

**DOCKETED**

<b>Docket Number:</b>	19-ERDD-01
<b>Project Title:</b>	Research Idea Exchange
<b>TN #:</b>	246498
<b>Document Title:</b>	GFO-22-501 Solicitation Pre-Application Workshop
<b>Description:</b>	Slides used in GFO-22-501 workshop
<b>Filer:</b>	Harrison Reynolds
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	10/12/2022 11:06:02 AM
<b>Docketed Date:</b>	10/12/2022



# GFO-22-501 Pre-Application Workshop

**Advancing Window Retrofits and Reducing Fireplace Air Leaks to Increase Existing Building Energy Efficiency**

Energy Research and Development Division, California Energy Commission

Presenter: Jeanie Mar, Solicitation Manager

Date: October 11, 2022



# Agenda

Time	Item
10:00 am	Welcome and Introduction
10:05 am	Solicitation Background <ul style="list-style-type: none"><li>• Gas Research and Development Program</li><li>• Purpose of Solicitation</li><li>• Available Funding</li></ul>
10:25 am	Application Requirements <ul style="list-style-type: none"><li>• Project Group Requirements</li><li>• Attachments</li><li>• Submission Process</li><li>• Evaluation Process</li></ul>
11:00 am	Q&As
12:00 pm	Adjourn



# Housekeeping

- This workshop will be recorded.
- Participants will be muted during the presentation. Please chat your question in the Q&A window.
- Updates on solicitation documents including this presentation will be posted at the Grant Funding Opportunity's webpage:  
<https://www.energy.ca.gov/solicitations/2022-09/gfo-22-501-advancing-window-retrofits-and-reducing-fireplace-air-leaks>
- Addendum planned, tentative release by the week of October 31<sup>st</sup>.



# Commitment to Diversity

The Energy Commission adopted a resolution strengthening its commitment to diversity in our funding programs. The Energy Commission continues to encourage disadvantaged and underrepresented businesses and communities to engage in and benefit from our many programs.

To meet this commitment, Energy Commission staff conducts outreach efforts and activities to:

- Engage with disadvantaged and underrepresented groups throughout the state.
- Notify potential new applicants about the Energy Commission's funding opportunities.
- Assist applicants in understanding how to apply for funding from the Energy Commission's programs.
- Survey participants to measure progress in diversity outreach efforts.



# We Want to Hear From You!

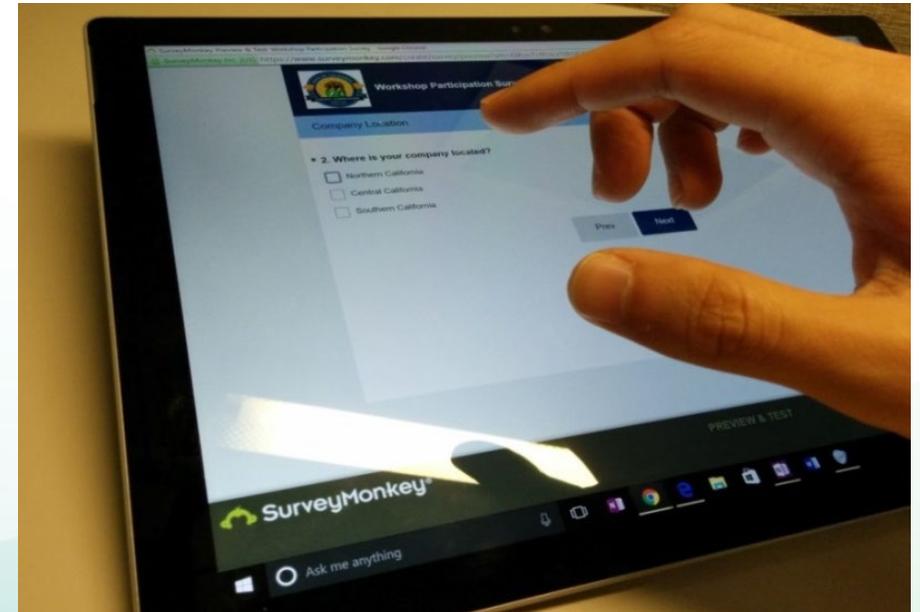
## Participation Survey

Survey responses will be summarized anonymously to track attendance of underrepresented groups in our workshops for public reporting purposes.

Online participants, please use this link:

<https://forms.office.com/g/fDVYt0fwRe>

Thanks!





