

WESTERN GREEN HYDROGEN INITIATIVE

Climate Pollution Reduction Grant:

Program Summary and Clean Hydrogen Opportunities

INTRODUCTION AND OBJECTIVE

This brief, developed through the Western Green Hydrogen Initiative (WGHI), provides interested states with information on the U.S. Environmental Protection Agency's (EPA) Climate Pollution Reduction Grant (CPRG) program and its potential to fund clean hydrogen development. States are navigating multiple funding opportunities to support clean hydrogen development, including from the U.S. Department of Energy (DOE) and EPA. The goal of the brief is to help states better understand the intersection of CPRG and clean hydrogen so they can identify key application priorities and implementation opportunities.

CLIMATE POLLUTION REDUCTION GRANT PROGRAM SUMMARY

The EPA CPRG program is designed to enable states, municipalities, tribes, and territories to implement measures that will achieve significant cumulative greenhouse gas (GHG) emissions reductions and provide community benefits and workforce opportunities. CPRG funding is ideally intended to complement existing funding sources, including legislative appropriations, State Energy Program funding, and other sources of capital, to maximize implementation benefits.¹ The CPRG program includes two phases: Phase 1 is focused on planning, while Phase 2 focuses on implementation. Importantly, there are two funding streams available under the implementation grants. The first is a general competition for states¹, municipalities, tribes, tribal consortia, and territories.² Under the general competition, both the District of Columbia (D.C.) and Puerto Rico fall under the state category. The second is a competition only available to tribes, tribal consortia, and territories. For more information on the grants specifically for tribes and territories, click <u>here</u>.

This brief will provide an overview of the general competition for states and municipalities as well as clean hydrogen opportunities, followed by a summary of some of the key considerations outlined in the funding announcement.

RELEVANCE FOR CLEAN HYDROGEN

The CPRG program provides a flexible framework for state agencies to implement emissions reduction strategies that best suit their unique needs. The EPA has encouraged applicants to seek implementation funds for GHG reduction measures that will:

1. Significantly reduce cumulative GHG emissions by 2030 and beyond

2. Accelerate decarbonization across one or more major sectors

Developing clean hydrogen projects is one of many tools available to states as they explore opportunities for decarbonization. Clean hydrogen can achieve key CPRG programmatic goals by decarbonizing certain key industries and its ability to scale over time. There are a variety of sectors that can benefit from clean hydrogen as a feedstock or energy source, such as the power, transportation, and industrial sectors. It is, therefore, prudent to explore how clean hydrogen can be incorporated into Priority Climate Action Plans (PCAPs)³ and align with existing state decarbonization goals and roadmaps. State clean hydrogen roadmaps provide an opportunity for states to explore the policy and regulatory landscape for clean hydrogen in their state, identify priority end uses, and see how clean hydrogen can support other state objectives. Examples of state clean hydrogen roadmaps and the development process can be found in a report produced by the National Association of State Energy Officials (NASEO), with the support of NASEO's Clean Hydrogen State Working Group, on <u>Developing Clean Hydrogen State Roadmaps</u>. Additionally, some states are exploring opportunities for clean hydrogen in their state pollution reduction plans. For example, in April 2023, the Oklahoma Department of Environmental Quality released its state Pollution Reduction Plan, which outlined how hydrogen will help decarbonize different sectors, including transportation and industry, along with the potential production opportunities such as utilizing excess wind production from the northwestern part of the state.ⁱⁱ

¹ Because the State of Florida, the State of Iowa, the Commonwealth of Kentucky, and the State of South Dakota declined to participate in the planning grant phase of the CPRG program, no state agencies, departments, or other executive branch-level offices in those four states can be eligible applicants for the CPRG implementation grant phase. Certain metropolitan statistical areas within these states are eligible. Further details can be found on page 19 of the EPA Climate Pollution Reduction Grants Program: Implementation Grants General Competition Notice of Funding Opportunity.

² Eligible U.S. territories include American Samoa, the Northern Mariana Islands, Guam, and the U.S. Virgin Islands.

