

# **Project Cancellations: Office of Clean Energy Demonstrations Brief**

July 1, 2025

**wood.**

# Project Cancellations: Office of Clean Energy Demonstrations Brief

This brief provides an overview of the U.S. Department of Energy's (DOE) recent decision to cancel 24 previously awarded Office of Clean Energy Demonstration (OCED) projects, many of which were focused on carbon capture, decarbonization and industrial innovation. The intention is to outline the impacted projects, including their scopes, actual award amounts, and the timing of their award announcements for broader context that can inform next steps.

## Background

On May 30, 2025, U.S. Secretary of Energy Chris Wright announced the cancellation of 24 previously awarded projects following a financial review by the DOE.<sup>1</sup> In the official statement, the DOE cited that these projects - many of which focused on carbon capture and sequestration (CCS) demonstrations and industrial decarbonization - "failed to advance the energy needs of the American people," were "not economically viable" and "would not generate a positive return on investment of taxpayer dollars." According to the DOE, 16 of the 24 cancelled awards (approximately 70%) were signed between Election Day on November 5, 2024 and Inauguration Day on January 20, 2025. The cancellations are projected to result in about \$3.7 billion in immediate savings, with an additional \$15 billion across 179 other awards still under evaluation.<sup>2</sup>

## Cancellation Impact

The announced projects were all part of OCED, a relatively new division within the DOE focused on scaling and commercializing clean energy technologies. It was established by Congress in 2021 with a mandate to invest billions in the demonstration of clean energy projects. As of December 2024, OCED had awarded about 113 projects across 42 states. Over 90 of those projects were awarded in 2024.<sup>3</sup> Notable OCED awards include multi-billion-dollar investments in clean hydrogen hubs, Direct Air Capture (DAC) hubs, carbon capture demonstrations and industrial decarbonization initiatives.

## Federal Clean Energy Funding Landscape Becomes Less Predictable

To receive federal funding from OCED, clients had to respond to lengthy Funding Opportunities Announcements (FOAs), be selected following a formal review process and negotiate contracts with the federal government. The grants were in the form of cost share, which means that projects had to provide their own funding to qualify. Additionally, money under such grants is only paid out once agreed-upon work has been executed and invoiced per the terms of the contract. There are designated go/no-go decision gates, and money is available in accordance with the phase structure of the agreement. Historically, government funding has been rarely revoked after having been awarded, except at predefined project off-ramps and typically only following formal negotiation. The large-scale cancellation of previously awarded funds introduces a new level of uncertainty for all projects relying on DOE funding or associated tax incentives.

---

<sup>1</sup> [Secretary Wright Announces Termination of 24 Projects, Generating Over \\$3 Billion in Taxpayer Savings | U.S. Department of Energy](#)

<sup>2</sup> [The Department of Energy axes \\$3.7 billion in clean energy project grants | AP News](#)

<sup>3</sup> [Three Years of Impact: OCED by the Numbers | U.S. Department of Energy](#)

OCED projects typically split into Phases 1, 2, 3 and 4 (though the Regional DAC hubs did have Phase 0 options as well). The phases take projects from early engineering (Phase 1) to detailed engineering (Phase 2), construction (Phase 3), and commissioning and operation (Phase 4). The phases as they were outlined in the DOE OCED Funding Opportunity Announcement DE-FOA-0002779, issued September 22, 2022, are shown below in Figure 1 as an example of the planned project structure:

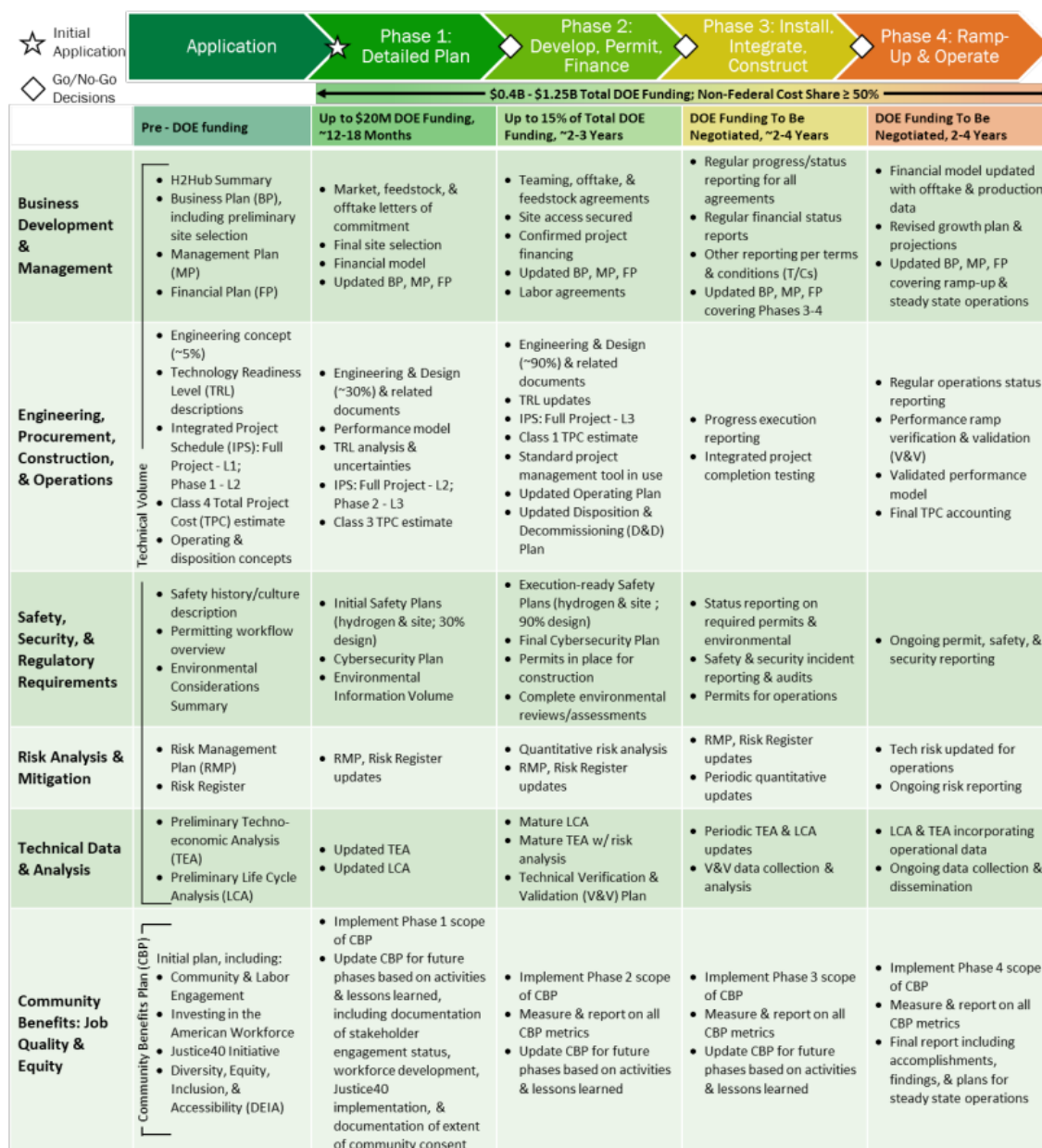


Figure 1. The phases and associated activities outlined in Figure 3 of the DOE OCED Funding Opportunity Announcement DE-FOA-0002779, issued September 22, 2022.