# Connect With Us

**EMPOWER INNOVATION** COMMUNITY EVENTS FUNDING RESOURCES ABOUT

## CATALYZING THE CLEANTECH COMMUNITY

JOIN NOW →

CALIFORNIA ENERGY COMMISSION

California Energy Commission  
Government Organization

Liked Following Message

Timeline About Photos Reviews More





# Find a Partner on EmpowerInnovation.net

Empower Innovation strives to accelerate your clean tech journey with easy access to funding opportunities from the Energy Commission and other funding providers, curated resources and events, and connections to people and organizations.

## FIND A PARTNER

Announce your interest in this funding opportunity and message other interested parties to find potential partners.

## RESOURCES & TOOLS

Browse the collection of resources for clean tech innovators including Resource Libraries, Funding Sources, Tools, and Databases.

<https://www.empowerinnovation.net/en/custom/funding/view/35381>



# EmpowerInnovation.net





# Research Program Background

- The Gas R&D Program funds public interest research to support the transition to clean energy, greater reliability, lower costs, and increased safety for Californians.
- Annual budget of \$24M funded by a gas investor-owned utility (Gas IOU) ratepayer surcharge.
- Directed towards developing science or technology:
  - Not adequately addressed by competitive or regulated entities.
  - Benefits accrue to California citizens and Gas IOU ratepayers.



# Policy Drivers

- **SB 32, CA Global Warming Solutions Act of 2006:** reduce GHG emission to 40% below 1990 levels by 2030
- **AB 758, Building Efficiency:** develop a comprehensive program to achieve greater energy and water savings in residential and nonresidential buildings
- **AB 3232, Zero-emissions Buildings and Sources of Heat Energy:** CEC to evaluate the potential for CA to reduce greenhouse gas emissions from the state's residential and commercial building stock by at least 40 percent below 1990 levels by January 1, 2030.
- **California Energy Code:** ensures that new and existing buildings achieve energy efficiency and preserve outdoor and indoor environmental quality through use of the most energy efficient technologies and construction.
- **2019 California Energy Efficiency Action Plan:** provides a 10-year roadmap to activate market forces and transform California's existing residential, commercial, and public building stock into high performing and energy efficient buildings including low-income barriers to energy efficiency, and doubling energy efficiency by 2030.



# Purpose of Solicitation

- Increase existing building envelope retrofits to improve energy efficiency and reduce greenhouse gas (GHG) emissions
- Fund energy efficiency research to
  - Advance and demonstrate cost-effective high-performance window retrofits in existing commercial buildings, and
  - Identify and examine strategies to reduce air leakage and energy loss in existing residential wood-burning and gas fireplaces.



# Available Funding

Group	Minimum Award	Maximum Award	Match Required
<b>Group 1: High-Performance Window Retrofits for Commercial Buildings</b>	\$ 1,000,000	\$2,400,000	<b>20% match required</b> but <b>match requirement is waived for demonstrations</b> in and benefiting under-resourced communities.
<b>Group 2: Strategies to Reduce Fireplace Air Leaks</b>	\$ 200,000	\$ 238,222	<b><u>No match required</u></b> , but those with match will receive preference points.



# Group 1 Match Funding

- 20% of match funding is required. Match is waived if project is in and benefitting under-resourced communities.
- Applications that include match funding will receive additional points during the scoring phase.
- Match funding contributors must submit match funding commitment letters that meet the requirements. Failure to do so will disqualify the match funding commitment from consideration.
- Refer to the Solicitation Manual for more details on match funding.



# Group 2 Match Funding

---

- Match funding is optional.
- Applications that include match funding will receive additional points during the scoring phase.
- Match funding contributors must submit match funding commitment letters that meet the requirements. Failure to do so will disqualify the match funding commitment from consideration.
- Refer to the Solicitation Manual for more details on match funding.



# Group 1- High-Performance Window Retrofits for Commercial Buildings

---

**Funding Amount:** \$ 1,200,000 - \$2,400,000

## **Background:**

- Windows account for about 10% of building energy losses and affect HVAC use and lighting.
- Space conditioning accounts for about 37% of total gas consumption in California commercial buildings.
- Technical and cost challenges have kept window retrofits low.



