

**Questions & Answers
Biofuels Workshop
March 30, 2016**

ADMINISTRATION/PROCESS

- 1. Is there a procedure in place for challenging potential reviewers that may be biased, and if so, what are those procedures and what actions are taken as a result?***

Yes. The Energy Commission has both informal and formal processes to resolve and investigate potential issues of bias.

Informal Process: If an Applicant has evidence that potential reviewers are unduly biased, the Energy Commission should be notified and provided evidence of the bias. If the issue is raised during an active solicitation, the Applicant should contact the Commission Administrative Officer listed in the solicitation. Prior to release of a solicitation or after release of the Notice of Proposed Awards (NOPA), Applicants should contact the ARFVTP Office Manager or Deputy Director of the Fuels and Transportation Division. ARFVTP is committed to fairness and transparency in terms of project selection and funding recommendations. Applicants are encouraged to submit specific evidence of bias or conflicts of interest; disagreement with the scoring results under a solicitation is not evidence of bias. Management will investigate the issue and take appropriate steps if deemed necessary.

To ensure that no single individual scorer has undue impact or influence on the results of a competitive solicitation, scoring teams consist of 3-6 members each. Individual scorers each bring different levels of experience, training, and expertise to the evaluation process. Scoring is based on an average of all scorers, so that no single individual scorer has undue impact on the final overall score. Unsuccessful applicants may request a debriefing after the NOPA release to understand the scoring team's rationale on final scores received for a given proposal.

Formal Process: The Energy Commission's formal complaint and investigation process is contained in the California Code of Regulations, Title 20, Section 1230 et seq. This formal process can be found at <http://www.energy.ca.gov/title20/>.

- 2. I would like to encourage the Commission to continue looking domestically rather than abroad when it comes to funding new biofuels programs. By prioritizing investment in projects utilizing domestic feedstocks and blendstocks, the Commission stands to create greater cohesion and synergy with programs being undertaken by its sister agencies. Additionally, the Commission should include annual GHG displacement as a funding factor.***

With everything else being equal, projects using local feedstocks or blendstocks are expected to result in fuel pathways that have a lower carbon intensity value which would be rewarded through the evaluation criteria. Annual greenhouse gas reductions are evaluated in both the Pre-Proposal Abstract and the Full Proposal as part of the scoring criteria.

3. *The draft solicitation states that eligible applicants must have a “business presence” in California. Can you clarify the term “business presence”?*

To be eligible, all corporations, limited liability companies (LLCs) and limited partnerships (LPs) are required to register and be in good standing with the California Secretary of State to enter into an agreement with the Energy Commission. If not currently registered with the California Secretary of State, Applicants are encouraged to contact the Secretary of State’s Office as soon as possible. For more information, contact the Secretary of State’s Office via its website at www.sos.ca.gov.

4. *Are international entities and out-of-state subcontractors allowed to participate in the grant process?*

A company does not have to be incorporated in California to be eligible to apply for funding, but it must be registered and in good standing with the California Secretary of State prior to agreement execution.

Project construction and operations must occur in California. Purchases or labor from outside of the State or Country are allowable, as long as project construction and operations occur in California. However, scoring criteria are applied to maximize economic and environmental benefits in California. Projects with work (other than project construction or operations) being performed outside of California may not score as competitively as projects that perform work in California.

5. *Are there, if any, job creation requirements required as part of the grant? If so, how many jobs is an applicant required to create? Are there any specific industry sectors for which these jobs must be create? Is there a recommended algorithm for making job projections?*

There are no job creation and no industry specific job creation requirements under this solicitation; however, job creation, as it relates to economic benefits, is a scoring criterion in the Pre-Proposal Abstract and the Full Proposal. There is no recommended algorithm for making job projections. The applicant should analyze the proposed project, report the actual number and type of direct jobs created, and provide an estimate of the number and type of indirect jobs created; background information and assumptions should be included to support claims.