The awards impacted by the cancellation on May 30 were Phase 1 awards, so OCED had only contracted for Phase 1, not the total cost share of the project in its entirety. The projects, along with the prime recipients, location, current phase award amounts, total possible federal cost share, week of award announcement and the OCED program, are listed below in Table 1:

## List of Cancelled Projects

The list below provides a summary of the projects cancelled in the May announcement, sorted by the date of their initial award announcement:

Company	Project	Location	Current Phase Cost Share (millions)	Total Cost Share (millions)	Week Announced	Program	Status
<b>Calpine Texas CCUS Holdings</b>	Baytown Carbon Capture and Storage Project	Baytown, TX	\$12.5	\$270.0	3-Jul-24	Carbon Capture Demonstration Projects Program	Cancelled
<b>Sutter CCUS (Calpine)</b>	Sutter Decarbonization Project	Yuba City, CA	\$8.6	\$270.0	7-Aug-24	Carbon Capture Demonstration Projects Program	Cancelled
<b>Heidelberg Materials US, Inc.</b>	Mitchell Cement Plant Decarbonization Project	Mitchell, IN	\$0.3	\$500.0	14-Aug-24	Industrial Demonstrations Program	Cancelled
<b>TDA Research, Inc.</b>	Carbon Capture Pilot at Dry Fork Power Station	Gillette, WY	\$5.0	\$49.0	28-Aug-24	Carbon Capture Large-Scale Pilot Projects Program	Cancelled
<b>Libbey Glass</b>	Flexible Fuel Electric Hybrid Glass Furnace Demonstration Project		\$0.72	\$45.1	12-Sep-24	Industrial Demonstrations Program	Cancelled
<b>Kentucky Utilities Company (PPL)</b>	Carbon Capture Pilot at Cane Run Generation Station Project	Louisville, KY	\$4.9	\$72.0	12-Sep-24	Carbon Capture Large-Scale Pilot Projects Program	Cancelled
<b>Eastman Chemical Company</b>	Polyethylene Terephthalate Recycling Decarbonization Project	Longview, TX	\$37.0	\$375.0	18-Sep-24	Industrial Demonstrations Program	Cancelled
<b>United States Pipe and Foundry Company (U.S. Pipe)</b>	Iron Electric Induction Conversion Project	Bessemer, AL	\$3.1	\$75.5	18-Sep-24	Industrial Demonstrations Program	Cancelled

<b>RTI International</b>	Carbon Capture Pilot at Vicksburg Containerboard Mill Project	Vicksburg, MI	\$4.4	\$88.0	18-Sep-24	Carbon Capture Large-Scale Pilot Projects Program	Cancelled
<b>Kohler Co.</b>	Vikrell Electric Boiler & Microgrid System Project	Casa Grande, AZ	\$0.6	\$51.2	23-Oct-24	Industrial Demonstrations Program	Cancelled
<b>Nevada Gold Mines, LLC</b>	Nevada Gold Mines Solar PV Project - Decarbonizing Gold Mines in Nevada	Humboldt County, NV; Lander County, NV	\$14.6	\$95.0	13-Nov-24	Clean Energy Demonstration Program on Current and Former Mine Land	Cancelled
<b>Sublime Systems</b>	First Commercial Electrochemical Cement Manufacturing Project	Holyoke, MA	\$12.7	\$86.9	13-Nov-24	Industrial Demonstrations Program	Cancelled
<b>Kraft Heinz Foods Company</b>	Delicious Decarbonization Through Integrated Technologies: Electrification, Renewables, and Energy Storage Project	11 U.S. sites	\$5.9	\$170.9	4-Dec-24	Industrial Demonstrations Program	Cancelled
<b>National Cement Company of California Inc.</b>	Lebec Net Zero Project	Lebec, CA	\$7.8	\$500.0	4-Dec-24	Industrial Demonstrations Program	Cancelled
<b>American Cast Iron Pipe Company</b>	"Right Way" Next Generation Melt Project	Birmingham, AL	\$4.2	\$75.0	4-Dec-24	Industrial Demonstrations Program	Cancelled
<b>Gallo Glass Company</b>	Hybrid Electric Glass Furnace Project	Modesto, CA	\$2.7	\$75.0	11-Dec-24	Industrial Demonstrations Program	Cancelled
<b>Orsted</b>	Star e-Methanol Project	Houston, TX	\$3.4	\$99.0	11-Dec-24	Industrial Demonstrations Program	Cancelled

<b>ExxonMobil</b>	Baytown Olefins Plant Carbon Reduction Project	Baytown, TX	\$11.0	\$331.9	18-Dec-24	Industrial Demonstrations Program	Cancelled
<b>Nippon Dynawave Packaging Co. LLC</b>	Decarbonization of Black Liquor Concentration through Energy Efficient Membrane Separation	Longview, WA	\$1.2	\$46.6	18-Dec-24	Industrial Demonstrations Program	Cancelled
<b>Diageo Americas Supply, Inc.</b>	Heat Batteries for Deep Decarbonization of the Beverage Industry	Shelbyville, KY; Plainfield, IL	\$1.5	\$75.0	18-Dec-24	Industrial Demonstrations Program	Cancelled
<b>Technip Energies USA, Inc.</b>	Sustainable Ethylene from CO <sub>2</sub> Utilization with Renewable Energy (SECURE) Project	U.S. Gulf Coast	\$19.7	\$200.0	18-Dec-24	Industrial Demonstrations Program	Cancelled
<b>Brimstone Commercial</b>	Deeply Decarbonized Cement Project	TBD	\$8.7	\$189.0	8-Jan-25	Industrial Demonstrations Program	Cancelled
<b>Owens-Brockway Glass Container, Inc.</b>	Glass Furnace Decarbonization Technology Stack Project	Zanesville, OH	\$0.7	\$56.6	8-Jan-25	Industrial Demonstrations Program	Cancelled
<b>Skyven Technologies</b>	Steam-Generating Heat Pumps for Cross-Sector Deep Decarbonization Project	Medina, NY	\$0.7	\$145.0	15-Jan-25	Industrial Demonstrations Program	Cancelled