# Group 1 Scope of Work (SOW) Attachment 5 Requirements

## Technology Metrics and Performance

- Be ready to demonstrate and deploy in commercial buildings with technology readiness level (TRL) of 7 or 8 (window research must include at least one of the improvements listed in Section 1.C, Group 1, Performance and metrics, Page 9)
- Meet the performance goals listed in Table 1 (Page 11 – GFO manual)
- Test and demonstrate space conditioning energy consumption compared to Title 24 (T24) compliant window (12 months includes summer & winter seasons)
- Test and demonstrate lower cost of implementation compared to current practices.
- Be easily deployable: comparable thickness and weight and installation time.
- CBECC 2022 Modeling of T24 and new window technology in all climate zones



# Group 1 SOW Requirements continued

## Location and sample size

- Single commercial building or group of commercial buildings with at least 50,000 square feet
- Retrofit at least 5,000 square feet of single pane windows
- Buildings and climate zones in Gas IOU service territories\* with highest adoption potential (e.g. cost effectiveness based on high heat and/or extreme cold days, buildings with long operating hours)

## Cost Reduction

- Evaluate and estimate the system cost (material and installation per square foot of window) (***Addendum- bolded words added for clarity***)

\*Pacific Gas and Electric Co., San Diego Gas and Electric Co., and Southern California Gas Co.



# Group 1 SOW Requirements continued

## Market Deployment

- Provide a market deployment plan
- Cost breakdown of T24 windows compared to high-performance windows and cost reduction strategies
- Energy Efficient Statewide measure development component (***Addendum bullet***)
  - Streamlining effort for energy efficiency measure development processes for inclusion into California's energy efficiency portfolios

\*Cal TF website: <http://www.caltf.org>

Direct all questions regarding Cal TF or the measure development process to [Cal TF Staff](#)



# Group 1 Side-by-Side Demonstration (Optional)

- Proposal includes demonstration site(s) with plans and budget to install T24 compliant windows and will do side-by-side field testing to compare with the new high-performance window technology.
- **Side-by-side:** windows are evaluated under the same environmental conditions (i.e., same building orientation and location, be installed in buildings of similar vintage with respect to energy using systems, envelope and occupant usage patterns)
- Minimum of 2500 square foot to T24 windows
  - T24 window square footage does not count towards the 5,000 square feet requirement
- Side-by-side windows and installation costs may count as match
- Proposals that **have not planned nor budgeted** for a retrofit **prior to submitting the application** will not be considered to have the enhancing feature.



# Group 1 Project Narrative (Attachment 3)

- Analysis on how the selected technology may meet or exceed the goals listed in Table 1, and provide a summary of the information in Table 2.
- Estimate and discuss window system costs (capital and/or installation) reduction.
- Identify and provided a commitment letter of at least one building owner interested in deployment of the technology
- Identify and provided a commitment letter of a project partner/manufacturer who will produce the new window product
- **If including side-by-side approach**, must also include
  - Description of T24 compliant and high-performance window demonstration sites
  - Funding source for the purchase and installation of the 2,500 square foot of T24 windows
  - Contingency funding source to cover potential cost overruns for the side-by side approach, and
  - Provide evidence of commitment that applicant has planned to retrofit at least 2,500 square feet of replacement T24 windows.



# Group 2- Strategies to Reduce Fireplace Air Leaks in Residential Buildings

**Funding Amount:** \$ 200,000- \$238,222

## **Background:**

- Research on fireplace air leakage is not current and is not CA specific.
- California's Energy Code does not have a specific fireplace air leakage standard
- Air leaks affects both energy use and indoor air quality
- Leakages can have huge implications for indoor air quality and human health.



# Group 2 Scope of Work

## Attachment 5 Requirements

- Inventory of residential CA building stock with fireplaces
- Testing fireplace air leakage rates in at least 20 homes (Gas IOU territories)\* with wood burning/gas burning fireplaces
- Measuring and evaluating the transport of emissions through the fireplace air leaks
- Identifying and evaluating solutions/strategies to reduce air leaks
- Measure or evaluate energy use, GHG emission impact, and indoor air quality impact.
- Preparing an educational guide for residents with homes that have fireplaces

\*Pacific Gas and Electric Co., San Diego Gas and Electric Co., and Southern California Gas Co.



# Group 2 Project Narrative Attachment 3 Requirements

Include the following in Project Narrative

- How the residential California building stock with fireplaces will be characterized to develop the residential CA building stock inventory
- The project team's process for home selection, testing and monitoring of fireplace air leaks and pollutants
- How solutions/strategies will be identified and tested for air leakage, effectiveness, technical/economic feasibility and acceptance potential
- How project team determines and measure outdoor/indoor air transfer during air quality (e.g. wildfire) and non-quality events
- How energy use will be measured/determined and how GHG emissions will be calculated
- Plan and approach for information dissemination to increase uptake of solutions/strategies



# Eligible Applicants

- This is an open solicitation for public and private entities.
- Applicants must accept the PIER terms and conditions.
  - Standard, UC, and DOE T&Cs available online:  
<https://www.energy.ca.gov/funding-opportunities/funding-resources>
- Applicants are encouraged to register with the California Secretary of State, as all recipients must be registered and in good standing to enter into an agreement with the Energy Commission: <http://www.sos.ca.gov>



