Uncertainty Abounds: IRA Clean Energy Incentives Await Fate

Policy experts weigh in on possible next steps for President Joe Biden's signature climate law, the Inflation Reduction Act, following the Trump-led Republican trifecta.

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With U.S. President-Elect Donald Trump set to return to the White House and a Republican-controlled Congress in place, the fate of President Joe Biden's signature climate law is uncertain.

Political pundits do not expect a complete repeal of the Inflation Reduction Act (IRA). Rather, scalpels will likely be taken to the law which ushered in nearly $370 billion in funding for clean and lower-carbon energy projects and initiatives. Several provisions in the law could be impacted, but no one knows what the future will bring.

As investment trends shift amid growing energy needs, energy companies are still working to provide reliable and affordable energy while minimizing environmental impacts. However, developers reliant on incentives such as tax credits, grants and loans to sweeten project economics are concerned about which parts of the IRA the new Congress and Trump administration will attempt to roll back.

Trump has already pledged to rescind unspent IRA funds. While the IRA didn't have bipartisan support before its passage, the benefits–including jobs–that the Democrat-backed law has brought to Republican-led states may have altered some viewpoints.

> *"The only way to change the IRA, the law, is to pass a new law."*
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> **TIM URBAN,** senior principal, Bracewell

It's a challenging period for taxpayers, said Tim Urban, the Washington D.C.-based senior principal who leads the tax policy practice at Bracewell.

"We are at a weird intersection of the implementation of IRA, [which] is not complete, and some of the very, very significant tax policy questions and tax legal questions haven't yet been answered," Urban said. "The [Biden] administration is on a mission now to try to publish as much guidance as possible before the end of the year and barring that, before the end of the presidential term."

At the same time, taxpayers who are considering building facilities, buying equipment or producing lower carbon energy resources like hydrogen or renewable methanol face a conundrum, he added.

"They're trying to get the best deal they can … in the waning days of the Biden-Harris administration" and Treasury regulations are needed to implement credits. But an incoming president with a congressional majority made up of Republicans who voted against the IRA want "another sort of bite of the apple."

Taking the IRA to bits won't be easy, and

Keeping Tabs on Public Dollars

Several online trackers are following the flow of Inflation Reduction Act money.

When the Inflation Reduction Act was signed into law on Aug. 16, 2022, by President Joe Biden, $370 billion in the legislation represented the largest investment in clean energy and climate-related programs.

Funding has been steadily doled out by federal agencies to states and taxpayers, ranging from those seeking energy efficiency home improvements and residential clean energy tax credits, to companies seeking billions of dollars to pursue large manufacturing facilities, utility-scale renewable energy projects or to advance technologies.

Tracking how much of the appropriated funds has been obligated is a monumental task with numbers frequently changing as awards, loans and tax credits are granted by the various agencies responsible for distributing the money. However, several trackers manned by public policy groups, analysts and others have surfaced to help keep tabs on the public dollars. Plus, some federal agencies regularly share what they've done with the money and what remains.

The U.S. Department of Energy's Loan Programs Office (LPO), for example, issues a monthly application activity report on statutory and estimated available loan and loan guarantee authority across its programs. This includes the Title 17 Energy Infrastructure Reinvestment (EIR) program created by the IRA to provide loan guarantees for projects that reinvest in old energy infrastructure to reduce

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HANNAH HAWKINS, principal, KPMG's Washington National Tax, Tax Incentivized Transactions, Leasing and Energy Group

as history has shown with other big pieces of legislation signed into law, unlikely, experts say.

Risks, Opportunities

There was a lot of campaign rhetoric about blowing up the IRA, said Ken Irvin, co-leader of Sidley's global Energy and Infrastructure practice. Realistically, however, some lawmakers are recognizing that money has been spent on projects funded in part by the IRA—and the investments are good ones.

A group of Republican congressmen even urged House Speaker Mike Johnson in a letter prior to the November 2024 election not to repeal clean energy credits in the IRA.

