# **Questions and Answers**

**Renewable Hydrogen Transportation Fuel Production**

**GFO-20-609**

**May 21, 2021**

The following answers are based on the California Energy Commission’s (CEC’s) interpretation of the questions received. It is the applicant’s responsibility to review the purpose of the solicitation. The CEC cannot give advice as to whether or not your particular project is eligible for funding, because all proposal details are not known.

***ADMINISTRATION/PROCESS***

**Q1: Will questions that are answered live still be provided in the written Q&A that will come later?**

A1: Yes, this Q&A document includes questions that were answered live during the workshop.

**Q2: Where can we find the list of attendees from this workshop?**

A2: The Pre-Application Workshop attendee list may be found on the solicitation webpage at: <https://www.energy.ca.gov/solicitations/2021-04/gfo-20-609-renewable-hydrogen-transportation-fuel-production>.

**Q3: Can you provide a Teaming Partner List?**

A3: No, but we do encourage potential applicants to look at the Empower Innovation website as a resource tool that can be located at: <https://www.empowerinnovation.net/>.

**Q4: How is grant funding distributed for a project?**

A4: It is up to the applicant to provide a completed budget with allocations for specific tasks and categories. Once the project is approved for funding at a CEC Business Meeting and the grant agreement is executed, the grant recipient can begin to submit invoices for payment. Reimbursement is paid in arrears, meaning the applicant will need to pay invoices prior to being reimbursed.

**Q5: What is the typical time between Applicant’s invoicing and payment from the CEC?**

A5: The timeframe for payment is around 30-45 days once a valid and properly documented invoice has been received.

**Q6: We have seen as much as 90 days for invoice payment. What are you doing to help small businesses in this long payment approval process?**

A6: CEC strives to ensure payments are approved and processed within 30-45 days and staff works to accelerate payment timelines even faster when possible.

**Q7: Are you going 100% for direct deposit or still the old hard check mailed process?**

A7: The State Controller’s Office (SCO) is responsible for paying invoices. Unfortunately at this time, SCO continues to make payments via hard copy checks that are mailed to the funding Recipient. CEC has been an advocate for switching to direct deposit to further expedite payments and has been informed that SCO is looking into the possibility. For the purposes of agreements resulting from this solicitation, applicants should expect reimbursement will be made via hard copy checks.

***ELIGIBILITY***

**Q8: Is biomass an eligible renewable electricity resource? It is not listed under Section II. Eligibility Requirements in the solicitation.**

A8: Yes, biomass is considered an eligible renewable electricity resource. Please refer to Addendum #1 of the Solicitation Manual.

**Q9: Is this CEC solicitation associated with any other regional transportation projects to deliver hydrogen?**

A9: The CEC is not directly collaborating with any regional transportation projects through this solicitation; however, we encourage our applicants to do so if the opportunity is available to you.

**Q10: Can a third party involved in a project be a municipality and also serve as co-owner and co-applicant?**

A10: A municipality can be involved in the project either as a project partner and/or co-owner, but there should be only one applicant.

**Q11: Can multiple projects and locations be presented in a single application or are multiple applications required?**

A11: Applicants may only propose a single location per Application; however, applicants may submit multiple applications under this solicitation. Each proposed project must be separate and distinct and adhere to all requirements contained in the solicitation. Please see Addendum #2 for more information.

**Q12: Is there a minimum operating requirements for this solicitation?**

A12: No, there is no minimum operating requirement. However, 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. Please see Section II.D., Minimum Technical Requirements of the Solicitation Manual for more information.

**Q13: Can you clarify eligibility if the proposed project would have several production locations with various renewable feedstocks to add up to 1000 kg...?**

A13: Applications may only propose a single location per proposed project, and each 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.

**Q14: Will water be an acceptable feedstock for renewable hydrogen?**

A14: Yes. Water is an acceptable feedstock. However, all feedstocks utilized to produce renewable hydrogen must also be eligible/renewable. Please see Section II.C., Eligible Feedstocks and Renewable Electricity Resources of the Solicitation Manual for more information regarding eligible feedstocks.

**Q15: In addition to landfill gas, can the conversion of plastics and solid waste be considered a source for clean hydrogen gas?**

A15: No, any component of landfill gas is NOT eligible. Additionally, biomethane or biogas from solid waste may be eligible; however, the conversion of plastics is not eligible. Please see Section II.C., Eligible Feedstocks and Renewable Electricity Resources of the Solicitation Manual for more information regarding eligible feedstocks.

