

Questions and Answers
Low Carbon Fuel Production Program
GFO-19-601
September 24, 2019

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

ADMINISTRATION/PROCESS

Q.1: Will the presentation be available on the website following the workshop?

A.1: Yes, the presentation and the WebEx recording are available on the website at <https://www.energy.ca.gov/solicitations/2019-08/gfo-19-601-low-carbon-fuel-production-program>.

Q.2: What is the maximum permissible period of time between the start and end dates for grants awarded under GFO-19-601? When is the latest end date for grants awarded under GFO-19-601?

A.2: Funds available under this solicitation have an encumbrance deadline of June 30, 2020. All resulting grants agreements must be approved at an Energy Commission business meeting prior to the encumbrance deadline. Following approval, the grant may be executed and the project may start.

Furthermore, funds available under this solicitation have a liquidation deadline of June 30, 2024. All work must be scheduled for completion no later than March 31, 2024 to allow timely processing of final invoices before the liquidation date of the funds.

Q.3: If an applicant applies for a \$5 million grant, is it possible to be awarded a smaller amount or is it an "all or nothing" situation?

A.3: Applications obtaining at least the minimum passing score will be recommended for funding in ranked order until all funds available under the solicitation are exhausted. The Energy Commission, at its sole discretion, reserves the right to reduce funding for a project if the budgeted funds are insufficient to provide full funding. In this event, the Awardee and the Commission Agreement Manager will work to reach agreement on a reduced Scope of Work commensurate with Available funding. Please see Section I. F. and G. of the Solicitation Manual.

ELIGIBILITY

Q.4: Are landfill biogas projects eligible?

A.4: Landfill gas is not an eligible feedstock under this solicitation. Please see Section II.C. of the Solicitation Manual for other eligible feedstocks.

Q.5: What is the reference for the exclusion of landfill gas as a feedstock?

A.5: 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.

Please refer to the Low Carbon Fuel Production Program, 2019 Program Implementation Guidelines (LCFPP Guidelines), Chapter 2.B.:

<https://ww2.energy.ca.gov/transportation/lowcarbonfuels/documents/>.

Q.6: Is there a certain range of technology readiness levels (TRL) that this program focuses on?

A.6: There is no specific technology readiness level required for this solicitation. However, the technology must be capable of producing 1 million diesel gallon equivalents (DGE) per year of ultra-low carbon transportation fuel using an eligible feedstock.

Q.7: Can the electricity generated from a compliant customer under the Renewable Portfolio Standard (RPS), but not certified under RPS, be used for renewable hydrogen production? For example the electricity wheeled by a first performance right Western Area Power Administration (WAPA) customer.

A.7: No, eligible renewable electricity sources only include facilities certified through the RPS Program as outlined in the RPS Eligibility Guidebook, Ninth Edition (Revised)⁷, but excluding landfill gas. The renewable electricity shall either go directly to the hydrogen production system or be connected via the grid from an

⁷ Renewable Portfolio Standard (RPS) Eligibility Guidebook (Ninth Edition, Revised)

<https://efiling.energy.ca.gov/getdocument.aspx?tn=217317>.

in-state RPS-certified generation facility that has its first point of interconnection within the metered boundaries of a California balancing authority area. Please see Section II.C. of the Solicitation Manual.

Q.8: Can the CO2 component of landfill gas be used?

A.8: No, any component of landfill gas is NOT eligible.

Q.9: Is corn ethanol an eligible feedstock?

A.9: No, corn grain, including corn ethanol derived from corn grain, is not an eligible feedstock. Please see Section II.C. of the Solicitation Manual for more information.

Q.10: Will cellulosic ethanol from corn stover be an acceptable feedstock?

A.10: Yes, corn stover or any other non-edible portion of the corn plant is an eligible feedstock. Please see Section II.C. of the Solicitation Manual.

Q.11: Is grease trap waste or fat, oil and grease separated from waste water treatment facilities eligible feedstocks?

A.11: Yes, these waste-based feedstocks are eligible. Please see Section II.C. of the Solicitation Manual.

Q.12: Are animal fats, distillers corn oil and used cooking oils considered eligible feedstocks?

A.12: Yes, all of these feedstocks are eligible. Please see Section II.C. of the Solicitation Manual.

Q.13: If an applicant is a U.S.-based company that has not done business in California, can a newly-created special purpose company apply and own the project if it is located in California?

A.13: Please see sections II.A.1 and II.A.3 of the Solicitation Manual, which includes requirements that applicants have a business presence in California and requirements pertaining to California Secretary of State Registration. Additionally, please see section II.B.2 of the Solicitation Manual, which requires that projects must be located in California.

Q.14: What is recognized as an increase in fuel production capacity? For example, a facility may be permitted for 10 million gallons per year, but has only ever produced at a rate of 8 million gallons. Does the project need to get them up to 9 million gallons, or to 11 million gallons?

A.14: The proposed project must result in new fuel production capacity from its nameplate capacity. The example does not specify whether the permitted capacity is the name plate capacity. So, if the facility's nameplate capacity is 8 million gallons, the project will need to produce, at least, 9 million gallons. If the nameplate capacity is 10 million gallons per year, then the project will need to produce, at least, 11 million gallons per year. Please see section II.B.4 of the Solicitation Manual.