"IRA provisions for clean hydrogen, carbon sequestration, advanced manufacturing, biofuels, those all seem consonant with Trump 2.0 and the philosophy there," Irvin said. "The EV [electric vehicle] tax credit… Mr. [Elon] Musk doesn't seem bothered by getting rid of that, and Mr. Trump wants to roll back the EV mandate. So, that one may be in jeopardy" along with some clean energy incentives.

The Biden administration had set a target for 50% of

emissions and support clean energy development.

The IRA appropriated $5 billion to carry out EIR through Sept. 30, 2026, with a total cap on loans of up to $250 billion. As of Oct. 31, the EIR program had about $244.8 billion in estimated loan authority available, according to the LPO.

In all, the LPO said it was appropriated $11.7 billion to support issuing new loans.

The U.S. Department of Agriculture (USDA) reported in November that it had invested more than $2.7 billion through its Rural Energy for America Program (REAP) for more than 9,900 renewable energy and energy efficiency improvements. Nearly 7,000 of the projects were funded by more than $1 billion provided by the IRA, the USDA said.

Several nongovernmental groups have been tracking spending. Atlas Public Policy's Climate Program Portal is among the online resources available to public officials, advocates and 501(c)(3) nonprofit organizations to track federal investments in climate initiatives. It focuses on investments from the IRA and the Infrastructure Investment and Jobs Act.

Other trackers include the Rhodium Group's Clean Investment Monitor, a joint project with MIT's Center for Energy and Environmental Policy Research, and the Inflation Reduction Act Tracker, a joint project of Columbia Law School's Sabin Center for Climate Change Law and the Environmental Defense Fund.

Some efforts feature trackable databases while others have focused on how much investment the IRA has generated in certain states. But some lack information, such as loans and tax credits, that would paint a more accurate picture. Another challenge is that information is quickly outdated as awards and loan

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The Trump administration and Republican-controlled Congress could present opportunities for hydrogen that use natural gas as feedstock, experts say.

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President-Elect Donald Trump's platform includes a promise to "cancel the electric vehicle mandate and cut costly and burdensome regulations."

all new vehicle sales to be electric by 2030 and rolled out regulations to help it get there. In March, the U.S. Environmental Protection Agency (EPA) released strict car emissions standards for light-duty and medium-duty vehicles with model years 2027 and later. But the rule prompted opposition and litigation. The House voted in September to repeal the rule as some called it an "EV mandate."

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Another sector already battling headwinds in the U.S. could also be at risk.

"You can't open a newspaper without seeing some utterance by the president-elect about offshore wind, for instance. That's not a state secret," Urban said. Also, "At various times there has been an overall concern by Republicans about trying to ensure that the credit value of these credits is sort of right-sized and matched up against the value provided to taxpayers generally, forgoing this tax benefit."

Listening to industry players and Washington, D.C., chatter, so are time frames of so-called tech neutral electric generating production and investment tax credits that kick in for projects placed in service starting in 2025. Those credits are at risk, according to Hannah Hawkins, principal for KPMG's Washington National Tax, Tax Incentivized Transactions, Leasing and Energy Group.

The safest way to approach the situation is to "expect that everything is on the table, even if some things don't seem to be realistically on the table," Hawkins said.

Joe Brazauskas, senior counsel for Bracewell who helps clients navigate federal legislative and regulatory processes, said the entire breadth of the IRA provisions will be scrutinized with Republicans in the majority.

"There are what we call certain provisions that have a Republican DNA in them, things that in previous Congresses that Republicans have been supportive of," he said. "Those are the ones that are more focused on traditional fuels or a traditional fuel nexus."

There are, however, potential opportunities for some lower-carbon energy technologies incentives. Hydrogen provisions came to mind for Brazauskas, who said there may be opportunity for champions of low-carbon hydrogen to explain the hydrogen value chain's connection to natural gas production and reducing methane emissions.

The changing of the guard also provides a chance for backers of provisions that didn't make the final cut of the IRA, for some reason, to get back into play. These include hydropower and biogas provisions, Urban said, adding some may want legacy credits set to expire to instead be extended.

