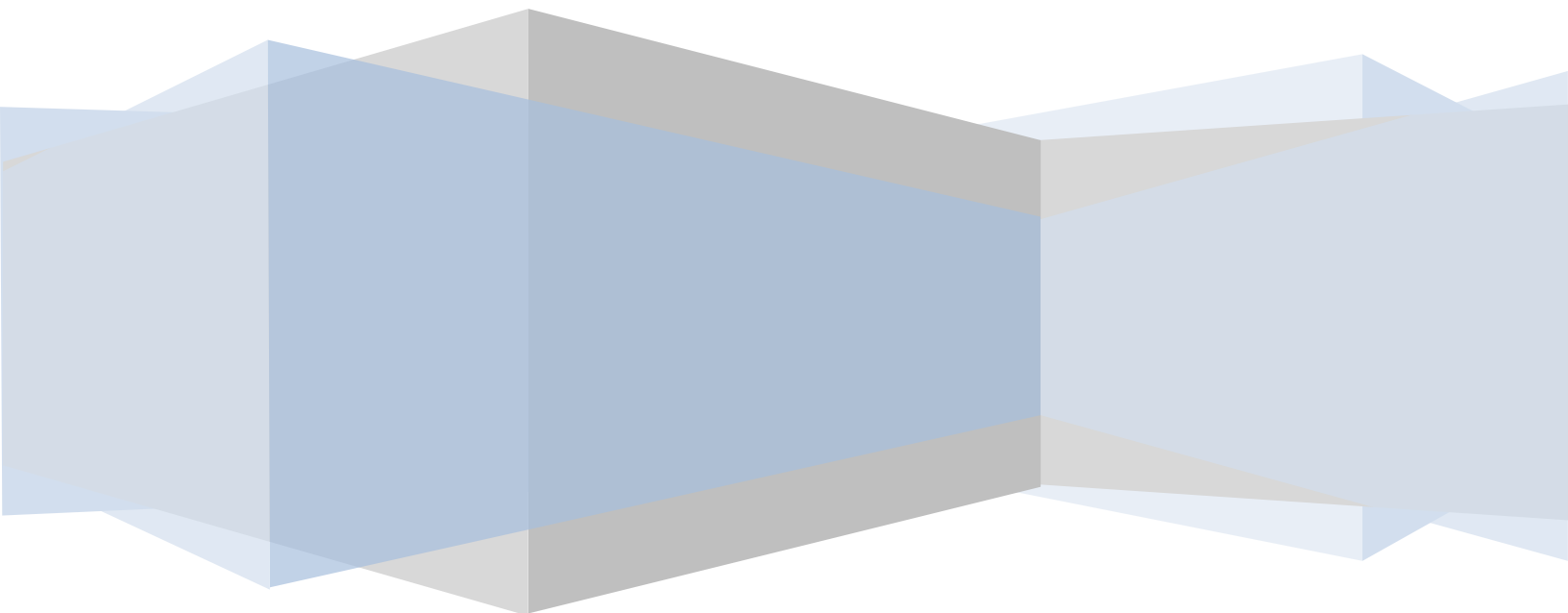


California Energy Commission

PON-14-307

Pre Application Questions, Answers, and Clarifications

Demonstrating Clean Energy Solutions That
Support California's Industries, the Environment,
and the Electrical Grid



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Administrative

1. In “Attachment 2”, what type of information are you looking for under “Agreement Management Description”?
 - a. In Attachment 2 under “Agreement Management Description” applicants should provide a general description of how the project will be coordinated through the different subcontractors and the community, and what management style will be used to ensure that the project schedule and budget are kept on track.
2. CEQA Attachment 8. The Energy Commission requires Attachment 8 form be filled in to assist the Commission determine what type of CEQA review, if any, is necessary before it can approve the award, and which agency will perform that review as Lead Agency. If the applicant can provide a letter from the lead agency stating that they expect to be the lead agency for the project and they also expect the project to be categorically exempt from CEQA is it still necessary to complete Attachment 8. If it is still necessary to complete Attachment 8 does such a letter stating the project is categorically exempt from CEQA add any value to the applicant’s proposal in terms of points or score? How much, if any, scoring benefit is available for CEQA exempt or CEQA ready projects?
 - a. Attachment 8 must be completed for all applications, regardless of any determinations made on the project. No scoring benefit is identified in the PON for a project’s standing in CEQA.
3. Would you confirm that a wet signature is needed on the CEQA form? Negative declarations are stamped signatures from the agencies rather than wet.
 - a. Yes, a wet signature is required on the CEQA form. Negative declarations, which are not part of this form and can be completed after the submission of the application, may receive a stamped signature.
4. In regards to the contact list (Attachment 10), please confirm that you need this information for the applicant, not each team member.
 - a. The information included in the contacts list should be for the applicant only. The contacts list should not include any subcontractor’s contact information.
5. Do you really need wet signatures on the original doc? Digital signatures are used routinely and are generally legally binding. What about letters of support?
 - a. Yes, the original application must contain wet signatures. Letters of support may be copies or PDFs even in the original application. Electronic or digital signatures cannot be accepted.
6. If 91% of the funds are spent in CA does it qualify for 100% of the available points?
 - a. No, only proposals with 100% of the funds spent in California will receive all 15 points, or 100% of the available points.

7. Please exempt resumes from the 11 point Arial font requirement, as it is an unnecessary burden to senior project partners to reformat resumes.
 - a. Resumes have been excluded from the 11-point Arial font requirement for this solicitation.
8. You have a requirement that all resumes submitted have to be in 11 pt. font, you should know that most of the people submitting have essentially formally developed their resumes over a period of years, requiring to change their resumes by person is really onerous. We have gone through this process a couple of times on EPIC submissions and if you could release that 11 pt. font requirement, maybe minimum 11 pt. font, but since it's a ground for rejection if it doesn't meet that submission requirement I would ask if you could alleviate that burden.
 - a. See the response to question 7.
9. Please delete the requirement that Tabs must be labeled with number and section Title, requiring applicants to custom-make tabs in order to submit a qualifying submission.
 - a. The tabs containing only section numbers are acceptable.
10. On page 17, you have tabbing conventions, which are also grounds for rejection, the tabbing conventions essentially disqualify you from using those preformatted tabs, but it has been an issue because it is a rule. You have a convention that has the number of the tab, and the title of the section under that tab, so you can't essentially use pre purchased tabs from Kinko's, Staples, or Best Buy, you actually have to make your own tabs in order to meet your guideline on this one. I don't think that is really what you want us doing, but we did that in our submissions.
 - a. See the response to question 9.
11. Instructions for past projects are to describe up to three past projects. Is this up to three total from all members (max of 3 in the full submission) or up to three for the applicant and each member/partner/subcontractor?
 - a. Attachment 9 requires each submitted application to describe up to three past projects. The relevant projects can be from the applicant or any member of the project team. "Describe **up to three** past projects (**two pages** maximum per project, see the formatting requirements in Part III, Section A), detailing any technical or business experience of the applicant (or any member of the project team) that is related to the work proposed in the application."
12. Can you please send me a copy of the presentation?
 - a. The presentation slides, along with a webex recording of the workshop, are available online at: <http://www.energy.ca.gov/contracts/epic.html#PON-14-307>
13. Your deadline is January 6th. That is the Tuesday after a series of federal holidays, state holidays, and religious holidays. That makes it very, very complicated and I really want to urge you to extend that.

- a. An addendum has been released with a January 16, 2015 due date.
14. PON-14-307 states that proposals are due January 6, 2015. Given many businesses are closed over the holidays and that there is a fair amount of coordination required to get commitment from sites, can the due date be extended out three weeks?
- a. See the response to question 13.
15. What we are finding with the EPIC solicitations is that in many cases the agency is having a hard time keeping to its own deadlines on release of questions and answers, here is the problem for an applicant on that, many applicants wait for the Q&A's to come out to further define whether or not they have a real project in hand or not. They have asked some pretty significant questions about the intent that the agency has, so when you allow your deadline to leak by a day or a week or two weeks, but don't extend the deadline for the ultimate submission, you have applicants out there that are getting extremely anxious waiting for an answer from the agency but not knowing if you are going to correspondingly extend your own deadline for submission.
- a. See the response to question 13.
16. Is it possible to make some of the Service information items optional? Specifically, some of the items listed (account number, meter address) create potential security and personal information issues when combined with near real time energy usage data and are not needed to document changes in performance. While combining the info together for documenting improvements for a research/demonstration project might be acceptable, the CEC should consider if this requirement exhibits best practices.
- a. No confidential information may be submitted in the proposal. The proposal will be rejected as non-responsive if it contains any claim of confidentiality. The Data Collection Form is not a required part of the application. However, the service information requested in the Data Collection Form is a required part of the scope of work. Award winners may work with the Energy Commission to provide appropriate protection for potential security and personal information issues in the contract terms.
17. Page 16: In packaging, each attachment template has page numbers in the footers. Can we leave the individual page numbers within each tab or should the entire proposal be numbered 1 – 100?
- a. Either approach is acceptable.
18. Page 18: Scope of Work template - Is the time period 36 months or 48 months? Dates on page 8 indicate 36 months, but PON page 18 says "all work must be scheduled for completion within 36-48 months"
- a. Projects may be scheduled for completion within 36-48 months. Applicants may propose an agreement end date after the anticipated agreement end date, but no later than 48 months after the agreement start date.

