**Questions and Answers Document**

# **Disclaimer**

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 Solicitation Manual and to determine whether their proposed project is eligible for funding by reviewing the Eligibility Requirements within the solicitation. The CEC cannot give definitive advice as to whether a particular project is eligible for funding, because not all proposal details are known.

**Table of Contents**

[**Disclaimer** **1**](https://gbc-word-edit.officeapps.live.com/we/wordeditorframe.aspx?ui=en%2DUS&rs=en%2DUS&actnavid=eyJjIjo2NTQ1NjA2ODl9&wopisrc=https%3A%2F%2Fcaenergy.sharepoint.com%2Fsites%2FBuildingEfficiency%2F_vti_bin%2Fwopi.ashx%2Ffiles%2F53f378ceeb2e4b42930a0c4d65ab51b1&sc=https%3A%2F%2Fcaenergy%2Esharepoint%2Ecom%2Fsites%2FBuildingEfficiency%2FAgreements%2FForms%2FAllItems%2Easpx%3FRootFolder%3D%252Fsites%252FBuildingEfficiency%252FAgreements%252FEPC%252D15%252D064%255FPSV%255FZNE%2520Housing%252F1%252E%2520Agreement%2520Documents%26FolderCTID%3D0x012000C6D1EF6AB5A37F4CBE932FFE1F1666BE%26View%3D%257BC3A34DC3%252D1384%252D41FA%252DB31B%252DBE2D81B90D1F%257D&wdenableroaming=1&mscc=1&hid=470E74A0-5028-2000-AD54-B6A5671572C6&wdorigin=Other&jsapi=1&jsapiver=v1&newsession=1&corrid=cb946d3e-83cb-49cf-b77e-4025b2fac96b&usid=cb946d3e-83cb-49cf-b77e-4025b2fac96b&sftc=1&cac=1&mtf=1&sfp=1&instantedit=1&wopicomplete=1&wdredirectionreason=Unified_SingleFlush&rct=Medium&ctp=LeastProtected#_Toc80007874)

[**General/Administrative** **1**](https://gbc-word-edit.officeapps.live.com/we/wordeditorframe.aspx?ui=en%2DUS&rs=en%2DUS&actnavid=eyJjIjo2NTQ1NjA2ODl9&wopisrc=https%3A%2F%2Fcaenergy.sharepoint.com%2Fsites%2FBuildingEfficiency%2F_vti_bin%2Fwopi.ashx%2Ffiles%2F53f378ceeb2e4b42930a0c4d65ab51b1&sc=https%3A%2F%2Fcaenergy%2Esharepoint%2Ecom%2Fsites%2FBuildingEfficiency%2FAgreements%2FForms%2FAllItems%2Easpx%3FRootFolder%3D%252Fsites%252FBuildingEfficiency%252FAgreements%252FEPC%252D15%252D064%255FPSV%255FZNE%2520Housing%252F1%252E%2520Agreement%2520Documents%26FolderCTID%3D0x012000C6D1EF6AB5A37F4CBE932FFE1F1666BE%26View%3D%257BC3A34DC3%252D1384%252D41FA%252DB31B%252DBE2D81B90D1F%257D&wdenableroaming=1&mscc=1&hid=470E74A0-5028-2000-AD54-B6A5671572C6&wdorigin=Other&jsapi=1&jsapiver=v1&newsession=1&corrid=cb946d3e-83cb-49cf-b77e-4025b2fac96b&usid=cb946d3e-83cb-49cf-b77e-4025b2fac96b&sftc=1&cac=1&mtf=1&sfp=1&instantedit=1&wopicomplete=1&wdredirectionreason=Unified_SingleFlush&rct=Medium&ctp=LeastProtected#_Toc80007875)

[**Technical** **2**](https://gbc-word-edit.officeapps.live.com/we/wordeditorframe.aspx?ui=en%2DUS&rs=en%2DUS&actnavid=eyJjIjo2NTQ1NjA2ODl9&wopisrc=https%3A%2F%2Fcaenergy.sharepoint.com%2Fsites%2FBuildingEfficiency%2F_vti_bin%2Fwopi.ashx%2Ffiles%2F53f378ceeb2e4b42930a0c4d65ab51b1&sc=https%3A%2F%2Fcaenergy%2Esharepoint%2Ecom%2Fsites%2FBuildingEfficiency%2FAgreements%2FForms%2FAllItems%2Easpx%3FRootFolder%3D%252Fsites%252FBuildingEfficiency%252FAgreements%252FEPC%252D15%252D064%255FPSV%255FZNE%2520Housing%252F1%252E%2520Agreement%2520Documents%26FolderCTID%3D0x012000C6D1EF6AB5A37F4CBE932FFE1F1666BE%26View%3D%257BC3A34DC3%252D1384%252D41FA%252DB31B%252DBE2D81B90D1F%257D&wdenableroaming=1&mscc=1&hid=470E74A0-5028-2000-AD54-B6A5671572C6&wdorigin=Other&jsapi=1&jsapiver=v1&newsession=1&corrid=cb946d3e-83cb-49cf-b77e-4025b2fac96b&usid=cb946d3e-83cb-49cf-b77e-4025b2fac96b&sftc=1&cac=1&mtf=1&sfp=1&instantedit=1&wopicomplete=1&wdredirectionreason=Unified_SingleFlush&rct=Medium&ctp=LeastProtected#_Toc80007876)