**Q16: If an Applicant has another project funded by CEC, does that project need to be completed upon receiving the award or can it still be under construction?**

A16: Applicants that have other project(s) funded by CEC do not need to have those projects completed to apply for a new project. However, the Applicant should demonstrate in their application their ability to undertake and complete all funded projects without delay. Additionally, Applicants should refer to Attachment 10 “Past Performance Reference Form”, Section II.H., and Section V.D of the Solicitation Manual for more information.

**Q17: Can this grant be used on expansion of an existing project?**

A17: Yes. Expansions of existing projects are eligible provided they also meet all of the eligibility and minimum technical requirements discussed in Section II., Eligibility Requirements of the Solicitation Manual.

**Q18: Will CEC indicate what kind of data needs to be collected and submitted by awarded Applicants?**

A18: Please see Attachment 2, “Scope of Work Template” for more information on the data collection and analysis requirements for awarded projects.

**Q19: How long is the minimum operation needed for the plant?**

A19: Projects that are funded will be required to submit at least 6 months of data collection that includes operational and performance data. Please see Addendum #2.

**Q20: So for one year of operation you are expecting private business to pay for full cost? No CEC support?**

A20: Costs incurred for operation of the facility, such as feedstock purchases, cost for transportation of feedstock, cost for transportation of fuel, costs of off-site fueling infrastructure, and vehicle purchases and vehicle-related expenses are ineligible for reimbursement and match share cost.

**Q21: If natural gas is used as a feedstock, but book and claim is used to "green the hydrogen," would that satisfy the 100 percent renewable hydrogen requirement?**

A21: Yes, provided the source of renewable natural gas being utilized can be verified as generated within California.

**Q22: Are hydrogen powered class 8 trucks needed in order to submit for grant?**

A22: No. Class 8 trucks are not needed to submit an Application, but Applications will need to demonstrate that the fuel produced is committed to an off-take customer that would help reduce on-road emissions (either through light-duty or medium/heavy-duty vehicle applications.)

**Q23: Is orchard wood considered eligible feedstock?**

A23: Yes, orchard wood is considered an eligible feedstock as long as it is also sourced from within California.

**Q24: What is the logic behind LFG not a qualified feedstock?**

A24: Landfill gas is not an eligible feedstock under this solicitation because the program focuses on the use of sustainable and underutilized feedstocks. Organic waste feedstocks suitable for prelandfill biomethane production must be diverted from landfills as a result of Assembly Bill 341 (Chesbro, Chapter 476, Statutes of 2011) and Senate Bill 1383 (Lara, Chapter 395, Statutes of 2016). AB 341 sets a state goal of reducing, recycling, or composting 75 percent of solid waste by 2020, and SB 1383 set additional goals to reduce statewide disposal of organic waste from 2014 levels by 50 percent by 2020 and 75 percent by 2025. Given these state goals and the sustainability of landfill gas feedstock, this program excludes landfill gas projects from consideration and instead limits fuel production projects to those that use prelandfill organic waste.

**Q25: Can renewable hydrogen be commingled with non-renewable hydrogen for downstream processing and delivery prior to use?**

A25: There are no restrictions regarding commingling renewable and non-renewable hydrogen for downstream processing and delivery prior to use; however, the intent of this solicitation is to fund 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). Applicants will need to describe how the role of strategic marketing partners, customers, and other partners will ensure project success, including fuel and co-product off-take agreements.

**Q26: Does production technology involved need to be at a specified Technology Readiness Level (TRL)?**

A26: No, there is no specific TRL requirement. However, there are certain evaluation criteria in the Business Plan that do take into consideration, for example, the degree to which a proposed technology demonstrates commercial readiness and viability. Please refer to Section VIII.E. of the Solicitation Manual for more information on the Full Application Evaluation Criteria.

**Q27: Can a project that is already in development – including design and/or construction, but which has not been completed at the time of application – be considered eligible?**

A27: Yes. However, Full Applications will need to demonstrate the need for state funding. Projects that are already underway may have difficulty in demonstrating the need for state funding. The intent of this solicitation is to incentivize the production of new renewable hydrogen production within California. Additionally, eligible match share expenditures may only be incurred once CEC recommends funding through a published Notice of Proposed Awards; CEC reimbursable costs may only be incurred after full execution of a funding agreement and within the approved agreement term.

**Q28:** **Is a project that produces renewable hydrogen that is used as a feedstock for another renewable fuel (like renewable diesel or sustainable aviation fuel) eligible?**

A28: No. Funding from this solicitation is for the production of 100 percent renewable hydrogen to be used as transportation fuel in fuel cell electric vehicles.