6. *Are cost share waivers allowed or anticipated as part of the full funding solicitation? If so, what is the cost share percentage benefit of said waivers? What are the requirements necessary to obtain a cost-share waiver?*

Cost share waivers are neither allowed nor anticipated. The Energy Commission fully expects that the cost share proposed under a funding Application will be fully expended and documented to the Energy Commission prior to the agreement end term date. If total project costs are less than originally anticipated, the Energy Commission expects to share in the overall project cost savings. For example, if total project costs are 90% of the original estimation, funding Recipients will be eligible to receive only 90% of the Energy Commission funds and, conversely, will only be required to provide 90% of the cost share originally proposed. In these cases, the final disposition of total project costs is subject to the terms and conditions of the signed agreement.

7. Do wages/salaries used as match and paid to applicant or subcontractor personnel count as cash or in-kind match contributions?

Actual salaries or wages *paid* to employees will be considered a cash contribution as long as those expenses are consistent with the approved scope of work and budget. Expenses in which a cash transaction occurs qualifies as cash cost share. Examples of match which are *not* cash contributions include, but are not limited to: stock options and other investments; donated or loaned labor hours; and value of existing equipment, vehicles, facilities, land, inventory, other property, and fixed assets. The applicant must be able to document expenses through payroll records and/or other expense records, following generally accepted accounting practices and using standard job costing procedures, separating donated hours from paid.

8. Rather than saving confidential technology, marketing, and financial information and then making it public after 7 years, would the Energy Commission consider simply deleting such information after March 31, 2021?

No. The seven-year confidentiality term should provide sufficient protection for the confidential information submitted. If an applicant has concerns about information becoming a public record after the seven-year confidentiality term ends, the applicant should not submit this information. The submitted application will be screened and scored according to the published criteria. Failure to submit the requested information could result in a lower application score or disqualification from the solicitation.

FUNDING

9. Is simple volume the objective of the Program?

No. The primary objectives of this solicitation are GHG reductions and petroleum reductions. As part of the Sustainability criterion (tied for the highest weighted scoring criterion at 50 points), proposed projects will be evaluated on GHG reductions on a lifecycle basis. Total carbon displacement is a function of the carbon intensity of the fuel produced (converted to Metric Tons per gallon) multiplied by the total annual production value. With everything else being equal, proposed projects that can produce high volumes of low carbon fuel will be score higher under this criterion.

Additionally, the cost effectiveness of the expected GHG reductions is evaluated as part of the Project Budget and Cost Effectiveness scoring criteria. This “benefit-cost” score is based on the amount of GHG reductions per dollar of Energy Commission funding. With everything else being equal, projects resulting in greater GHG reductions per dollar of Energy Commission funding will score higher under this criterion. This criterion is also tied for the highest weighted scoring criterion at 50 points.

10. Can the biofuels funding be divided equally into silos, one each for diesel substitutes, gasoline substitutes, and biomethane?

The intent of this solicitation is to compete and recommend for funding biofuel production facilities that can provide high volumes of low carbon fuels, regardless of fuel type. Due to the opportunities that community/demonstration-scale projects present, in terms of scaling projects that match local resources or demonstrating novel technologies, the

funding has been siloed based on the volume of fuel being produced under the proposed project. Smaller-scale projects have the ability to capitalize on available local feedstocks and fueling opportunities and projects can be appropriately sized to meet the needs of the local community. The two silos allow competition within each scale, but not between scales, as follows:

Annual Production Capacity (diesel gallons equivalent per year)
100,000 – 1,000,000
Greater than 1,000,000

11. Can the \$5 million funding silo be eliminated as a separate category?

The funding silos are intended to allow community-scale and commercial-scale projects to compete on separate, level playing fields. The purpose of the silos is to provide an opportunity for smaller-scale projects to compete for funding. Smaller-scale projects have the potential to provide very low carbon fuels to local and tethered fleets, or to demonstrate emerging technologies before commercialization. Additionally, these smaller-scale projects can demonstrate the viability and potential of projects that can be replicated in other areas of California, thereby enabling a distributed network of fuel production facilities where those opportunities exist.