# **General/Administrative**

Q1. Could you point to me a standard T&C document for CEC / EPIC? I am specifically wondering about insurance limits and intellectual property clauses, to see if we might be able to submit under this opportunity. I see the 14 attachments and application manual included on the website (https://www.energy.ca.gov/solicitations/2022-09/gfo-22-501-advancing-window-retrofits-and-reducing-fireplace-air-leaks) but do not see any sample contract or T&Cs here.

**CEC:** This solicitation is under the Gas Research & Development/Public Interest Energy Research (PIER) Program rather than the Electric Program Investment Charge (EPIC) Program. Per the solicitation manual, Section I.H, on page 17, the relevant PIER Grant terms and conditions are located at: http://www.energy.ca.gov/research/contractors.html. Once you are at this site,

* Select *“EPIC, FPIP, and PIER Contractor’s Information”* and then
* Select PIER Terms and Conditions
* Select Grant
* Select Standard (if you are not the University of California or DOE lab)

Q2. Will a recording be posted online somewhere?

**CEC:** The recording is posted on the Grant Funding Opportunity’s event website: <https://www.energy.ca.gov/event/workshop/2022-10/pre-application-workshop-gfo-22-501-advancing-window-retrofits-and-reducing>

# **Technical**

**Group 1: High Performance Window Retrofits for Commercial Buildings**

1. The solicitation calls for the author of the M&V section of the narrative to be an independent contractor. Since it can't be the prime, can the author be a sub or does it have to be someone not affiliated with the project

CEC: Yes, the measurement and verification (M&V) plan and subsequent work can be completed by a subcontractor on your team.

1. In Table 1, you have a baseline value listed for U-Factor only. Is there a baseline value for Vt and SHGC as well?

CEC: No, we are only specifying the U-Factor for the baseline. The U-Factor and R values have been updated. See Addendum 1, page 12, Table 1 for the updated metrics.

1. Also in Table 1, the baseline efficiency value for the “Commercial Windows Performance” row is referring to triple-pane efficiencies, whereas in the “Installation Ease and Cost of Implementation” row, it refers to double-pane windows as the baseline cost. Would like confirmation on what you all are considering baseline.

CEC: This baseline discrepancy has been addressed and metrics for baseline and research goals have been updated in Addendum 1, Table 1, page 12 of the GFO. The performance baseline in Table 1 is for double pane windows and the research goals are for the high-performance windows/technologies.

1. "In the text of GFO it says “2) Demonstrate increased energy performance (e.g., higher energy efficiency) by at least 10% compared to current code standards”, but Table 1 shows much stricter requirements (Code: U=0.3 in 2022 edition vs. U=0.2 or R5 in Table 1)"

CEC: We have revised the statement appearing in Section I.A., item 2 on page 3 to read: “2) Demonstrate increased energy performance according to the research goals listed in Table 1 and decreased HVAC energy consumption by at least 15% when compared to current HVAC energy use with the existing single pane windows”. Also, we will use the updated baseline metrics as indicated in Addendum 1, Table 1, page 12 of the GFO.

1. I wanted to ask for some further clarification on Table 1 baseline. According to code, the U-factor prescriptive requirements vary between 0.34 and 0.36 for the 16 climate zones. Is the “0.2 to 0.14” a typo?

CEC: The baseline metrics have been revised to be a U-Factor of 0.34 (R value of 2.9). See the updated metrics in Table 1 of the Addendum 1, page 12 of the GFO.

1. If the GFO is looking at existing commercial buildings, can you clarify if the baseline is the single pane window, or is it assumed that those windows have reached the end of useful life and will be replaced with a T24 compliant window?

**CEC**: This GFO will be replacing single pane windows with the high-performance windows that have the potential to meet the performance metrics listed in Table 1 (see Table 1 of Addendum 1, page 12 of the GFO for the updated metrics). However, the baseline performance metrics indicated in Table 1 are for Title 24 compliant double pane windows and are not for single pane windows. Also see response to Q6.

1. Please clarify what would be acceptable for the "lab test" scope for the advanced windows. Would it be any testing to confirm the performance objectives, or do we need to go as far as achieving certification from NFRC?

**CEC:** The advanced window technology must test and achieve National Fenestration Rating Council (NFRC) or Attachments Energy Rating Council (AERC) (secondary window) certification during the lab test prior to installation at the demonstration site.

1. Would an advanced window technology that starts out at Technology Readiness Level (TRL) of 4 but advances through at least TRL 8 during the course of the project be eligible for evaluation?