Table 1 List of OCED Project Cancellations (May 30, 2025)

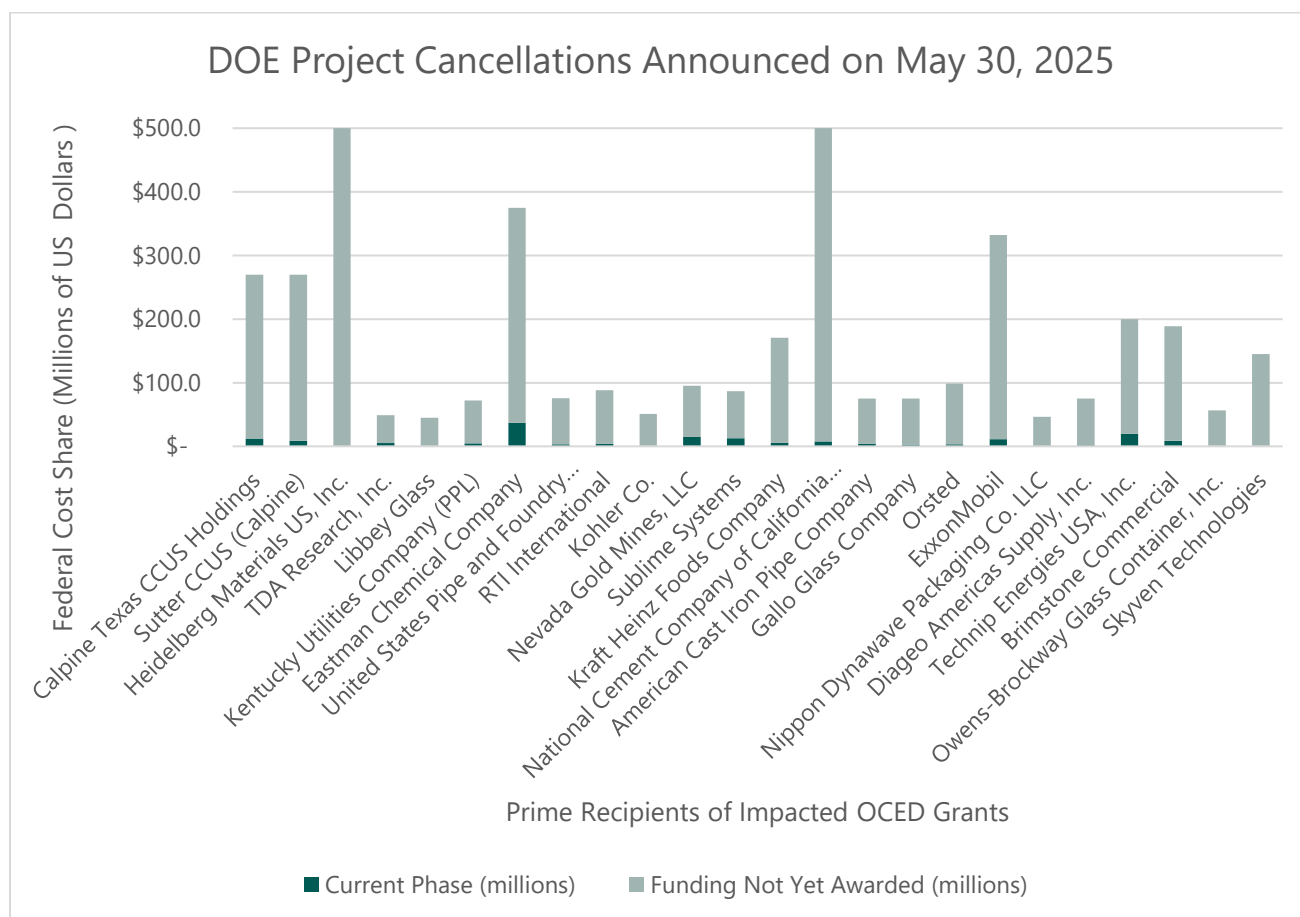


Figure 2. Current phase funding vs. total anticipated cost share for cancelled OCED projects.

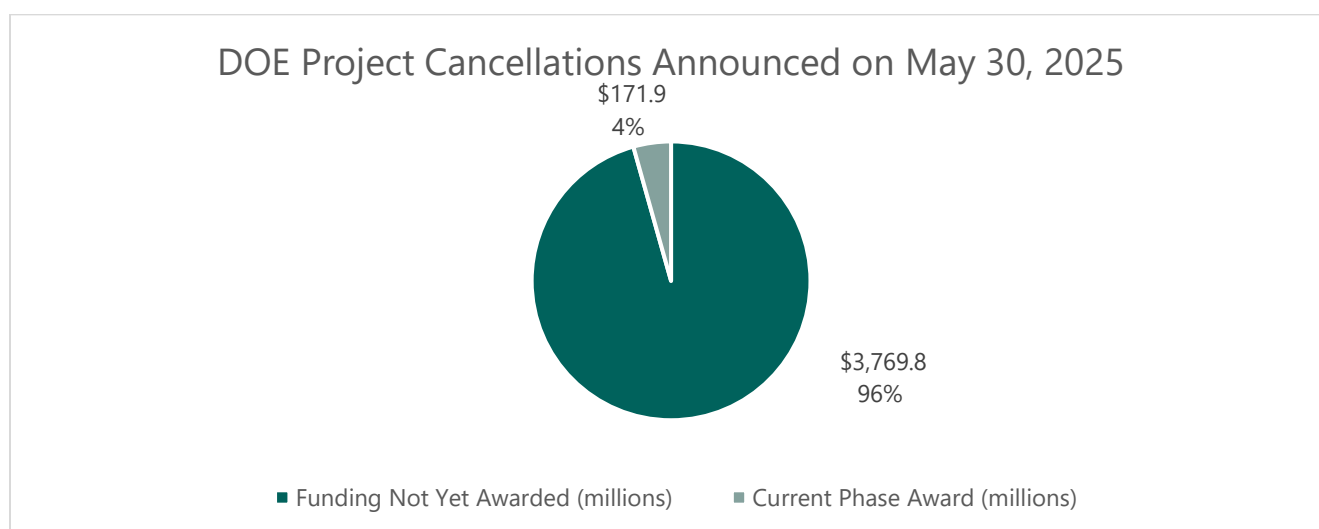


Figure 3. Awarded funding is about 4% of the anticipated maximum total project cost share.