19. Attachment 4: Part 4c says to summarize the qualifications, experience, etc. of team members, but then says to include the information in Attachment 5. Do you want a write up in both places or is a reference to Attachment 5 sufficient?
 - a. This information should be summarized for the team in attachment 4, and provided in more detail for individual team members in attachment 5.
20. Attachment 5: When packaging, we plan to have the cover sheet, then print the resume two sided. Is that okay? Or do you prefer everything double sided, such that cover sheets show up on both front of pages and back?
 - a. Either approach is acceptable.
21. Attachment 11: When packaging, we plan to have the cover sheet, then print the letter two sided. Is that okay? Or do you prefer everything double sided, such that cover sheets show up on both front of pages and back?
 - a. Either approach is acceptable.
22. Attachment 5: If a team member does not have an updated resume, is a biography covering the pertinent information acceptable?
 - a. Applicants should submit an updated resume for all key personnel.
23. Attachment 6 – for the TBD tasks, should we revise language or leave it intact?
 - a. Applicants should revise Attachment 6 as instructed in the form, only revising blue text. This does include updating the task numbers for the mandatory task “TBD -1” through “TBD – 4.”
24. Attachment 6a, Row 69. For Evaluation of Project Benefits, it asks us to insert a date that is no more than 10 days from kick off meeting, but kick off meeting date will be completed by CAM. Is the following verbage acceptable:

Date to be added once kick off meeting date is scheduled by CAM (no more than 10 days after the kick-off meeting).

 - a. The proposed response is acceptable.
25. Attachment 9 – can you provide additional guidance on what kind of information should be included here for past projects?
 - a. A general description of the work performed, how it relates to the proposed project, and the experience gained in the completion of the project that is applicable to the current project.
26. Attachment 11 – In order to facilitate packaging, we plan to paste a picture of the letter following the cover page. It will be full size and legible. This will allow us to have a single attachment for att 11 for the electronic file. Is that acceptable or would you prefer 15 separate PDF files for letters?

- a. This approach is acceptable.
27. Do you prefer the bound copies to be in full color or are they okay to be in black and white?
- a. Black and white copies are acceptable.
28. Attachment 7: Tab B-4 – the check boxes don't appear to be in the right place?
- a. Correct, the check boxes have shifted. They do still function as designed. The information concealed by the check boxes is duplicated below.

"Check the budget expense items to which the indirect costs or fees are applied. Use the following abbreviations:
DL = Direct Labor, FB = Fringe Benefits, M = Materials/ Miscellaneous,
EQ = Equipment, T = Travel, S = Subcontracts,
IOH = Indirect Overhead, GA = General & Administrative"

A corrected version of the attachment has also been posted with the Addendum.
29. Attachment 7: Tab B-5 – equipment is defined as "purchased with Energy Commission funds". In the case where equipment is provided as part of match funding (or a combination), should we still list it on B-5? If not, will the spreadsheet still work?
- a. Yes, the value of the equipment provided as match funding should be identified as match in column H.

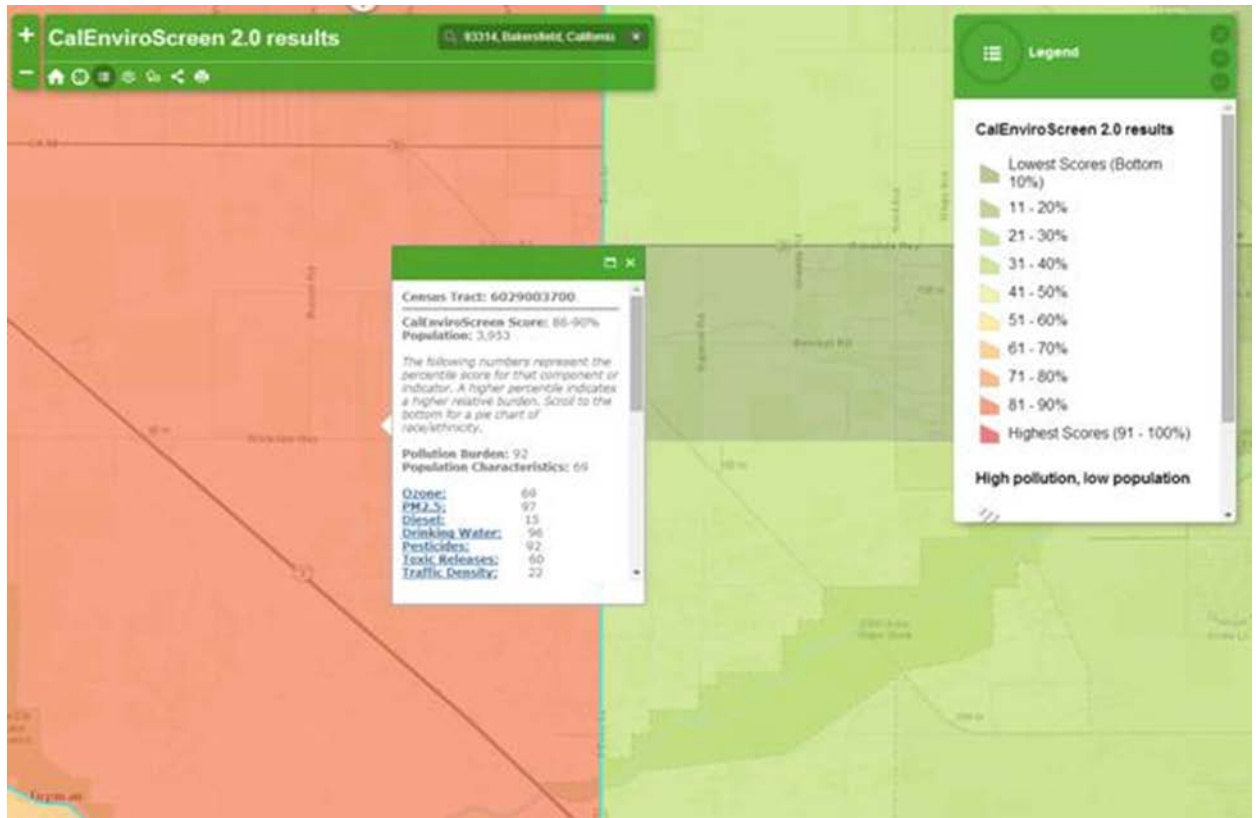
Comparison with PON-14-301

30. Can you articulate in words other than the PPT (Power Point slides) how this grant differs from PON-14-301?
 - a. The major difference between PON-14-301 (*Demonstrating Secure, Reliable Microgrids and Grid-Linked Electric Vehicles to Build Resilient, Low-Carbon Facilities and Communities*) and this solicitation is that PON-14-301 requires the use of a microgrid controller and that the community is electrically contiguous. This solicitation does not require the use of a microgrid controller nor that the community be electricity contiguous.
31. Many of the communities that were eligible for the microgrid project will also qualify as eligible communities for this project (with or without the microgrid capability). Given that the NOPA for CEC 14-301 is after the current due date for CEC 14-307, please clarify how the CEC will address overlapping proposals.
 - a. Applicants may submit applications under both solicitations; however, the Energy Commission will not provide funding from two solicitations for the same project. If the applicant is awarded a grant under PON-14-301 for a project, that project would not be eligible for funding under this solicitation, and vice versa. A cover letter identifying this overlap is encouraged.