³ A priority climate action plan is a strategic framework for measuring, tracking, and reducing greenhouse gas emissions. The plans may also include added components such as resilience strategies, clean energy targets, and economic and social goals.

The deployment of clean hydrogen also aligns with additional relevant state priorities beyond decarbonization, such as resiliency and economic development. Within PCAPs, it may be beneficial for states to further explore priority end uses for clean hydrogen and enable actions to build out a clean hydrogen supply, transportation, and end-use value chain. Exploration of clean hydrogen in a PCAP will enable states to pursue associated implementation funding and demonstrate a commitment to identifying pathways for clean hydrogen, particularly in hard-to-decarbonize sectors. The development and implementation of a PCAP also provides an avenue for intra-state collaboration between relevant entities, including State Energy Offices, state departments of environmental quality, state economic development agencies, and more.

CPRG funding can complement existing funding, such as the Regional Hydrogen Hubs, or support states that did not receive hydrogen hub funding. Potential CPRG implementation funding opportunities include, but are not limited to:

- · Measures to streamline permitting for electrolyzer projects
- Implementation of a clean hydrogen production standard
- · Grants and flexible, low-interest loans for new hydrogen production projects
- · Grants and flexible, low-interest loans for production of hydrogen-derived fuels (such as ammonia) and feedstocks
- Funding for industrial facility upgrades to utilize clean hydrogen
- Streamlined regulatory and permitting processes associated with transmitting and distributing hydrogen from production sites to end-uses
- Hydrogen blending standards and requirements
- · Incentive programs to purchase zero-emission vehicles and equipment to replace older heavy-duty diesel vehicles and equipment
- · Programs to increase the share of hydrogen medium-, and heavy-duty vehicles, and to expand hydrogen fueling infrastructure
- · Programs to support disadvantaged communities access to workforce training
- State frameworks or roadmaps that outline opportunities for decarbonization
- Industrial decarbonization efforts such as those explored in the Clean Air Task Force (CATF) guidance (see more details below).

ADDITIONAL RESOURCES

The Rocky Mountain Institute (RMI) analyzed how the 46 states selected for Phase 1 funding can maximize the impact of their PCAPs and prioritize different strategies under CPRG implementation grants. Some strategies they identified for states to most significantly reduce emissions by 2030 include clean power to displace fossil fuels, industrial methane abatement, building electrification and efficiency, electric vehicle sales, improved vehicle fuel economy, and industrial electrification and hydrogen. Through an analysis of the state's energy sector and relevant policies in place, RMI found that the states that could benefit most from focusing on increased industrial electrification and fuel and feedstock shifting to hydrogen for industrial uses are Colorado, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, Ohio, Pennsylvania, Texas, and Washington. ^{Iv} The RMI report also encouraged regional collaboration on clean hydrogen as transportation networks and other key infrastructure considerations cross state lines.

The CATF released a guide on January 2024, Climate Pollution Reduction Grants: Industrial Pathways to Decarbonization, which highlights different measures states can take during the CPRG implementation phase centered on reducing emissions in the industrial sector. The opportunities include critical analysis to identify focus areas for decarbonization and ensure programs are well designed, financial incentives, economic and community benefits, regulatory programs, and leveraging additional funding sources. For states focused on clean hydrogen, CATF encourages consideration of providing tax credits for clean hydrogen-based steel production, developing grant programs that lower financial barriers for industry to deploy clean hydrogen feedstock, and facilitating a state modeling guide that looks at different scenarios for clean hydrogen.^v

GENERAL COMPETITION PROGRAM DESCRIPTION AND ELIGIBILITY

The following section provides information for states on CPRG phases 1 and 2, with a focus on Phase 2 implementation funding.