The solicitation structure allows the Energy Commission to fund the most competitive commercial-scale projects while capitalizing on local opportunities that exist for smaller, community-scale projects or novel technology demonstrations, regardless of fuel type.

12. With the capacity multiplier, is it possible for one large project to use up all of the funds in a silo, thus eliminating diversity of projects?

No. Awards resulting from this solicitation will range from \$3 million to \$6 million. No single project will receive more than \$6 million. The two volumetric-based funding silos further ensure a diversity of funded projects.

13. Can the maximum funding for each project be \$2 million, so there are 2-3 project awards in each silo?

Staff has conducted analysis of past awards and stakeholder comments and has determined that a maximum award of \$2 million may be too low to achieve the proposed goals of the Biofuels program for many projects. Under this solicitation, the maximum funding for projects will remain at \$3-6 million; however, if a particular project requires less money, staff encourages applicants to request less funding.

14. If production is 1 DGE above the threshold of 1 MGPY do you intend the multiplier to apply to 1,000,001 or 1M DGE?

In the proposed scenario, the 1,000,001 multiplier would be applied; however, the applicant should consider the funding silos of the solicitation. The \$5 million and \$12 million funding silos are intended to place community-scale and commercial-scale projects on separate, level playing fields. Scoring criteria are applied to determine cost-effectiveness, benefit-cost, and the reasonableness of the budget. A 1,000,001 DGE

production facility may not score as competitively in the \$12 million funding silo compared to much larger projects with more favorable cost-effectiveness.

15. Can funding be increased for this biofuels solicitation?

Possibly. The 2016/17 ARFVTP Investment Plan Update was adopted by the Energy Commission on April 13, 2016. This plan allocates an additional \$20 million to the biofuels funding category. This funding will be available to the program when the California Budget Act is signed by the Governor (expected by July 1, 2016). Staff is considering whether to include this new funding into the upcoming solicitation. This decision will be made prior to the release of the funding solicitation.

16. Can the available award amounts be increased to \$10 million for shovel-ready, low carbon intensity projects?

Staff is not recommending an increase to the maximum funding award under this solicitation. As currently structured, the funding levels ensure a diversity of biofuel projects, maximize the leverage of ARFVTP funding, and maximize the production of low-carbon biofuels and GHG reductions. The proposed funding structure attempts to increase the leverage of biofuel awards by offering higher award amounts to applicants that achieve greater cost effectiveness of awards. This is a proposed first step in transitioning the commercial-scale applicant pool to debt or other alternative funding mechanisms in future solicitations.

ELIGIBILITY

17. Will you be using EER adjusted gallons? For example, would EV projects receive an award for gasoline displaced?

All applicants will be required to use a provided Excel spreadsheet to calculate diesel gallon equivalents (DGE); the EER is included in the calculation.

Electricity and electric vehicle (EV) projects are not eligible under this solicitation. The Energy Commission provides funding for electricity and EV projects through the Electric Program Investment Charge (EPIC) and other ARFVTP solicitations.

18. Can you expand eligibility to include energy efficiency, optimization, and process improvements at existing facilities, which may not increase actual production but make projects more competitive?

Staff is not recommending an expansion of project eligibility in this manner. Since the purpose of this solicitation is both GHG reductions and petroleum reduction, projects that focus solely on energy efficiency, optimization and process improvements will only impact GHG reductions. Eligible biofuel production projects that also include energy efficiency, optimization, and process improvements at existing facilities may score better competitively, but additional production must be part of the proposed scope of work.

19. To avoid confusion, can the Energy Commission adopt the definition of biomass already used by the ARB under Cap-and-Trade?

The definition of biomass used within this solicitation is consistent with ARB's definition under Cap-and-Trade. If there are any conflicts between these two definitions, the definition contained within the Energy Commission's solicitation will take precedence.

20. *Would mixing biogas with natural gas as a feedstock be eligible for this biofuels solicitation?*

No. The proposed solicitation allows for any organic material **not** derived from fossil fuels or inorganic greenhouse gases.