# Application Requirements

## Each Applicant must complete and include the following:

1. Application Form (.pdf)	8. CEQA Compliance Form (.docx)
2. Executive Summary (.docx)	9. References and Work Product Form (.docx, .pdf)
3. Project Narrative (.docx)	10. Commitment and Support Letters (.pdf)
4. Project Team (.docx, .pdf)	11. Project Performance Metrics
5. Scope of Work (.docx)	12. Applicant Declaration (.docx)
6. Project Schedule (.xlsx)	13. California Based Entity Form (.docx)
7. Budget (.xlsx)	14. References for Calculating Energy End-Use and GHG Emissions



# Project Narrative (Attachment 3)

- This is your opportunity to explain the entirety of the project. The narrative should explain:
  - Why is your project necessary and important to California?
  - What is your project approach and how will each major task be implemented?
  - How will the project be completed in the term proposed
  - How will the project outcomes benefit gas ratepayers?
  - Address the requirements for your group as described in Section I.C.
  - Respond to the scoring criteria described in Section IV.F.



# Scope of Work (Attachment 5)

- Tell us exactly what you are proposing to do in your project.
- Identify what will be delivered to the Energy Commission.
- Be sure to include in the technical tasks:
  - At least one product deliverable per task.
  - Address requirements in Section I.C. under Project Focus.
- Be sure to include in the Project Schedule (Attachment 6):
  - Product deliverables that correspond with the Scope of Work.
  - Realistic dates on when product deliverables can be completed.



# Budget (Attachment 7)

- Identify how the Energy Commission funds and match funds be spent to complete the project
- Subcontractors receiving \$100,000 or more Energy Commission funds must complete a separate budget form.
- Ensure that all rates provided are **maximum** rates for the entire project term.
- Travel Restrictions:
  - CEC funds should be limited to lodging and any form of transportation (e.g., airfare, rental car, public transit, parking, mileage).
  - If an applicant plans to travel to conferences, including registration fees, they **must** use match funds.



# Commitment and Support Letter Forms (Attachment 10)

- Follow guidelines provided for commitment and support letters.
  - Commitment letters are required for entities or individuals that are committing match funding, testing/demonstration sites, including the **Prime**.
  - Support letters describe a project stakeholder's interest or involvement in the project.
- All applicants must submit **at least one** support letter.
- Match funding must be supported by a match fund commitment letter.
- Any project partners that will make contributions to the project (other than match and sites) must submit a commitment letter.
- Limit to two pages per letter, excluding the cover page.



# GFO Submission Requirements

- Method of Delivery is the Energy Commission Grant Solicitation System, available at: <https://gss.energy.ca.gov/>
- Electronic files must be in Microsoft Office Word (.doc, .docx) and Excel (.xls, .xlsx) formats, unless originally provided in solicitation in another format.
- Application documents should meet formatting requirements, and page recommendations.
- Attachments requiring signatures (Application Form and Support/Commitment Letters) may be scanned and submitted in PDF format.
- First-time users must register as a new user to access system.
- Grant Solicitation System (GSS) How to Apply presentation: <https://www.energy.ca.gov/media/1654>



# GSS WARNING

## START THE PROCESS EARLY!

- Applications must be fully submitted BEFORE the deadline listed in the solicitation manual
- **The GSS system will shut off at the deadline**
- Applications in the process of being submitted prior to the deadline will NOT be accepted after the deadline
- Applications will NOT be accepted after the deadline



# GSS Structure

- Register as a New User
- Log In
- 3 Step Application Process:
  1. Select Solicitation
  2. Upload Files
    - Select documents for upload
    - Tag files with document type
    - Designate confidential documents (if applicable)
  3. Review and Submit

**All three steps must be complete BEFORE the deadline**



# How will my Application be Evaluated?

## Application Screening

### Admin Screening Process

- Energy Commission staff screens applications per criteria in Section IV.E.
- Criteria are evaluated on a pass/fail basis.
- Applicants must pass all screening criteria or the application will be disqualified.

### Some Reasons for Disqualification

- Application is not submitted by the specified due date and time.
- Application does not include one or more support letters.
- Application contains confidential material.