Projects may include activities that support improve aspects of a project funded under PON-14-301, but both projects must be distinct with no overlap in the statement of work. Applicants must show how the projects are discreet and independent, and either project can proceed as described without the existence of the other project.
32. If a project (or a portion of a project) has been submitted under a previous CEC PON (e.g. Microgrids) and if the previous project could be reconfigured to also be eligible under this PON 14-307 (i.e. some overlap with respect to the tasks described in the Scope of Work, perhaps same site control, same interconnect, same demand centers etc.) can applicant submit the project for this PON knowing that if it were awarded the other PON it could not implement the project for both PONs. Applicant, if successful with the first PON would have to withdraw from the later PON. What disclosure, if any, would be needed as part of this PON application if this approach were to be allowed and followed?
 - a. See the response to question 31.
33. There are a lot of similarities between PON-14-307 and the types of projects that were being funded PON-14-301 and I am wondering if you can comment on whether some of the communities that were included in the 301 grants can also be included in the 307 and how that is going to be considered in the analysis given that you will not have made any decisions on the 301 process prior to when the 307 bids have been in.
 - a. See the response to question 31.

Groups

34. Please clarify whether a “community” that transcends or includes multiple zip codes for the purposes of CalEnviroScreen still meet the requirement of Group 1. We request that a project that substantially or in the majority benefits a CalEnviroScreen zip code with an 80% or better score should be considered in Group 1.
 - a. Communities that span multiple zip codes, or census tracts, may be eligible for group 1 funding so long as all electricity loads within the community are included in 2010 census tracts with a CalEnviroScreen 2.0 score in the 81 or greater percentile range as identified in the Excel document posted with the solicitation materials.
35. If a community transcends a zip code boundary for purposes the Cal Enviro Screening, say a community of businesses, can they still qualify in group 1 if they meet that, or is there some type of criteria for that?
 - a. See the response to question 34.
36. The oehha.mpas.arcgis.com CalEnviroScreen seems to sometimes provide different CalEnviroScreen 2.0 results from the ZIPCODE Excel spreadsheet provided on the CEC’s PON 14-307 Web site. For determining a project’s CalEnviroScreen 2.0 Results can we use the CalEnviroScreen 2.0 website and mapping tool as the definitive source for the project’s score based on its exact location? For example: A project located in the 93314 zipcode at the location shown below on the CalEnviroScreen mapping website has a CalEnviroScreen 2.0 score of 86%-90% - see below:



The same zipcode data entered into the CEC provided spreadsheet gives less accurate score perhaps averaged over a much larger area, see below:

Census Tract	Pop	County	ZIP	Cit - Longitude/Latitude	CES 2.0 Score	CES 2.0 Percentile Range
6029003803	4769	Kern	93314	Bakersfield - 119.1994667/35.4121942	17.19	31-35%
6029000503	6347	Kern	93314	Bakersfield - 119.0955184/35.4306701	13.29	21-25%
6029003809	10984	Kern	93314	Bakersfield - 119.2028983/35.3695847	9.01	6-10%
6029003203	2383	Kern	93314	Bakersfield - 119.1515136/35.3510229	8.31	6-10%

- a. "Only the scores and percentile identified in this file, downloaded on October 2014, will be used when evaluating eligibility for Group 1 funding." (Solicitation Manual, page 6, footnote 6). Note that the census tract identified in the above image (602900370) is not listed in the table below it. The CalEnviroScreen 2.0 score for this census tract is listed as

“86-90%” in the provided Excel file, which is the same score identified in the CalEnviroScreen 2.0 mapping tool.

37. Is it possible for a Group 1 proposal to score higher than a Group 2 proposal and not be funded. If so, this seems to run counter to the intent of SB535. Could a Group 1 proposal also be submitted in Group 2 to avoid this problem?
 - a. Yes, Group 1 and Group 2 are two separate project groups. As a result it is possible that a project in Group 1 may fail to receive funding despite scoring higher than a project in Group 2. “ Applicants may submit multiple applications, though each application must be for a distinct project (i.e, no overlap with respect to the tasks described in the Scope of Work, Attachment 6).
 - b. Senate Bill 535, statutes of 2012, addresses the reduction of pollution by the implementation of cap-and-trade. The EPIC program providing funding for this solicitation was not authorized under this bill. However, the funding for this project has set aside over 40% of the funding for disadvantaged communities, exceeding the 25% requirements of SB 535.

Community

38. What is the minimum demand to be eligible for this program?
 - a. To be eligible for this solicitation the demonstration community must be “A group of customer loads, or a single large customer load, with a historic yearly demand of no less than 65,000 kWh.” (Solicitation Manual, page 2 and 12).
39. Can a single user be a "community" if it consumes at least 65,000kWh annually?
 - a. Yes, a single user can be a community.
40. If a single, large customer load is used that consists of a number of buildings, such as a campus, that is sub-metered or would be sub-metered during the demonstration period, can a subset of the buildings be included in the demonstration rather than the entire campus?
 - a. A large customer of an IOU may segment a portion of the total load to create a community if:
 - i. The segmented load has a minimum average annual load of 65,000 kWh;
 - ii. The electricity demand from these facilities is internally distinguishable and metered independent of the any other portion of the overall customer load, meter accuracy should be that of a revenue quality meter;
 - iii. All loads that are housed in a single structure must either be part of the community or not part of the community. For example, a university could not identify some laboratories as part of the community and other laboratories in the same building as not part of the community;
 - iv. All generation resources and innovative strategies identified in the application as part of the community are not build on, constructed in, or shared with any loads not identified as being in the community. For example, a solar PV array that is installed to fulfill the requirements of this solicitation cannot be built on the roof containing a load that is not part of the community. Similarly, an installed CHP system would only be able to provide thermal energy to buildings or thermal loads that are part of the community; and
 - v. The identified loads are all connected to the distribution system on the same distribution feeder and at the same voltage.
41. Concerning the distribution feeder requirement: Provided the campus/facility is in and connected to the IOU system/service territory, does the distribution feeder and transformers need to be owned and operated by the IOU, or is it acceptable for the distribution feeder and equipment to be owned and operated by the facility/campus?
 - a. Yes, see the response to question 40.
42. Are “communities” deep inside a larger distribution system eligible for funding provided they meet the 65,000 kwh per year minimum? This avoids any new interconnect fee

- a. Yes, see the response to question 40.
43. If the technology or strategy solution is deployed in a campus scenario, can the solution be focused on a subset of buildings such that the subset is considered the “community” for the purpose of the 10% peak power demand reduction? Would this be allowed if this subset of buildings was sub-metered? Would it be allowed if non-meter data logging were utilized?
- a. Yes, see the response to question 40.
44. If solution strategy is deployed on a campus with a single meter, but strategy is only applied to a subset of building on the campus, would that subset qualify as a community for the 10% requirement?
- a. Yes, see the response to question 40.
45. If you have a single connection point to the feeder, but the "community" consists of multiple load centers, can the "community" be one of the load centers?
- a. Yes, see the response to question 40.
46. Can the 307 project be all behind the meter? Additionally, is it required to obtain a wholesale PPA to deliver energy to the feeder?
- a. Yes, the community can be entirely behind a utility meter, see the response to question 40. There is no requirement in the Solicitation Manual for the applicant to have, or receive, a PPA to deliver energy to the feeder; however, receipt of a grant under this solicitation will not exempt the community or applicant from following all applicable laws, regulations, or utility practices.
47. On page 2, is there a preference with respect to communities? I know that technically a community is a load of 65,000kWh/year or more, but does the CEC have a preference of a group of houses versus a single large user (like a ranch)? Is there a preference for communities with larger loads?
- a. No, There is no preference for community types.
48. I am writing in hopes of getting clarification for the term "community". My efforts in clean energy solutions focus on two types of communities -
- 1) large scale agriculture, and
 - 2) campus sized facilities (e.g. bio-medical research campus, manufacturing, education campuses, etc).
- Both of these communities meet the definition listed in Section 1.B Definitions of the PON-14-307 Solicitation Manual, but I would like to know if there is a more specific or narrow field the California Energy Commission has in its vision for this solicitation.
- a. There are no restrictions on the type of community wishing to participate in this solicitation beyond those specified in the solicitation manual.

