US Policy Objectives and Strategy **Identification of central policy instruments**	
Qualitative Targets and Areas of Intervention	- Driving down prices of clean hydrogen production through efficiency, innovation, and economies of scale - Building up domestic supply chains for key components - Promoting research and innovation in clean hydrogen technologies - Promoting the export of clean hydrogen as a long-term goal (in the 2030s)
Quantitative Targets	- 10 million tons of clean hydrogen production per year by 2030 at $1/kg clean H2 - > 50 million tons of clean hydrogen production per year by 2050 - 3 GW or more electrolyzer manufacturing capacity per annum in the United States by 2028 - 46 kWh/kg efficiency; 80,000-hr life; $100/kW uninstalled cost for low temperature electrolyzers in 2029-2036 - 80,000-hr life $200/kW cost for high temperature electrolyzers while maintaining or improving efficiency in 2029-2036
What are the targets with respect to: - domestic hydrogen consumption and production - hydrogen imports and exports - different types of hydrogen use - storage and transport infrastructure	- the US aims to achieve 10 million tons of domestic clean hydrogen production per year by 2030 and more than 50 million tons of clean hydrogen production per year by 2050 - hydrogen consumption in the U.S. is expected to grow from about 8 million metric tons per year in 2020 to around 20 million metric tons per year by 2040 and 50 million metric tons by 2050 - the US has no plans to import hydrogen but rather plans to export hydrogen, there are no targets regarding hydrogen export volumes yet - the US plans to use hydrogen from diverse sources which qualify as being “clean” (with an emission intensity of less than 2KgCO2e/kg H2) - Hydrogen storage and transport infrastructure is being promoted, however there are not quantitative targets in this regard.
Which types of hydrogen production and use does the strategy prioritize?	The U.S. aims at scaling up the production of hydrogen based on multiple energy sources. This includes green hydrogen (produced with renewable energy), blue hydrogen (produced from natural gas using carbon capture and storage), pink hydrogen (produced based on nuclear energy), and white hydrogen (based on energy from waste). Most policy documents refer to clean hydrogen, which can include all the above-mentioned sources. Whilst the Bipartisan Infrastructure Las (BIL) defines clean hydrogen as hydrogen that has been produced with less than 2KgCO2e/kg H2 at the site of production, hydrogen with well-to-gate lifecycle greenhouse gas emissions of below 4KgCO2e/kg H2 is supported as “clean hydrogen” in the IRA. In September 2022, DOE released a draft for the Clean Hydrogen Production Standard. The Clean Hydrogen Production Standard is not a regulatory standard but is intended to guide (not necessarily determine) DOE’s funding decisions. The draft proposes to define clean hydrogen as hydrogen produced with a carbon intensity equal to or less than 4 kg of carbon dioxide-equivalent emissions per kilogram of hydrogen during its lifecycle.

How is target achievement monitored and enforced?	The US plans to develop rigorous data collection and monitoring framework for future deployments in the time frame before 2025. Currently they are not yet in place.
What are the main policies in support of import/exports?	The US represents an export market. Its current support policies promote domestic investment. The export of hydrogen is seen as a long-term goal for the 2030s.
US Main Policy Instruments (main policy instruments in bold and assessed below)	

Investment Promotion	- Inflation Reduction Act. The Inflation Reduction Act (IRA) is the single largest investment package to combat climate change in the history of the United States with an estimated volume of $369 billion. It entails several instruments to foster investments in hydrogen (see section on investment promotion)
	  - **Hydrogen Production Tax Credit (PTC) (IRA)**
	  - **Advanced Energy Project Credit (IRA)**
	  - **Alternative Fuel Refueling Property Credit (IRA)**
	  - **Carbon Oxide Sequestration Tax Credit (IRA)**
	  - **Grants and loans for auto manufacturing facilities to manufacture clean vehicles, including fuel cell electric vehicles (FCEVs) (IRA)**
	  - **Clean Vehicle Credit (IRA)**
	  - **Sustainable Aviation Fuel Credit (IRA)**
	  - **Clean Fuel Production Credit (IRA)**
	  - **Industrial Demonstrations Program (BIL + IRA)**
	- Infrastructure Investment and Jobs Act. The Act is also known as the Bipartisan Infrastructure Law (BIL). The BIL comprises $62 billion to enhance infrastructure improvements and to increase the country's competitiveness. Several instruments and provisions regarding domestic content are of great relevance for investments in hydrogen (see section in investment promotion).
	  - **Promotion of Regional Hydrogen Hubs (BIL)**
	  - **Industrial Demonstrations Program (BIL + IRA)**
	Overview about relevant incentives under the IRA and BIL:
	https://www.energy.gov/eere/fuelcells/financial-incentives-hydrogen-and-fuel-cell-projects
	https://www.whitehouse.gov/cleanenergy/clean-energy-tax-provisions/
	- Industrial Demonstrations Program (IDP), funded by the BIL and the IRA, provides a total of $6 billion to projects for decarbonization in high-carbon industries, "including aluminum and other metals, cement and concrete, chemicals and refining, iron and steel, and more"

Economy-Wide Instruments	-

Research, Development, Demonstration and Deployment promotion	- Hydrogen Shot Initiative aims to reduce the cost of clean hydrogen by 80 percent to $1 per 1 kilogram in 1 decade (“1 1 1”). - Funding for hydrogen-related R&D is channeled via a consortium under the H2@scale initiative, which includes various stakeholders. The consortium supports the development of promising early-stage hydrogen applications by leveraging funding based on partnerships with national labs and the provision of data from industry-led demonstrations. - In general, there is a focus on funding first-of-its-kind projects Concrete programs: - 1 billion for a Clean Hydrogen Electrolysis Program (BIL): This program will improve the efficiency and cost-effectiveness of electrolysis technologies by supporting the entire innovation chain—from research, development, and demonstration to commercialization and deployment to enable $2/kg clean hydrogen from electrolysis by 2026. - 500 million for Clean Hydrogen Manufacturing and Recycling RDD&D Activities (BIL): This effort will also support American manufacturing of clean hydrogen equipment, including projects that improve efficiency and cost-effectiveness and support domestic supply chains for key components. - Grants for industrial demonstration projects, including hydrogen technologies for the industrial sector (IRA)
Networks / Cluster Promotion	- The Bipartisan Infrastructure Law (BIL) provides more than $7 billion in direct grant funding for scaling up hydrogen applications in seven regional clean hydrogen hubs across the country. In February 2025, the Trump administration froze federal funding temporarily.
International Initiatives	- Mission Innovation - International Hydrogen Partnerships; - MoUs on hydrogen cooperation - Joint Declarations for hydrogen investments
Education and Information	- The National Hydrogen Strategy foresees the promotion of higher-education and apprenticeship programs, especially in disadvantaged communities, for training the clean hydrogen workforce, including on safety, codes, and standards. - The U.S. plans to develop education resources to support hub community outreach and engagement strategies.
Voluntary Agreements	-

Assessment of main policy instruments in support of domestic and imported hydrogen production (including derivatives)