The dollar amounts provided in the May 30 announcement cited “over \$3.7 billion in taxpayer-funded financial assistance.” The stated savings reflect the difference between the federal total cost share (over \$3.9 billion) and the current phase awards (about \$171.9 million). Most of the projects were only officially awarded smaller amounts of money for Phase 1 activities, but the full amount referenced by the May 30 statement in the \$3.7 billion figure would cover the federal contribution through subsequent phases (through Phase 4, which usually concludes after demonstrating successful operation). The savings cited seem to indicate that Phases 2 through 4 account for the funding cuts by DOE.

The savings numbers do not reflect the amount that has been awarded to date but instead show the anticipated federal total cost share anticipated in previous phases, which would be spent over the next few years. For example, Phase 1 for the Industrial Demonstrations Program was expected to last between about 12 and 18 months, depending on the topic area of the project. The initial funding provided by OCED covered about 5% of the anticipated total projects’ costs. Phase 2 was estimated to take about two to three years; Phase 3 would have been two to four years; and Phase 4 was expected to be two to four years. On the most aggressive schedule, projects were expected to receive cost share for the next six years, and on the more conservative side, projects could be receiving cost share into the middle of the next decade.

The May 30 announcement said that “nearly 70% (16 of the 24 projects) were signed between Election Day and January 20th”. Based on the dates of the OCED award announcements reviewed, as outlined in Table 1, ten project awards (42%) were announced before Election Day with the other fourteen (58%) taking place afterwards. By dollar amount, if we account for the numbers being claimed as savings ([total anticipated maximum federal cost share] – [awarded funds]), about \$1.7 billion (46%) of the funds were before Election Day, and about \$2.1 billion (54%) were after Election Day.

## Overview of the 24 Cancelled Projects

The following is a comprehensive list of the 24 projects whose funding was rescinded<sup>4</sup> along with a summary of the awarded project scope:

**Calpine Baytown CCS Project** – \$270 million for a carbon capture project at the Baytown plant in Texas. At the time of the July 2024 award, the project was aiming to “capture 95% of CO<sub>2</sub> emissions from two of the three turbines at the company’s Baytown Energy Facility, enabling the facility to produce electricity as well as steam for collocated industrial use.”<sup>5</sup> The project had been planning to use Shell’s CANSOLV technology for the CO<sub>2</sub> capture. “The project would [have] be[en] the first full-scale implementation of carbon capture and storage technology at a natural gas combined cycle power plant in the U.S.”<sup>6</sup>

**Calpine Sutter CCS Project** – \$270 million for a carbon capture project at the Sutter power plant in California. “Sutter CCUS plans to demonstrate and deploy a carbon capture demonstration facility to capture CO<sub>2</sub> from the Sutter Energy Center, a natural gas combined-cycle power plant near Yuba City, CA—making this project the first in the world to deploy an air-cooling system at a carbon capture facility.”<sup>7</sup>

**Heidelberg Materials US, Inc.** – \$500 million for a low-carbon cement project in Indiana. “Heidelberg Materials plans to construct and operate an integrated carbon capture, transport, and storage system at its newly modernized plant located in Mitchell, IN, to capture at least 95% of the carbon dioxide from one of the largest cement plants in the nation.”<sup>8</sup> The project at Mitchell, one of the nation’s largest cement plants, would have prevented 2 million tonnes of CO<sub>2</sub> per annum (MTPA).<sup>9</sup> “The Mitchell Cement Plant Decarbonization Project, led by Heidelberg Materials US, Inc. (Heidelberg Materials), plans to construct and operate an integrated

---

<sup>4</sup> [DOE cancels \\$3.7B in carbon capture, decarbonization awards | Utility Dive](#)

<sup>5</sup> [Calpine strikes new agreement for Texas power generation CCS project | Power Engineering](#)

<sup>6</sup> [Award Wednesdays | July 3, 2024 | U.S. Department of Energy](#)

<sup>7</sup> [Award Wednesdays | August 7, 2024 | U.S. Department of Energy](#)

<sup>8</sup> [Award Wednesdays | August 14, 2024 | U.S. Department of Energy](#)

<sup>9</sup> [Trump Administration Cancels \\$3.7 Billion in Clean Energy Projects, Ending Ambitious Industrial Decarbonization Efforts | decarbonfuse.com](#)



carbon capture, transport, and storage system at their newly modernized plant located in Mitchell, Indiana. This project would capture at least 95% of the carbon dioxide from one of the largest cement plants in the nation and store it in a geologic formation beneath the plant property. This project expects to prevent two million tons of carbon dioxide per year from entering the atmosphere and would demonstrate a pathway to decarbonize existing cement plants in the U.S. This project builds on the ongoing OCED awarded front-end engineering and design study and sequestration site development and represents one of the first carbon capture and storage projects for cement facilities in the nation.”<sup>10</sup>

**TDA Research, Inc.** – \$49 million for a CCS demonstration at the Basin Electric Power Cooperative’s Dry Fork Station, which is a coal power plant, in Gillette, Wyoming.<sup>11</sup> The project, part of the Wyoming Innovation Test Center (ITC), continues development of their “novel sorbents and sorbent/membrane hybrids to remove carbon dioxide from flue gas.”<sup>12</sup> The project plans to deploy a carbon capture system to inform safe and responsible commercial deployment of TDA Research’s sorbent-based technology, which could be scaled up for use at coal plants around the world.”<sup>13</sup>

**Libbey Glass LLC** – \$45.1 million for an industrial decarbonization project at its Toledo, Ohio facility. The glass projects cancelled were funding “hybrid electric furnaces that would have reduced carbon intensity by 40-50% while maintaining product quality standards.”<sup>14</sup> “Libbey Glass plans to replace four regenerative furnaces with two larger hybrid electric furnaces at its facility in Toledo, OH. The project expects to reduce the carbon intensity of the facility by up to 50%. Because glass tableware such as drinking glasses have some of the highest glass product standards, this project could demonstrate the viability of electrification and alternative fuel use for the entire glass industry.”<sup>15</sup>

**Kentucky Utilities Company (PPL Corp.) Cane Run Retrofit** – \$72 million for a CCS retrofit at the Cane Run Generating Station in Kentucky. “The project plans to deploy a CO<sub>2</sub> capture system at Cane Run 7—a natural gas combined cycle power plant in Louisville, KY. The Carbon Capture Pilot at Cane Run Generating Station would capture 95% of the CO<sub>2</sub> from a portion of the unit’s flue gas, using an advanced heat-integrated technology developed by the University of Kentucky.”<sup>16</sup>

