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Notice of Funding Opportunity

Title: California Energy Commission – Renewable Hydrogen Transportation Fuel Production
Website: <https://www.energy.ca.gov/solicitations/2021-04/gfo-20-609-renewable-hydrogen-transportation-fuel-production>
Funding: Total: \$7,000,000. Maximum awards: \$3M, depending on technology.
Dates: Written Questions Deadline: April 21, 2021 5PM
Pre-Application Workshop: April 23, 2021 10AM
Pre-Application Abstract Due: June 11, 2021 5PM
Application Submission Deadline: September 22, 2021 5PM

Summary: This is a competitive grant solicitation. The California Energy Commission's (CEC's) Clean Transportation Program announces the availability of up to \$7,000,000 in grant funds for projects to design, engineer, construct, install, test, operate, and maintain a hydrogen facility in California that will produce 100 percent renewable hydrogen from in-state renewable resource(s). The facility, once constructed and operational, will be a source of 100% renewable hydrogen which will be utilized for transportation fuel. Projects will produce hydrogen that will meet California regulations when dispensed at the station for use in on-road fuel cell electric vehicles (FCEVs), both light-duty and medium-/heavy-duty. As directed by California Health & Safety Code, Section 44272 et seq., and the Clean Transportation Program 2020-2021 Investment Plan Updates, the intent of this solicitation is to encourage the production of alternative and renewable transportation fuels in California that can significantly reduce greenhouse gas (GHG) emissions, reduce petroleum fuel demand, and stimulate economic development.

Project Topic Areas:

Eligible renewable feedstocks include biomethane or biogas such as: Biomass digester gas; Sewer (wastewater) gas; Municipal solid waste gas from pre-landfilled material; Other waste biomass feedstocks. Systems using other waste biomass feedstocks, such as biomass waste or residues, may be eligible if the application demonstrates that the proposed system and feedstock comprise a sustainable approach and reduces greenhouse gas (GHG) emissions compared to the relevant petroleum baseline determined by California Air Resources Board's (CARB's) Low Carbon Fuel Standard (98.47 gCO₂e/MJ for gasoline, 102.01 gCO₂e/MJ for diesel). Water is also an eligible feedstock. However, landfill gas is not an eligible renewable feedstock, as directed by the 2019-2020 Investment Plan Update for the Clean Transportation Program.

Renewable electricity may be an eligible feedstock, if the renewable electricity either goes directly to the hydrogen production system or is connected via the grid from an in-state generation facility that has its first point of interconnection within the metered boundaries of a California balancing authority area. Renewable Electricity Certificates (RECs) must be retired in the Western Renewable Energy Generation Information System (WREGIS) for the production of hydrogen in the proposed system. Eligible renewable electricity sources include: Fuel cells using eligible renewable feedstocks; Geothermal, small hydroelectric (30 megawatts or less); Ocean wave; Ocean thermal; Tidal current; Photovoltaics (PV); Solar thermal; Biomass digester gas; Municipal solid waste conversion (non-combustion thermal process); Wind, as outlined in Section 25741(a)(1) of the California Public Resources Code, but excluding landfill gas.

Funding:

A total of \$7,000,000 is available for awards under this solicitation. The maximum award amount will be 50% of total project costs or \$3.0 million, whichever is less. Unless the CEC exercises any of its other rights regarding this solicitation, applications obtaining at least the minimum passing score will be recommended for funding in ranked order until all funds available under this solicitation are exhausted. Applications must include a minimum 50 percent total match share of the total allowable project costs. Applications must include a minimum cash contribution equal to at least 50 percent of CEC funding. Costs incurred for the following activities are eligible for CEC reimbursement or as the Applicant's match share: Facility pre-engineering and design; Engineering plans and specifications; Building and facility

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construction, modifications, and/or commissioning; Asset and/or equipment acquisition. The CEC will not reimburse for land acquisition or fueling infrastructure, but this may be counted towards match share. Applicants may submit multiple applications under this solicitation. Each proposed project must be separate and distinct and adhere to all requirements contained in this solicitation.

Project Requirements:

This solicitation will follow a two-phase process. **PRE-APPLICATION ABSTRACT SCREENING AND TECHNICAL EVALUATION:** This phase consists of a Pre-Application Abstract Form and a project abstract (limited to 3 pages) that will be screened using the Pre-Application Administrative Screening Criteria. Pre-Application Abstracts that pass the Pre-Application screening will be scored using the Pre-Application Abstract Evaluation Criteria. **FULL APPLICATION SCREENING AND EVALUATION:** Passing Pre-Application Abstracts receiving a passing score will be eligible to submit a Full Application. Full Applications will be screened using the Full Application Administrative Screening Criteria. Applications that pass screening will be scored using the Full Application Evaluation Criteria. Full Applications must be consistent with previously submitted and passing Pre-Application Abstract.

To be eligible for funding, projects must meet all the following requirements: Install new 100 percent renewable hydrogen production capacity, of any technology, at an existing or new facility. Projects may modify other facility types and use pre-existing renewable resource facilities; The proposed project must reduce on-road motor vehicle air emissions through use as a transportation fuel; The proposed project must be located in California. Project construction and operations must also occur in California; The proposed project must use an eligible feedstock sourced within California, as discussed in the subsequent section on Eligible Feedstocks; and, the proposed project must meet the Minimum Technical Requirements.

To be eligible under this solicitation, proposed renewable hydrogen production facilities must, at a minimum, meet each of the following minimum technical requirements. Projects exceeding the minimum technical requirements will score higher in accordance with the evaluation criteria.

1. **Renewable production capacity:** The proposed project must have a nameplate capacity totaling at least 1,000 kilograms per day of new, 100% renewable hydrogen production that shall be dedicated for transportation fuel use.
2. **In-state renewable resource:** A 100% renewable resource sourced in California that shall be dedicated to the proposed hydrogen production facility (this includes REC generation).
3. **Hydrogen Purity:** Hydrogen supplied by the hydrogen production facility(ies) funded under this solicitation must not preclude public hydrogen refueling stations from complying with CCR Title 4 Business Regulations, Division 9 Measurement Standards, Chapter 1 Tolerances and Specifications for Commercial Weighing and Measuring Devices, Article 1 National Uniformity, Exceptions and Additions, Sections – 4001 (Exceptions) and 4002 (Additional Requirements), Subsection 4002.9, Hydrogen Gas-Measuring Devices (3.39), and CCR Title 4 Business Regulations, Division 9 Measurement Standards, Chapter 6 Automotive Products Specifications, Article 8 Specifications for Hydrogen Used in Internal Combustion Engines and Fuel Cells, Sections 4180 and 4181 which adopts the requirements of Society of Automotive Engineers (SAE) International J2719: Hydrogen Fuel Quality for Fuel Cell Vehicles (Nov. 2015 revision, as of June 2017).

Eligible Applicants:

This solicitation is open to all public and private entities. To be eligible, applicants must have a business presence in California.