The purpose of this solicitation is to support biofuel production from biomass defined as "organic material not derived from fossil fuels." In this solicitation, eligible biomass feedstocks do not include non-biogenic, non-organic, or contaminated sources, including fossil natural gas; eligible feedstocks will include those listed in the Biofuels Draft Solicitation Concepts document. Any fossil-derived feedstock does not qualify as biomass under this solicitation.

21. *Would renewable natural gas from biomass sources be eligible as a feedstock for the production of DME?*

Yes, renewable natural gas is an eligible feedstock.

22. *When does a biofuels production facility need to be at full capacity?*

Applicants are required to provide a realistic schedule for construction and operation of the proposed project. Projects demonstrating the ability to complete construction and begin operations sooner will be scored higher under the Project Readiness and Implementation scoring criterion. Further, projects that can achieve full production capacity sooner are expected to be more economically viable which is evaluated as part of the Business Plan scoring criterion.

23. *The current draft solicitation does not mention or include the production and use of biocrude oil as one of the alternative pathways. Why isn't it included?*

Under the current solicitation, biocrude oil is not an eligible biofuel since it cannot be used as a transportation fuel without further conversion and processing. Biocrude oil is an eligible biomass feedstock and can be included as part of a proposed project as long as the project proposes to produce an eligible biofuel. An eligible biofuel must be the end product of all proposed projects.

24. *Can the definition of biomass feedstock be relaxed to include recycled waste gas streams, non-biogenic MSW, or contaminated organics?*

No. Eligible feedstocks for ARFVTP solicitations must conform to State laws and regulations covering the use of recyclables from non-organic municipal waste streams. Recycled waste gases would only be eligible if captured from processing of entirely organic materials. Biomass is defined as feedstocks derived from organic materials. This is a universally accepted, international definition of biomass based on the concept that combustion of organically-derived materials do not add **new** GHGs to the biosphere, they only recycle it. Non-organic feedstocks **do** introduce new hydrocarbons into the

biosphere, increasing the total carbon load on biospheric systems, and thus fuels from these sources are not “carbon neutral.”

25. *Can gas fermentation as a viable pathway of ethanol be included in the fuel silos of the solicitation?*

Gas fermentation is an eligible pathway of ethanol for this solicitation, as long as its input feedstock (biogenic) and produced biofuel meet all the eligibility requirements of the solicitation.

26. *Can the solicitation provide the flexibility for renewable hydrogen production?*

No. The ARFVTP Investment Plans covering this funding do not include renewable hydrogen production as part of the Biofuel Production and Supply funding category. Funding solicitations are required to be consistent with these publicly-vetted and Energy Commission adopted investment plans.

ARFVTP staff is currently examining other options and opportunities for renewable hydrogen production projects. We encourage stakeholders to participate in our annual Advisory Committee meetings to provide input to ARFVTP’s Investment Plan. Development of the 2017/18 Investment Plan will begin in late 2016.

27. *Can the solicitation be reworded to read, “Corn grain is NOT an eligible feedstock FOR GASOLINE SUBSTITUTES...”?*

No. The restriction on corn grain being used as a feedstock for biofuel production is derived from California Health & Safety Code, Section 44272.4(b). As the law states, “On and after July 1, 2013, the eligibility for funding, pursuant to paragraph (1) of subdivision (d) of Section 44272, of projects for the production of ethanol is limited to ethanol that is not derived from corn. This limitation does not apply to ethanol derived from corn stover, leaves, cobs, or other nonedible plant portions of the corn.” Corn ethanol would not be an eligible feedstock, as well. The intent of this law is to avoid diverting food resources for the purposes of fuel production. In the spirit of the intent, this solicitation restricts the use of corn grain as a feedstock regardless of the type of biofuel being produced.

28. *Can the ARFVTP provide greater support to California’s agricultural and dairy industries?*

The ARFVTP is supportive of statewide and industry efforts to help California achieve its greenhouse gas reduction emission goals. The purpose of the ARFVTP is to “transform California’s fuel and vehicle types to help attain the state’s climate change policies.” The purpose of this solicitation is to encourage alternative and renewable transportation fuel production, greenhouse gas emission reductions, and fossil fuel displacement. The Energy Commission welcomes a project proposal from the agricultural or dairy industry in California that is competitive based on the scoring criteria of this solicitation.