1. Investment Promotion

Hydrogen Production Tax Credit (PTC) (IRA)	
Brief description of the instrument	
"The clean hydrogen PTC, included in the IRA, offers a range of credit values based on the carbon intensity of the production pathway, with up to $3/kg for hydrogen with well-to-gate emissions less than 0.45 kg CO2e/kg H2, conditional on meeting the prevailing wage and apprenticeship requirements. The PTC can pull forward breakeven times for clean hydrogen versus traditional, fossil alternatives for certain end uses, particularly industrial applications such as ammonia and steel" (National Clean Hydrogen Strategy and Roadmap) The Trump administration has enacted the One Big Beautiful Bill Act (OBBBA) (Public Law 119-21), signed into law on July 4, 2025, which terminates the Section 45V Clean Hydrogen Production Credit for facilities whose construction begins after December 31, 2027. The final rules specifying the eligibility criteria for the H2 PTC, published in January 2025, remain in force, as the deadline for the Trump administration to challenge them has since expired.	
Focus of the instrument	
Production: Which types of hydrogen production does the instrument incentivize? (How) does it distinguish between hydrogen and different derivatives?	The PTC allows for various types of hydrogen production, as long as the greenhouse gas threshold is met. The PTC does not mention any derivatives and only refers to hydrogen.
Use: Which types of hydrogen use does the instrument incentivize? (How) does it distinguish or prioritize between different uses?	The instrument focuses on hydrogen production rather than any particular end uses.
Transport/Storage: What types of transport / storage infrastructure does it incentivize?	The instrument does not incentivize the transport or storage of hydrogen.
Economic and industrial dimensions	
How does the policy instrument promote investment in hydrogen production/use/storage/transport?	The instrument promotes investment in hydrogen production. The IRA allows hydrogen producers in the United States to choose between a production tax credit (granting a fixed credit per kilogram of produced hydrogen) or an investment tax credit (granted for a fraction of their capital expenses). These tax credits are granted from 2023 through 2033 for eligible facilities and can be combined with additional credits for renewable energies in the case of green

<table>
<tr><td>What kind of support mechanism does it involve?</td><td>hydrogen production. Following the OBBBA facilities whose construction begins after December 31, 2027, are no longer eligible for the credit
The credit varies based on the carbon emission of the hydrogen production:
<table>
<tr><td>Kg CO2/kg of hydrogen</td><td>Production tax credit per kg of H2</td><td>Investment tax credit in %</td></tr>
<tr><td>< 0.45</td><td>$3.00</td><td>30%</td></tr>
<tr><td>< 1.5</td><td>$1.00</td><td>10%</td></tr>
<tr><td>< 2.5</td><td>$0.75</td><td>7.5%</td></tr>
<tr><td>< 4.0</td><td>$0.6</td><td>6%</td></tr>
</table></td></tr>
<tr><td>How does the policy instrument determine the level of financial support?</td><td>The level of financial support is determined by the carbon intensity of hydrogen production.
Projects are required to promote good-paying jobs by following prevailing wage standards and apprenticeship requirements to receive the full credit
The tax credit cannot stack with the Carbon Oxide Sequestration Tax Credit (45Q), but can stack with an additional renewable energy production tax credit and zero-emission nuclear credit
Potential increases:
Furthermore, renewable energy projects are also eligible for the 10-percent domestic content bonus credit amount and the 10-percent increase in credit rate for energy communities.</td></tr>
<tr><td>Does the instrument limit the total volume of financial support?</td><td>No</td></tr>
<tr><td>How is the instrument financed?</td><td>Federal funding for the Inflation Reduction Act (IRA)</td></tr>
<tr><td>How does the instrument address market or other risks external to the project? Does it absorb any of these risks?</td><td>The subsidy strengthens hydrogen producing companies and gives them some more security for planning in times of high uncertainty in hydrogen markets</td></tr>
<tr><td>Who is eligible for support?</td><td>- Producers of clean hydrogen in the United States
- qualified clean hydrogen production facility
- Credit is for hydrogen produced after 12/31/22.
- Credit is available for facilities placed in service before 1/1/33 for their first 10 years in service. Note: Under the OBBBA, this applies only to facilities that began construction on or before December 31, 2027.
- Eligibility includes retrofit facilities</td></tr>
</table>

How does the policy instrument determine the project or entities that receive support? What are the selection criteria or mechanisms for allocating support?	- Producers of clean hydrogen in the United States - qualified clean hydrogen production facility The main selection criteria is the carbon intensity of the hydrogen production.
Does the instrument require any local content?	- The production of hydrogen needs to take place in the United States. - Furthermore, renewable energy projects feeding electrolysers for green hydrogen production are also eligible for the 10-percent domestic content bonus credit amount, if they use components produced by domestic manufacturers using domestic materials; the requirements focus on steel and iron components and manufactured products; a certification is needed. (More details)
Does the instrument specify a particular technology or set of technologies? To what degree does it specify technology choice?	No, the instrument is formulated in a technology-neutral way; however, there is a carbon emission threshold that excludes certain hydrogen production technologies such as grey or brown hydrogen.
What are the main barriers or challenges that might prevent the instrument from achieving its intended impact? (E.g. remaining investment risks, insufficient financial support, regulatory burden, etc.)	One barrier that has been mentioned is that the policy focuses strongly on the supply side whilst there are relatively few demand side policies in the US and therefore perceived insecurity in terms of off takers. However, there are plans for further demand side policies in the future (notice of intent by the Department of Energy). These plans include: - Up to $1billion for a demand side support mechanism to support the development of H2Hubs - "The mechanism could include one or more design factors such as pay-for-delivery contracts, offtake backstops, feasibility funding to support analysis by offtakers, or other measures that strengthen demand for clean hydrogen and increase revenue certainty for H2Hubs. The mechanism will enable private sector financing and expedite progress to Final Investment Decision for H2Hubs"
Climate and Environment	
Which types of hydrogen production are eligible for support?	All hydrogen types that can achieve a carbon intensity of less than 0.40Kg CO2/kg of hydrogen.
What standards do support policies require for: - CO2 footprint - Renewability - Other environmental dimensions	- The policy requires less than 0.40 Kg CO2/kg of hydrogen during its lifecycle - The hydrogen doesn't need to be produced by renewables, but might get additional tax credits if produced by renewables based on tax credits for renewables - Final rules for the sourcing of zero-carbon electricity for eligible hydrogen projects published in January 2025 stipulate

	○ Deliverability: Electricity represented must be generated in the same grid region as the hydrogen production facility or must be physically delivered to that region with verified transmission rights and hourly tracking, ensuring no double counting or reverse trades ○ Incrementality: Electricity from new facilities entering in operation no more than 36 months before H2-production facility or facilities with upgraded capacities no more than 36 months before, or from specific exemptions such as qualifying nuclear reactors, CCS-retrofitted plants, restarted decommissioned plants, or plants in states with electricity decarbonization and GHG cap program (100% retails sales of electricity from renewable or minimal-emitting sources by 2050 or earlier and legally binding cap on GHG emissions from electricity) - currently only California and Washington ▪ Qualifying nuclear reactor is either a merchant reactor or a single unit, meets the section 45U gross income test for any two years between 2017-2021, and is either physically connected to the hydrogen facility or is subject to a contract to acquire and retire energy attribute certificates for a fixed term of at least 10 years ▪ CCS-retrofitted plant: CCS equipment was placed in service no longer than 36 months before the hydrogen production facility ▪ Restarted decommissioned facilities: Shut down for at least one year, operating license issued by regulatory authority to restart facility ○ Temporal matching with temporal matching being annually until 2030 and hourly thereafter - There are no further environmental criteria specified
Are the measures to address possible lock-in effects from investments in fossil-based hydrogen production? Does it include any phase-out conditions?	The instrument aims to make clean hydrogen more cost-competitive against fossil-based hydrogen; the support is limited to 10 years. The US hydrogen shot program expects that within the next 10 years the costs of clean hydrogen production will be lower, and no more support might be needed. The policy does not include specific fossil phase out conditions.