Some taxpayers and trade associations have been "circling the Congress like hungry falcons waiting for an opportunity to get back into the mix," Urban said.

However, "the administration hasn't been able to get guidance out quickly enough. So, you've got taxpayers going into 2025 with a new credit that they don't understand how to live within."

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guarantees are approved.

"It's really hard to find this information," Joe Brazauskas, senior counsel for Bracewell, told *Oil and Gas Investor* when asked about how much IRA money is left. He cited Politico, saying the Environmental Protection Agency has obligated roughly 80% of its funds and the Interior Department maybe about 25%, with just under $50 billion left in terms of obligations.

"The Biden administration is certainly attempting to obligate as many funds as possible to buttress against a potential for Trump to try to claw back some of this money," said Brazauskas. "When the funds have already been obligated, when there's contractual agreements that are already signed … is an example of funds that will, interestingly enough, have to be administered by the next administration."

For agencies like the Environmental Protection Agency or the Department of Energy that still have massive pots of money available, "the next administration is going to come in and examine those programs," he said.

After some analysis, the new administration may consider repurposing unobligated dollars.

"It's quite possible that certain programs that bolster things like carbon capture and sequestration or utilization are ones that potentially a Trump administration will want and may want to continue with," Brazauskas said, "although I haven't really seen a signal to say we ought to preserve some of that functionality. But I do think that there will be a lot of scrutiny on these programs and … how that money might be used in other places."

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U.S. Rep. Andy Kim (D-N.J.) speaks to climate activists outside the Capitol during the vote for the Inflation Reduction Act on Aug. 12, 2022.

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A vessel lays cable for a wind farm.

Unfinished Business

Nearly a year after the U.S. Treasury Department and Internal Revenue Service released proposed rules for the 45V hydrogen production tax credit offered in the IRA, final guidance had not been issued as of mid-December as regulators weigh tens of thousands of comments.

Final guidance was also yet to come for the new clean fuel production tax credit. The wait for final guidance to access tax credits adds to uncertainty for developers deciding whether to move forward with projects.

The Biden administration is making a good faith attempt to offer as much guidance as possible to provide security for taxpayers contemplating investment decisions before the new administration arrives, Urban said.

If the final 45V rule is published before Biden leaves office Jan. 20 and it addresses concerns taxpayers have to help hydrogen hubs prosper, "that scenario might sort of defuse some of the taxpayer anxiety about the regulations," Urban said. If final rules are released and are not well received, taxpayers may take their concerns to their legislators and the incoming Trump administration.

One aspect that makes the tax guidance process different when a new administration looks at final guidance is that it doesn't necessarily have to undergo a similar process that, for example, an EPA regulation would in terms of the notice and comment, Brazauskas said. "It's potentially possible for, say, a new administration, Treasury, to just say, 'we're pulling these back and we're going to sort of rethink how that guidance ought to work.'"

Legislative Levers

When it comes to changing parts of the IRA, the Congressional Review Act (CRA) is among the levers that legislators may pull. It requires a joint resolution of disapproval, which must be approved by both houses of Congress and signed by the president to prevent the rule from being effective, according to the Congressional Review Service (CRS). It only applies to final rules, not to presidential actions or to non-rule agency actions such as orders.

As of August 2024, the CRA has been used to overturn 20 rules, CRS said in a report.

