# **Questions and Answers**

**GFO-23-501**

**Quantifying Exposures to Indoor Air Pollutants in Multifamily Homes that Cook with Gas or Alternatives**

**December 22, 2022**

The following answers are based on California Energy Commission (CEC) staff’s interpretation of the questions received. It is the Applicant’s responsibility to review the purpose of the solicitation and to determine whether or not their proposed project is eligible for funding by reviewing the Eligibility Requirements within the solicitation. The CEC cannot give advice as to whether or not a particular project is eligible for funding, because not all proposal details are known.

***Administration/Process***

**Q1a: The University of California, Berkeley, allows faculty to contribute a portion of their UC-funded salary and benefits (typically the equivalent of up to a few months per year) to research grants as matching funding by committing their time to the project if funded. From CEC's scoring perspective, can this count as a matching contribution?**

A1a: Yes, UC-funded salary and benefits can count as a match contribution.

**Q1b: Would this faculty salary support be counted by CEC as a cash or in-kind match?**

A1b: This would be counted as in-kind match.

**Q2: In the recent November 20 workshop, CEC staff recommended paying for travel and capital equipment support for the project using matching funds, rather than with CEC gas program funding. Would any travel/equipment purchased in this manner count as a cash match, or would it count as an in-kind contribution?**

A2: If the match funds that the applicant provides have no restrictions on their use—for example, if they can be redirected to cover other grant expenses as needed—and if they are appropriately documented as “cash” as described in the solicitation manual, then they can be counted as “cash”. Travel/equipment purchased in the agreement can count as either “cash” or “in-kind” match depending on the aforementioned considerations and documentation provided in the commitment letter. Please refer to the details regarding “match funding” categories that are listed in Section I.J. and III.C.

**Q3: We are confused about the "Cash Match Scoring Table" in scoring table item 9A, which provides up to 5 bonus points for match funding, based on the "percentage of the proposed cash match funds", "evaluated on the proposed cash match relative to the total mash (cash+In-kind) contributions." It seems like there may be a mistake (or just a very strange incentive) in how this is presented.**

**Consider two possible match contributions: (i) just a $100k cash contribution, or (ii), a package of $100k cash + $1M in-kind. The first scenario presumably be would be worth 5 points (100% cash), whereas the second would be worth 0 points ($100k / $1.1M = 9%). This doesn't make sense.**

**Can you please clarify?**

A3: Yes; your interpretation is correct. As indicated in the solicitation manual, “Cash match will be considered more favorably than in-kind contributions during the scoring phase.” Scoring Criterion 9b, however, considers the total amount of eligible match, both cash and in-kind.

**Q4: We want to clarify the "Exceeds Minimum Match Scoring Table", Item 9b. Can you please confirm that -- relative to the minimum match value of $100k -- if we contributed $180k in cash/in-kind funding -- this would be considered ≥80% and be scored with 5 points?**

A4: Scoring Criterion 9b is determined by the ratio of (1) the amount of match above minimum required match to (2) total CEC funds requested. Based on this ratio, criterion 9b is scored using the Exceeds Minimum Match Scoring table found in the Solicitation Manual Scoring Criteria. The percentage is calculated by dividing the match in excess of minimum required match by the funding total requested. For example, if $180,000 in match is pledged, the required minimum match is $100,000, and $2,000,000 in funds is requested, the proposal would receive no points for Scoring Criterion 9b based on the match percentage of 4% [($80,000/$2,000,000)\*100].

**Q5: We understood from the pre-application webinar that the award size is $2,000,000 and that only one award will be made for the full amount. Is this correct?**

A5: Yes, we anticipate that only one award will be made for this solicitation, although per section I.D. of the solicitation manual, “Along with any other rights and remedies available to it, the California Energy Commission (CEC) reserves the right to:

* Increase or decrease the available funding and the minimum/maximum award amounts described in this section.
* Allocate any additional or unawarded funds to passing applications, in rank order.
* Reduce funding to an amount deemed appropriate if the budgeted funds do not provide full funding for agreements. In this event, the Recipient and Commission Agreement Manager will reach agreement on a reduced Scope of Work commensurate with available funding.”

Per section II.B. of the solicitation manual, “In addition to any of its other rights, the CEC reserves the right to allocate any additional funds to passing applications, in rank order; and negotiate with successful applicants to modify the project scope, schedule, project team entity that will receive the award, location and/or level of funding.

**Q6:** **Can you please clarify how the “Cash match scoring table” works? For example, to earn 5 bonus points, the cash match would require 80-100% “of proposed cash match funds”. What does that value pertain to? For example, for $2M CEC budget, does that imply another $1.6-$2M in match funding?**

A6: The value pertains to the ratio of catch match to total match funds. Percentage of proposed cash match funds = (Cash match)/(Cash match + in-kind match)\*100.

**Q7:** **Can CEC funding be used to pay for an intervention, such as induction stoves?**

A7: The solicitation manual does not request an “intervention” study, though applicants can use CEC funds for tasks that help in achieving the goals of this solicitation and in the scope of work.

**Q8:** **Can CEC funding be used to pay for rewiring or other construction necessary to install inductions stoves in study homes?**

A8: The solicitation manual does not request an “intervention” study, though applicants can use CEC funds for tasks that help in achieving the goals of this solicitation and in the scope of work.