**Q29: Petroleum refineries and ammonia plants use a huge amount of hydrogen. Are these industries part of your solicitation?**

A29: No. Funding from this solicitation is for the production of 100 percent renewable hydrogen to be used as transportation fuel in fuel cell electric vehicles.

**Q30: We will be registering as a foreign-out of state LLC. This will be in addition to partnering with other California State LLC's. Can we act as the lead proposer or should it be that our partner in California act as lead proposer; we will be providing the basic technology knowhow. Is partnering with a California corporation absolutely essential?**

A30: To be eligible, the Applicant must have a business presence in California and be registered and in good standing with the California Secretary of State as discussed in Section II.A., Applicant Requirements of the Solicitation Manual.

**Q31: Dimethyl Ether (DME) is called out as an eligible fuel in the low carbon production/blending GFO-20-608; if it is used as a feedstock for renewable hydrogen would it also be an eligible feedstock in GFO-20-609? If renewable DME is the feedstock for renewable hydrogen and is CA-produced, does it also have restrictions on the feedstock for the renewable DME?**

A31: Yes. In this example, renewable DME would be an eligible feedstock provided it and any feedstock utilized to produce the DME met all the eligibility requirements listed in the Solicitation Manual. Please refer to Section II of the Solicitation Manual for information on eligibility requirements.

**Q32: Can you expand on what is meant by "not a demonstration or pilot plant"?**

A32: In addition to meeting the minimum production requirement of 1,000 kilograms per day, Full Applications will need to describe the proposed project’s technology readiness for commercial scale production. Please refer to Section VIII.E. of the Solicitation Manual for more information on the Full Application Evaluation Criteria.

***EVALUATION CRITERIA***

**Q33: Does the core project team need to have experience with hydrogen storage and/or transport?**

A33: It is not a requirement for the core project team to have experience with hydrogen storage and/or transport; however, the project team will need to demonstrate its qualifications, skills, abilities, and relevant technical and business experience as it aligns with the needs of the project and with the successful completion of the proposed project. Hydrogen storage and transport may be a critical component of renewable hydrogen production. Please refer to Section VIII.E.1., Project Team Qualifications for more information on evaluation criteria.

**Q34: Does the scope of this proposal require storage and delivery or just production?**

A34: Storage and delivery is not a requirement; however, storage and delivery may be a critical component of renewable hydrogen production. Projects will need to demonstrate the ability for continuous operation, viability and safety. Please refer to Section VIII.E. for Full Application Evaluation Criteria.

**Q35: Section K. CEQA Compliance Timelines makes the following statement: “To comply with CEQA, the CEC must have CEQA-related information from applicants and sometimes other entities, such as local governments, in a timely manner. Applicants recommended for funding in the NOPA must submit pertinent information well in advance of June 30, 2023 or risk having their projects not funded.” How far in advance to June 20, 2023 date in months does CEC require CEQA-related information to support CEQA compliance?**

A35: California Environmental Quality Act (CEQA) related information could include a number of environmental documents and determinations that require approvals and posting period requirements from the local Lead Agency. Awarded projects are expected to submit all CEQA related documentation no later than six months after the Notice of Proposed Awards (NOPA) is posted. For this solicitation, the NOPA is anticipated to be released in November 2021.

**Q36. The CEC is required to make its own independent CEQA determination and the level of review required by CEQA depends on the facts of the specific project. Will CEC manage the CEQA and environmental permitting of the awarded project on behalf of the Applicant? Or will the CEC make an additional review of the environmental permitting after the applicant receives authorization from CEQA’s local agency?**

A36: The CEC will not manage the CEQA and environmental permitting on behalf of the successful Applicant. The CEC is required to make its own independent CEQA determination after the applicant receives authorization from a local lead agency.

**Q37:** **Your CEQA timing of 6 months after the award seems to be rather optimistic. Could this time period be extended since CEQA is beyond the control of the applicant? Does the panel realize that readiness has nothing to do with CEQA approvals?**

A37: The intent of this solicitation is to fund projects that are shovel ready or near shovel ready. The CEC tries to provide flexibility but also needs to work within its encumbrance deadlines. Any project that is proposed for award must be approved by the Commission, and CEQA needs to be completed prior to executing any grant agreement. Please see Section II.K. of the Solicitation Manual for more information regarding CEQA.

