-based steel production capability
  1. MS: Construction of HYBRIT® fossil-free Direct Reduced Iron (DRI) technology utilizing 100% green hydrogen from Hy Stor Energy
  2. IA: Expansion of steelmaking capabilities to utilize the hydrogen-reduced DRI
- `25-'26 Construction; `26-'27 Commissioning & Ramp-Up

Federal Cost Share

Up to $500 million

Value and Impacts

- Introduce fossil-free sponge iron production to the U.S.
- Produce low CO_2 emissions steel solutions for use in critical end-use markets
- 81% reduction in overall GHG emissions compared to traditional DRI production and normal cradle-to-gate global warming potential.
- 55% reduction in GHG emissions at SSAB Iowa facility in Montpelier

Carbon Emission Reductions

81% overall reduction in Greenhouse Gas (GHG) emissions

Hydrogen-Fueled Zero Emissions Steel Making
SSAB

Community Benefits

- Generate ~6,000 construction jobs and 540 permanent jobs across Mississippi and Iowa, while also enhancing workforce development and training centers.
- Invest in the immediate and future workforce through quality job creation, advancing diversity, equity, inclusion, and accessibility through the implementation of our industry leading program “Stronger Together.”
- Contribute to the Biden-Harris Administration’s Justice40 Initiative.
- Eliminate 81% of GHG emissions from a so-called “hard-to-abate” sector.
- Solicit and support local vendors, contractors, and sub-contractors for the project as well as subsequent facility operations.
- Provide STEM-focused summer camp scholarships and curriculum development for high school students in underrepresented communities.

Steel coupon produced with fossil-free sponge iron

Hydrogen-Fueled Zero Emissions Steel Making
SSAB

Contact Information

Contact Person
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Contact Person Telephone
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To contact OCED about this project, please email us at
engage_industrialdemos@hq.doe.gov

SSAB mill, located in Montpelier, IA

Heat batteries for deep decarbonization of the beverage industry

Diageo Americas Supply, Inc.

Project Overview

Diageo Americas Supply, Inc. (Diageo)

- Diageo is a global premium drinks company, with production operations in North America
- Project will be implemented across production sites in Shelbyville, Kentucky (Bulleit Bourbon and Rye Whiskeys) and Plainfield, Illinois (spirits and ready-to-drink cocktails)

Technology Snapshot

- By partnering with Rondo Energy, Diageo will install heat battery technology to electrify production sites in Kentucky and Illinois.
- Rondo Heat batteries will providing low-cost, zero-carbon heat and power, and eliminating reliance on natural gas for boilers used in heating processes.

Federal Cost Share

Up to $75 million

Value and Impacts

- The electric thermal energy storage (ETES) that will be deployed for this project is a new, more cost-effective path to industrial decarbonization that has potential to deliver firm, reliable clean energy for decades. This project will demonstrate an industrial heat and power model system that could be replicated in many other sectors, as well as food and beverage more broadly.
- The project aims to create approximately 144 construction jobs across the two locations.
- Diageo is committed to sharing facility air and water quality monitoring results with the public to inform local communities about reductions in criteria air pollutants as a result of this project.

Carbon Emission Reductions

Eliminate nearly 17,000 metric tons per year, equivalent of taking more than 4,046 gasoline-powered cars off the road a year

Heat batteries for deep decarbonization of the beverage industry

Diageo Americas Supply, Inc.

Community Benefits

- **Community & Labor Engagement:**
  - Hire a Community Benefits Manager to execute and evaluate CBP and be key point of contact for community partners.
  - Use a portfolio of engagement methods (e.g. town halls, focus groups, surveys, multi-lingual) to offer broad and accessible opportunities to get community feedback, inputs on project progress support objectives of two-way engagement.
  - Work to negotiate and design appropriate agreements with local community partners.
- **Support Quality Jobs:**
  - Estimate creating approximately 144 full-time equivalent jobs across the two sites in Kentucky and Illinois during construction and continue to work in good faith with represented workforce.
  - Support local and regional workforce development, investing in training, job readiness and sector-specific skilling, to support a diverse talent pipeline for growth in food and beverage sector.
- **Advance Diversity, Equity, Inclusion & Access:**
  - Explore with local partners how to develop a supplier technical assistance and capacity building program to improve diverse supplier base.
  - Invest in accessibility resources and infrastructure in regional parks.
- **Environmental Benefit for the Greatest Number:**
  - Support conservation and restoration efforts of local forests and critical landscapes to enhance biodiversity aligned with equity and access principles.
  - Invest in community recycling and explore reduction of hauling emissions.

Diageo production facility in Plainfield, Illinois
Image Credit: Diageo

Heat batteries for deep decarbonization of the beverage industry
Diageo Americas Supply, Inc.

Contact Information

Project Email

community.engagement@diageo.com

Person of Contact

Andrew Jarrick, Director, Environmental Sustainability, Diageo North America

Diageo production facility in Plainfield, Illinois
Image Credit: Diageo

To contact OCED about this project, please email us at
engage_industrialdemos@hq.doe.gov

Question & Answer

7:20-7:50 CT

Thank you!

OCED

Office of Clean Energy Demonstrations

For more information; please visit energy.gov/OCED