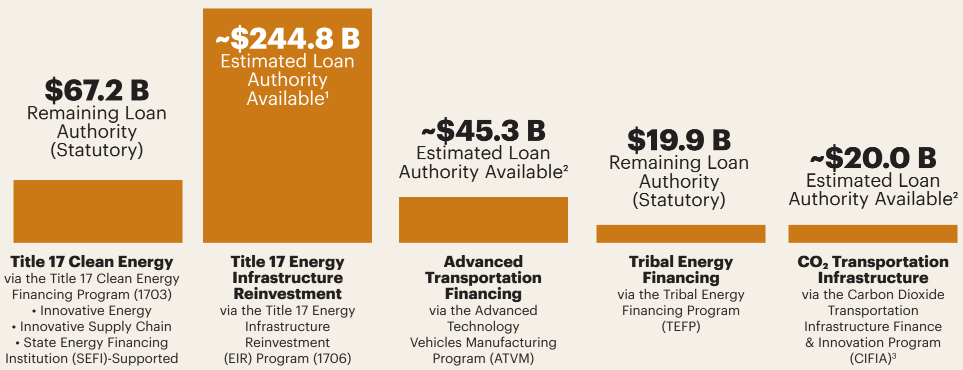
"I think the important thing that sometimes gets lost in the media reports about this is that there are laws and there are regulations that implement the laws," Urban said. "And the administration has the ability to tinker with regulations. The Congressional Review Act allows Congress an opportunity to participate in tinkering with regulations, but neither of those two avenues change the law. The only way to change the IRA, the law, is to pass a new law."

Brazauskas cited, for example, the EPA's finalized methane fees for emitters in the oil and gas industry.

The final rule, announced Nov. 12 by the Biden administration, was part of a directive in the IRA aimed at curbing methane emissions. The Waste Emissions charge starts at $900 per metric ton of methane emitted in 2024. That rises to $1,200 in 2025, and $1,500 for 2026 and beyond. The rule applies to oil and gas facilities that report emissions of more than 25,000 metric tons per year of CO_2 equivalent. Companies violating the rules will start paying penalties next year based on methane emissions

Estimated Remaining Loan Authority

SOURCE: U.S. DEPARTMENT OF ENERGY'S LOAN PROGRAMS OFFICE



Notes

All program lending authority amounts—estimated and statutory— are updated as of Oct. 31, 2024. These figures are updated annually.

1) EIR has a statutory limitation on loan guarantee authority of up to $250 billion. The figure listed here for EIR as "approximate loan authority available" is the best estimate based on current credit subsidy available.

2) Neither ATVM nor CIFIA have a statutory limitation on the direct loan authority (ATVM) and direct loan and loan guarantee authority (CIFIA) amounts. Figures listed here for ATVM and CIFIA as "approximate loan authority available" are best estimates based on current credit subsidy available.

3) CIFIA is administered in support of DOE's Office of Fossil Energy & Carbon Management.

reported in calendar year 2024.

"This regulation now is finalized and it has to be reported to Congress. The Congressional Review Act says that Congress needs to have 60 legislative days to review a rule and so here we are. It's Nov. 12. So, there is no way that there are 60 legislative days left in this Congress."

The next Congress can essentially reset the clock for review.

"It is a privileged bill. That means that it has to be taken up," he said. If the disapproval starts in the House, passes there and moves to the Senate, where it is passed, the president can sign the disapproval into law. "This is why it's [the CRA] powerful when there's a new administration that takes over" to rescind rules. "And it says that the federal agency cannot promulgate a substantially similar rule."

The CRA was used when the Trump administration followed President Barack Obama's administration. It was also used during the Biden administration after Trump's first term as president. CRS data show the CRA was used once during the 107th Congress (2001-2002), 16 times in the 115th Congress (2017-2018) and three times in the 117th Congress (2021-2022).

"I think they [legislators] will certainly figure out which rules are vulnerable and utilize this process," Brazauskas said. "But in the tax context, I think it's important to note there's not a lot of precedent for utilizing the CRA to pull back a tax guidance.… If they want to do wholesale or even pull back parts of the IRA, they will need to write a new bill."

Urban said he anticipates vigorous debate on how Republican legislators will grapple with the IRA. "This is not a binary equation like the next Congress and administration must either maintain the IRA exactly as it is now in every way, or repeal the IRA root and branch completely."

Some legislators may have fallen in love with various pieces of the IRA, he said.

In reality, there are too many unknowns to make a clear assessment at this point with outstanding guidance and potential defectors as Trump's cabinet picks near completion.

Obligated Dollars

The IRA's clean energy funding is being delivered via grants, loan guarantees and tax incentives. Incentives essentially fall into two buckets: tax credits and appropriated dollars, according to Irvin.