Advanced Energy Project Credit (IRA)	
Brief description of the instrument	
"The **Advanced Energy Project Credit** extends the 30% investment tax credit and creates funding for manufacturing projects producing fuel cell electric vehicles, hydrogen infrastructure, electrolyzers, and a range of other products. It also expands tax credit to include projects at manufacturing facilities that want to reduce their greenhouse gas emissions by at least 20%. The tax credit is funded at $10 billion for eligible projects. It can be applied to retrofitting facilities for low-carbon industrial heat, carbon capture, transport, utilization, and storage systems, and equipment for recycling, waste reduction, and energy efficiency." For more details see here: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiHoL_3v5-AAxXhVfEDHfLvC3kQFnoECAoQAQ&url=https%3A%2F%2Fwww.irs.gov%2Fpub%2Firs-drop%2Fn-23-44.pdf&usg=AOvVaw3Nl_0_G-VFG6VM74BeZ_1G&opi=89978449	
Focus of the instrument	
Production: Which types of hydrogen production does the instrument incentivize? (How) does it distinguish between hydrogen and different derivatives?	Eligible projects might focus on hydrogen or also low-emissions ammonia.
Use: Which types of hydrogen use does the instrument incentivize? (How) does it distinguish or prioritize between different uses?	Examples of eligible projects include the production of stationary hydrogen fuel cells; hydrogen storage vessels; clean hydrogen heat systems, the production for components used in hydrogen refueling stations (e.g., hydrogen compressors, pumps, storage vessels, and dispensing equipment). There is no clear prioritization between these uses.
Transport/Storage: What types of transport / storage infrastructure does it incentivize?	The policy incentivizes stationary hydrogen fuel cells; hydrogen storage vessels; the production of components for hydrogen refueling stations (e.g., hydrogen compressors, pumps, storage vessels, and dispensing equipment)
Economic and industrial dimensions	
How does the policy instrument promote investment in hydrogen production/use/storage/transport? What kind of support mechanism does it involve?	The policy promotes investments via tax credits and include direct and transferable payments.

How does the policy instrument determine the level of financial support?	The level of support is a 30% reduction of investment taxes.
Does the instrument limit the total volume of financial support?	The funding is limited to $10 billion for eligible projects. The OBBBA prevents any further increase of the program's funding allocation beyond this amount.
How is the instrument financed?	The instrument is funded via federal finance through the IRA.
How does the instrument address market or other risks external to the project? Does it absorb any of these risks?	The instrument requires additional information on the projects in order to minimize additional risks, including: - "To provide an effective plan to minimize the risk of labor disputes or disruptions - due diligence review to determine if an applicant has a connection with a country of risk - Risk Management Plan: Identify project risks or challenges and any relevant strategies for risk mitigation and management, such as legal, financial, engineering, procurement, construction, physical climate, and environmental risks"
Who is eligible for support?	Clean Energy Manufacturing and Recycling Projects, Greenhouse Gas Emission Reduction Projects, and Critical Material Projects
How does the policy instrument determine the project or entities that receive support? What are the selection criteria or mechanisms for allocating support?	There are four technical review criteria reflecting overall program objectives: • "Criterion 1: Commercial Viability • Criterion 2: Greenhouse Gas Emissions Impacts • Criterion 3: Strengthening U.S. Supply Chains and Domestic Manufacturing for a Net-Zero Economy • Criterion 4: Workforce and Community Engagement"
Does the instrument require any local content?	All projects have to describe how their "facility's products will help build resilience of domestic supply chains that are critical for energy products that facilitate progress towards a net-zero economy". Depending on the project, additional domestic content requirements might apply, e.g. for steel, iron, and manufactured products.
Does the instrument specify a particular technology or set of technologies? To what degree does it specify technology choice?	There is some openness with regard to technology choices however there are designated priority areas that receive special attention. With regard to Hydrogen, these priority areas include: "Manufacturing of electrolyzers, fuel cells, and associated components (including gas diffusion layers, bipolar plates, and power electronics)" Furthermore some technologies are listed as examples for eligible projects. With regard to hydrogen, these include:

	- "Heating systems based on clean hydrogen - hydrogen refueling stations (e.g., hydrogen compressors, pumps, storage vessels, and dispensing equipment - eligible fuels, chemicals, and products produced by eligible equipment include hydrogen produced through electrolysis powered by low- or zero-emission energy"
What are the main barriers or challenges that might prevent the instrument from achieving its intended impact? (E.g. remaining investment risks, insufficient financial support, regulatory burden, etc.)	Not clear
Climate and Environment	
Which types of hydrogen production are eligible for support?	hydrogen produced through electrolysis powered by low- or zero-emission energy Clean hydrogen produced with a well-to-gate lifecycle greenhouse gas (GHG) emissions rate of not greater than 4 kg CO2e per kg H2
What standards do support policies require for: - CO2 footprint - Renewability - Other environmental dimensions	CO2 footprint: Clean hydrogen should be produced with a well-to-gate lifecycle greenhouse gas (GHG) emissions rate of not greater than 4 kg CO2e per kg H2 Part of the evaluation is how the project deals with local Environmental Impacts: "o The extent to which the proposed project accounts for its environmental impact to the surrounding community by having clear plans to avoid or reduce local air pollution, land contamination, and/or water contamination. o The extent to which the applicant identifies specific, measurable benefits for disadvantaged communities, how the benefits will flow to disadvantaged communities, and how negative environmental impacts affecting disadvantaged communities would be mitigated."
Are the measures to address possible lock-in effects from investments in fossil-based hydrogen production? Does it include any phase-out conditions?	Fuels and chemicals derived solely from fossil resources produced through conventional petroleum and natural gas refining are ineligible. There are no phase-out conditions.

Alternative Fuel Refueling Property Credit (IRA)	
Brief description of the instrument	
The instrument provides a tax credit for alternative fuel vehicle refueling and charging property of up to $100,000 in low-income and rural areas. Alternative fuels include electricity, ethanol, natural gas, hydrogen, biodiesel, and others. The property must be located in low-income communities or non-urban census tracts. The OBBBA moved the termination date of the credit forward from December 31, 2032, to June 30, 2026; property must now be placed into service on or before that date.	
Focus of the instrument	
Production: Which types of hydrogen production does the instrument incentivize? (How) does it distinguish between hydrogen and different derivatives?	The instrument does not specify whether derivatives are also eligible.
Use: Which types of hydrogen use does the instrument incentivize? (How) does it distinguish or prioritize between different uses?	Hydrogen for fuel vehicle refueling
Transport/Storage: What types of transport / storage infrastructure does it incentivize?	It incentivizes alternative fuel vehicle refueling and charging infrastructure using include electricity, ethanol, natural gas, hydrogen, biodiesel, and others.
Economic and industrial dimensions	
How does the policy instrument promote investment in hydrogen production/use/storage/transport? What kind of support mechanism does it involve?	The instrument incentivizes hydrogen use in the transport sector and associated infrastructure with refueling stations. The support mechanism is a tax credit.
How does the policy instrument determine the level of financial support?	Starting January 1, 2023, the credit for qualified refueling property subject to depreciation equals 6% with a maximum credit of $100,000 for each single item of property. Businesses meeting prevailing wage and apprenticeship requirements may be eligible for a 30% credit with the same $100,000 limit.