**Q38: Will a renewable hydrogen production from renewable natural gas produced in California using Carbon Capture and Sequestration technology receive a higher score than the one without CCS capability?**

A38: With all other project specifics being the same, yes. Applicants are encouraged to read through the evaluation criteria thoroughly. Please see Section VIII.E. for more information on the Full Application Evaluation Criteria.

**Q39.: Must we have an off-taker secured along with the Pre-Application Abstract?**

A39: No. An off-take agreement is not required to be secured for the pre-application evaluation. However, applications will be evaluated on the degree to which these agreements are identified and committed. Please see Section VI.E and Section VIII.E. of the Solicitation Manual for more information on the Pre-Application and Full Application evaluation criteria.

**Q40: If the new plant coexists with an existing plant, can they share the same connection point?**

A40: Yes.

**Q41: Are innovative approaches to production given extra points in scoring?**

A41: No, extra points will not be given; however, certain evaluation criteria in the Technology Plan will consider the degree to which a technology is a transformative approach to a critical renewable hydrogen fuel technology issue or market barrier. Please refer to Section VIII.E. of the Solicitation Manual for more information on the Full Application Evaluation Criteria.

**Q42: What are your selection criteria for capital cost and operating criteria?**

A42: Regarding capital costs, projects will be evaluated on Budget and Cost Effectiveness. Regarding operations, the project team and business plan will be evaluated to assess the degree to which a project will be successfully completed. Please refer to Section VIII.E. of the Solicitation Manual for more information on the Full Application Evaluation Criteria. Additionally, capital costs generally include costs such as engineering, construction, and equipment acquisition. Please refer to Section II.E. of the Solicitation Manual for more information on eligible project costs.

**Q43: Do Renewable Electricity Certificates (RECs) have to be secured before submission? Is it sufficient to identify RECs as the intended renewable feedstock or is some contract or agreement required?**

A43: No, RECs do not have to be secured before Application submission. Applicants will need to identify the source of the RECs to ensure it meets all of the eligibility requirements. Please see Section II of the Solicitation Manual for more information on eligibility requirements.

**Q44: What does “execute” exactly mean in subcontract execution? Does it mean having contractual agreements signed with all involved subcontractors?**

A44: Yes, “execute” means having a signed contractual agreement. Awardees are expected to have all subcontracts executed within 90 days of agreement execution with the CEC. Please see Section II.J. of the Solicitation Manual for more information.

**Q45: Why are co-products included in the scoring criteria?**

A45: Co-products are being evaluated in the Full Application. Applicants should demonstrate how co-products or other revenue streams contribute to the business plan and the role that co-products will play in contributing to the success and sustainability of the proposed project. For more information on co-products, please see Section VIII.E.2., Business Plan.

**Q46: Is CO or CO2 separated from RNG during the H2 production process regarded as co-product?**

A46: Without additional information, it depends on how these products are being used. Applicants are encouraged to discuss the value and intent of any co-products included with the project.

**Q47: Will past performance reference locations outside of US also count?**

A47: Yes, Attachment 10, the Past Performance Reference Form, refer to experience with projects that had current or prior agreements with public funding.

**Q48: Must all permits be approved to pass the Pre-Application Abstract phase of the solicitation?**

A48: No. Permits do not need to be approved in order to pass the Pre-Application or Full Application evaluations. However, projects will be evaluated on the degree to which permitting has been completed and can be verified. Please refer to Section VI.E. and Section VIII.E. of the Solicitation Manual for more information on evaluation criteria for both the Pre-Application and Full Application.

**Q49: Will the technology utilized to produce hydrogen weigh heavily in scoring (i.e., electrolysis scoring materially better than steam methane reformation (SMR) or other technologies with emissions)?**

A49: No. Each technology and project will be evaluated on its own merit. Please refer to Section VIII.E. of the Solicitation Manual for more information on the Full Application evaluation criteria.

**Q50: California fires are mostly due to the trees and wood waste in remote locations. Has CEC coordinated with CAL FIRE to make hydrogen form such hazardous materials? Are bonus points offered for use of woody biomass?**

A50: The CEC is working with other State agencies to address policies that affect the state. The use of woody biomass has its benefits, but this is only one project component of many that may affect the project’s evaluation. Please refer to Section VIII.E. of the Solicitation Manual for the full application evaluation criteria.

**Q51: How would the CEC score a proposal that has previously been funded and is looking to use new funds to operate the existing plant?**

A51: As described, an existing plant that is looking to use new funds for operation costs would be ineligible to apply. Costs incurred for operation of the facility, such as feedstock purchases, cost for transportation of feedstock, cost for transportation of fuel, costs of off-site fueling infrastructure, and vehicle purchases and vehicle-related expenses are ineligible for reimbursement and match share cost.