49. To further explore the term “community”: Is there a preference or a higher likelihood of funding if the number of customer loads is smaller or one, especially if there is a larger wider benefiting community of businesses or residences?
- No, see the response to question 48.
50. Can the community be an industrial facility?
- Yes, single customer loads may be a community for the purpose of this solicitation, if all specified criteria have been met.
51. To further explore the term “community”: If it can be one entity, so that we understand the appropriate framing for an application, why is the term “community” used?
- The term community is used to allow for different community types, which includes individual utility accounts through which electricity is procured for multiple dwellings or businesses. Additionally, in many cases, large single users can demonstrate and deploy advanced, pre-commercial generation and innovative strategies that can be applied to communities with multiple users.
52. Does the community need to be out of the proposal because there is a community that is consuming 8 megawatts, but none of the members on that feeder are going to be participating in the proposal; however as the applicants we would propose to build a generator that feeds the community. There can be a difference in the applicant and the community, the community doesn’t have to be an assistant in the project, is that correct?
- The applicant does not need to be a member of the community. The solicitation does not require that the community be an assistant in the project; however, the applicant will be required to provide all information included in the Data Collection Form found in Attachment 13 to the Solicitation Manual and clearly demonstrate how all project requirements have been met.
53. If the applicant were to interconnect and generate onto a utility owned feeder line, would the Commission require the utility that owns the distribution line to support a PON 14-307 project e.g. require the IOU act as a subcontractor to a successful applicant to make available substation feeder data and/or to provide SCADA connections and signals to allow smart control and dispatch of the project’s generation. The local utility’s substation may be the only location able to document monthly peak demand on an entire community feeder line over the course of a project and the IOU may be the only resource with sufficient knowledge of network needs to efficiently dispatch energy from the project. We have often found IOUs reluctant to participate in CEC grants.
- The Solicitation Manual does not require that any utility be a project partner. However, it is the responsibility of the applicant to demonstrate that all the solicitation goals and criteria will be met by the proposed project and that the proposed project can be developed as described.

54. Is there a map showing the eligible areas that fall within the service areas of PG&E, SDG&E and SCE?
- a. The Energy Commission has a map of the IOU service territory on its website at: http://www.energy.ca.gov/maps/serviceareas/CA_Electric_IOU.pdf.

Pre-Commercial

55. For the purpose of this solicitation is “innovation” synonymous with “precommercial”?
 - a. No, for the purpose of this solicitation pre-commercial technologies are new technologies or enhancements of existing technologies that are not commercially available in California. Innovations could include pre-commercial technologies, but can also apply to energy strategies that are innovative uses of commercial products or do not require the use of additional technology.
56. Past solicitations have also included a requirement that demonstrated technologies will become commercially available in California by the end of the contract period. This language is not in PON 14-307. Is this a requirement for this PON?
 - a. This solicitation does not require that the demonstrated technologies will become commercially available in California by the end of the contract period. However, the application must demonstrate why the technology used in the project is a “good candidate for technology demonstration and deployment” (Solicitation Manual, page 27).
57. Previous PONs have had requirement that pre-commercial tech must be commercialized by the end of project. Is that a requirement for this PON? Microgrid PON does require it.
 - a. See the response to question 56.
58. Does pre-commercial RPS technologies include solar tracking, smart inverter or PV/Thermal Hybrid technology? Please define what pre-commercial RPS eligible technology.
 - a. Pre-commercial technologies are new technologies or enhancements of existing technologies that are not commercially available in California. If a technology has been deployed outside of California, it may be considered pre-commercial if project funds will be used to enhance the technology. However, enhancements require more than minimal change. Information on RPS eligible energy resources can be found in the *Renewables Portfolio Standard Eligibility Guidebook, Seventh Edition*, which is available online at: <http://www.energy.ca.gov/renewables/documents/index.html#rps>.
59. Does RPS technology qualify if it is commercial and accepted in other countries or states, but doesn't have market penetration in California? Please define what is pre-commercial technology.
 - a. If a technology has been deployed outside of California, it may be considered pre-commercial if project funds will be used to enhance the technology. However, enhancements require more than a minimal change. For this solicitation innovation refers to the energy management strategies. Innovative strategies do not need to be pre-commercial or be a tangible product.
60. I noticed that this PON is written with pre-commercial technologies in mind. Does that include stationary fuel cells?

- a. Stationary fuel cells are not inherently pre-commercial or commercial technologies. Pre-commercial stationary fuel cells using an RPS eligible energy resource or in a CHP configuration may be used to meet the electricity generator aspects of the solicitation requirements. Applicants will need to justify how it is advanced.
61. Is this PON only for non-commercial technologies? I am curious to know whether a stationary fuel cell would qualify as the technology.
- a. This solicitation requires the installation of a pre-commercial generation technology. See the response to question 60 for additional information.
62. We understand that the intent of PON-14-307 is to promote pre-commercial renewable technologies. Since the CEC has been supporting the development of new renewable technologies, could you please provide a list of known pre-commercial renewable power generation technologies that would qualify, including their contact information?
- a. The Energy Commission makes project reports and other information on previous funded research and development projects available to the public on its website. This includes projects that involved the development of pre-commercial renewable power generation technologies. It is up to the project applicants to propose projects, including advanced, pre-commercial generation technologies, which meet the requirements of this solicitation and provide the optimal resources for the identified community.
63. On page 11 it states that projects must have completed “field, lab, bench-scale and/or pilot-scale work with verified performance data.” Must the integrated strategy be one where all proposed components have been field/lab tested *together* (i.e., as a single unit), or can the performance data be proven for each individual component (“modules”) with adequate engineering assessments proving all components function in tandem? For example, proposing an existing storage-integrated demand response module with existing storage-solar intelligence hardware and software.
- a. The individual components (the advanced, pre-commercial generator(s), and innovative strategies) in the proposed project must have completed field, lab, bench-scale and/or pilot-scale work with verified performance data. However, the combined components in the proposed project do not need to have verified performance data from field/lab tests as a single system.

Benefits

64. Applicants must use tables in Attachment 12 when estimating the proposed project's energy and peak demand savings and greenhouse gas (GHG) impacts. Some projects that destroy digester methane have greenhouse gas benefits that are substantially larger than just the avoided fossil fuel combustion CO₂. Will the Commission consider these additional greenhouse gas benefits as a beneficial impact of the project? Specifically how will and by how much will the Commission factor such additional benefits into the project score? Are any other co-benefits such as reduced water pollution, reduced transportation equipment emissions, reduced odors or pollutant emissions be considered, if so how?
- GHG reduction and other environmental improvements are considered benefits. These benefits will be considered along with all other identified benefits as part of the third scoring criteria "Impacts and Benefits for California IOU Ratepayers." Proposals will be scored based on the benefits provided to California IOU ratepayers and the justification and reasonableness of the identified benefits.
65. Is there any consideration of greenhouse gas mitigation in this solicitation? Is that an attribute that is scored at all?
- See the response to question 64.
66. If a proposed project includes capacity that is able to be dispatched by the CA ISO or by the community in times of need how does applicant calculate the "quantitative" benefit of this peak shaving or dispatch-ability feature. Do you have suggested sources or recommended statistics to calculate the benefits of stored energy or dispatch-able generation for delivery during peak times?
- Benefits of these features should be based on the benefits provided to participants in an applicable demand reduction program. Information on existing demand response programs can be found at: <http://www.cpuc.ca.gov/PUC/energy/Demand+Response/>. If the community is not eligible for an existing demand response program, the applicant should state this and select the most relevant demand response program to quantify the benefits.
- For communities with the ability to provide electricity to the grid when needed, applicants should use quantitative data from tariffs available to the community. Please note that benefits of selling peak power and participation in net metering tariffs cannot be claimed for the same quantity of electricity generation.
67. When you measure cost effectiveness of a project like this, are you trying to get to a generator, trying to get to a leveled cost of energy, or are you trying to get to how many dollars are being invested to reduce the peak demand by x megawatts? What criteria go into the cost effectiveness?
- Applicants should clearly describe how the project is cost effective based on the appropriate metric(s) for the individual community. The Energy Commission

acknowledges that each community is different, and has different needs. In some cases the most cost effective approach will result in the lowest cost per power generated, lowest installed cost, or most dependable power sources to minimize costs associated with loss of power or low power quality.

Project Funding

68. Would the following costs for the microgrid community be allowed for reimbursement?
- a. Equipment and installation costs for solar PV
 - b. Equipment and installation of battery energy storage system
 - c. Equipment and installation cost of bi-directional inverter to enable Vehicle-to-Grid communication.
 - a. Project funding is available for the purchase and installation of eligible generation technologies and equipment necessary for innovative energy management strategies that will contribute to the solicitation goals and criteria. This could include the equipment and installation costs for solar PV, battery energy storage systems, or bi-directional inverters to enable Vehicle-to-Grid communication. It is the responsibility of the applicant to justify these costs in the solicitation package, and how the proposed equipment will contribute to the goals of the solicitation.
69. Would a project to install a Vehicle-to-Grid communication to enable cost reduction in demand response be eligible for funding?
- a. See the response to question 68.
70. Are behavioral and plug-load elements fundable?
- a. Behavioral changes, or products meant to encourage changes in behavior, are not eligible under this solicitation. Similarly, plug-load elements are not fundable; however, products used to control plug-load elements for the purpose of controlling demand during peak hours may be eligible with appropriate justification.
71. Will PON 307 fund technical R&D for renewable generation as well as demonstration?
- a. No, this is a demonstration and deployment solicitation. EPIC funds will not be provided to perform dedicated technical research and development activities.