"A lot of the appropriated dollars have been obligated. For a new administration to try and pull that back implicates serious legal issues.… To the extent that it hasn't yet been allocated but it was appropriated by Congress, there is an issue with Mr. Trump," Irvin said. "He thinks he can use impoundment. He thinks he can choose not to spend money appropriated by Congress. This was actually a thing in the Nixon administration. There's an anti-impoundment act of 1974. So, we'll have that constitutional issue come up."

The Impoundment Control Act of 1974 (ICA) restricts the president's ability to impound, or not spend, funds Congress has provided. It was passed in response to President Richard Nixon's administration's refusal to release funds appropriated by Congress for some programs he opposed, according to a House Committee on the Budget impoundment explainer.

"Put simply, if the president wants to spend less money than Congress provided for a particular purpose, he or she must first secure a law providing Congressional approval to rescind the funding in question," the committee explained.

"The ICA requires that the president send a special message to Congress identifying the amount of the proposed rescission; the reasons for it; and the budgetary, economic and programmatic effects of the rescission," the explainer continued. "Upon transmission of such special message, the president may withhold certain funding in the affected accounts for up to 45 legislative session days. If a law approving the rescission is not enacted within the 45 days, any withheld funds must be made available for obligation."

Seeking Safeguards

Companies can help safeguard themselves against unforeseen regulative or legislative moves that put certain tax credits for projects at risk by utilizing what is known as a safe harbor clause, experts say. The move allows developers of projects to lock in incentives such as investment and production tax credits.

"The best course that you'll hear people like me tell their clients is try to begin construction on your project," Hawkins said. Referring to precedents, she added any repeal would be coupled with a transition rule and would not be retroactive. "In the space of energy credits, we've typically seen transition rules anchored on a begin construction concept, and begin construction can mean actually [putting] shovels in the ground or it can mean 5% of capex of a project incurred."

Hawkins cautioned that the mechanics of various incentives work differently.

The IRA includes multiple safe harbor provisions. In May 2024, the IRS issued a notice providing a new safe harbor that taxpayers could use to classify applicable project components and to calculate the domestic cost percentage to qualify for the domestic content bonus credit.

Bracewell advises clients to understand risks and opportunities. "We need to derisk our investments, but we also need to look for the opportunities that are there," Brazauskas said.

Urban added that popular cable TV shows have painted an inaccurate picture of federal government affairs and lobbying.

"I, for one, have never ever smoked a cigar with a congressman or senator in a wooden-paneled room [talking] about getting a special legislative deal," he said. "In reality, lobbying is really all about education. What we find is that our clients generally get the best outcomes when they find a way to meet with and educate members and senators, congressional staff and administration officials with regard to the specifics and the realities and the benefits of their various energy technologies."

Still, planning for the unknown is difficult.

"It's really hard to make big economic outlays when part of the economics of making a project work are dependent on tax incentives that are now in question," Hawkins said, adding KPMG talks to its clients about identifying risks.

She added that it can also be helpful in periods of uncertainty to look at precedents such as what prior Congresses and Treasury departments have done when faced with possible repeals of incentives and guidance modification.

"For instance, there isn't a lot of precedent of retroactive legislative repeals of tax benefits. There just isn't," she said. "That's something that we try to point out. Of course, you have to be prepared for anything." OGI

Bioenergy

Vision RNG Inks Landfill Gas Agreement in South Carolina

Vision RNG plans to transform Greenwood County, S.C., landfill gas into renewable natural gas (RNG) or power after sealing a long-term gas rights agreement with the county.

The Pennsylvania-based landfill gas and RNG developer said the agreement to purchase raw landfill gas could last up to 25 years. Plans are to spend the next 12 months working with county and landfill personnel to optimize the existing gas collection and control system to determine the amount of gas available, Vision RNG said in a news release.

The evaluation will determine whether the landfill could support RNG production or a power project. If the developer produces RNG, the gas will be used as transportation fuel and for other sustainable purchases across the U.S., the company said. If power is produced from the landfill gas, Vision RNG said it will be sold to the local grid operator.