# How will my Application be Evaluated?

## Application Scoring

- **Evaluation Committee applies the scoring scale to the scoring criteria.**
- **Applications must obtain a minimum passing score of 52.5 points for Criteria 1-4 in order to continue evaluation.**
- **Applications must obtain a minimum passing score of 70 points for Criteria 1-7 in order to be considered for funding.**
- **Review Section IV of the manual and ensure the application provides a clear and complete response to each scoring criteria.**

<b>Scoring Criteria</b>	<b>Maximum Points</b>
1. Technical Merit	15
2. Technical Approach	25
3. Impacts and Benefits for CA IOU Ratepayers	20
4. Team Qualifications, Capabilities, and Resources	15
5. Budget and Cost-Effectiveness	10
6. CEC Funds Spent in California	10
7. Ratio of Direct Labor Costs to Indirect Costs	5
<b>Total</b>	<b>100</b>
<b>Minimum Points to Pass</b>	<b>70</b>



# How will my Application be Evaluated?

## Application Scoring – Preference Points

- **Passing applications (score of 70 or more from Criteria 1-7) will be considered for bonus points. Criteria for bonus points include:**
  - **Match Funding**
  - **Disadvantaged Communities**
  - **California Based Entities**

<b>Scoring Criteria</b>	<b>Maximum Points</b>
8. California Based Entities Funding	5
9. Match Funds	10
10. Under-Resourced Communities <i>(Group 1 only)</i>	5
<b>Total Bonus Points (Group 1)</b>	<b>20</b>
<b>(Group 2)</b>	<b>15</b>



# Match Funding Points

- Applicants may receive up to 10 additional preference points based on the criteria below:
  - Up to 5 points will be awarded based on the percentage of proposed cash relative to the total match contributions using the Match Scoring Table in the Scoring Criteria.
  - The remaining 5 points may be awarded to applications that exceed the minimum match requirements up to 100 percent using the Exceeds Minimum Match Scoring table.
  - Refer to the Solicitation Manual for more details on the match funding scoring criteria.



# Under-Resourced Communities (Group 1 only) [Use for criteria 10 only]

- Projects with **all test or demonstration** sites located in under-resourced communities and justifies how the project will benefit these communities may receive additional points.
  - A disadvantaged community is identified by census tract and represents the 25% highest scoring tracts in CalEnviroScreen 4.0 or later versions: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>
  - Low-income communities are defined as communities within census tracts with median household incomes\* at or below 80 percent of the statewide median income, or at or below the threshold designated as low-income by the California Department of Housing and Community Development. <http://www.hcd.ca.gov/grants-funding/income-limits/index.shtml>
  - California Native American Tribes are located on the contact list maintained by the Native American Heritage Commission. <https://nahc.ca.gov/cp/>

\*To Identify low-income communities, use <https://webmaps.arb.ca.gov/PriorityPopulations/>



# Next Steps After Grant Award

- **Notice of Proposed Award:** Shows total proposed funding amounts, rank order of applicants by project group, and the amount of each proposed award.
- **Agreement Development:** Proposal documents will be processed into a legal agreement.
- **Failure to Execute:** The Energy Commission reserves the right to cancel the pending award if an agreement cannot be successfully executed with an applicant.
- **Project Start:** Recipients may begin work on the project **only** after the agreement is fully executed (approved at an Energy Commission business meeting and signed by the Recipient and the Energy Commission).



# Key Dates

Activity	Date
Solicitation Release	September 20, 2022
Pre-Application Workshop	October 11, 2022 <b>at 10:00 am</b>
<b>Deadline for Written Questions</b>	<b>October 21, 2022 at 5:00 pm</b>
Anticipated Distribution of Questions and Answers	Week of <del>November 4</del> <u>October 31, 2022 (Addendum change)</u>
<b>Deadline to Submit Applications</b>	<b>November 29, 2022 at 11:<u>59</u> pm</b>
Anticipated Notice of Proposed Award Posting	February 3, 2023
Anticipated Energy Commission Business Meeting	May 10, 2023
Anticipated Agreement Start Date	May 29, 2023
Anticipated Agreement Term	May 29, 2023 to March 31, 2027



# Questions and Answers

---

- Please chat your question in the Question and Answers window or raise your hand and you will be called on to unmute yourself.
- Please remember to introduce yourself by stating your name and affiliation. (Feature found under the Participants panel)
- Keep questions under 2 minutes to allow time for others.
- Note that our official response will be given in writing and posted on the GFO webpage.



# Additional Questions

---

Please send all questions related to GFO-22-501 to:

**Angela Hockaday**

Commission Agreement Officer

715 P, MS-1

Sacramento, CA 95814

[Angela.Hockaday@energy.ca.gov](mailto:Angela.Hockaday@energy.ca.gov)

**Deadline to submit questions:**

**Friday, October 21, 5:00 PM**



**Thank You!**