**Eastman Chemical Solar and Battery Installation** – \$375 million for solar power and battery installations at a recycling facility in Texas. “The Polyethylene Terephthalate Recycling Decarbonization Project, led by Eastman Chemical Company (Eastman), plans to construct a first-of-a-kind plastic molecular recycling facility in Longview, TX capable of taking products that are typically landfilled or incinerated, like polyester trays, colored and opaque bottles, and fabrics and turning them into virgin-quality polyethylene terephthalate (PET) with high material to material yield. PET is a high-demand material used in packaging, film, and fiber applications. The facility plans to use thermal energy storage combined with on-site solar power to decarbonize process heating operations, resulting in a product with 70% lower carbon intensity compared to fossil virgin PET. The thermal battery technology at this scale represents a cross-cutting opportunity to electrify and decarbonize high-temperature process heat across industry sectors, and Eastman’s decarbonized material is commanding a green premium among consumer facing brands.”<sup>17</sup>

**United States Pipe and Foundry Company, LLC** – \$75 million for an Iron Electric Induction Conversion project in Bessemer, Alabama, which “plans to replace a coke-fired furnace with electric induction melting furnaces and substantially improve air quality for nearby communities by reducing pollution from particulate matter, nitrogen oxides, and sulfur oxides. This conversion aims to eliminate the need for natural gas and coke (derived from coal) in the iron melting process and result in an estimated reduction of

---

<sup>10</sup> [Industrial Demonstrations Program Selected and Awarded Projects: Cement and Concrete | U.S. Department of Energy](#)

<sup>11</sup> [Wyoming Integrated Test Center to Host New Large-Scale Carbon Capture Pilot Project | University of Wyoming](#)

<sup>12</sup> [Projects at Wyoming Integrated Test Center at Basin Electric’s Dry Fork Station earn DOE funding | Basin Electric Power Cooperative](#)

<sup>13</sup> [Award Wednesdays | August 28, 2024 | U.S. Department of Energy](#)

<sup>14</sup> [Trump Administration Cancels \\$3.7 Billion in Clean Energy Projects, Ending Ambitious Industrial Decarbonization Efforts | decarbonfuse.com](#)

<sup>15</sup> [Award Wednesdays | September 12, 2024 | U.S. Department of Energy](#)

<sup>16</sup> [Award Wednesdays | September 12, 2024 | U.S. Department of Energy](#)

<sup>17</sup> [Industrial Demonstrations Program Selections for Award Negotiations: Chemicals and Refining | U.S. Department of Energy](#)



more than 70% in the overall gate-to-gate carbon intensity associated with the production of Ductile Iron Pipe produced at the Alabama Works production facility. The project aims to improve air quality, reduce the cost of operations, improve manufacturing capacity, and enhance the overall melting process and reliability—demonstrating the viability of electrifying a core process for iron and steel manufacturing.”<sup>18</sup>

**Research Triangle Institute** – \$4.3 million for a 120,000 tpa carbon capture pilot project at International Paper’s Vicksburg Containerboard in Vicksburg, Mississippi. In addition to RTI, project partners included International Paper, SLB and Amazon. One of the project’s selling points was that 55% percent of the captured CO<sub>2</sub> would count as biogenic (off of combustion of spent black liquor and wood waste), which usually fetches a premium.<sup>19</sup>

**Kohler Co.** – \$51 million for an electric boiler and microgrid system project in Casa Grande, Arizona. “The Vikrell Electric Boiler & Microgrid System project, led by Kohler, plans to upgrade its new Vikrell bath and shower fixture manufacturing facility in Casa Grande, AZ. The project plans to install electric boilers and a microgrid consisting of a 21 MW solar array and a 20.5 MW battery energy storage system to reduce carbon dioxide emissions by an estimated 7,865 metric tons per year, reducing at least 75% and up to 90% of the pressing process CO<sub>2</sub> emissions from natural gas boilers on site. The project aims to demonstrate the viability of a renewables and microgrid system to decarbonize process heat emissions and demonstrate applicability to a wide range of manufacturing processes. The cutting-edge system intends to provide seamless switching between energy sources to optimize decarbonization and economics, eliminating carbon emissions from natural gas boilers for industrial process heating.”<sup>20</sup>

**Nevada Gold Mines Emissions Reduction** – \$95 million for emissions reduction in gold mining operations. The proposed project “would have installed 100 MW of solar power and 248 MWh of battery storage across active gold mining operations, demonstrating how extractive industries could achieve net-zero operations.”<sup>21</sup> “The project plans to deploy 40 MW of solar photovoltaic (solar PV) and 100 MWh of battery energy storage systems (BESS) at the gold processing facility at the Turquoise Ridge gold processing facility in Humboldt County, NV and 60 MW of solar PV and 148 MWh of BESS at the Cortez mining operations in Lander County, NV. By planning to lower mining operations emissions by 2 million tons of carbon dioxide over the project’s proposed lifetime, Nevada Gold Mines LLC will demonstrate a replicable way the gold mining industry could reach net-zero operations by 2050.”<sup>22</sup>

**Sublime Systems** – \$87 million for a clean cement technology project, “the First Commercial Electrochemical Cement Manufacturing project.” “Sublime Systems plans to build a new, ultra-low-carbon cement manufacturing facility in Holyoke, MA. Sublime Systems’ new method to make cement replaces carbon-intensive limestone with an abundant calcium silicate-based feedstock, resulting in industry-standard cement that is produced electrochemically instead of using high heat.”<sup>23</sup>

**Kraft Heinz Decarbonization Initiative** – \$170 million for decarbonization initiatives, called the “Delicious Decarbonization Through Integrated Technologies: Electrification, Renewables, and Energy Storage project,” across ten U.S. plants. “The project plans to upgrade and decarbonize its process heat using sustainable technologies at up to 11 facilities by applying a range of technologies such as heat pumps, electric heaters and electric boilers in combination with energy efficient and renewable technologies. The tailored application of these technologies is expected to reduce annual emissions by more than a combined 100,000 metric tons of carbon dioxide per year if implemented at the 11 sites. By demonstrating the integration of multiple decarbonization pathways, this project seeks to help a major American brand achieve deep decarbonization and serve as an example for other U.S. food and beverage companies to reduce emissions from process heat while reducing energy costs.”<sup>24</sup>

---

<sup>18</sup> [Industrial Demonstrations Program Selections for Award Negotiations: Iron and Steel | U.S. Department of Energy](#)

<sup>19</sup> [Carbon Capture Pilot at Vicksburg Containerboard Mill: Community Briefing | The Office of Clean Energy Demonstrations](#)

<sup>20</sup> [Industrial Demonstrations Program Selections for Award Negotiations: Heat | U.S. Department of Energy](#)

<sup>21</sup> [Trump Administration Cancels \\$3.7 Billion in Clean Energy Projects, Ending Ambitious Industrial Decarbonization Efforts | decarbonfuse.com](#)

<sup>22</sup> [Award Wednesdays | November 13, 2024 | U.S. Department of Energy](#)