	For qualifying property not subject to depreciation, the credit equals 30% of the cost with a maximum amount of $1,000 per item.
Does the instrument limit the total volume of financial support?	Yes, see above.
How is the instrument financed?	Federal finance through the IRA
How does the instrument address market or other risks external to the project? Does it absorb any of these risks?	No
Who is eligible for support?	The credit is available to businesses and individuals that place qualified refueling property into service during the tax year. The refueling property must be used to store or dispense clean-burning fuel.
How does the policy instrument determine the project or entities that receive support? What are the selection criteria or mechanisms for allocating support?	To qualify for the credit, refueling property must be used to store or dispense clean-burning fuel. In addition, the following requirements must be met to qualify for the credit: - "The refueling property is placed in service during the tax year. - The original use of the property began with the taxpayer. - The property is used primarily inside the United States. - If the property is not business or investment use property, it must be installed on property used as a main home. " Beginning January 1, 2023, the Inflation Reduction Act expands qualified property to include: - "Charging stations for 2- and 3-wheeled vehicles (for use on public roads) - Bidirectional charging equipment (vehicle-to-grid or V2G) Starting in 2023, qualifying property will be limited to property placed in service within low-income communities or non-urban census tracts."
Does the instrument require any local content?	Domestic content requirements are not mentioned. However, all federally funded infrastructure projects need to use American-made iron, steel, construction materials, and manufactured products.
Does the instrument specify a particular technology or set of technologies? To what degree does it specify technology choice?	No

What are the main barriers or challenges that might prevent the instrument from achieving its intended impact? (E.g. remaining investment risks, insufficient financial support, regulatory burden, etc.)	Unclear
Climate and Environment	
Which types of hydrogen production are eligible for support?	Not specified
What standards do support policies require for: - CO2 footprint - Renewability - Other environmental dimensions	Not specified
Are the measures to address possible lock-in effects from investments in fossil-based hydrogen production? Does it include any phase-out conditions?	Not specified

Carbon Oxide Sequestration Tax Credit (IRA)	
Brief description of the instrument	
Production tax credit based on carbon capture and sequestration, injection for enhanced oil recovery (EOR), or utilization. These tax credits can be used to promote blue hydrogen. The credit was retained and modified under the OBBBA, which establishes parity in the credit amount across secure geological storage, enhanced oil recovery, and utilization for facilities or equipment placed in service after July 4, 2025.	
Focus of the instrument	
Production: Which types of hydrogen production does the	The instrument focuses on blue hydrogen. The instrument mentiones carbon capturing and direct air capturing. The instrument does not mention hydrogen derivatives.

instrument incentivize? (How) does it distinguish between hydrogen and different derivatives?	
Use: Which types of hydrogen use does the instrument incentivize? (How) does it distinguish or prioritize between different uses?	n/a
Transport/Storage: What types of transport / storage infrastructure does it incentivize?	n/a
Economic and industrial dimensions	
How does the policy instrument promote investment in hydrogen production/use/storage/transport? What kind of support mechanism does it involve?	The instruments promotes CCUS technologies which might be also used for blue hydrogen production. The support mechanism is a tax credit
How does the policy instrument determine the level of financial support?	"$17/metric ton of carbon dioxide captured and sequestered; $12/metric ton for carbon dioxide that is injected for enhanced oil recovery or utilized. Those amounts are $36 and $26, respectively, for direct air capture facilities." Note: For facilities or equipment placed in service after July 4, 2025, the OBBBA establishes parity between these credit amounts across secure geological storage, enhanced oil recovery, and utilization. Additionally, there is the opportunity to get 5 times the base amounts if the facility meets prevailing wage and apprenticeship requirements.
Does the instrument limit the total volume of financial support?	Not clear
How is the instrument financed?	Federal finance through the IRA
How does the instrument address market or other risks external to the project? Does it absorb any of these risks?	No

Who is eligible for support?	"U.S. facilities within minimum volumes: 1,000 metric tons of CO2 per year for DAC facilities; 18,750 metric tons for electricity generating facilities (with carbon capture capacity of 75% of baseline CO2 production); 12,500 metric tons for any other facility. The Credit can be claimed for 12 years after a facility is placed in service. Facilities must be placed in service before 1/1/33."
How does the policy instrument determine the project or entities that receive support? What are the selection criteria or mechanisms for allocating support?	The projects must meet the criteria for eligibility mentioned above.
Does the instrument require any local content?	No
Does the instrument specify a particular technology or set of technologies? To what degree does it specify technology choice?	Not clear
What are the main barriers or challenges that might prevent the instrument from achieving its intended impact? (E.g. remaining investment risks, insufficient financial support, regulatory burden, etc.)	Not clear
Climate and Environment	
Which types of hydrogen production are eligible for support?	Not specified
What standards do support policies require for: - CO2 footprint - Renewability - Other environmental dimensions	Not specified

Are the measures to address possible lock-in effects from investments in fossil-based hydrogen production? Does it include any phase-out conditions?	No

Electric Vehicle (EV) and Fuel Cell Electric Vehicle (FCEV) Manufacturing Loans (IRA)	
Brief description of the instrument	
Provision of grants or loan guarantees through the Loan Guarantee Program for the domestic production of efficient hybrid vehicles, plug-in hybrid electric vehicles, all-electric vehicles, and hydrogen fuel cell electric vehicles.	
Focus of the instrument	
Production: Which types of hydrogen production does the instrument incentivize? (How) does it distinguish between hydrogen and different derivatives?	The instrument does not address production.
Use: Which types of hydrogen use does the instrument incentivize? (How) does it distinguish or prioritize between different uses?	The instruments addresses only hydrogen fuel cell electric vehicles.
Transport/Storage: What types of transport / storage infrastructure does it incentivize?	The instrument incentivizes manufacturing of infrastructure including associated hardware and software
Economic and industrial dimensions	
How does the policy instrument promote investment in hydrogen production/use/storage/transport? What kind of support mechanism does it involve?	The instrument incentivizes investment in hydrogen-based vehicle manufacturing and infrastructure through grants and loan guarantees The support mechanism is the provision of grants and loan guarantees.

How does the policy instrument determine the level of financial support?	DOE may issue loan guarantees for at least 50% of the amount of the loan for an eligible project. For loan guarantees of over 80%, the loan must be issued and funded by the Treasury Department's Federal Financing Bank.
Does the instrument limit the total volume of financial support?	Not clear
How is the instrument financed?	Federal finance (IRA)
How does the instrument address market or other risks external to the project? Does it absorb any of these risks?	Not clear
Who is eligible for support?	Eligible projects may include the deployment of fueling infrastructure, including associated hardware and software, for alternative fuels.
How does the policy instrument determine the project or entities that receive support? What are the selection criteria or mechanisms for allocating support?	Selection criteria: All the below mentioned criteria need to be fulfilled: - " Manufacture eligible vehicles or components that are used in eligible vehicles. Advanced technology vehicles were originally defined as light-duty vehicles that meet or exceed a 25% improvement in fuel efficiency beyond a 2005 model year base-line of comparable vehicles; and/or ultra-efficient vehicles which achieve a fuel efficiency of 75 miles per gallon or equivalent using alternative fuels. The Bipartisan Infrastructure Law expanded the definition to include medium- and heavy-duty vehicles, locomotives, maritime vessels including offshore wind vessels, aviation, and hyperloop. - Build new facilities; reequip, modernize, or expand existing facilities; and/or for engineering integration performed in the United States related to the manufacturing of eligible vehicles or components. - Be located in the United States. Foreign ownership or sponsorship of the projects is permissible as long as the project is located in U.S. territory. - Provide a reasonable prospect of repayment."
Does the instrument require any local content?	- It is not specifically mentioned, but all federally funded infrastructure projects need to use American-made iron, steel, construction materials, and manufactured products.
Does the instrument specify a particular technology or set of technologies? To what degree does it specify technology choice?	Not
What are the main barriers or challenges that might prevent the	Unclear

instrument from achieving its intended impact? (E.g. remaining investment risks, insufficient financial support, regulatory burden, etc.)	
Climate and Environment	
Which types of hydrogen production are eligible for support?	Not specified
What standards do support policies require for: - CO2 footprint - Renewability - Other environmental dimensions	Eligible vehicles or components that are used in eligible vehicles are defined based on fuel efficiency. They were originally defined as light-duty vehicles that meet or exceed a 25% improvement in fuel efficiency beyond a 2005 model year base-line of comparable vehicles; and/or ultra-efficient vehicles which achieve a fuel efficiency of 75 miles per gallon or equivalent using alternative fuels.
Are the measures to address possible lock-in effects from investments in fossil-based hydrogen production? Does it include any phase-out conditions?	Not mentioned