Match Funding and Commitment Letters

72. Please confirm that Letters of Commitment are required by Project Applicants.
 - a. Applicants must submit a match funding commitment letter signed by each representative of the entity or individual that is committing to provide match funding. Please see section III (C) (11) on page 20 of the Solicitation Manual for further details.
73. Does an applicant need to submit a match commitment letter, or does the application itself signed suffice?
 - a. See the response to question 72.
74. Could you also please provide legal clarification on letters of commitment requirements? For those companies willing to provide intellectual property, it is essential that the receiver agree to software license agreements to prevent reverse engineering, etc. You really need to state IP as an exception to the unconditional requirement.
 - a. Project partners making a contribution of intellectual property can indicate that their unconditional contribution to the project is offered under their normal and customary commercial terms for distribution of the intellectual property. In the event the project is not awarded funding, it seems unlikely that the applicant will sign the offered terms.
75. If financing is used to deploy solar PV as part of a project and the financing rate is discounted below market, can that discount (reduced principal &/or interest) be identified as match?
 - a. No, decreased financing costs do not fall into one of the match funding categories listed in the solicitation manual on pages 6-7.
76. Similarly, can a discount on PPA payments be utilized as match?
 - a. No, decreased PPA costs do not fall into one of the match funding categories listed in the solicitation manual on pages 6-7.
77. Can reductions in rates be counted as match funding?
 - a. No, reductions in rates do not fall into one of the match funding categories listed in the solicitation manual on pages 6-7.
78. Can discounts on equipment, materials or services be counted as match funding?
 - a. Yes, discounts provided on the cost of equipment may be considered match funding if it is a discount made only for the purpose of the project, the seller of the equipment or material or provider of the service provides a commitment letter, and the discount was not the result of prudent business negotiations.
79. On any project you will typically have some commercialized and some pre-commercial, for purposes of EPIC. Many commercial solutions will have financing. Can financing if it is below market rates be considered as match?

- a. No, decreased financing costs do not fall into one of the match funding categories listed in the solicitation manual on pages 6-7.
80. To what degree can a building or set of buildings be identified as match? If complete? Or if under construction?
- a. Buildings do not fall into any of the match funding categories listed in the solicitation manual on pages 6-7, thus they cannot be used for match.
81. If one has a research laboratory in CA that is proposed to be used as match funding, how can the past capital investments be accounted? I only see a provision for Project Participants to account for fully burdened LABOR. Is there a way to account for this asset?
- a. Research laboratories do not all into any of the match funding categories listed in the solicitation manual on pages 6-7, thus they cannot be used for match.
82. If applicant has already invested funds in an eligible community generation project to get it partially developed and permitted and has its CEQA approvals but the project needs additional investment and work to innovate and upgrade it into a PON 14-307 ready project can the costs incurred to date (prior to award) be contributed and counted as match?
- a. No. "All project expenditures (match share and reimbursable) must be made within the approved agreement term" (Solicitation Manual, page 19); thus funds already invested prior to the project term may not be contributed or counted as match.
83. Can the replacement or rental value of previously purchased equipment be counted as match funding?
- a. The replacement costs or rental value of previously purchased equipment may not be counted as match funding.
84. The solicitation states that EPIC funds may not be used for any of the following: Interconnection studies, applications, permitting, or equipment on the utility side of the meter, the point of common coupling. Can these costs (if necessary for a successful project) be counted as match funds if paid for by applicant?
- a. The costs of interconnection studies, applications, or permitting may not be used for match funding. Equipment on the utility side of the meter, the point of common coupling, may only be used as match funding if the purchase of this equipment is required for the proposed project, by the determination of the local utility, for the installation of the advanced, pre-commercial generator(s) installed pursuant to the requirements of this solicitation. Applicants must provide documentation that the local utility has required the additional equipment as part of the interconnection process.
85. Please affirm that the method of calculating matching or cost share resources is intentionally different or consistent with the method used in CEC's AB118 program.
- a. The method of calculating the cost share resources in this solicitation is consistent with *The Electric Program Investment Charge: Proposed 2012-2014 Triennial Investment*

*Plan.*¹ Any consistency or differences with the CEC's AB118 program are inconsequential.

86. While potential match funding partners are very interested in supporting projects we're proposing in response to EPIC PONs and are willing to provide commitment letters, we have found that the "guarantee and replacement strategy requirements" section of the match letter is difficult to obtain. Many commercial entities cannot specify a strategy until they know the project will be awarded. Is it possible to remove the requirement for a guarantee and replacement strategy in the match funding letters for the proposal stage?
- a. No, funds that are not guaranteed or do not have a replacement strategy cannot be relied upon to meet the match funding requirements as specified by the are not committed to the project and thus cannot be used to meet the match funding requirements specified in the PON and in *The Electric Program Investment Charge: Proposed 2012-2014 Triennial Investment Plan.*²
87. Attachment 11 – for commitment letters, when you say "unqualified commitment", what if a team member is a government facility that cannot issue an unqualified commitment, but says something along the lines of "we are writing to indicate our intention to participate; final commitment will be given when the grant is offered and will be contingent on receipt of required funding and environmental approvals necessary to perform the project". Should we use someone else (e.g. is that considered a qualified commitment)?
- a. The situation described above is not an unqualified commitment. Proposed match funding from such a source would not be considered towards the 20% requirements or in the scoring criteria for match funding above the required 20%.
88. The bar you set for "guaranteeing" the availability of funds seems quite high, with the result being that you scare away financially prudent companies--the exact types you want to apply--because their legal teams are unwilling to commit themselves in writing to the EPIC terms. Can you clarify the conditions that match providers must meet in their letters of commitment?
- a. The commitment letters must identify the source(s) of the funds, provide a justification of the dollar value claimed, provide an unqualified commitment that guarantees the availability of the funds for the project, and identifies a replacement strategy if the

¹ California Energy Commission, 2012. *The Electric Program Investment Charge: Proposed 2012 2014 Triennial Investment Plan*, Staff Report. Publication Number CEC-500-2012-082-CMF. http://www.energy.ca.gov/research/epic/documents/final_documents_submitted_to_CPUC_2014/2014-04-28_EPIC_Application_to_CPUC.pdf

² California Energy Commission, 2012. *The Electric Program Investment Charge: Proposed 2012 2014 Triennial Investment Plan*, Staff Report. Publication Number CEC-500-2012-082-CMF. http://www.energy.ca.gov/research/epic/documents/final_documents_submitted_to_CPUC_2014/2014-04-28_EPIC_Application_to_CPUC.pdf

funds are significantly reduced or lost. These requirements are further discussed in Attachment 11 of the solicitation package, "Commitment and Support Letters."

89. With "Attachment 11", with respect to a strategy for replacing funds if they are significantly reduced or lost, for portions of match funding that are in kind labor or equipment (e.g. vendor is donating a portion of the equipment cost), how do we discuss a strategy for replacing funds if it's not cash being replaced? And is that something we're having the organization committing address or is the applicant supposed to address how they would have the match replaced if that organization committing failed to perform?
- a. The discussion of a replacement strategy for in-kind labor or equipment should discuss how the loss of these contributions will be mitigated through either similar replacement contributions or financial contributions that will allow the procurement of replacement labor or equipment. All commitment letters should provide a replacement strategy. However, the applicant bears the final responsibility to replace lost match funding and should include in their commitment letter a replacement strategy for all match funding committed by other parties. For example, if the applicant has three subcontractors, each committing match funds, the subcontractors should provide a replacement strategy for funds they commit and the applicant should provide a strategy to replace any match funding committed by a subcontractor that may cease to exist or is otherwise incapable of providing the committed match funding.
90. Commitment and Support Letters
- Please clarify what information is required from parties that are providing in-kind contributions not funding.
 - a. Parties providing in-kind contributions as match must identify in their commitment letters the in-kind contributions that are being provided and identify the value of the contributions.
 - The requirements imply that the supplier of match funding (or in-kind contribution) is responsible for replacing lost funds. Shouldn't the primary applicant be responsible for securing alternative funds or contributions? Or, is this referring to potential loss of funding from the Energy Commission (pg8)
 - a. See the response to question 89
 - Is it acceptable to make the contribution/funding contingent on the applicant getting an award, limited to the stated period of the project, etc.? The phrase "unconditionally commits" is extremely broad.
 - a. No, the commitment of the funds must be "an unqualified (i.s., without reservation or limitation) commitment in the letter that guarantees the availability of the funds for the project..." (Attachment 11 of the solicitation package). The Energy Commission acknowledges that some projects may not proceed as proposed in the absence of a funding award.