<sup>23</sup> [Award Wednesdays | November 13, 2024 | U.S. Department of Energy](#)

<sup>24</sup> [Award Wednesdays | December 4, 2024 | U.S. Department of Energy](#)

**National Cement Company of California** – \$500 million for the Lebec Net-Zero carbon capture project in California. The project was “using agricultural biomass and advanced clay alternatives.”<sup>25</sup> “The National Cement Company of California plans to produce carbon-neutral cement at the Lebec, CA cement plant. The project plans to deploy three strategies: using locally sourced biomass from agricultural byproducts such as pistachio shells to replace a portion of the plant’s fossil fuel reliance; producing limestone calcined clay cement (LC3) using a less carbon intensive alternative (calcined clay); and capturing and sequestering the plant’s remaining carbon dioxide emissions, estimated at 950,000 metric tons each year. This project aims to demonstrate how a combination of decarbonization levers can drive emissions associated with existing U.S. cement production facilities to net-zero.”<sup>26</sup>

**American Cast Iron Pipe Company** – \$75 million for an electrification project in Birmingham, AL. “American Cast Iron Pipe Company aims to electrify its process by replacing a cupola furnace with four induction furnaces, eliminating coke (derived from coal) combustion, and reducing melt process carbon dioxide emissions by an estimated 95% at its Birmingham, AL, facility. These upgrades can be replicated throughout the ductile iron pipe industry to provide lower-carbon footprint piping for municipal water systems to replace America’s aging water infrastructure, and support new industries, including chip and battery manufacturing plants. This project would also contribute to reductions in criteria and other relevant air pollutants.”<sup>27</sup>

**Gallo Glass Company** – \$75 million for a project in Gallo Modesto, CA. The glass projects cancelled were funding “hybrid electric furnaces that would have reduced carbon intensity by 40-50% while maintaining product quality standards.”<sup>28</sup> “The project 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 more than 40% compared to traditional gas-powered furnaces. Gallo Glass Company 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.”<sup>29</sup>

**Ørsted Star P2X LLC** – \$99 million for a clean methanol project in Chambers County, TX. “The project plans to use captured carbon dioxide from a local industrial facility to produce e-methanol and reduce greenhouse gas emissions from hard-to-electrify sectors like shipping. Ørsted’s facility is estimated to produce up to 300,000 metric tons of e-methanol per year and would reduce greenhouse gas emissions by 80% or more compared to traditional production methods. This project expects to demonstrate both the supply and demand for clean hydrogen-derived alternative fuels for the marine shipping and transportation sector. These sectors currently rely on energy-intensive fossil-derived fuels to transport the world’s goods. Ørsted is also participating in the Gulf Coast Hydrogen Hub (HyVelocity), a separate OCED award under the Regional Clean Hydrogen Hubs program, to produce the hydrogen for the Star e-Methanol project.”<sup>30</sup>

**ExxonMobil Baytown Blue Hydrogen** – \$332 million for a clean hydrogen fuel-switching project at the Baytown Olefins plant in Texas. “The project would enable the use of hydrogen in place of natural gas across high heat-fired equipment using new burner technologies for ethylene production in Baytown, TX. Ethylene is a chemical feedstock used in the production of textiles, synthetic rubbers, and plastic resins, with applications in packaging, electronics, and vehicles. These equipment modifications would enable the use of up to 95% clean hydrogen fuel. At full implementation, the modifications would be expected to enable avoidance of an estimated 2.7 million metric tons of carbon emissions per year—equal to more than 50% of the olefin plant’s total emissions—and an estimated 200 tons per year of nitrogen oxide (NOx) emissions. Demonstrating clean hydrogen fuel switching in one of the largest ethylene plants in the U.S. would help de-risk viable decarbonization solutions for large, existing industrial facilities, prove the

---

<sup>25</sup> [Trump Administration Cancels \\$3.7 Billion in Clean Energy Projects, Ending Ambitious Industrial Decarbonization Efforts | decarbonfuse.com](#)

<sup>26</sup> [Award Wednesdays | December 4, 2024 | U.S. Department of Energy](#)

<sup>27</sup> [Award Wednesdays | December 4, 2024 | U.S. Department of Energy](#)

<sup>28</sup> [Trump Administration Cancels \\$3.7 Billion in Clean Energy Projects, Ending Ambitious Industrial Decarbonization Efforts | decarbonfuse.com](#)

<sup>29</sup> [Award Wednesdays | December 11, 2024 | U.S. Department of Energy](#)

<sup>30</sup> [Award Wednesdays | December 11, 2024 | U.S. Department of Energy](#)



use of clean hydrogen in industrial processes, and provide a pathway for decarbonizing the chemical industry, which is responsible for more than one-third of the U.S. industrial sector's carbon emissions."<sup>31</sup>

**Nippon Dynawave Packaging** – \$47 million for a project to decarbonize black liquor concentration through energy efficient membrane separation in Longview, Washington. "In the project, NDP and Via Separations (Via) are partnering to decarbonize a thermal process at NDP's Longview, WA site. The project would use Via's novel membrane-based technology, previously supported by Advanced Research Projects Agency-Energy (ARPA-E). The proposed membrane technology would enable a transformative energy efficiency improvement of industrial separations and would reduce 70% of carbon dioxide (CO<sub>2</sub>) emissions per gallon of clean water removed during pulp production in this application. This project would not only reduce the facility's process energy intensity but also demonstrate the viability of the membrane technology to potentially scale across all other domestic pulp and paper mills and other industrial sectors, such as chemical manufacturing."<sup>32</sup>

**Diageo Americas Supply, Inc.** – \$75 million for a project in Shelbyville, KY and Plainfield, IL. "Diageo plans to partner with Rondo Energy, Inc. and the National Renewable Energy Laboratory to replace natural gas-fired heat with Rondo Heat Batteries, electric boilers and other thermal solutions. These assets would be powered by onsite renewable energy at facilities in Shelbyville, KY and Plainfield, IL. These upgrades to beverage production facilities would reduce direct carbon emissions by over 14,000 metric tons per year. They would also provide a highly replicable blueprint that manufacturing companies could use to integrate thermal heat batteries with intermittent renewable energy into their facilities, while reliably and competitively delivering products to their consumers."<sup>33</sup>

**Technip Energies USA, Inc.** – \$200 million for the Sustainable Ethylene from CO<sub>2</sub> Utilization with Renewable Energy (SECURE) project along the U.S. Gulf Coast. "Technip Energies USA, in partnership with LanzaTech, Inc., plans to demonstrate an integrated process to utilize captured carbon dioxide from ethylene production. This project aims to use a biotech-based carbon recycling process and low carbon intensity hydrogen to create sustainable ethanol and ethylene. LanzaTech's Gas Fermentation technology, previously supported by DOE, can also be deployed in any industry with waste carbon, allowing other industries to capture and upcycle carbon-rich waste streams instead of emitting them to the atmosphere or needing to sequester them."<sup>34</sup>