Clean Vehicle Credit (IRA)	
Brief description of the instrument	
Provides a tax credit for purchasers of clean vehicles, this includes hydrogen fuel cell vehicles. The credit was terminated by the OBBBA for vehicles acquired after September 30, 2025.	
Focus of the instrument	
Production: Which types of hydrogen production does the instrument incentivize? (How) does it distinguish between hydrogen and different derivatives?	Not addressed.

Use: Which types of hydrogen use does the instrument incentivize? (How) does it distinguish or prioritize between different uses?	The instrument addresses only hydrogen use in fuel cell vehicles
Transport/Storage: What types of transport / storage infrastructure does it incentivize?	The instrument incentivizes the use of clean vehicles for transport, including hydrogen fuel cell vehicles.
Economic and industrial dimensions	
How does the policy instrument promote investment in hydrogen production/use/storage/transport? What kind of support mechanism does it involve?	The support mechanism provides a tax credit for purchasers of clean vehicles, this includes hydrogen fuel cell vehicles. Adds a retail price cap of $55,000 for new cars and $80,000 for pickups, vans, and sport utility vehicles
How does the policy instrument determine the level of financial support?	The amount of the tax credit is fixed but might be stacked if certain criteria are fulfilled. "$3,750 credit for clean vehicles meeting critical minerals requirement Additional $3,750 credit for vehicles meeting the requirement that a threshold percentage of battery components be manufactured or assembled in North America"
Does the instrument limit the total volume of financial support?	Credit of up to USD 7,500 per vehicle. The credit is no longer available for vehicles acquired after September 30, 2025, following its termination under the OBBBA.
How is the instrument financed?	Federal finance (IRA)
How does the instrument address market or other risks external to the project? Does it absorb any of these risks?	-
Who is eligible for support?	The tax credit is not available for consumers who have adjusted gross incomes for the current or preceding year above $300,000 (couples), $225,000 (heads of household), $150,000 (singles). Not inflation adjusted.
How does the policy instrument determine the project or entities that receive support? What are the selection criteria or mechanisms for allocating support?	The selection criteria for eligibility are - Household income - The clean vehicle must fulfill certain domestic content criteria
Does the instrument require any local content?	"$3,750 credit for vehicles meeting critical minerals requirement. The vehicle must contain a threshold percentage of critical minerals extracted or processed in the United States or in a country with which the United States has a free

	trade agreement, or recycled in North America. Additional $3,750 credit for vehicles meeting the requirement that a threshold percentage of battery components be manufactured or assembled in North America. Vehicles must meet other requirements, including final assembly in North America and MSRP limits (generally $55,000; for vans, SUVs, and pickups $80,000). Starting in 2024, qualifying vehicles cannot have battery components manufactured or assembled by a foreign entity of concern. Starting in 2025, qualifying vehicles' batteries cannot contain critical minerals" extracted, processed, or recycled by a foreign entity of concern.
Does the instrument specify a particular technology or set of technologies? To what degree does it specify technology choice?	To qualify, a vehicle must: • "Have a battery capacity of at least 7 kilowatt hours • Have a gross vehicle weight rating of less than 14,000 pounds • Be made by a qualified manufacturer. o FCVs do not need to be made by a qualified manufacturer to be eligible. • Undergo final assembly in North America • Meet critical mineral and battery component requirements "
What are the main barriers or challenges that might prevent the instrument from achieving its intended impact? (E.g. remaining investment risks, insufficient financial support, regulatory burden, etc.)	Not clear
Climate and Environment	
Which types of hydrogen production are eligible for support?	Not specified
What standards do support policies require for: - CO_2 footprint - Renewability - Other environmental dimensions	Not specified

Are the measures to address possible lock-in effects from investments in fossil-based hydrogen production? Does it include any phase-out conditions?	Not specified

Sustainable Aviation Fuel Credit (IRA)	
Brief description of the instrument	
Tax credit for the sale or use of sustainable aviation fuel (SAF) that achieves a lifecycle greenhouse gas emissions reduction of at least 50% as compared with petroleum-based jet fuel. Clean hydrogen could be used to achieve such emission reductions. The credit was eliminated by the OBBBA for sales or uses after September 30, 2025. SAF production remains eligible for support under the Clean Fuel Production Credit, subject to the general §45Z credit rates and requirements.	
Focus of the instrument	
Production: Which types of hydrogen production does the instrument incentivize? (How) does it distinguish between hydrogen and different derivatives?	The instrument addresses the production of aviation fuels, which includes but is not limited to hydrogen derivatives.
Use: Which types of hydrogen use does the instrument incentivize? (How) does it distinguish or prioritize between different uses?	The instrument focuses only on the use in the aviation sector.
Transport/Storage: What types of transport / storage infrastructure does it incentivize?	The instrument does not incentivize transport/storage infrastructure
Economic and industrial dimensions	
How does the policy instrument promote investment in hydrogen production/use/storage/transport?	The instrument provides a tax credit of $1.25 per gallon of sustainable aviation fuels. Additionally, up to $0.50/gallon are granted depending on lifecycle greenhouse gas emissions of sustainable aviation fuels relative to petroleum-based jet fuel. In general, the applicable supplementary amount increases the $1.25 base credit by $0.01 for each percentage

What kind of support mechanism does it involve?	point by which the “lifecycle greenhouse gas emissions reduction percentage” (as defined in section 3.01(4) of this notice) of the sustainable aviation fuel exceeds 50 percent.
How does the policy instrument determine the level of financial support?	Yes (see above)
Does the instrument limit the total volume of financial support?	Max. $1.75 per gallon of sustainable aviation fuels. This credit is no longer available for sales or uses after September 30, 2025 (see above).
How is the instrument financed?	Federal finance (IRA)
How does the instrument address market or other risks external to the project? Does it absorb any of these risks?	Not mentioned
Who is eligible for support?	Producers and blenders of sustainable aviation fuel-kerosene fuel mixtures for aviation.
How does the policy instrument determine the project or entities that receive support? What are the selection criteria or mechanisms for allocating support?	
Does the instrument require any local content?	Qualified sustainable aviation fuel (SAF) mixture must be made in the United States, and fueling of the aircraft must occur in the United States.
Does the instrument specify a particular technology or set of technologies? To what degree does it specify technology choice?	The specifications describe two distinct processes to produce a qualified mixture. Generally, under ASTM D7566, a person produces a qualified mixture by mixing a synthetic blending component with kerosene. In contrast, under ASTM D1655 Annex A1, a person produces a qualified mixture by co-processing an appropriate feedstock with a petroleum feedstock during the production of kerosene that results in a qualified mixture, although no separate step of “mixing” a sustainable aviation fuel with kerosene occurs.”
What are the main barriers or challenges that might prevent the instrument from achieving its intended impact? (E.g. remaining investment risks, insufficient financial support, regulatory burden, etc.)	Not mentioned