- Please clarify if these letters can be signed using electronic signature software (such as Docusign) in lieu of a wet signature.
 - a. Letters must be signed by wet, hand signature. Letters submitted may be copies of the original letter, with the hand signature.
91. Can islanding equipment, such as transfer switches, be used as match funding for the project?
- a. The solicitation manual allows the costs of “equipment, control software, or similar items used solely to disconnect the community from the electricity grid” (solicitation manual, page 8) to be used as match funding under the category of “advanced practice costs.”
92. On page 6, it talks about matching funds, “item 8: advanced practice cost”. I am unclear on what that actually means.
- a. “ ‘Advanced Practice Costs’ means costs not charged to the Energy Commission that represent the incremental cost difference between standard and advanced practices, measures, and products used to implement the proposed project.” (solicitation manual, page 7). For example, if the cost of purchasing and/or installing electrical wiring that meets the applicable codes or standards is \$1 per foot and the cost of more advanced, energy efficient wiring is \$3 per foot, the applicant may count up to \$2 per foot as match funds.

Generators and Innovative Strategies

93. Other EPIC funding opportunities have had to include an electricity generation component for projects to be eligible for funding. Do projects applying to PON 307 also have to generate electricity to be eligible for funding or will thermal-only projects be considered?
- All projects must include an electricity generation component to be eligible for funding under this solicitation.
94. The solicitation specifies that the “proposed generator is an advancement compared to standard commercially available products”. Subsequent to that the solicitation specifies that innovative strategies can include storage and efficiency strategies. Increasingly generation, storage and accompanying sophisticated software is a cohesive system. Can advancements to storage or software components qualify within a generation system for this requirement? If not, does this mean the proposal MUST include innovations in BOTH the generation (narrowly defined) AND a storage or efficiency component?
- All projects must include both the installation of a pre-commercial electricity generation device and the deployment of an innovative strategy for energy management. Innovative strategies do not need to be pre-commercial or be a distinct product. For a generator to be considered advanced, the advancement must be to the generator, software that controls the generation of electricity, components necessary for the direct current generators to provide alternating current to the community, or other similar aspects to the generation system, not an associated energy storage system or energy management software that is not necessary for the generation of electricity that is usable for the community.
95. If “generation” is narrowly defined to only the component of a system that produces electricity, then is it accurate that the innovation must ONLY result in greater electrical production yield? If yes, then that could include software that optimizes electrical production, correct? And software that optimizes the USE of that electricity would NOT qualify, correct?
- Improvements in software that optimizes the production of electricity in the generator or maximizes the outputs in alternating current from direct current generators for the community would be considered an advancement to the generator. Software that optimizes the use of that electricity would more appropriately be described as an energy management strategy, not an advancement to the generator.
96. We have a storage product with a new (pre-commercial) intelligent software interface that is designed to enhance the performance of solar installations and smart inverters as part of an integrated system. Does the solar hardware itself need to incorporate new pre-commercial technologies, or can the innovative component of this integrated generation/storage system lie in the software the ties the system together through the building load?
- The solar hardware itself need not incorporate new pre-commercial technologies. However, the pre-commercial software must be capable of improving the production of

electricity or maximizing the output in alternating current through control of the inverter without the use of the energy storage component. Software that requires the use of energy storage, an innovative strategy under this solicitation, would be classified as part of the innovative strategy and not the generator.

97. If there was a project that shows advanced software and storage solutions with a commercialized solar installation, would that qualify?
- a. Projects that show advanced, pre-commercial software that optimizes the production of electricity in the generator or maximizes the outputs in alternating current from direct current generators for the community would be considered an advancement to the generator. Software that optimizes the use of electricity or the operation of an energy storage device would not address the requirement for the project to include the installation of a pre-commercial electricity generator.
98. Question on pre-commercial technologies or strategies in the deployment stage: Could a “pre-commercial strategy” be non-technical (i.e. a business model innovation in deploying a renewable technology like PV solar in disadvantaged communities)?
- a. No, the project must include an electricity generator that is an advanced, pre-commercial technology and an innovative strategy for energy management.
99. Would it be within the scope and intent of this solicitation to have a project that is centered around a non-technical strategy for deploying renewable generation resources in a community, such as an innovative business model that allows for increased deployment of solar PV technology in a disadvantaged community (as identified by CalEnviroScreen 2.0)?

I am particularly seeking clarity on if this type of project would meet the project requirements on Page 11, section 1 of the solicitation manual, “Technology Demonstration and Deployment stage” that describes “the installation and operation of pre-commercial technologies or strategies” and moreover, if this type of project dovetails with the overall intent of the solicitation.

In terms of “pre-commercial technologies or strategies” the project itself would involve deployment of PV solar installation in disadvantaged communities using existing PV technologies, but with a business innovation model/strategy that is unique, not presently used in the general solar marketplace, and that allows for more uptake in the low-income solar market. Please let me know if additional details would be helpful.

- a. No, see the response to question 98.
100. Among the Project Criteria listed in the Solicitation Manual for PON-14-307 is that the Project “deploy innovative strategies to control demand during peak hours or match the generation profile of the installed system(s) to the peak demand needs...strategies can include, but are not limited to (a) Thermal energy storage, (b) Electrical energy storage, (c) Aggressive energy efficiency targeted to peak electricity use; (d) Demand response; and (e) Orientation of solar panels.

The generation project we are considering submitting for support is a several hundred kilowatt nameplate low head hydroelectric project using a new pre-commercial technology delivering power to an nearby agricultural processing facility under a net metering arrangement. The timing of the irrigation district waterflows is determined by upstream water storage resulting in flows during the summer and fall growing season, also the season of highest electrical demand and high load by the ag processing facility which dries and processes the harvest. By deploying a pre-commercial generation technology which can efficiently and economically capture the peak coincident flows and offset the peak season electric demand, we believe the project meets the requirement above, notwithstanding the fact that the hydro generator itself is not "dispatchable" and is not anticipated to include any energy storage capability. The resource generation profile naturally meets the community's peak demand needs, by operating the project in net metered mode, the Investor Owned Utility will not be seeing the peak demand they have historically. Hydro in canals is very predictable and output is based on water releases which do not typically vary significantly during periods of peak electrical demand, the CAISO does not characterize small hydro as intermittent like wind and solar, but instead characterizes small hydro as Use Limited since it is predictable, but not dispatchable. Demonstrating the technology at this location in this mode would open up the market to deploy the technology in irrigation district canals throughout CA to serve local ag processing and other summer peak electrical loads.

- a. All projects must include an innovative energy management strategy for the community. Projects that include only the installation of a generator, including generators with an output tailored to the community, must add an innovative strategy to control or reduce electricity demands to be eligible for funding under this solicitation.

101. Is PON-14-107 the most appropriate solicitation for a Commercial Scale Demonstration of new hydroelectric technology that can be used at multiple Irrigation Canal Dam sites in California in order to provide Distributed Power near Community Points of Use, or whether the California Energy Commission plans to issue a more suitable PON in the foreseeable future?

- a. Advanced, pre-commercial hydroelectric generators can be the generator portion of a proposed project. The Energy Commission does have additional solicitations that will be released in the future; information on these solicitations can be found online at: http://www.energy.ca.gov/research/upcoming_funding.html.

102. According to the program notice,

"grants for distributed generation and grid integration projects that meet either or both of the following objectives:

- 1) Demonstrate and deploy community scale generators, including combined heat and power (CHP) and renewable generation technologies that are in the pre-commercial stage; and*
- 2) Demonstrate and deploy innovative energy management strategies to facilitate the integration of intermittent renewable energy and the reduction of peak power and energy demands."*

Our company recycles waste tires into oil, natural gas, steel, and clean carbon through a zero emission process.

While we do not generate renewable energy, we do offer an innovative energy management strategy to satisfy energy demands outside the renewable space.

Would our application be considered for such a mandate, given our business model?

- a. As stated in the PON manual on page 12, "Projects must involve the demonstration and deployment of one or more community scale generation resources..." and "the generator(s) must meet the RPS-eligibility resource criteria, ³ with no more than 10 percent nonrenewable energy inputs, or be CHP." Applications that do not include the deployment of generation equipment meeting this criteria will not be considered for funding.