**Brimstone Energy, Inc.** – \$189 million for a project that "promised to revolutionize cement manufacturing using calcium silicate rocks instead of limestone—a process that would actually remove CO<sub>2</sub> from the atmosphere rather than emit it. The cement industry accounts for 7.5% of global CO<sub>2</sub> emissions, making this technology potentially transformational."<sup>35</sup> The project was expected to "annually produce an estimated 103,000 metric tons of decarbonized Ordinary Portland Cement (OPC), supplementary cementitious materials, and smelter grade alumina, a critical mineral. The project would avoid more than 77,000 metric tons of carbon dioxide emissions per year by using calcium silicate rocks and alternative industrial production methods."<sup>36</sup>

**Owens-Brockway Glass Container Incorporated** – \$57 million for a glass decarbonization project in Zanesville, Ohio. The glass projects cancelled were funding "hybrid electric furnaces that would have reduced carbon intensity by 40-50% while maintaining product quality standards."<sup>37</sup> "This project aims to reduce carbon intensity by 20-40% compared to glass produced on a baseline furnace. This rebuild would combine five cutting-edge technologies on the furnace, marking the first time that all five technologies have been implemented simultaneously. These technologies, which include improved heat recovery and fuel systems, material pre-heating, and electric conversions, would reduce waste heat, energy demands, and both direct and indirect carbon dioxide emissions.

---

<sup>31</sup> [Award Wednesdays | December 18, 2024 | U.S. Department of Energy](#)

<sup>32</sup> [Award Wednesdays | December 18, 2024 | U.S. Department of Energy](#)

<sup>33</sup> [Award Wednesdays | December 18, 2024 | U.S. Department of Energy](#)

<sup>34</sup> [Award Wednesdays | December 18, 2024 | U.S. Department of Energy](#)

<sup>35</sup> [Trump Administration Cancels \\$3.7 Billion in Clean Energy Projects, Ending Ambitious Industrial Decarbonization Efforts | decarbonfuse.com](#)

<sup>36</sup> [Award Wednesday | January 8, 2025 | U.S. Department of Energy](#)

<sup>37</sup> [Trump Administration Cancels \\$3.7 Billion in Clean Energy Projects, Ending Ambitious Industrial Decarbonization Efforts | decarbonfuse.com](#)

The project could demonstrate the commercial feasibility and functionality of combining multiple decarbonizing technologies that could be replicated across different glass colors and container types.”<sup>38</sup>

**Skyven Technologies** – \$15 million for a steam-generating heat pump project for multiple manufacturing facilities (heat-as-a-service) in Medina, NY. “This approach would electrify steam production to replace natural gas boilers to meet the needs of an energy-intensive facility that currently relies on fossil-fired heat. By developing this technology, Skyven would demonstrate expertise and economic viability of this technology solution that can be replicated among diverse heat-using manufacturers.”<sup>39</sup>

## What projects were not cancelled?

OCED had several programs accounting for about \$27 billion at the end of 2024:



Figure 4. OCED's programs as of December 2024.<sup>40</sup>

As part of the May 30 announcement, 18 projects accounting for close to \$3 billion of the project cancellations were from the Industrial Demonstrations Program (IDP). Not all IDP projects awarded were cancelled. Notable examples of IDP projects not on the list of cancellations include:

<sup>38</sup> [Award Wednesday | January 8, 2025 | U.S. Department of Energy](#)

<sup>39</sup> [Industrial Demonstrations Program Selections for Award Negotiations: Heat | U.S. Department of Energy](#)

<sup>40</sup> [Three Years of Impact: OCED by the Numbers | U.S. Department of Energy](#)

Company	Project	Location	Current Phase (millions)	Total Cost Share (millions)	Week Announced	Program
<b>Cleveland-Cliffs Steel Corporation</b>	Steel Slab Electrified Induction Reheat Furnace Upgrade Project	Zanesville, OH	\$19.0	\$75.0	21-Aug-24	Industrial Demonstrations Program
<b>Constellium</b>	Low Carbon SmartMelt Furnace Conversion Project	Ravenswood, WV	\$4.1	\$75.0	28-Aug-24	Industrial Demonstrations Program
<b>Golden Aluminum</b>	Nexcast - Next Generation Aluminum Mini Mill	Fort Lupton, CO	\$22.3		27-Nov-24	Industrial Demonstrations Program
<b>Vale USA</b>	Low-Emissions, Cold-Agglomerated Iron Ore Briquette Production Project	River Parish, LA	\$3.8	\$282.9	11-Dec-24	Industrial Demonstrations Program
<b>Dow Chemical Company</b>	Novel CO <sub>2</sub> Utilization for Electric Vehicle Battery Chemical Production	U.S. Gulf Coast	\$10.0	\$95.0	23-Dec-24	Industrial Demonstrations Program
<b>Wieland North America Recycling</b>	Advanced Copper Recycling Facility project	Shelbyville, KY	\$0.8	\$270.0	8-Jan-25	Industrial Demonstrations Program
<b>Century Aluminum Company</b>	Green Aluminum Smelter Project	Kentucky	\$10.0	\$500.0	15-Jan-25	Industrial Demonstrations Program

Table 2. IDP projects not included in the May 30 cancellations.

Many of the projects in Table 2 are expected to impact the U.S. supply chain of critical materials, a top priority of the administration. For example, “Century Aluminum Company plans to build the first new primary aluminum smelter in the nation in over 45 years” and “double the size of the current U.S. primary aluminum industry while avoiding an estimated 75% of emissions from a traditional smelter due to its state-of-the-art, energy-efficient design” that will produce high-purity aluminum “suitable for national defense, electric vehicles, semiconductors, building and construction, and clean energy applications,” which would be a likely candidate for bipartisan support.<sup>41</sup> The Century Aluminum award came the week of January 15, after Election Day and before the inauguration, which was the same week as the cancelled Skyven process-heat-as-a-service project.

OCED’s Clean Energy Demonstration Program on Current and Former Mine Land was not spared though. The administration cancelled Nevada Gold’s emissions reduction projects at two mines, but Freeport’s MILESHIGH Project, which “plans to demonstrate the technical viability of direct-use, geothermal, clean heat to enable low-emission recovery of copper from previously mined material,”<sup>42</sup> was not included in the list:

<sup>41</sup> [Award Wednesday | January 15, 2025 | U.S Department of Energy](#)

<sup>42</sup> [Award Wednesdays | December 11, 2024 | U.S Department of Energy](#)



Company	Project	Location	Current Phase (millions)	Total Cost Share (millions)	Week Announced	Program
<b>Freeport Minerals Corporation</b>	MILESHIGH Project	SE Arizona	\$3.5	\$80.0	11-Dec-24	Clean Energy Demonstration Program on Current and Former Mine Land

Table 3. Clean Energy Demonstration Project on Current and Former Mine Land project not on May 30 list.