Climate and Environment	
Which types of hydrogen production are eligible for support?	Not specified
What standards do support policies require for: - CO2 footprint - Renewability - Other environmental dimensions	CO2 Footprint: “To qualify as sustainable aviation fuel, the liquid fuel must have a lifecycle greenhouse gas emissions reduction percentage of at least 50 percent compared with petroleum-based jet fuel” - -
Are the measures to address possible lock-in effects from investments in fossil-based hydrogen production? Does it include any phase-out conditions?	No

Clean Fuel Production Credit (IRA)	
Brief description of the instrument	
Provides a tax credit for domestic production of clean transportation fuels, including sustainable aviation fuels, beginning in 2025. Clean hydrogen could be used for the production of such clean fuels. Under the OBBBA, the credit was extended through December 31, 2029. For transportation fuels produced after December 31, 2025, feedstock must be derived exclusively from feedstock produced or grown in the United States, Mexico, or Canada. The OBBBA also eliminated the special higher credit rates for sustainable aviation fuel for fuel produced after December 31, 2025	
Focus of the instrument	
Production: Which types of hydrogen production does the instrument incentivize? (How) does it distinguish between hydrogen and different derivatives?	The instrument addresses the production of clean transport fuels, which includes but is not limited to hydrogen and its derivatives.
Use: Which types of hydrogen use does the instrument incentivize?	The instrument concerns a single use case: clean fuels for transport.

(How) does it distinguish or prioritize between different uses?	
Transport/Storage: What types of transport / storage infrastructure does it incentivize?	Not specified
Economic and industrial dimensions	
How does the policy instrument promote investment in hydrogen production/use/storage/transport? What kind of support mechanism does it involve?	The instrument reduces the costs of clean hydrogen based fuel production for use cases the transport sector. The support mechanism is a tax credit.
How does the policy instrument determine the level of financial support?	"The base amount is $0.20/gallon for non-aviation fuel and $0.35/gallon for aviation fuel, multiplied by the carbon dioxide "emissions factor" of the fuel. Inflation adjusted after 2024. Credit is 5 times the base amount ($1/gallon for non-aviation fuel, $1.75 gallon for aviation fuel, multiplied by the emissions factor) for facilities meeting prevailing wage and apprenticeship requirements. Inflation adjusted after 2024." Note: The OBBBA eliminated the special higher credit rate for sustainable aviation fuel (i.e., the $0.35/gallon base and associated 5x bonus) for fuel produced after December 31, 2025; from this date, SAF is subject to the general (non-aviation) §45Z credit rates.
Does the instrument limit the total volume of financial support?	Yes (see above). The credit is available through December 31, 2029, following its extension under the OBBBA.
How is the instrument financed?	Federal finance (IRA)
How does the instrument address market or other risks external to the project? Does it absorb any of these risks?	Not specified
Who is eligible for support?	"Registered producers in the United States. Fuels with less than 50 kilograms of carbon dioxide equivalent per million British thermal units (CO_2e per mmBTU) qualify as clean fuels eligible for credits."
How does the policy instrument determine the project or entities that receive support? What are the selection criteria or mechanisms for allocating support?	Not specified

Does the instrument require any local content?	For transportation fuels produced after December 31, 2025, feedstock must be derived exclusively from feedstock produced or grown in the United States, Mexico, or Canada (OBBBA).
Does the instrument specify a particular technology or set of technologies? To what degree does it specify technology choice?	Not specified - technology choice seems to be only limited by carbon emission requirements.
What are the main barriers or challenges that might prevent the instrument from achieving its intended impact? (E.g. remaining investment risks, insufficient financial support, regulatory burden, etc.)	The available information is currently very limited.
Climate and Environment	
Which types of hydrogen production are eligible for support?	Not specified
What standards do support policies require for: - CO2 footprint - Renewability - Other environmental dimensions	"Fuels with less than 50 kilograms of carbon dioxide equivalent per million British thermal units (CO2e per mmBTU) qualify as clean fuels eligible for credits." Renewability or other environmental dimensions are not addressed – there is no further information on it available.
Are the measures to address possible lock-in effects from investments in fossil-based hydrogen production? Does it include any phase-out conditions?	No

Industrial Demonstrations Program (BIL + IRA)	
Brief description of the instrument	
Grants for industrial demonstration projects, including hydrogen technologies for the industrial sector. The Industrial Demonstrations Program provides $6 billion in funding for projects that focus on the highest emitting and hardest to abate industries where decarbonization technologies can have the greatest impact: iron and steel, cement and concrete, chemicals and refining, food and beverage, paper and forest products, aluminum, other energy-intensive manufacturing industries and cross-cutting technologies. More details: https://oced-exchange.energy.gov/FileContent.aspx?FileID=baaa1e8c-83c0-490d-bdbf-78fbb5ec36e0	
Focus of the instrument	
Production: Which types of hydrogen production does the instrument incentivize? (How) does it distinguish between hydrogen and different derivatives?	The instrument does not address production explicitly.
Use: Which types of hydrogen use does the instrument incentivize? (How) does it distinguish or prioritize between different uses?	Hydrogen Use in industrial demonstration projects In the application form, projects can select whether they aim to use hydrogen for: ☐ Process input ☐ High-T heat (400+ °C) ☐ Mid-T heat (200 °C – 400 °C) ☐ Low-T heat (-30 °C – 200 °C) ☐ Other: _____”_____ The projects have to select one or more of the above-mentioned use cases, however they can also write down other specifications. The hydrogen needs to be used in a project in one of the following industries: iron, steel, steel mill products, aluminum, cement, concrete, glass, pulp, paper, industrial ceramics, chemicals, and other energy intensive industrial processes.
Transport/Storage: What types of transport / storage infrastructure does it incentivize?	Not specified
Economic and industrial dimensions	
How does the policy instrument promote investment in hydrogen	The support mechanism provides funding via grants, cooperative agreements or other forms.

production/use/storage/transport? What kind of support mechanism does it involve?	
How does the policy instrument determine the level of financial support?	Applicants are bound by the cost share proposed in their applications if selected for award negotiations. The cost share must be at least 50% of the total project costs.
Does the instrument limit the total volume of financial support?	The Industrial Demonstrations Program received a combined $6.3 billion for funding projects. In 2025, the OBBBA rescinded the unobligated balance of the IRA funding underlying the program. Separately, the U.S. Department of Energy announced in 2025 the termination of 223 previously awarded clean-energy demonstration projects nationwide (representing over USD 7.5 billion), a subset of which reportedly affected hydrogen-related awards.
How is the instrument financed?	Federal finance (BIL + IRA). The OBBBA rescinded the unobligated balance of the IRA statutory authority underlying the program.
How does the instrument address market or other risks external to the project? Does it absorb any of these risks?	The project must perform a Risk Analysis and submit a plan for risk mitigation
Who is eligible for support?	Owners or operators of a domestic, non-federal nonpower industrial or manufacturing facility engaged in energy intensive industrial processes. The sectors of interest include: iron, steel, steel mill products, aluminum, cement, concrete, glass, pulp, paper, industrial ceramics, chemicals, and other energy intensive industrial processes.
How does the policy instrument determine the project or entities that receive support? What are the selection criteria or mechanisms for allocating support?	The selection criteria are the following: - "scope of the demonstration project including the key technologies and systems, total cost of the project, and non-federal cost share amount, GHG emissions reductions, proposed timeline, and other applicant proposed metrics. - Applicant clearly identifies how the proposed project would ultimately facilitate a transition to significant industrial decarbonization in the U.S., including the decarbonization potential of the project itself, the replicability and uptake potential of the technology or technologies used, and the market potential of the manufactured low-carbon product(s), including existing or potential procurement commitments prioritizing low-embodied carbon materials and products and/or partnerships with clean product purchasers, if available. - Degree to which the proposed project aligns with and demonstrates potential to accelerate progress within demand-side objectives set forth in the Buy Clean Initiative and/or the First Movers Coalition.