To be eligible for funding, projects are also required to include the deployment of "innovative strategies to control demand during peak hours or match the generation profile of the installed system(s) to the peak demand needs..." (page 13). These innovative strategies do not include the repurposing of waste products into fuels that will be used to generate electricity. These innovative strategies must be used to control demand during peak hours or match the generation profile of the generators installed for the purposes of this project to the peak demand needs of the community. The operation of an electric generator alone is not an eligible innovative strategy under this solicitation.

103. CEC asks for the proposed generator to be an advancement compared to the standard commercially available products. The generator may qualify if it uses an RPS eligible fuel. The Commission lists biomass and digester gas produced from the anaerobic digestion of organic wastes as RPS eligible. Can you confirm if, for the purposes of this PON 14-307, the term generator includes the complete facility from the point it accepts the biomass fuel (e.g. organic wastes) through on-site processing (e.g. anaerobic digestion), clean up (e.g. H2S scrubbing), conversion (fuel cell, turbine or internal combustion engine) and transforming (step up to distribution level voltage) ending at the point of common coupling for delivery onto the community network. Thus if this is the case please confirm that the applicant in such a case could be credited with advancements and innovation related to this entire community energy generation process. Also are project costs and match costs related to this entire process eligible for grant and/or match consideration.

- a. The advancements to the generator must be made to the electricity generation equipment and the equipment necessary to provide alternating current to the community from generators producing direct current. This does not include the creation

³ The *Renewables Portfolio Standard Eligibility Guidebook, Seventh Edition*, is available online at: <http://www.energy.ca.gov/renewables/documents/index.html#rps>

or processing of energy resources into a usable fuel. The cost of any necessary fuel processing equipment used exclusively for the advanced generator installed pursuant to this project may be counted as match funding.

104. Several people have asked this question and I want to re-ask. Solicitation calls for Projects that are a community scale generation resources and must be RPS. An RPS project requires a fuel e.g. food waste. The food waste must be digested first to make a biogas that can then be fed to an energy conversion generator - the digester and turbine combined = the generator. Can you confirm?
 - a. See the response to question 103.
105. If a project involves gasification of biomass to run a genset, (A) can the genset portion be funded, (B) can the gasifier portion be funded, (C) can the gasifier portion be counted as match?
 - a. See the response to question 103.
106. The majority of the PON references community scale generation with innovative strategies, however on the top of page 13, it states, "Applicants must clearly show in their proposal how the proposed generator is an advancement compared to standard commercially available....." Is the word "generator" being used here to refer to the entire system (which includes the community scale generation with innovative strategies)? For example, if we were to combine a gasifier using agricultural trimmings to produce syngas that would power a CHP generator, would the entire system be classified as a "generator", in which we would demonstrate the advancement compared to standard commercially available products? Or are you referring to the actual electrical components that make electricity?
 - a. See the response to question 103.
107. One requirement is that "The community has undergone, or will undergo, cost effective energy efficiency measures." Can CEC confirm that if the community implements RPS fueled GENERATION that this constitutes an effective energy efficiency measure or if not confirm that the community must ALSO (in addition to this generation) implement energy efficiency CONSERVATION measures.
 - a. Generation is not an energy efficiency measure. Energy efficiency measures reduce the amount of energy necessary to continue the operations of an end use of energy. All projects must include both the installation of a pre-commercial electricity generation device and the deployment of an innovative strategy for energy management.
108. If the "community" already has fully operational CHP and maximum rooftop PV, but can meet the 10 percent peak reduction by innovative controls using battery or ICE storage, would this project be eligible?
 - a. No, projects must deploy "new generation with a capacity of at least 10 percent of the community's peak load" (Solicitation manual, page 12).

109. Please clarify the use of the terms proposed generator and community generation. If a community has a CHP and wants to explore innovative energy management, is it necessary to add new generation to meet the eligibility requirements?
- a. Yes, all projects must include both the installation of a pre-commercial electricity generation device and the deployment of an innovative strategy for energy management.
110. Would an apartment complex or an office/warehouse building complex that has more than 65,000 kWh in annual electricity consumption be eligible to participate in the demonstration project, in which we plan to install an energy storage system to reduce at least 10% of the peak power demand charge?
- a. The description of the community does not include any criteria that would prevent it from participation; however, all demonstration projects must include the installation of a generation technology, see the response to question 109. Please see the Electricity Demand Reductions section for more information on the peak power demand reductions.
111. Is a project that includes energy storage and peak load demand reduction eligible for funding under this PON?
- a. The project must deploy new generation capacity in addition to energy storage and peak load demand reduction to be eligible for funding under this PON.
112. If you have an existing CHP but have innovative energy management strategies, would the project qualify for funding?
- a. No, new generation would need to be installed.
113. Will you only fund projects that include pre-commercial RPS types of technologies or will you fund projects that already have a technology but want to improve the community with other things like demand response and other demand management resources.
- a. This solicitation requires an increase in the amount of generation that is serving the community with a pre-commercial technology. The existing system need not be redesign into a pre-commercial system, but new pre-commercial generation must be added to the community.
114. In the Solicitation Manual, Section E (Funding), Part 3. Restricted Purchases, it states that the EPIC funds may not be used for "Equipment, control software, or similar items used solely to disconnect the community from the electric grid." My question is, "Would photovoltaic or concentrated solar equipment fall under this restriction?" More specifically concentrated solar equipment produces thermal energy and the thermal energy is not used solely to produce electricity, thus would concentrated solar equipment qualify for funding if the equipment helped produce electricity and combined cooling?

- a. The restriction on the use of EPIC funds for “equipment, control software, or similar items used solely to disconnect the community from the electricity grid” (solicitation manual, page 7) is referring primarily to equipment necessary to create a microgrid capable of islanding the community from the greater electricity grid, and not the electricity generation equipment used to power the community. An advanced, pre-commercial solar driven combined heating and power system would be eligible for EPIC funding as part of an eligible project.
115. Our solution is an optimization software that does not generate clean energy but that will help reducing electric load on the grid and also shifting energy load to off peak period. Will this be considered in this PON?
- a. All projects must include both the installation of a pre-commercial electricity generation device, either renewable or CHP, and the deployment of an innovative strategy for energy management. The proposed software appears to address the innovative strategy portion of this requirement, but as it does not generate electricity any community implementing this software would need to also install an eligible electricity generator to be eligible for funding under this PON.
116. What are the performance/annual run time expectations for proposed projects? Would systems that operate at high efficiency at peak demand times and are idle or operating at lower efficiency at non-peak times be considered for funding?
- a. This solicitation has no minimum performance/annual run time expectations for the proposed projects but does require the applicant to provide periodic performance reports and system status updates for the life of the project.
117. Is energy from energy storage considered generation?
- a. Energy storage is considered an innovative strategy for this solicitation. It is not considered a generation technology.
118. Does CEC’s definition of energy efficiency include the shifting of electricity demand from peak to off-peak even if it results in the same or slightly higher (e.g. if there are battery or other cycle storage losses) energy consumption?
- a. No, energy efficiency measures result in decreased energy consumption for the same result. The shifting of peak electricity demand to off-peak demands may be considered an innovative strategy for energy management.
119. Energy commission states for this PON: Strategic Objective S13: Demonstrate and Evaluate Emerging Clean Energy Generation Technologies and Deployment Strategies
- i. Funding Initiative S13.2: Demonstrate and Deploy Pre-Commercial Technologies and Strategies for Combined Heat and Power Applications.
 - ii. Funding Initiative S13.3: Demonstrate Technologies and Strategies to Facilitate the Integration of Intermittent Renewable Energy.

Does this require an applicant to propose a project that contains both a CHP and Facilitates Integration of Intermittent Renewable Energy or just one is acceptable. If both are required please confirm and confirm that a solar only project would not be eligible or a biogas fueled generator without CHP would also not be eligible.

- a. All projects must include both the installation of a pre-commercial electricity generation device, either renewable or CHP, and the deployment of an innovative strategy for energy management. The deployment of a CHP system is not required to receive funding under this solicitation.
120. Must all technologies have a physical connection to on-site generation resources, or can the connection point be through a building's load?
- a. No, innovative strategies and the electricity generator(s) need not be interconnected to the community at the same point. For example, a community of three buildings may install a solar system on the first building, an energy storage device on the second building, and a CHP system on the third, with all three buildings making use of thermal energy storage for cooling purposes.