**Q9:** **If an applicant partnered with a third-party that is already implementing a fully-funded induction stove installation program, could the value of the induction stoves be counted as a cash match? Could the value of the induction stove installation services be counted as a non-cash match?**

A9: The value of the induction stove installation services can be counted as a non-cash match or “in-kind” match. Section I.J. provides a definition of “in-kind” match, which is updated in the manual addendum.

**Q10:** **For travel restrictions: can travel for non-conference purposes (e.g., fieldwork) be supported using the CEC funds?**

A10: Yes, travel for non-conference purposes (e.g., fieldwork) can be supported using the CEC funds. Section I.J. of GFO manual provides details on travel restrictions. During agreement development, the Commission Agreement Manager may consider approval of use of CEC funds to support mission-critical conferences.

**Q11: This project could be instrumentation heavy — I am wondering what the restrictions on equipment purchases might be?**

A11: Please see the GFO manual section I.J. and [Terms and Conditions](https://www.energy.ca.gov/funding-opportunities/funding-resources) (PIER Terms and Conditions for Grant) for details on equipment restrictions.

**Q12:** **Clarification on the instrumentation question — for some state agencies (California Air Resources Board), capital equipment >$5k ends up being CARB property — is that how CEC operates as well?**

A12: Typically, grant recipients may continue to use equipment purchased with CEC funds if the use is consistent with the intent of the original agreement. Please see the GFO manual section I.J. and [Terms and Conditions](https://www.energy.ca.gov/funding-opportunities/funding-resources) (PIER Terms and Conditions for Grant) on equipment for more details.

***Technical***

**Q13:** **Are you looking for an urban/rural mix, or can we focus on just urban or just rural?**

A13: The sampled households may be located in rural and/or urban areas. Please see the GFO manual section I.C. for minimum requirements. It is up to applicant to propose and justify a credible sample design toward attaining the goals of the solicitation.

**Q14: The indoor air pollutant exposure in multifamily homes may largely come from other sources (heating, dryer) than the gas cookstove. Would a grant application that focuses just as much on the “other sources” as on the gas stove be competitive?**

A14: This GFO is focused on understanding residents’ exposure to indoor air pollutants generated from residential cooking, considering a variety of equipment and household practices. Please see the GFO manual section I.C. for minimum requirements.

“The successful Applicant will design and implement a field study of multifamily homes (e.g., apartments) in California to determine human exposures to pollutants from residential cooking appliances.”

“Research must, at a minimum: Contribute to understanding the differences in residents’ exposures to cooking generated PM2.5 in multifamily homes that burn gas relative to multi-family homes that are electrified. The study sample should include and differentiate between appliance type (range, stove, oven) and between fuel type (gas (methane/propane), electric resistance, induction).”

**Q15: Can you offer any guidance about the sample size and regional representativeness that you are looking for in this study? (There is a tension between how many homes/geographic spread and how intensive the monitoring can be at each home).**

A15: It is the responsibility of the applicant to propose and justify a credible approach to sampling, including sample size and geography.

As noted in the solicitation manual, “the study sample must be designed to illuminate exposures in multifamily homes. This may include a diverse sample of housing such as apartments, townhomes, manufactured homes, and mobile homes. At least 80% of field measurement sites must be located in a disadvantaged and/or low-income community, and/or tribal community. Applicants must justify the rationale for focusing on specific type(s) of housing. The study must note, for each sampled home, both kitchen and total home square footage as well as differentiate between American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 62.2 (ASHRAE 2023) compliant homes and non-compliant homes. Applicants must characterize homes and activity patterns of residents that can help characterize concentrations and exposure.” Please see the GFO manual section I.C. for minimum requirements.

**Q16: Can you please clarify what you meant in your presentation by “actual personal exposure”? (i.e., does this require direct personal exposure assessment vs. measurement of indoor concentrations at a few fixed locations?)**

A16: “Actual personal exposure” refers to the measuring pollutant exposure to home residents, which is a function of pollutant concentration, time duration, and frequency, as well as the behavior of home occupants.

**Q17a:** **Would additional contextual measurements (i.e., outdoor measurements) be allowable or out of scope?**

A17a: Applicants are expected to develop a methodology to address confounders that may affect exposure to cooking-generated pollutants. This may include understanding the contribution of outdoor pollutants to indoor exposures. If the outdoor measurements help in fulfilling the research scope, they will be allowable.

**Q17b:** **So, the answer to the previous questions is “Yes, they are allowed but the main focus is gas stoves?”**

A17b: The main focus is understanding exposures to pollutants from residential cooking in multifamily homes in California. Please see the GFO manual section I.C. for project focus and minimum requirements.

**Q18: I am a little confused about the alignment between the funding source (CEC gas funds) vs. the additional focus on electric cooking. Can you please comment?**

A18: This research directly addresses CPUC’s direction in Resolution G-3571 (p. 15) to support research to, “Quantify and document impacts to indoor air quality from natural gas appliances and the potential technically feasible improvements and potential risks to indoor air quality that could be achieved from fuel blending or electrification.” The GFO responds to the 2021-2022 California Energy Commission’s Gas Research & Development (Gas R&D) Budget Plan research initiative “Quantify Exposures to Indoor Air Pollutants in Multifamily Homes that Cook with Gas or Alternatives.”