	- Where appropriate, the applicant demonstrates how it plans to leverage other federal and/or state programs and partnerships. - Applicant has identified a preliminary project development plan and timeline, including a finance plan, any key risks, challenges, and possible mitigation strategies, and has shown the impact that DOE funding and the proposed project would have on supporting decarbonization goals. - Applicant and proposed team have the qualifications, experience, capabilities, and other resources necessary to design, develop, build, and operate the proposed project. - Description of strategies to ensure meaningful community and labor engagement, quality jobs and workforce development, DEIA, benefits to the surrounding community, the Justice40 Initiative, and methods to ensure accountability for all strategies. - Proposed work, if successfully accomplished, would meet the objectives as stated in the FOA, including achieving market liftoff and attracting follow-on investments from the private sector." In addition to these criteria, there are further "priority considerations" that are taken into account, including: "• Degree to which the proposed project contributes to a portfolio that enables the highest potential for greenhouse gas emissions reductions in industry; • Degree to which the proposed project contributes to a portfolio that provides the greatest benefit for the greatest number of people; • Extent to which the proposed project contributes to a portfolio that ensures the maximum potential for the output of selected projects to be purchased and builds demand for low-carbon products; Other Factors: • Degree to which the proposed project exhibits technological diversity in technology and implementation approach when compared to the existing DOE project portfolio and other projects selected from the subject FOA; • Level of industry involvement and demonstrated ability to accelerate demonstration and commercialization and overcome key market barriers; • Potential for the project to contribute to a portfolio that shifts an industry or market ecosystem toward a low-carbon product; • Degree to which the proposed demonstration supports secure, resilient domestic clean energy supply chains; • Degree to which the proposed project will accelerate industry-wide movement toward net-zero by substantially increasing transparency of embodied emissions and/or demonstrating substantial ability to accelerate movement of global or domestic standards or U.S. government supported purchasing coalitions (First Movers Coalition) for embodied emissions toward net-zero; • Degree to which the proposed project is likely to lead to increased high-quality employment and manufacturing in the United States;

	• Degree to which the proposed project will accelerate transformational technological advances in areas that industry by itself is not likely to undertake because of technical and financial uncertainty; • Degree to which the proposed project, or group of projects, represent a desired geographic distribution (considering past awards and current applications); • Degree to which the proposed technological approach has broad public support from the communities most directly impacted by the project; • Degree to which the project contributes to a portfolio that meets Justice40 requirements and meets the goals reflected in the CBP criteria by producing additional benefits to communities, particularly disadvantaged communities, such as, reducing co-pollutants and other environmental (e.g., air, water) burdens; • Degree to which the proposed project incorporates applicant or team members from Minority Serving Institutions (e.g., Historically Black Colleges and Universities (HBCUs)/Other Minority Serving Institutions); and partnerships with minority business enterprises, minority-owned businesses, woman-owned businesses, veteran-owned businesses, or Tribal nations; • Degree to which the project will increase the availability of low- or zero-carbon U.S. iron, steel, manufactured products, and construction materials for infrastructure projects (including, for example, projects to build or improve domestic transportation, electric grid, and broadband infrastructure); • Degree to which the proposed project will employ procurement of U.S. iron, steel, manufactured products, and construction materials; • Degree to which the project's solution or strategy will maximize deployment or replication; - • Degree to which the proposed project promotes onshoring of critical manufacturing operations and supports the enhancement of American competitiveness in a global net-zero economy."
Does the instrument require any local content?	These projects should accelerate the availability of domestic clean steel etc. which should be sourced domestically for projects in other funding programs "in exchange for receiving taxpayer dollars to support an applicant's project, the applicant must agree to a U.S. Competitiveness provision requiring that any products embodying any subject invention or produced through the use of any subject invention will be manufactured substantially in the United States unless the Recipient can show to the satisfaction of DOE that it is not commercially feasible." Furthermore, "all federally assisted projects that involve infrastructure work undertaken by applicable recipient types, require that: • All iron, steel, and manufactured products used in the infrastructure work are produced in the United States; and • All construction materials used in the infrastructure work are manufactured in the United States"

Does the instrument specify a particular technology or set of technologies? To what degree does it specify technology choice?	The instrument does not specify a particular technology or technology choice. The projects should show some technological diversity in comparison to the existing DOE project portfolio and other selected projects. A non-exhaustive list of illustrative examples include: • Hydrogen-based direct reduced ironmaking; • Calcium silicate- or aluminosilicate-based cement with ready mix offtake; or • Hybrid glass furnace approaches such as hydrogen fueling with electrification"
What are the main barriers or challenges that might prevent the instrument from achieving its intended impact? (E.g. remaining investment risks, insufficient financial support, regulatory burden, etc.)	The rescission of unobligated IRA funds under the OBBBA and the U.S. Department of Energy's 2025 termination of a substantial number of previously awarded demonstration projects (including some hydrogen-related awards) create significant uncertainty regarding the continuity and scale of future funding
Climate and Environment	
Which types of hydrogen production are eligible for support?	Not specified
What standards do support policies require for: - CO2 footprint - Renewability - Other environmental dimensions	"Each applicant to this FOA must clearly show how the proposed project will: • Reduce GHG emissions at the eligible facility and contribute to the acceleration of industry toward net-zero GHG emissions by 2050;" However, there are no specific GHG thresholds. There are no requirements for renewability. Environmental impacts and environmental justice needs to be assessed for the project application
Are the measures to address possible lock-in effects from investments in fossil-based hydrogen production? Does it include any phase-out conditions?	Not specified

Regional Clean Hydrogen Hubs (BIL)	
Brief description of the instrument	
The Regional Clean Hydrogen Hub program is funded through the BIL and entails $7billion in investments to establish 7 regional clean hydrogen hubs across America. The selected clean hydrogen hubs will create networks of hydrogen producers, consumers, and local connective infrastructure to accelerate the use of hydrogen. In February 2025, the Trump administration temporarily froze federal funding for the program.	
Focus of the instrument	
Production: Which types of hydrogen production does the instrument incentivize? (How) does it distinguish between hydrogen and different derivatives?	A H2Hub might use hydrogen to produce ammonia for industrial processes or methanol for marine fuels. The H2Hub's primary product might be for example hydrogen or ammonia, steel, freight, transport.
Use: Which types of hydrogen use does the instrument incentivize? (How) does it distinguish or prioritize between different uses?	The mentioned end-uses include: - Electric power generation - Industrial (e.g. ammonia, steel, synthethic fuel production, refineries, petrochemicals) - Residential or commercial heating - Transportation - There is an open field for other uses in the application form, so the instrument potentially also supports other uses. There is no prioritization between these mentioned end-uses visible.
Transport/Storage: What types of transport / storage infrastructure does it incentivize?	The following items can be selected as connective infrastructure: - H2 pipelines - H2 carriers - Underground H2 storage - Above ground h2 storage - H2 fuelling stations - There is an open field for other infrastructure in the application form, so potentially also other forms could be supported. - One requirement for infrastructure is that it needs to be open for connecting further actors in the future. - The pre-selected projects mention the following infrastructure: repurposing historic oil infrastructure, develop fueling stations, new pipelines, storage infrastructure (not further specified)