Q.15: Why is the required carbon intensity 30 gCO₂e/MJ?

A.15: The Low-Carbon Fuel Production Program (LCFPP) has set a carbon intensity of 30 gCO₂e/MJ or less to encourage production of the lowest carbon fuels. The LCFPP Guidelines, which is the governing guidelines of this solicitation, has been approved by the Energy Commission on July 15, 2019. Please see Addendum 1 for clarification.

Q.16: Why was jet fuel excluded from the solicitation?

A.16: Under the LCFPP Guidelines, proposed projects must produce a transportation fuel used to mitigate the environmental effects of on-road motor vehicle air emissions. Therefore, fuels such as aviation, marine, and other off-road fuels are not eligible.

Q.17: If an applicant produces fuels that are not eligible under this solicitation (such as jet fuel), will these fuels count towards the minimum 1 million DGE fuel production requirement?

A.17: No. Under this solicitation, applicants must produce a minimum of 1 million DGE of eligible on-road transportation fuel. However, proposed projects may also produce other types of fuel or co-products, but these will not count towards the minimum fuel production requirements.

Q.18: Is a project eligible if it produces both renewable and non-renewable fuels?

A.18: Yes, as long as the project produces a minimum of 1 million DGE of eligible on-road transportation renewable fuel. Please see Section II. B. of the Solicitation Manual.

Q.19: Is an electric vehicle charging station powered by biomass eligible under this solicitation?

A.19: No, fueling infrastructure is not a reimbursable, eligible cost. However, production of electricity from biomass for electric vehicle charging is eligible. The project must produce a minimum of 1 million DGE of on-road transportation fuel. Please see Section II. B. of the Solicitation Manual.

Q.20: Are feasibility studies eligible under this solicitation?

A.20: Feasibility studies are not eligible under this program. Please see Section II. B. of the Solicitation Manual.

Q.21: Does the program include reimbursement for vehicle testing and diesel replacement trials?

A.21: No. Vehicle-related expenses are not eligible for reimbursement under this program. Please see Section II.D. of the Solicitation Manual, Eligible Project Costs.

Q.22: Is the 1 million DGE requirement based on energy content of the fuel or the miles that could be driven? This makes a difference when comparing diesel to hydrogen or electricity for vehicles.

A.22: Both energy content and the miles driven are considered when calculating carbon intensity for the California Air Resources Board's (CARB's) Low Carbon Fuel Standard (LCFS).

The energy efficiency ratio (EER) values, relative to light-duty diesel, are 3.4 for electricity and 2.5 for hydrogen based on the current LCFS regulation: https://ww3.arb.ca.gov/fuels/lcfs/fro_oal_approved_clean_unofficial_010919.pdf#page=68. One million DGE per year is equivalent to 10,986 MWh per year of renewable electricity and 448,223 kg of renewable hydrogen per year.

Q.23: An applicant is looking at several sites for renewable hydrogen using remote solar or curtailed renewables. Can the applicant use non-renewable grid power as long as the carbon intensity meets the requirement?

A.23: Based on the limited information provided, production of hydrogen and electricity as transportation fuels may be an eligible project. Renewable electricity must be derived from organic material for it to be eligible. Applications for the production of renewable electricity must still meet all eligibility requirements specified in the solicitation, such as the use of an eligible feedstock to produce at least 1 million DGE of eligible low carbon fuel for transportation use. Please see Section II. B and C. of the Solicitation Manual, Project Requirements and Eligible Feedstocks.

Q.24: Is the seasonal storage of energy eligible for renewable hydrogen production? For example, if a company is trying to store springtime energy to deploy in the fall, must the energy be stored and discharged at the same address?

A.24: Based on the limited information provided, storing and discharging energy at different locations may be eligible; however, the specifics of your project would need to be evaluated in a pre-application abstract. Applications must still meet all

eligibility requirements specified in the solicitation, such as the use of an eligible feedstock to produce at least 1 million DGE of eligible low carbon fuel for transportation use. Also note that costs incurred for operation of the facility, such as feedstock purchase of electricity, is ineligible for reimbursement and match share cost. Please see Section II. D. of the Solicitation Manual, Eligible Project Costs.

Q25: Is ammonia an eligible transportation fuel under this solicitation?

A25: This program focuses on larger scale, ultra-low carbon fuel production. As a zero-carbon fuel option, ammonia can play important roles to decarbonize the transportation sector; however, the impact of ammonia as fuel still has to be analyzed in the areas of health, air pollution and safety risk before it can be adopted for vehicle use. If ammonia production is able to meet all the requirements listed in the solicitation manual, it may qualify as a diesel substitute or gasoline substitute for the Low Carbon Fuel Production Program. Please see Section II.B of the Solicitation Manual, Project Requirements.

EVALUATION CRITERIA

Q.26: How thorough must the documentation be to demonstrate meeting the criteria of having a carbon intensity of 30 gCO₂e/MJ or less?