Microgrids

121. You mentioned micro-grids and I think what you said was that the PON is not designed to fund micro-grids but I'm wondering if there was a project that was focusing on reducing peak demand and on increasing energy efficiency in a given set of facilities that did include a micro-grid component, would that be considered?
- a. Projects that include a microgrid component and meet all requirements in the solicitation manual may be eligible for funding. However, "Epic Funds from this solicitation may not be used for ... equipment, control software, or similar items used solely to disconnect the community from the electricity grid (Solicitation Manual, page 7). Funds used to purchase such equipment may be used as match funding.
122. Does this solicitation preclude a micro-grid that can operate in island mode or is it the islanding equipment alone precluded?
- a. No, see the response to question 121.
123. So potentially the micro-grid aspect could be the matching component as long as there are other components to the project.
- a. Yes, so long as the proposed match meets all match criteria and is an allowed match expenditure. Also, see the response to question 121.
124. Are communities meeting minimum annual kWh, operating behind a distribution feeder, not capable of islanding, but are within a micro-grid eligible for funding?
- a. Yes, participation of the community in a microgrid project does not prevent it from being eligible.
125. My impression from the question period during the Webex session today is that you are not allowing grid-interactive systems, designed to offer reactive support on radial systems, feeder power factor support, high resolution (intermittent transient scale), real-time ancillary distribution and substation support, stable 15 minute to hour ahead generation and load reduction commitment capability, generation and load shifting, and grid-responsive islanding capability.

If this is the case, why not? These dynamic ancillary services can add enormous value to microgrid system interactions with local networks, and are a critical feature of any future large-scale implementation of distributed energy.

- a. The solicitation manual does not prohibit the use of any grid-interactive systems. This solicitation is designed to decrease the energy and power demands of communities primarily during peak load periods, and where possible provide further benefits to the electricity grid through other mechanisms, such as demand response. Applications must show how the technologies and strategies benefit the community beyond standard utility electricity service. Other solutions and mechanisms not meeting this criteria or

that would be installed outside the community itself are beyond the scope of this solicitation.

126. My understanding is that the proposed project area cannot incorporate contiguous distribution feeders, neighborhood substations, or small, integrated, high-efficiency gas cogeneration units.

Again, if this is the case, why? A best practice step-down transformer can easily shift power from a generation-saturated feeder to an adjacent feeder, and the benefits of contiguous distributed generation downstream of higher-voltage transformers to improve reliability at the end of radial system configurations can be considerable in a microgrid of heterogeneous kW through low-MW scale generators networks interacting with one or more contiguous neighborhood substations.

In contiguous locations where on-site, quick-start, dispatchable CHP and low-MW scale combined cycle combustion turbines (CCCT's) can stabilize hour-ahead spot power and capacity commitments, while providing reactive power to radial, low reliability network configurations, and in combination with a renewable, mixed grid-interactive neighborhood networks and integrated dynamic load management, the resulting distributed neighborhood network looks more like a single, high power factor, reliable, and dispatchable generating resource than a random aggregation of intermittent generators.

- a. The community is required to be "interconnected to the electricity grid under the same distribution feeder" (Solicitation manual, page 12). This solicitation was designed to encourage the deployment of generators and innovative strategies to improve the deployment of distributed energy resources. Changes to utility distribution systems, including the installation of additional or replacement transformers or the creation of an effective dispatchable generation resource to meet demands outside the community is beyond the scope of this solicitation.

Electricity Demand Reductions

127. Page 13: For Project Criteria, #5a and #5b, can you give an example of each, using sample numbers?
- a. Criteria 5a – For example a community has an average daily peak demand on the electricity grid of 1,000 kW and an average daily power demand of 250 kW on the electricity grid, the difference would be 750 kW. To meet this criteria the community would need to reduce this difference to no more than 675 kW on average.
- Criteria 5b – For example a community has peak periods between the hours of noon and 6 pm on weekdays from May to October, and the daily average energy demand during those times is 1,000 kWh on the electricity grid. To meet this criteria the community would need to decrease this average daily energy demand place on the grid to 900kWh, a 10 percent reduction in the energy demand place on the grid.
128. Page 14: Can you provide an example of the “granularity of the data” used for the applicable time of use tariff provided by the local utility?
- a. Typical residential TOU tariffs measure electricity on an hourly basis, the granularity of data required for a community that would be eligible for this tariff would be 1 hour energy demand measurements. If a community is mixed commercial and residential, the granularity of data should be correspond with the smallest time scale, in this case a commercial TOU tariff, which is typically 15 minutes.
129. Could you clarify the phrase reduction of peak power and energy demands. Is this meant to apply to the entire grid or can it have more of a local application?
- a. The reduction of peak power and energy demands is meant to apply to the power and energy demands placed on the electricity grid by the community. Applicants need not lower the peak power or energy demands of the entire electricity grid, beyond the reductions that can be achieved through reductions in the community.
130. If we were to propose a project on a distribution feeder, would it have to be at least 10% of that 8 megawatt peak load?
- a. If the community consisted of all loads on the distribution feeder than the proposed generator would need to have a capacity of at least 10% of the peak demand on that distribution feeder.
131. The solicitation requires that there be a 10% deduction in demand. Does that have to be conservation or could a generator that comes online and supplies 10% of the demand. Is that the same as a deduction in demand? Or does there have to be generation and conservation together in these proposals?
- a. The reduction in demand is a reduction in the net demand experienced by the electricity grid due to the community. Both generation and load reduction can contribute to the required demand reductions.

132. One of the requirements is that a project must result in “A 10 percent decrease in the daily average energy demand during peak times, as defined by the utility tariff, placed on the grid by the community”. One tariff for a rate plan in common use by PG&E customers describes peak times as follows:

5. TIME PERIODS:	Seasons of the year and times of the day are defined as follows:	
	<u>SUMMER:</u>	Service from May 1 through October 31.
	<u>For Rates A,B,D, and E</u>	
	Peak:	12:00 noon to 6:00 p.m. Monday through Friday*
	Off-Peak:	All other hours Monday through Friday All day Saturday, Sunday, holidays
	<u>For Rates C and F</u>	
	Peak:	12:00 noon to 6:00 p.m. Monday through Friday*
	Partial-Peak:	8:30 a.m. to 12:00 p.m. Monday through Friday* 6:00 p.m. to 9:30 p.m. Monday through Friday*
	Off-Peak:	9:30 p.m. to 8:30 a.m. Monday through Friday All day Saturday, Sunday, holidays
	<u>WINTER:</u>	Service from November 1 through April 30.
	<u>For Rates A,B,C,D,E and F</u>	
	Partial-Peak:	8:30 a.m. to 9:30 p.m. Monday through Friday*
	Off-Peak:	All other hours Monday through Friday All day Saturday, Sunday, holidays

Many times different meters in a community have different rate plans associated with them. Can an applicant pick one tariff from a rate plan on one of the meters, such as the tariff described above, and use it as a proxy for the entire community? In this tariff example is it correct to assume that the project applicant would need to show “A 10 percent decrease in the daily average energy demand placed on the grid by the community between the hours of 12:00 noon to 6:00 p.m., on Mondays through Fridays, over the period from May 1 to October 31.”

- a. For communities with meters under different rate plans, applicants may choose to use only a single rate plan as a proxy for the entire community. The rate plan selected for the proxy should be the rate plan associated with meters that in aggregated have the highest energy consumption within the community during the applicable peak periods, as defined by the individual rate plans. In the example rate plan above the applicant would need to reduce energy or power demands only during the seasonal peak period identified in the example.
133. A utility (IOU) often provides information on its distribution feeder lines that deliver 12kV service to a large community of users strung out along the distribution feeder. The community of users are all customers of the utility each with a metered service connection. An example of the published data on one such community distribution feeder is shown below:

Result #1: LIVINGSTON 1106

From layer: Smaller Conductors (WireSize <= 350 MCM)

Feeder Name LIVINGSTON 1106

Feeder Number 252261106

Nominal Circuit Voltage (kv) 12

Circuit Capacity (MW) 13

Circuit Projected Peak Load (MW) 10.07

Substation Bank 1

Substation Bank Capacity (MW) 29.9

Substation Bank Peak Load (MW) 26

Existing Distributed Generation (MW) 0.05

Queued Distributed Generation (MW) 0

Total Distributed Generation (MW) 0.05

If applicant used this IOU published data, rather than measuring the load on every meter connected to every customer on the distribution line could applicant assume that the Circuit Projected Peak Load (MW) is equivalent or an acceptable proxy to the Commission's "Daily Peak Demand" for the purposes of calculating the minimum size of the generation needed to feed this community i.e. $10\% \times 10.07\text{MW} = 1.01 \text{ MW}$.

- a. Applicants may use any source of data to determine the community peak load for the purpose of calculating the minimum size of the required new generation equipment, so long as that data source contains the entire community and provides an accurate measurement of the community's peak load. This number should agree with the historic generation data that will be provided by the applicant during the project term as part of the scope of work.