

Questions and Answers

Novel Solutions to Accelerate Deployment of Small and
Micro-Scale Combined Cooling Heating and Power Systems

GFO-16-503

Table of Contents

Applicant Eligibility2

Project Eligibility2

Application Requirements4

Miscellaneous4

Applicant Eligibility

1. Can a federally-funded research and development center (FFRDC) be a sub-awardee on the proposal?

Yes, the solicitation is open to all public and private entities and individuals.

Project Eligibility

2. We are looking at different applications for CHP systems, groups 1 and 2, both different sites. We want to submit two separate proposals, is that okay?

Yes, an applicant may submit applications for multiple project groups. Applicants can also submit more than one application for the same project group. In both cases, the applicant must ensure that each application is for a distinct project (i.e., no overlap with respect to the tasks described in the Scope of Work, Attachment 6).

Please also note, from the solicitation manual, section IV.E (page 33):

If the projects are not distinct and the applications were submitted at the same time, only the first application screened by the Energy Commission will be eligible for funding. If the applications were submitted separately, only the first application received by the Energy Commission will be eligible for funding.

3. Can a project involving PV generation and desiccant cooling qualify for group 2?

Yes, solar thermal-PV hybrid systems are eligible for groups 1, 2, and 3. Thermal energy used for desiccant drying to offset cooling loads is eligible for group 2.

4. For group 1, would a novel rooftop CHP system – PV and thermal – be a candidate?

Yes. Solar thermal-PV hybrid systems are eligible for groups 1, 2 and 3.

Please refer to the solicitation manual, section II.B.1.a (page 16), for group 1 requirements and example projects.

5. We would like to apply to the CEC grant with the intent to provide a solution to vet and find small and micro-scale cooling and heating solutions. We wish to provide an online modeling system to connect to technologies that will enable accelerated integration and deployment using data modeling to show benefits. We would appreciate your help in determining whether our project and ecosystem would be a candidate for a grant before we apply.

No, modeling and tools for combined cooling heating and power systems are not eligible for funding under this solicitation.

6. We would like to ask the Commission to clarify the minimum size/capacity requirements, if any, for pilot testing for a prime mover (Group 1) and a thermally-driven cooling device (Group 2) in GFO-16-503.

Would 1) a prototype prime mover with a generation capacity of ~ 1 kWe and 2) a cooling device with a cooling power of ~ 1 ton qualify for a pilot-scale demonstration? Load and operating conditions that are scaled-down to emulate actual target applications will be used to verify their performance.

Or would the Commission deem such devices too small for a pilot demonstration?

A scaled-down system which emulates target applications would be eligible for funding under groups 1, 2, and 3 of this solicitation so long as it meets the technical requirements specified on pages 19 and 20 in the solicitation manual. However, a scaled-down system would not be considered a pilot-scale demonstration. Among other requirements, the solicitation manual defines pilot-scale demonstrations as those which utilize equipment that is ready to be demonstrated in real-world operating conditions. A scaled-down system which emulates target applications does not fit this description, and would therefore not be considered for priority funding.

Please refer to the solicitation manual, section I.F.1 (pages 8 and 9), for the definition of a pilot-scale demonstration and details on prioritization of funding.

7. For Group 1, it is stated on page 16 of the solicitation that “cascaded CHP systems whereby waste heat from one prime mover drives another” are of interest. And yet, on page 20, it is stated that “projects focused on waste-heat-to-power, also known as bottoming cycle CHP, are not eligible for funding.” Therefore, would the development of a new atypical prime mover that takes exhaust heat from another (established) prime mover be eligible for funding?

Yes, the development of a new atypical prime mover which generates electricity from the exhaust heat from an established prime mover would be eligible for funding under group 1. For the purposes of this solicitation waste-heat-to-power, also known as bottoming cycle CHP, refers to systems where a fuel is utilized to first produce thermal energy for heating loads and the rejected heat is captured and used for electricity generation. Systems which fit this description would not be eligible for funding under this solicitation.

8. In Group 1, “types of projects” mentioned included “Developing and demonstrating CHP systems designed for synergistic operation with intermittent renewables”. Would CHP designed for synergistic operation with battery storage also be acceptable for funding?

Yes, CHP systems designed for synergistic operation with battery storage could be eligible for funding group 1. However, the focus of the project (e.g. majority of tasks in the scope of work, majority of funding in the budget, etc.) must be on the CHP system and not on battery storage technology. Projects which focus mainly on battery storage technology would not be eligible. Additionally, projects incorporating

battery storage must justify how they are advancing the state of CHP technology or how it is novel, as required under Group 1, compared to an existing CHP system integrated with battery storage.

Application Requirements

9. In case a sub-awardee only agrees to disclose its overhead to the CEC, would it be possible for such a sub-awardee to submit its budget independently to the CEC? If yes, please describe how it should be done.

No, subcontractors cannot submit budget information to the Energy Commission independent of the prime recipient. Applicants must provide project related expenses, including subcontractor costs, to the Energy Commission in accordance with the instructions listed on the Instructions tab of Attachment 7. Please note the following from the Budget Forms Instructions tab:

A separate set of complete budget forms, including the full set of worksheets, is required for the Contractor/Recipient and for each subcontract containing: 1) \$100,000 or more of Energy Commission funds; or 2) 25% or more of the total Energy Commission funds requested.

Please also note that all documents submitted as part of an application will become public records after the Energy Commission posts the Notice Of Proposed Award.

10. If a company has an office in California and its headquarters elsewhere, does it count as a California-Based Entity?

A company with an office for the transaction of business in California which substantially manufactures the product or substantially performs the research within California that is the subject of the award is considered a California-Based Entity. Please refer to the solicitation manual, section II.A.4. (pages 14 and 15), for the full definition of what is considered a California-Based Entity.

Miscellaneous

11. For groups 1-3, can we apply for Self-Generation Incentive Program (SGIP) funds along with this grant?

Yes, applicants are encouraged to seek any applicable financial incentives – Self-Generation Incentive Program (SGIP), Federal Investment Tax Credit (ITC), Modified Accelerated Cost Recovery System (MACRS), CAEATFA Sales and Use Tax Exclusion (STE) program, Property Assessed Clean Energy (PACE) financing, etc. – which make the project more economical.

A database of California energy incentive programs can be found at:

<http://programs.dsireusa.org/system/program?state=CA>

Please note that the Energy Commission is not addressing whether application for, or procurement of, any incentives listed in the above database would affect an award under GFO-16-503 or whether an award under GFO-16-503 would affect an incentive. Please check the requirements of each program before applying.

12. Are you aware of a special gas tariff for small CHP? \$10 gas makes things challenging, and largest businesses get a volume discount.

No, we are not aware of any gas tariffs specific to small CHP systems. As noted in the solicitation, existing economic challenges are a barrier to small CHP systems which applicants must propose to overcome.