A.26: In order to verify all aspects of the proposed project, the application package must include all calculations and assumptions used and conform to the California Air Resources Board's Low Carbon Fuel Standard (LCFS). The CARB calculation methodology guidance is available at: <https://www.arb.ca.gov/fuels/lcfs/guidance/guidance.htm#guidance>.

Q.27: Is carbon intensity adjusted for efficiency use?

A.27: The Low Carbon Fuels Production Program (LCFPP) Benefits Calculator Tool estimates emission reductions and co-benefits taking into account the fuel carbon intensity, energy density, and energy economy ratio (EER)—the dimensionless value that represents the efficiency of a fuel used in a powertrain as compared to a reference fuel used in the same powertrain. EERs are often a comparison of miles per gasoline gallon equivalent (MPGe) between two fuels. More information on the methods and equations are available in the supporting LCFPP Quantification Methodology, available at: www.arb.ca.gov/cci-resources.

Q.28: A project has approved pathways with a carbon intensity just above 30 gCO₂e/MJ, but the applicant is, currently, working on a new carbon intensity below 30 gCO₂e/MJ for approval. How should the applicant apply?

A.28: Applicants proposing a newly-calculated carbon intensity must include all calculations and assumptions in the application package so that numbers may be verified. All awarded projects must result in at least 1 million DGE of on-road transportation fuel with a carbon intensity of 30 gCO₂e/MJ or less.

Q.29: In the LCFPP Benefits Calculator Tool, each fuel can choose only one distribution method. What approach can the applicant take to complete the LCFPP Benefits Calculator Tool if the fuel has more than one distribution method?

A.29: The LCFPP Benefits Calculator Tool is currently formatted to have one distribution method for each fuel type produced. If a project proposal includes several distribution methods for a single fuel type, the user can divide the fuel produced (by quantity) into the “secondary” and “tertiary” fuel type input fields on the “Inputs_Production Facility” tab. Next, for each specified quantity of fuel, the user can populate the appropriate distribution method input fields on the “Inputs_Distribution” tab. If the combined number of proposed fuel type(s) and distribution method(s) for those fuel type(s) exceeds three (i.e., the primary, secondary, and tertiary input fields), the user must run additional LCFPP Benefit Calculator Tools and submit all workbooks as part of their application.

Q.30: Is there a way to verify a company’s past performance or standing with the Energy Commission under existing or prior Energy Commission agreements?

A.30: When reviewing applications, the Evaluation Committee will evaluate “the degree to which the applicant has performed satisfactorily under other Energy Commission funded agreements and has fulfilled/is fulfilling agreement requirements.” Examples of satisfactory performance could include: managing previous projects within the budget and within the timeline and fulfilling the agreement requirements cooperatively with the Commission Agreement Manager.

Q.31: How far back does the Energy Commission evaluate an Applicant’s past performance?

A.31: The CEC reserves the right to evaluate an Applicant’s past performance under any or all previous CEC-funded agreements.

CONFIDENTIAL MATERIALS

Q.32: It is difficult to submit a project abstract without confidential information. Can we include a one page confidential attachment with the abstract in order to describe the confidential technology we propose installing?

A.32: No, confidential material will **NOT** be accepted in the Pre-Application Abstract Phase.

MATCH & ELIGIBLE PROJECT COSTS

Q.33: Does cash made available to an applicant from a third party count as cash matching funds?

A.33: No, cash from a third party is in-kind match. Please see Section II.E.3, In-Kind Match Share of the Solicitation Manual for more details.

MISCELLANEOUS

Q.34: Since this solicitation is for proposed projects that must increase fuel production capacity by at least 1 million DGE per year, does the Energy Commission anticipate a separate solicitation for projects with lower fuel production?

A.34: This program focuses on larger scale, ultra-low carbon fuel production. For other project ideas, please refer to the Energy Commission's Clean Transportation Program: <https://www.energy.ca.gov/programs-and-topics/programs/clean-transportation-program>. Also, please make sure you have signed up for our list servers in order to receive notification of future funding opportunities at: https://ww2.energy.ca.gov/listservers/index_cms.html.

Q.35: Is there an opportunity to apply for electrical generation from alternative fuel powered micro turbine generation? What about off-grid, micro-grid generation?

A.35: This program focuses on ultra-low carbon fuel production. Please make sure you have signed up for our list servers in order to receive notification of future funding opportunities at https://ww2.energy.ca.gov/listservers/index_cms.html. Other opportunities may be found at Electric Program Investment Charge Program (EPIC) at <https://www.energy.ca.gov/programs-and-topics/programs/electric-program-investment-charge-epic-program>.

Q.36 There is a "Commitment to Diversity" section in the proposal to encourage greater participation by underrepresented groups including small women owned businesses. How is this target scored and measured in the abstract/final project?

A.36 The Energy Commission is committed to encouraging greater participation by underrepresented groups by conducting outreach efforts and activities to ensure that all potential new applicants in the state are aware of all Commission funding opportunities and understand how to apply for funding. However, the LCFPP solicitation does not have a "diversity" target. Therefore, there is no scoring

criteria for small women-owned businesses specifically, but there are preference points available for priority populations.