Phase 1: Priority Climate Action Plans

The CPRG program planning phase provided 46 states and D.C. with funding to design PCAPs that include measures to reduce GHG emissions within six key sectors:

- **1. Electricity generation**
- 2. Industry
- 3. Transportation
- 4. Commercial and residential buildings
- 5. Agriculture/natural and working lands
- 6. Waste management

Phase 1 funding to develop PCAPs has been dispersed and funding recipients are required to publish these plans by March 1, 2024.⁴ While the Phase 1 funding opportunity is now closed, the implementation portion (Phase 2) of the CPRG grant is open and provides significant funding for a range of emissions reduction solutions. State agencies that received Phase 1 funding include State Energy Offices, state departments of environmental quality, state health departments, and more. For a complete list, click <u>here</u>. Additionally, in mid-2025, a Comprehensive Climate Action Plan (CCAP) will be due. According to the EPA, the CCAP should touch on all significant GHG sources/sinks and sectors present in a state or metropolitan area, establish near-term and long-term GHG emission reduction goals, and provide strategies and identify measures to achieve those goals.^{vi}

Phase 2: Plan Implementation

The implementation phase of the CPRG Program will provide funding to implement GHG reduction programs, policies, projects, and measures identified in a PCAP developed under a CPRG planning grant. This grant opportunity is currently open, and applications are due on April 1, 2024. Importantly, Phase 2 funds must be used to implement measures contained in a PCAP developed with funding from a CPRG Phase 1 planning grant. However, the entity applying for CPRG implementation funding does not need to be the group that developed the PCAP. Applications may include one or more proposed GHG reduction measures.^{vii} An optional, informal notice of intent was due on February 1, 2024.⁵

FUNDING AVAILABILITY

For the general competition, the EPA intends to award between 30 and 115 grants, each of which will be allocated between \$2 million and \$500 million, and the EPA has set tentative funding targets for each grant funding range.^{viiii} According to the EPA, the grants will be awarded in five tiers to provide opportunities for funding to a range of applicants, and the tiers reflect differences in the scale, scope, and cost of emissions reduction measures. The total amount of funding requested by an applicant will determine their tier, and they will only be evaluated against other applicants in the same tier.^{jx}

⁴ A list of Phase 1 CPRG funding recipients can be found here.

⁵ NOTICE OF INTENT TO APPLY: To allow for efficient management of the competitive process, EPA requests submittal of an informal Notice of Intent (NOI) to Apply by February 1, 2024 to CPRG@epa.gov. Please include in the body of the email the dollar amount of the anticipated funding request and one to two sentences about the scope and sector(s) of the greenhouse gas (GHG) reduction measures likely to be included in the potential implementation grant application. Additionally, if intending to apply as the lead applicant representing a coalition, please list all anticipated coalition members (coalition members must also be eligible applicants; see Section III.A for more details). Submission of an NOI is optional and non-binding; it is a process management tool that will allow EPA to better anticipate the resources required for efficient evaluation of submitted applications.

Table 1 | CPRG Phase 2 Grant Funding Ranges and Targets

Tier	Grant Ranges	Funds Targeted for Each Tier	Anticipated Number of Grants to be Awarded
Tier A	\$200,000,000 - \$500,000,000	\$2 billion	4-10
Tier B	\$100,000,000 - \$199,999,999	\$1.3 billion	6-13
Tier C	\$50,000,000 - \$99,999,999	\$0.6 billion	6-12
Tier D	\$10,000,000 - \$49,999,999	\$0.3 billion	6-30
Tier E	\$2,000,000 - \$9,999,999	\$0.1 billion	10-50

Source: EPA Climate Pollution Reduction Grants Program: Implementation Grants General Competition Notice of Funding Opportunity

No cost-sharing or matching funds will be required from the applicant.

GENERAL COMPETITION APPLICATION REQUIREMENTS AND TIMELINES

The CPRG Implementation Program Notice of Funding Requirements contains mandatory and optional documents for inclusion in a CPRG application.^{*} Generally, applications must include:

- Mandatory EPA Forms Standard Form 424, Standard Form 424A, EPA Form 4700-4, and EPA Form 5700-54
- Project Narrative with a Workplan and a Budget
- Grants.gov Lobbying Form
- PDF copy of the applicable PCAP(s) serving as the basis for the application
- Memorandum of Understanding of applicants (if applicable)
- List of Climate and Economic Justice Screening Tool (CEJST) Census tract IDs or EPA's EJ Screen Census block group IDs for each community that may be affected by a proposed measure in the application

Organizations must be registered in The System for Award Management and Grants.gov to apply. The EPA is advising organizations that registration for these systems may take a month or more. Key application deadlines are detailed in Table 2 below.