Supermajors Ramp Up Biofuel Investments, Rystad Says

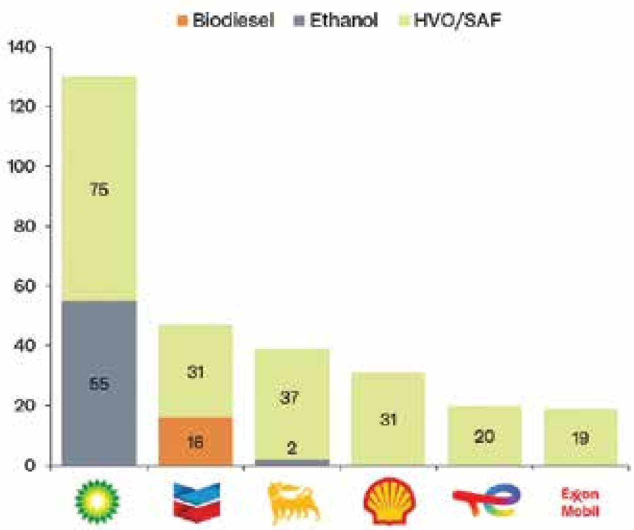
Six of the world's major oil and gas companies are boosting their biofuels investments, with 43 projects already running or targeted to start by 2030, Rystad Energy said in a report.

Among BP, Chevron, Shell, TotalEnergies, Exxon Mobil and Eni, the projects could add 286,000 bbl/d of production capacity, according to Rystad analysts Lars Klesse and Kartik Selvaraju.

Of the 43 projects, 31 are greenfield developments and six are conversions of refineries to produce biofuels exclusively. Six more projects involve co-processing, in which refineries blend bio feedstock and fossil fuel feedstock. BP announced plans for 130,000 bbl/d of biofuels production capacity.

Announced Biofuel Capacity of Oil Majors, by End-Product*

Thousand barrels per day



*Based on announced operated projects

SOURCE: RYSTAD ENERGY

Chevron is second with 47,000 bbl/d.

Almost 90% of the projected output is hydrotreated vegetable oil and sustainable aviation fuel. Biofuels are attractive to operators because they can run in existing engines with lower emissions than fossil fuels.

Carbon Management

SLB Capturi Completes First Industrial-Scale CCS Facility for Cement Sector

SLB CAPTURI

Next steps for the Brevik CCS plant include commissioning. Operations are expected to begin in 2025.

SLB Capturi, a joint venture of SLB and Aker Carbon Capture, marked a milestone toward efforts to decarbonize the hard-to-abate cement sector with the mechanical completion of the carbon capture plant at a cement facility in Norway.

The company said it completed construction of the carbon capture plant at Heidelberg Materials' cement facility in Brevik, Norway, and is ready to test and commission the facility. In addition to the carbon capture system, the plant includes a compression system, heat integration system, intermediate storage and loadout facilities.

Heidelberg Materials' Brevik CCS plant is described as the world's first CO_2 capture facility in the cement industry. Designed to capture up to 400,000 metric tons (mt) of CO_2 annually, the plant is part of the company's plans to lower emissions and produce what it calls net-zero concrete, specifically its evoZero cement products.

"The Brevik CCS plant sets a precedent for future carbon capture initiatives, where learnings and insights from this groundbreaking project enable others to follow," SLB Capturi CEO Egil Fagerland said in a statement.

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Energy Storage

Exxon Mobil, LG Chem Ink Deal for Lithium Carbonate

Exxon Mobil inked a multi-year, non-binding offtake deal to supply South Korean chemical company LG Chem with up to 100,000 mt of lithium carbonate, an ingredient for lithium-ion batteries.

The company plans to produce lithium utilizing direct lithium extraction technology as it aims to become a leading domestic supplier. Leaning on its conventional oil and gas drilling, subsurface and exploration expertise, Exxon Mobil has said it plans to drill thousands of feet belowground to access brine from which lithium will be extracted and converted into battery-grade material.