MATCH

29. Can you confirm that CEC grant funds can be used in combination with other grants, and can be used as matching funds for other grants, pending approval of the other grantor?

Yes, grants from federal and other state agencies may count as match funding. However, funds from the Energy Commission (e.g., awards from other Energy Commission programs) cannot count towards the match share requirement.

PRE-PROPOSAL ABSTRACT

30. Can the pre-proposal abstract round of the process be eliminated?

At this time, the pre-proposal abstract round of the solicitation will remain. Staff has analyzed the approach and believes that the process minimizes risk for both the applicant and the Energy Commission. A two-stage process allows ARFVTP staff the opportunity to provide feedback to applicants, before applicants have to complete the lengthy full proposal process. Staff is able to make suggestions for improvement of the proposal through its feedback memo and scoring criteria.

The pre-proposal abstract round has received positive feedback from stakeholders. Staff understands that one primary complaint of the process is the extended timeline. In response, the ARFVTP has adjusted the timeline and will strive to reduce the amount of time for pre-proposal abstract preparation and evaluation team scoring.

31. Can a 90 day turn-around time be guaranteed for awards?

Unfortunately, the Energy Commission cannot guarantee the turn-around time for awards. The solicitation will provide a realistic tentative schedule and staff will make every attempt to adhere to this schedule.

32. Can the 10 page limit of the Pre-Proposal Abstract round be reduced?

The Pre-Proposal Abstract must not exceed 10 pages when printed using standard 8.5" by 11" paper. Applicants may submit abstracts that are *less than* 10 pages. The applicant should use discretion when choosing how much information to include. For example, those applicants that are proposing to expand a facility with an established technology may not need to provide as much information as a project that is using a new, unknown technology with more technically complex processes. Adequate vetting of novel technologies or fuel pathways requires greater diligence to properly screen such projects. However, applicants must provide sufficient information to obtain at least the minimum passing score or they will not be eligible to submit a full project proposal.

Clear and concise Pre-Proposal Abstract requirements will be included when the solicitation is released.

33. Can the 10 page limit of the Pre-Proposal Abstract round remain the same? Applicants with multi-stage systems and more pioneering, low to negative biofuel production technologies will need the 10 page length to convey the significance, sustainability and overall potential of their systems to help meet the Governor Brown's Five Pillar climate change goals.

Yes. See Question #32.

SCORING CRITERIA

34. *There is a demonstrated historic likelihood of success for expansion of existing projects versus new projects by inexperienced promoters using un-vetted technologies. Can this be reflected in the scoring of proposals?*

Yes. Qualifications of the project team and the demonstration of a sound business plan are scoring criteria under this solicitation. Proposing a novel technology might argue for a smaller-scale appropriate for demonstrating the new approach. Periodically, ARFVTP solicits for early and pre-commercial biofuel technology projects. Depending upon the specific project characteristics, new and novel technologies may compete better under this type of solicitation. No timeframe has been developed for the next early and pre-commercial solicitation.

35. *Can the six month requirement for California Environmental Quality Act (CEQA) compliance be eliminated?*

No. Projects recommended for funding **MUST** complete the CEQA process prior to the Energy Commission approving the award at a business meeting. In order to meet the statutorily required fiscal encumbrance deadlines, CEQA must be completed within six months of the release of the Notice of Proposed Awards (NOPA). Failure to meet the funding encumbrance deadline results in the funds becoming unavailable for biofuel projects.

36. *Can GHG reductions be defined Lbs. CO₂/Diesel Gallon Equivalent (DGE), rather than gCO₂e/MJ?*

No. An SI unit (International System of Units) of carbon intensity (gCO₂e/MJ) is used in the solicitation to be consistent with the units used with the Air Resources Board's (ARB) Low Carbon Fuel Standard (LCFS).