**CEC:** No. Technologies must be at TRL 7 or 8 at the start of the project. One of the objectives is to accelerate high-performance window uptake in the retrofit market.

1. Would also like clarification in Table 1 on if cost premium ≤ $5/sq. ft. refers just to material cost or material + installation?

**CEC:** The term “cost premium” in the GFO was used incorrectly. The correct term is “total installed price premium.” This price premium includes the cost of purchasing the advanced window product and the product installation and is the amount over the price for purchasing and installing standard double pane windows.

1. Is cost premium manufactured cost or consumer cost?

**CEC:** Please see the response to Q11.

1. Does project pay for products and installation?

**CEC:** The CEC grant can pay for the new advanced high-performance windows, installation, and M&V. If a side-by-side approach is planned with Title 24 compliant windows (see Section I.C.1, page 10), then the cost of these windows and installation must be covered by match or applicant funds. However, CEC funds can pay for the M&V of the Title 24 compliant windows when compared to the high-performance windows**.**

1. Is the baseline cost based on the replacement of existing windows to Title 24 standard?

**CEC**: The baseline cost includes both the purchase and installation of Title 24 compliant window products that meet the requirements of Table 1.

1. For the 5,000 ft2 retrofitting requirement for group 1, is this required before an application or meant to be proposed as part of the application?

**CEC:**  The retrofit of the 5,000 square feet of single pane windows with high-performance windows will take place during the project and you will describe this in your Project Narrative (Attachment 3) and Scope of Work (Attachment 5). No retrofits need occur prior to the application submission.

1. On page 8 under Location and sample size, you give examples of target buildings and then say “with at least 30% window to wall ratio”. Is 30% window to wall ratio a requirement?

**CEC:** The window to wall ratio requirement has been updated to the following: The retrofit must occur in a single commercial building or group of commercial buildings totaling at least 50,000 square feet with a window to wall ratio between 25% and 30%, inclusive. The ratio must remain the same before and after the retrofit. Please see Addendum 1, Section I.C.ii., page 9.

1. For Group 1, are retrofit technologies that leave the existing window in place eligible to apply? The technology would create an additional air gap to improve efficiency and at a much lower price point than full window replacement. We believe this falls within “novel or upgraded materials to improve window performance” requirement but wanted to receive clarity.

**CEC:** Retrofit technologies that leave the existing window in place are eligible as long as the advanced window technology meets Table 1 performance goal metrics and has technology improvements over commercially available technologies. See the updated metrics for secondary windows in Table 1 of the Addendum 1, page 12 of the GFO.

1. Can GSA buildings be considered for demonstration?

**CEC**: If the GSA building meets all the requirements in Section I.C, then the GSA building is eligible as a demonstration site. The site must be located in a gas investor-owned utility service territory: Pacific Gas and Electric, San Diego Gas and Electric, or Southern California Gas.

1. On page 14 in the table under “Minimum match funding”, you mention “match requirement is waived for demonstrations in under-resourced communities”. How does that work for scoring? Would we still be awarded a full 5 points under the match funds scoring if in an under-resourced community? Or do we still need to bring match to get the points?

**CEC:** If the demonstration site is located in and benefittingdisadvantaged/low-income community(ies) and/or Tribes (formerly under-resourced communities), thematch requirement is waived. If these proposals do not provide any match, then no match points will be awarded for Criteria 9. If the proposal provides match, match points will be calculated based on Criteria 9.

If you are in Group 1 where match is required and provided, the percentages are calculated as:

* + Criteria 9a will be calculated using cash-in-hand match amount divided by total match.
	+ Criteria 9b will be calculated using total match required less match divided by CEC requested funds.

If you are in Group 1 where match is waived but is provided OR in Group 2 where no match is required but is provided, the percentages are calculated as:

* + Criteria 9a will be calculated using cash-in-hand match amount divided by total match.
	+ Criteria 9b will be calculated by using total match divided by CEC requested funds.

See below for scoring example.
Funds requested: $1,000,000, Match provided: $100,000 cash and $200,000 in-kind

|  |  |  |
| --- | --- | --- |
|  | **Group 1, match $200,000 required** | **Group 1, $200,000 match waived or Group 2, no match required** |
| Criteria 9a | $100,000/$300,000 = 33% for 2 pts | $100,000/$300,000 = 33%for 2 pts |
| Criteria 9b | $100,000/$1,000,000 = 10% for 1 pts | $300,000/$1,000,000 = 30% for 2 pts |

Projects that provide match funds and are located in and benefitting these communities are eligible for points under Criterions 9 and 10. All match funds must meet the requirements specified in the Solicitation Manual under Section I.J. Match Funding and Section III.C.

* 1. Ten preference points are allocated for match funding.  For Group 1, match requirement is waived for demonstrations in and benefiting under-resourced communities.  For companies who meet that requirement and elect not to provide match funding, how are their scores adjusted with respect to the ten preference points?

**CEC:** Refer to the response to Q19.