



GFO-23-316 Pre-Application Workshop

Industrial, Agricultural, and Water Demand Flexibility Research and Deployment Hub (IAW FlexHub)

Energy Research and Development Division, California Energy Commission

Presenters: Matt Fung

July 23, 2024



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/2024-07/gfo-23-316-industrial-agricultural-and-water-demand-flexibility-research-and>



Agenda

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



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.



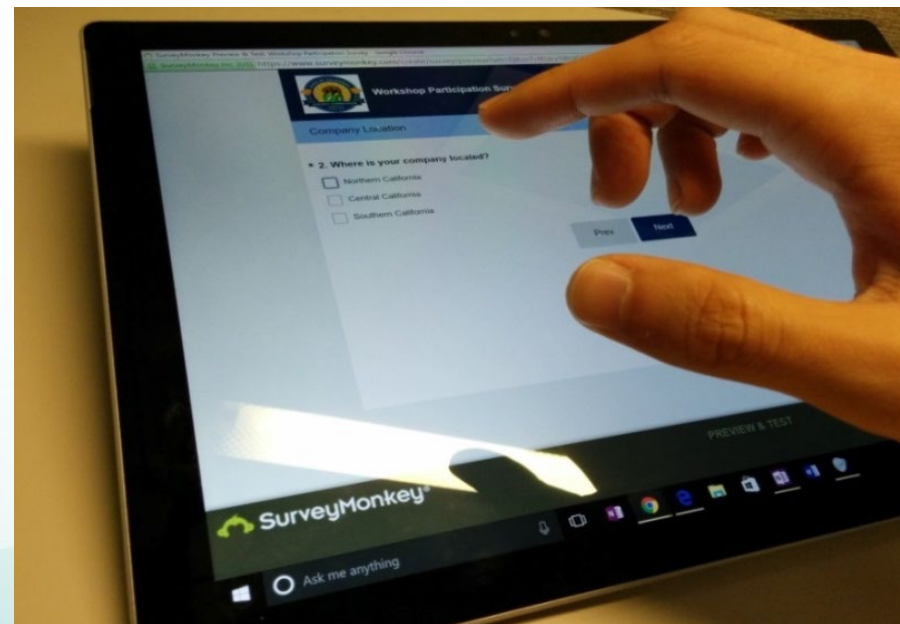
We Want to Hear From You!

Participation Survey

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

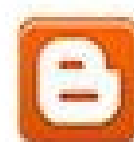
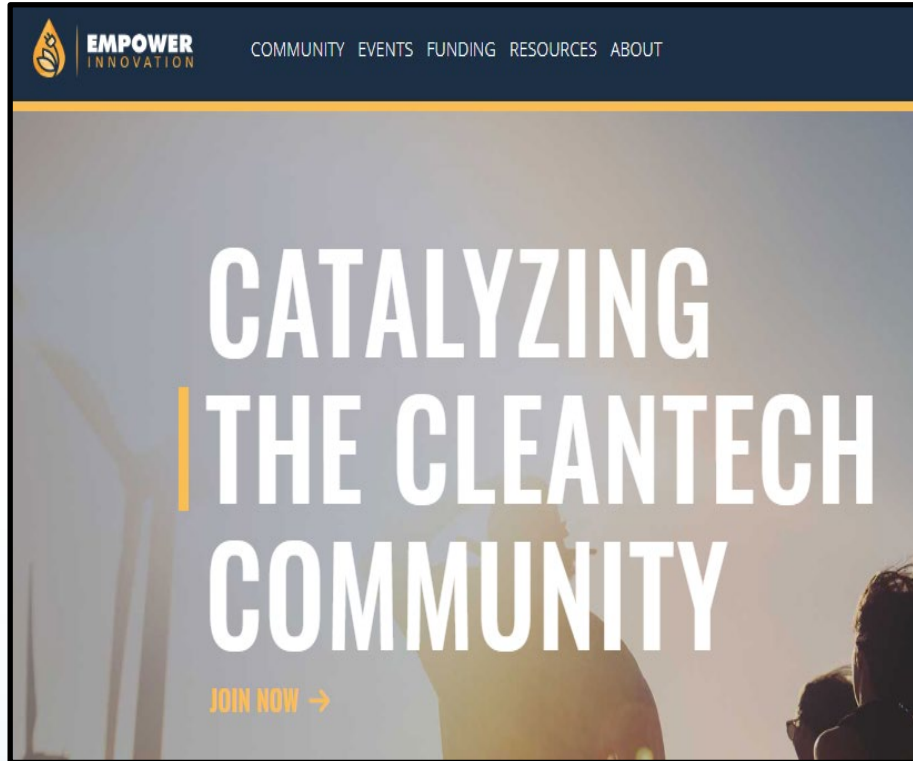
- Online participants, please use this link:
<https://forms.office.com/g/6vLYftwAWc>

Thanks!