	Table 2 CPRG Phase 2 Key Application Deadlines ^{xi}
September 20, 2023	NOFO: Request for Applications Issuance
February 1, 2024	Optional Notice of Intent to Apply is Due
March 15, 2024	Deadline for Submitting Questions
April 1, 2024	NOFO Closes – Applications due by 11:59 PM (ET)
July 2024	Anticipated Notification of Funding Selection
October 2024	Anticipated Award

Source: EPA

NEXT STEPS FOR INTERESTED APPLICANTS

CPRG implementation applications must be tied to measures contained in a state's PCAP, which are currently under development. The EPA expects to release PCAPs by March 1, 2024, one month before the implementation applications are due.⁶ Applicants interested in receiving CPRG implementation grant funds should proactively coordinate with the state agency developing the PCAP⁷ to help ensure that GHG reduction measures that they want to implement — such as clean hydrogen — are included in the PCAP.

For more information on the Climate Pollution Reduction Grant Implementation Funding Opportunity, please see the <u>General Competition</u> Notice of Funding Opportunity.

ACKNOWLEDGEMENTS

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ENDNOTES

¹ U.S. Environmental Protection Agency (2024). Climate Pollution Reduction Grants Program: Implementation Grants General Competition. <u>https://www.epa.gov/system/files/documents/2023-09/CPRG%20General%20</u> <u>Competition%20NOF0.pd</u>

^{II} Oklahoma Department of Environmental Quality (April 2023). Oklahoma Climate Pollution Reduction Plan. <u>https://www.deq.ok.gov/wp-</u>content/uploads/air-division/CPRG_Oklahoma_Pollution_Reduction_Plan.pdf

^{III} Cooper, Lindsay (January 2024). Climate Pollution Reduction Grants: Industrial Pathways to Decarbonization. Clean Air Task Force. <u>https://www.catf.us/fr/2024/01/climate-pollution-reduction-grants-industrial-pathways-to-decarbonization/</u>

^{IV} Sonaike, Adefunke (November 2023). Solar in Arizona, Hydrogen in Louisiana: Here's Where Each State Should Look for Quick Climate Solutions. RMI. https://rmi.org/solar-in-arizona-hydrogen-in-louisiana-heres-where-each-state-should-look-for-quick-climate-solutions/

^v Cooper, Lindsay (January 2024). Climate Pollution Reduction Grants: Industrial Pathways to Decarbonization. Clean Air Task Force. https://www.catf.us/fr/2024/01/climate-pollution-reduction-grants-industrial-pathways-to-decarbonization/

^{vi} United States Environmental Protection Agency Office of Air and Radiation (March 2023). Climate Pollution Reduction Grants Program: Formula Grants for Planning. Program Guidance for States, Municipalities, and Air Pollution Control Agencies. <u>https://www.epa.gov/</u> <u>system/files/documents/2023-02/EPA%20CPRG%20Planning%20Grants%20Program%20Guidance%20for%20States-Municipalities-</u> <u>Air%20Agencies%2003-01-2023.pdf</u>

^{vii} U.S. Environmental Protection Agency (2024). Climate Pollution Reduction Grants Program: Implementation Grants General Competition. <u>https://www.epa.gov/system/files/documents/2023-09/CPRG%20General%20Competition%20NOFO.pdf</u>

viii Ibid.

^{ix} Ibid.

× Ibid.

×i Ibid.

7 A list of Phase 1 CPRG funding recipients can be found here.

⁶ Finalized Priority Climate Action Plans will be posted on the EPA's website here.



The Western Green Hydrogen Initiative is a public-private partnership to advance and accelerate deployment of green hydrogen infrastructure in the Western region for the benefit of the region's economies and environment. It includes representatives from 11 western states and two Canadian provinces—all part of the Western Interconnection—as well as Florida, Ohio, and Louisiana. It is jointly hosted by the Green Hydrogen Coalition, the National Association of State Energy Officials (NASEO), and the Western Interstate Energy Board (WIEB). For more information, please visit wghydrogen.org.

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