37. *Can project benefits scoring criteria be weighed more heavily in the Pre-Proposal Abstract round?*

The Pre-Proposal abstract round is being used to evaluate project viability and program suitability. Project benefits are more heavily weighted in the scoring criteria for the full proposal round.

MISCELLANEOUS

38. *Can you provide an accounting of biofuel budgets and allocations for the past 5 years?*

An accounting of biofuel allocations and encumbrances for the past 5 years is provided below.

Funding	FY 2011/12	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16
---------	------------	------------	------------	------------	------------

Allocations	\$29.0	\$19.4	\$23.0	\$20.0	\$20.0
Encumbrances	\$24.1	\$19.4	\$23.0	\$20.0	\$2.9

Differences in FY 2011/12 are due to project shortfalls in E85 infrastructure. The remaining allocation of FY 2015/16 is being used to fund the new production facility solicitation.

39. Regarding EPIC, is there going to be a specific allocation or prioritization of the renewable natural gas (RNG) for each type of feedstock/technology, such as landfill gas, dairy waste gas, anaerobic digester gas, and biomass gasification gas?

Please refer this question to Aleecia Gutierrez (Aleecia.Gutierrez@energy.ca.gov) of the EPIC Program.

40. How are refinery and infrastructure barriers being addressed in these programs?

Any project that proposes a new approach to overcoming existing barriers is eligible for consideration as long as the approach meets the eligibility requirements of the solicitation. This solicitation does not target infrastructure barriers without the required fuel production component.

On September 17, 2015, Energy Commission staff, in conjunction with UC Davis, National Center for Sustainable Transportation, conducted a workshop titled, "Assessment of Critical Barriers and Opportunities to Accelerate Biofuels and Biomethane as Transportation Fuels in California." During this workshop, stakeholders provided insights on the growth of biofuels and biomethane in California, progress achieved to date, critical barriers, and requirements needed to boost commercialization. Information from this merit review and workshop can be found here:

<http://steps.ucdavis.edu/research/projects/initiating-transitions-2015-2030/steps-workshop-critical-barriers-and-opportunities-to-accelerate-biofuels-and-biomethane-as-transportation-fuels-in-california/>.

Additionally, stakeholders are engaged through public workshops, Advisory Committee meetings during the Investment Plan process, and through meetings with Energy Commission staff.

41. Cost effectiveness goals do not appear to align with current state of technology for drop-in hydrocarbons. Capital costs have proven to be significantly underestimated, so I would urge caution around expectations for volume goals relative to investments. Can you focus on integrated pilot scales early on, not promises to make large volumes/be economic or commercially viable? Technology issues and barriers should be a near term focus.

The most recent commercial-scale solicitation, PON-13-609, awarded projects with a range of cost-effectiveness from \$0.50 / gallon of capacity to \$1.74 / gallon, including two projects producing drop-in biofuels. The new incentive schedule would cap these previously-awarded projects at lower amounts than received in the past, in the hope that the incentives will stretch developers to achieve greater cost-effectiveness, either by

receiving lower awards for the same capacity expansion, or to increase expansion if they want to apply for the same amount of funding as the previous grant.

Biofuels solicitations of the ARFVTP aim to encourage projects in an innovative and integrated fashion, balancing multiple business scales (e.g., early/pre-commercial, pilot/demonstration, and commercial scale). Large volumes that are economic or commercially viable is only one metric of many needed to identify good projects among fuel categories with different needs. Everything else being equal, projects that show they have an innovative approach to tackle a technology issue or market barrier may achieve a higher score more competitively than a project that doesn't.

Additionally, the ARFVTP conducts a separate Biofuels Early & Pre-Commercial Technology Development solicitation. This solicitation emphasizes transformative technology solutions to significant biofuels industry problems that increase yields, productivity, or cost effectiveness of biofuel production; and/or that target a significant unmet need in California's biofuels industry. No timeframe has been developed for the next early and pre-commercial solicitation.

42. How does the solicitation support the Governor Brown's Five Pillar climate change goals?

This solicitation directly supports Governor Brown's climate change goal of 50% reduction in petroleum use in vehicles by 2030, by supporting in-state biofuels production.