***MATCH & ELIGIBLE PROJECT COSTS***

**Q52: Will project tasks associated with CEQA permitting be eligible costs for CEC reimbursement or Applicant’s match share?**

A52: CEQA compliance must come before an agreement is executed, and reimbursable costs may only be incurred after an agreement is executed. These CEQA permitting costs may be eligible for Applicant’s match share if they are incurred after a project is recommended for an award through a published Notice of Proposed Award. However, match share expenditures incurred after the NOPA and prior to full agreement execution are at the Applicant’s own risk. The CEC will not be liable for those expenditures if the agreement is not approved or fully executed for any reason.

**Q53: Can a third party involved in preparation of the grant application fee have consideration as eligible costs for CEC reimbursement or Applicant’s match share?**

A53: No. Preparation of grant applications are not eligible for reimbursement or as an Applicant’s match share. Reimbursable costs must be incurred only after an agreement is executed and during the approved agreement term. Match share expenditures may be incurred after the release of a Notice of Proposed Awards (NOPA), but at the Applicant’s own risk.

**Q54: Does cash invested in buying out-of-state equipment qualify for cash match fund?**

A54: Yes, if the out-of-state equipment is purchased with funds actually expended (and is not donated or existing, repurposed equipment), it would qualify for cash match.

**Q55: Are costs for feedstock, feedstock transport, and fuel transport not eligible for CEC funds or an applicant’s match share funds?**

A55: Yes. Cost of feedstock, feedstock transport, and fuel transport are not eligible for CEC reimbursement or an Applicant’s match share.

**Q56: Is operating cost a reimbursable cost?**

A56: No. Operating costs (including the six months of data collection requirement) are not eligible for reimbursement or match share.

**Q57: What kind of evidence is adequate to prove that match funding commitments are secured?**

A57: Projects will be evaluated on the degree to which these match funding commitments are secured. For example, contractual obligations are more secure than letters of intent.

**Q58: Can H2 storage equipment be part of the project?**

A58: In most cases, hydrogen storage equipment may be considered as part of the project if it is necessary for continuous production.

**Q59: Can the infrastructure costs of feedstock be considered match share? For example the construction of a waste water treatment facility to provide water to an electrolysis facility?**

A59: In the example provided, the cost to construct a waste water treatment facility would not be eligible as match share. Please see Addendum #2 and refer to Section II.E. of the Solicitation Manual for more information on eligible project costs.

**Q60: Are project management, technology transfer, outreach, and other CEC mandated costs eligible as CEC reimbursable costs?**

A60: Without knowing additional details about the project, these costs may be eligible for reimbursement.

**Q61: Is site construction (civil works) eligible match share?**

A61: Yes. Site construction (civil works) would be eligible for match share as long as the costs were not incurred prior to the Notice of Proposed Awards being released. Additionally, this work would also be eligible as reimbursable if the costs were incurred after agreement execution and within the approved project term.

**Q62: Can the 50% cash match share include salaries of personnel?**

A62: Yes, as long as the salaries were paid to personnel and not counted as volunteer hours. Please refer to Section II.F. of the Solicitation Manual for more information on cash match and in-kind match.

**Q63: Is there any consideration given to delivered cost of the hydrogen?**

A63: Yes. Certain evaluation criteria for the Full Application will take the delivered cost of the hydrogen into consideration, such as parts of the Business Plan. Please refer to Section VIII.E. of the Solicitation Manual for more information on the Full Application evaluation criteria.

**Q64: Can match funds from a previously awarded project be claimed under a proposal if new grant funds will be used to operate or expand the existing project?**

A64: No. Match funds from a previously awarded project cannot be claimed under a new proposal. Additionally, costs incurred for operation of the facility, such as feedstock purchases, cost for transportation of feedstock, cost for transportation of fuel, costs of off-site fueling infrastructure, and vehicle purchases and vehicle-related expenses are ineligible for reimbursement and match share cost.

**MISCELLANEOUS**

**Q65: For 1000 kg per day, you would need 35-50 trucks in a fleet? Is there anyone who can provide or manufacture this many trucks?**

A65: In addition to medium/heavy-duty vehicles, the renewable hydrogen produced can also be used for light-duty fuel cell electric vehicles. We do encourage potential applicants to look at the Empower Innovation website as a resource tool that can be located at: <https://www.empowerinnovation.net/>.