The May 30 announcement did not list the cancellation of any projects awarded funding as part of the Regional Clean Hydrogen Hubs (H2Hubs) or Regional DAC Hubs programs. However, several cancelled IDP projects, like those for ExxonMobil and Orsted, are associated with the HyVelocity Hydrogen Hub (Houston).

The Regional DAC Hubs awarded under the first funding opportunity announcement are shown below:

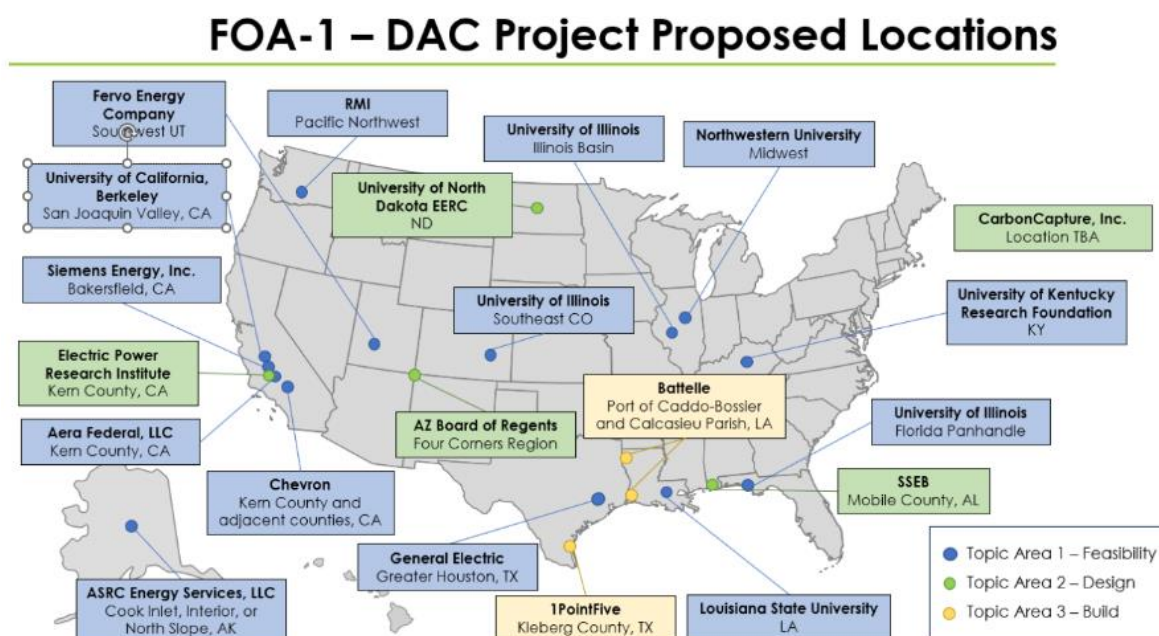


Figure 5. Regional DAC Hubs awarded through DE-FOA-0002735 (as shown in DE-NOFO-0003442)

The Topic Area 3 awards from FOA-1 were to Battelle and 1PointFive (part of Oxy). On March 27, 2024, OCED announced Battelle, partnered with DAC technologies Climeworks and Heirloom, was awarded \$50 million for Phase 2 of Project Cypress. In September, during the same week that the cancelled Libbey Glass and Kentucky Utilities Company (PPL) were awarded (September 12, 2024), the South Texas DAC Hub for 1PointFive was awarded \$50 million of federal cost share for Phase 2 of the project with the total anticipated maximum federal cost share of \$500 million.

Unlike Topic Area 3, awards for Topic Areas 1 and 2 were for smaller amounts to progress earlier stage projects. Topic Area 2 awards ranged from about \$10-12.5 million each, while Topic Area 1 awards were for about \$3 million dollars each.

The DAC program's goal has been to establish four regional DAC hubs. A new DAC Hubs funding announcement worth an estimated \$1.8 billion, DE-NOFO-0003442, was released in December 2024 and received concept papers at the end of January. The funding announcement stated it was intended to help build on FOA-1 from the DAC program by adding commercial DAC facilities of varying sizes as well as "infrastructure access platforms for commercializing new DAC technologies." At this point, DE-NOFO-0003442 is not expected to be awarded.

The Regional H2Hubs program, responsible for about \$8 billion, seeks to build balanced supply and demand for clean hydrogen. Seven hubs were ultimately selected and awarded. Phase 1 of each hub was awarded between about \$19 million and \$30 million, for a total of about \$170 million across the program. Between the seven hubs and an end-use grant award, the total anticipated maximum federal cost share would reach about \$8 billion.



Figure 6. Regional H2Hubs selected and ultimately awarded funding from DE-FOA-002779 as announced by OCED.

## The Impact of Uncertainty

The May 30 announcement of project cancellations were part of OCED, which was formed by President Biden to focus on the scale and commercialization of emissions-reducing projects. Several OCED projects are still going forward, including some critical materials projects. The DOE has indicated that the cuts are not necessarily finished and many more OCED projects are under review. Previously, once awarded (or obligated), federal funding was not cancelled outside of extenuating circumstances or in line with the project contract. Therefore, the uncertainty of the current situation impacts all projects receiving federal funding.

In addition to OCED grants, other vehicles for funding decarbonization projects, like the DOE's Loan Programs Office and the tax incentives from the Inflation Reduction Act, are currently under review. Project investors do not have certainty as to what grants,





loans, and/or incentives their projects will or won't have from the U.S. government going forward. Additionally, the changing trade landscape brings additional uncertainty into the supply chain.

Not all steps have been backward for carbon capture. The Trump administration has historically made it easier to permit projects. Permitting for sequestration has improved with measures to grant primacy for Class VI wells in additional states. During the previous Trump administration, primacy was approved for North Dakota (April 2018) and Wyoming (October 2020). The Biden administration added only one state, Louisiana (February 2024). Now, in the current Trump administration, we have seen West Virginia (January 2025) added to the list, and other states like Texas and Arizona, are expected to receive primacy soon.

In general, uncertainty makes it harder to win over investors and the market. Based on initial company reactions to the uncertainty around government grants, loans, and incentives, the net impact of the DOE cuts will likely impact more than just clean energy projects. How the U.S. strategically approaches challenges like critical minerals will be impacted by the changes being made to Biden era agreements and incentives, like Section 45X (Advanced Manufacturing Production Credits).