Economic and industrial dimensions	
How does the policy instrument promote investment in hydrogen production/use/storage/transport? What kind of support mechanism does it involve?	The instrument provides funding for the planning, development, and construction of the H2Hub as well as 2-4 years of operations. The funding may be provided in the form of cash or cash equivalents, or in-kind contributions.
How does the policy instrument determine the level of financial support?	- Depends on the size and complexity of the H2Hub - The H2Hub proposals must describe how they meet the overall vision
Does the instrument limit the total volume of financial support?	"While DOE prefers a funding range from $500 million to $1 billion for each H2Hub, applications that propose a DOE share as low as $400 million or as high as $1.25 billion will be considered; H2Hubs that propose a DOE share between $400 and $500 million should provide significant justification to explain why the project is smaller than the preferred size. Similarly, H2Hubs that propose a DOE share between $1 and $1.25 billion should provide additional justification to explain why the extra funding over the preferred maximum is critical to realize the goals of the overall effort. " (funding statement). The instrument will fund at maximum 10 h2hubs in the U.S, right now seven projects have been pre-selected for negotiations to become regional hydrogen hubs.
How is the instrument financed?	The instrument is financed by federal funds through the BIL.
How does the instrument address market or other risks external to the project? Does it absorb any of these risks?	The instrument provided up to 50% of finance for large scale projects and thereby considerably reduces the risks for the project developers.
Who is eligible for support?	The following types of domestic entities are eligible to participate as a prime recipient or subrecipient: 1. Institutions of higher education; 2. For-profit entities; 3. Non-profit entities; and 4. State and local governmental entities, and Tribal nations.
How does the policy instrument determine the project or entities that receive support? What are the selection criteria or mechanisms for allocating support?	There are numerous documents that projects need to provide information on and it is not clear how each one of those will be taken into consideration in the funding decision. A hard criterium is the funding structure:

	"Each H2Hub is required to provide a minimum of 50% non-federal cost share (50% of the total project cost including both DOE share and recipient cost share, for a total project cost of at least $800 million to $2.5 billion), to be executed over approximately 8-12 years (or faster) depending on the size and complexity of the H2Hub." Technical Review Criteria: - Concept Paper Criterion: Overall FOA Responsiveness and Viability of the Project - Criterion 1: Technical Merit and Impact (25%) - Criterion 2: Financial and Market Viability (20%) - Criterion 3: H2Hub Workplan (15%) - Criterion 4: Management Team and Project Partners (20%) - Criterion 5: Community Benefits Plan (20%) Furthermore there are Program Policy Factors that are also being considered to select projects. These include: - "The degree to which the proposed project exhibits technological diversity when compared to the existing DOE project portfolio - degree to which the proposed project, including proposed cost share, optimizes the use of available DOE funding to achieve programmatic objectives. - The degree to which the proposed project avoids duplication/overlap with other publicly, or privately, funded work. - The level of industry involvement, as well as demonstrated ability to accelerate commercialization and overcome key market barriers. - The degree to which the proposed project will accelerate transformational commercial deployments in areas that industry by itself is not likely to undertake because of technical and financial uncertainty. - The degree to which the proposed project will employ procurement of U.S. iron, steel, manufactured products, and construction materials. - The degree to which the proposed project incorporates applicant or team members from MSIs (e.g., Historically Black Colleges and Universities (HBCUs)/Other Minority Serving Institutions); and partnerships with Minority Business Enterprises, Minority Owned Businesses, Woman Owned Businesses, Veteran Owned Businesses, or Tribal nations. - The degree to which the proposed project, when compared to the existing DOE project portfolio and other projects to be selected from the subject FOA, contributes to the total portfolio meeting Justice40 goals. - The degree to which the proposed project has broad public support from the communities most directly impacted by the project.

	- The degree to which the proposed project collectively represents diverse types and sizes of applicant organizations. - The degree to which the proposed project minimizes environmental risks. Environmental risk includes, but is not limited to, an adverse impact to air, soil, water, or increase in overall life cycle greenhouse gas footprint. - The degree to which the H2Hub will maximize deployment and could be further developed, scaled-up, expanded, and/or replicated in the future as a part of a national clean hydrogen network. - The degree to which the proposed project meets the feedstock diversity requirements as defined in in BIL Section 813(c)(3) when considered among other H2Hub projects selected from the subject FOA. - The degree to which the proposed project meets the end-use diversity requirements as defined in in BIL Section 813(c)(3) when considered among other H2Hub projects selected from the subject FOA. - The degree to which the proposed project meets the geographical diversity requirements as defined in in BIL Section 813(c)(3) when considered among other H2Hub projects selected from the subject FOA. - The degree to which the proposed project meets the requirement to have H2Hubs located in regions of the U.S. with the greatest natural gas resources as defined in BIL Section 813(c)(3) when considered among other H2Hub projects selected from the subject FOA."
Does the instrument require any local content?	To use the funds for building infrastructure, the project must fulfill Buy America Requirements. These include e.g. that - all iron and steel used in the project are produced in the United States; - all manufactured products used in the project are produced in the United States - all construction materials are produced in the United States (there are some exemption rules, e.g. if the products are not produced in the required quantity or quality in the US or when this requirement increases the total project costs by more than 25%) - Furthermore, "the degree to which the proposed project will employ procurement of U.S. iron, steel, manufactured products, and construction materials" might be part of the overall decision of whether a project receives funding.
Does the instrument specify a particular technology or set of technologies? To what degree does it specify technology choice?	The technology choices are not specified, but h2hubs need to integrate technologies that have reached a certain technology readiness level.
What are the main barriers or challenges that might prevent the instrument from achieving its intended impact? (E.g. remaining	The temporary freeze of federal funding by the Trump administration in February 2025 has created significant uncertainty for hub developers regarding the continuity and timing of funding disbursement.

investment risks, insufficient financial support, regulatory burden, etc.)	
Climate and Environment	
Which types of hydrogen production are eligible for support?	"Clean hydrogen"; "at least 1 regional clean hydrogen hub shall demonstrate the production of clean hydrogen from fossil fuels; at least 1 regional clean hydrogen hub shall demonstrate the production of clean hydrogen from renewable energy; and at least 1 regional clean hydrogen hub shall demonstrate the production of clean hydrogen from nuclear energy."
What standards do support policies require for: - CO2 footprint - Renewability - Other environmental dimensions	- Emissions: "DOE will evaluate the information provided by the applicants on how each H2Hub plans to avoid, reduce, or sequester GHGs or criteria pollutant emissions, and compare results against emissions of incumbent technologies." This information will be used to calculate lifecycle emissions. - H2Hubs are required to collect and report environmental data - Project proposals are encouraged to include an Environmental Considerations Summary and a Co-Products and Waste Streams section - The project proposals should include plans and actions to engage with community stakeholders and energy and environmental justice considerations - Meaningful engagement of local communities is a key aspect that is considered a component of environmental justice - A potential selection criterium for the funding of the overall project is: "the degree to which the proposed project minimizes environmental risks. Environmental risk includes, but is not limited to, an adverse impact to air, soil, water, or increase in overall life cycle greenhouse gas footprint."
Are the measures to address possible lock-in effects from investments in fossil-based hydrogen production? Does it include any phase-out conditions?	No