Southern Arkansas' Smackover Formation was the site of Exxon's first lithium drilling campaign.

As part of the nonbinding agreement, Exxon will supply lithium from its planned project to LG Chem's cathode plant in Clarksville, Tenn. With an expected annual production capacity of 60,000 tons, the $1.6 billion cathode manufacturing facility will be the largest of its kind in the U.S. when its first phase begins operations in 2026. The facility, located on a 1.7 million-sq m site, will produce enough cathode materials for about 600,000 electric vehicles (EVs) with a range of 500 km annually, the company has said.

LG Chem has already lined up long-term supply agreements for cathode materials with General Motors and Toyota.

Hydrogen

Air Liquide, TotalEnergies Partner to Produce Hydrogen

SOURCE: TOTALENERGIES

TotalEnergies and Air Liquide have partnered to produce green hydrogen at the La Mède biorefinery.

Industrial gases company Air Liquide and TotalEnergies will jointly invest €150 million (US$158 million) and work together to produce renewable hydrogen at the La Mède biorefinery in southeast France, the energy company said.

The partnership took shape as TotalEnergies strived to decarbonize its European refineries. Plans are for Air Liquide to build and operate a hydrogen production unit using steam methane reforming at La Mède with an annual capacity of 25,000 tons, according to a news release. The hydrogen will be used at the biorefinery to produce biodiesel and sustainable aviation fuel.

The new unit is expected to start production in 2028, TotalEnergies said.

The company's efforts also include the Masshyli green hydrogen project with Engie. The companies aim to have an annual capacity of 10,000 tons per year. If subsidies are secured and the project is approved by European and French regulators, plans are to start the first 20-megawatt electrolyzer in 2029.

Gulf Coast, Midwest Hydrogen Hubs Land DOE Funding

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Hydrogen storage hub concept.

Two hydrogen hubs in the Gulf Coast and Midwest have joined three other hubs across the U.S. in securing federal funding as the nation works to establish a clean hydrogen network to help decarbonize high-polluting sectors.

The U.S. Department of Energy (DOE) said it is committing up to $1.2 billion of federal cost share for the HyVelocity-led Gulf Coast Hydrogen Hub and up to $1 billion of federal cost share for the Midwest Hydrogen Hub, which is led by the Midwest Alliance for Clean Hydrogen (MachH2). The funding is part of up to $7 billion the U.S. allocated to establish hydrogen hubs across the country. The hubs, which position hydrogen producers and consumers together with infrastructure, are part of ongoing efforts to reduce greenhouse-gas emissions.

Located along the Texas Gulf Coast, HyVelocity's partners include AES Corp., Air Liquide, Chevron, Exxon Mobil, MHI Hydrogen Infrastructure and Ørsted, with GTI Energy serving as the administrator. Other collaborating organizations include the University of Texas at Austin, the Center for Houston's Future and Houston Advanced Research Center.

The HyVelocity hub plans to produce hydrogen through electrolysis and from natural gas with carbon capture and storage.

Of the up to $1.2 billion federal commitment, the Office of Clean Energy Demonstrations (OCED) awarded the hub $22 million to begin Phase 1. Expected to last about 18 months, Phase 1 entails planning, design and community and labor engagement activities, OCED said.

MACH2's Midwest Hydrogen Hub has proposed projects spread across Illinois, Indiana, Iowa and Michigan. It plans to use natural gas, renewable energy and nuclear energy as feedstocks. Of the up to $1 billion federal commitment, OCED has awarded the hub $22.2 million to begin Phase 1.

The Biden-Harris administration aimed to produce 10 million metric tons of hydrogen annually by 2030. The public investments in the regional hubs are expected to generate more than $40 billion in private investments and create thousands of jobs, according to the DOE.

The three other hubs that have secured federal funding include the Appalachian Hydrogen Hub known as ARCH2, the California Hydrogen Hub called ARCHES and the Pacific Northwest Hydrogen Hub PNWH2. OGI