



Industrial Demonstrations Program – Hybrid Electric Glass Furnace Project

The Industrial Demonstrations Program, managed by the U.S. Department of Energy (DOE) Office of Clean Energy Demonstrations (OCED), aims to accelerate decarbonization projects in energy-intensive industries and provide American manufacturers a competitive advantage in the race to lead the world in low- and net-zero carbon emissions manufacturing. To advance industrial decarbonization, OCED sought applications for up to \$6 billion in funding to support the demonstration of transformational technologies necessary to reduce emissions in the U.S. industrial sector. Following negotiations, in December 2024, OCED awarded the Hybrid Electric Glass Furnace Project with more than \$2.7 million to begin Phase 1 of the project, located in Modesto, CA.



Awardee Fact Sheet

Industrial Demonstrations Program: Hybrid Electric Glass Furnace Project

Project at a Glance — Phase 1

- » **Total OCED Cost Share:** Up to \$75 million
- » **Total Project Amount:** \$5,802,511*
- » **OCED Award Amount:** \$2,781,999**
- » **Scope of Work:** Preliminary and detailed engineering, project planning, community and labor engagement, and other development activities
- » **Timeline:** 12 months
- » **Recipient:** Gallo Glass Company is a producer of a variety of wine and spirit bottles
- » **Project Location:** Modesto, CA
- » **Start Date:** December 2024

*Represents the total project cost for Phase 1.

**Represents OCED's cost share for Phase 1. Additional funding for this project is subject to future award negotiations at the end of each project phase.

About This Project

The Hybrid Electric Glass Furnace Project, led by the Gallo Glass Company (Gallo Glass), plans to install a demonstration hybrid electric furnace to reduce natural gas use by up to 70%, increase recycled content in its glass bottle production process, and demonstrate cradle-to-gate reductions in carbon intensity of over 40% compared to traditional gas-powered furnaces. To maximize the project's environmental benefits, Gallo Glass plans to leverage low-carbon energy sources where possible. Gallo Glass anticipates selling low-carbon glass bottles as a premium option, contributing to the decarbonization of a large portion of glass packaging for California's wine and spirits industry.

During Phase 1 of the project, Gallo Glass will perform detailed engineering, assess the feasibility of clean or low-carbon power sources, provide documentation and reports necessary for OCED to complete the National Environmental Policy Act review, and continue engagement activities with the community, partners, and stakeholders.

OCED will provide oversight of the Hybrid Electric Glass Furnace Project by evaluating the status and quality of implementation at each phase of the project. Through its phased approach to project management oversight, OCED will review and evaluate the project's progress, including community benefits, which impact OCED's decision to continue to provide federal funding and allow a project to progress to the following phase.

Hybrid Electric Glass Furnace Project

Project Fact Sheet

Project Site

The Hybrid Electric Glass Furnace Project would be located in Modesto, CA.

Community Benefits Commitments

Community benefits commitments are a key component of the Hybrid Electric Glass Furnace Project. The commitments are informed and developed—in consultation with local communities—to maximize local community benefits and mitigate potential negative impacts. Gallo Glass plans to implement these commitments through:

- **Generating new union jobs** trained in highly technical hybrid melting technology at Gallo Glass that will be represented by the United Steelworkers Union. Gallo Glass will take steps toward the development of negotiated agreements to ensure a sufficiently skilled and trained workforce for construction.
- Partnering with local educational institutions and workforce development organizations to develop plans to expand its **existing training programs** and integrate skills associated with the hybrid melting process, as well as the latest glass manufacturing technologies.
- Collaborating with local groups to **support job-skill development** for residents from diverse backgrounds in the community.
- **Instituting a Community Benefits Plan Advisory Committee** comprised of labor organizations, community members, and industry professionals, and pursuing a Community Benefits Agreement.
- **Completing a Justice40 assessment** and implementation strategy during each phase including impacts like job creation and emissions reductions.
- **Quantifying air quality impacts** for any relevant air pollutants emitted, or expected to be emitted, from the project.
- **Sharing project information publicly** to support engagement, accountability, and transparency.

More details on the Hybrid Electric Glass Furnace Project's community benefits commitments can be found in the [Community Benefits Commitments Summary](#).



Aerial view of Gallo Glass Company

Hybrid Electric Glass Furnace Project

Project Fact Sheet

Industrial Demonstrations Program Goals

U.S. industry is a backbone of the nation's economy, producing the goods critical to everyday life, employing millions of Americans in high-quality jobs, and providing an economic anchor for thousands of communities. Yet the sector's energy- and carbon-intensity contributes to nearly one third of the nation's carbon dioxide emissions, representing a unique and complex challenge to achieving a carbon-free economy. Decarbonizing the U.S. industrial sector will require equally unique and innovative technological solutions that leverage multiple pathways, including energy efficiency, electrification, and alternative fuels and feedstocks such as clean hydrogen. The Industrial Demonstrations Program includes new, emerging technologies that aim to help produce clean steel, cement, chemicals, and other materials used in our nation's roads, bridges, transmission lines, electric vehicles, solar panels, wind turbines, and everyday lives, which in turn, benefit every American.



Glass bottle formation

Contact

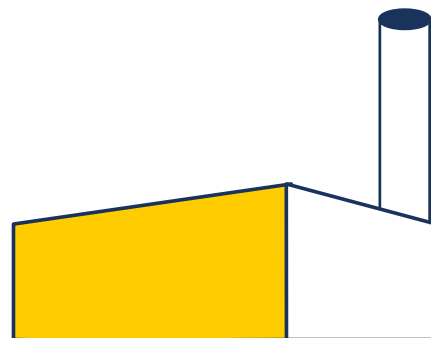
Program Email: engage_industrialdemos@hq.doe.gov

OCED Media Email: OCEDNewsroom@hq.doe.gov

More Resources

Website: energy.gov/oced/IDP

Office of Clean Energy Demonstrations: energy.gov/oced



The U.S. Department of Energy established OCED to help scale the emerging technologies needed to tackle our most pressing climate challenges and achieve net-zero emissions by 2050. OCED's mission is to deliver clean energy demonstration projects at scale in partnership with the private sector to accelerate deployment, market adoption, and the equitable transition to a decarbonized energy system.