Connect With Us





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/42719>



Research Program Background

- The purpose of the EPIC program is to benefit the ratepayers of the three investor-owned utilities (IOUs)
- The EPIC program funds clean energy technology projects that promote greater electricity reliability, lower costs, and increased safety

Guided by the EPIC 4 Investment Plan (2021-2025), this solicitation:

- Seeks to Increase the Value Proposition of Distributed Energy Resources to Customers and the Grid
- Helps to achieve Funding Initiative: Distributed Energy Resource Integration and Load Flexibility
 - Funding Initiative 17: Enabling Grid Resilience with Load Flexibility in the Industrial, Agriculture, and Water Sectors



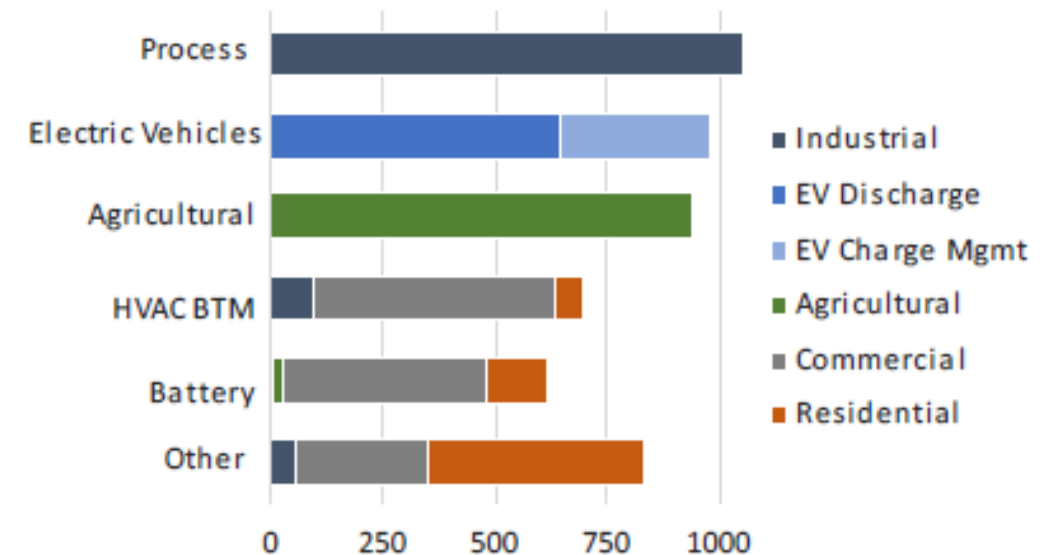
Policy Drivers

- SB 100: Meet 100% of electricity retail sales and state agency electricity needs with renewable and zero-carbon resources by 2045.
- CEC Load Management Standards & Market-Informed Demand Automation Server (MIDAS).
- SB 49: Standards for appliances to facilitate the deployment of flexible demand technologies.
- SB 846: Statewide demand flexibility goal of 7,000 megawatts (MW) by 2030.



Background and Motivation

- Demand flexibility is key to meeting California's climate and clean energy goals
- SB 846: 7GW load shift by 2030
- Industrial, Agriculture, and Water sectors
 - 23% of California's energy use
 - Limited programs for demand flexibility
 - Many hard-to-decarbonize end uses
 - ~2 GW demand flexibility potential



Demand Flexibility Potential (MW) - SB 846 Report



Purpose of Solicitation

- Award one R&D hub administrator to lead a multidisciplinary team to:
 - Identify and address emerging demand flexibility research needs
 - Deploy emerging technologies
 - Facilitate commercialization across IAW subsectors
- Demonstrate large-scale automated, signal-responsive demand flexibility
- Inform the state's energy policies and utility programs while supporting CA's demand flexibility goals (SB 846)
- Dynamically manage research projects based on new policies, industry needs, and research results



Available Funding

Project Group	Available Funding	Minimum Award Amount	Maximum Award Amount
IAW FlexHub	\$17,000,000	\$15,000,000	\$17,000,000



Match Funding

- Minimum 20% of match funding is required.
- Applications with additional match above the minimum and higher proportions of cash match may 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.



Project Focus Areas

IAW Market Assessments:

- Evaluate demand flexibility trends and best practices
- If available, use advanced metering infrastructure data to analyze loads shapes and estimate demand flexibility potential

Demand Flexibility Technologies:

- Evaluate rate structures for demand flexibility
- Demonstrate and deploy signal responsive demand flexibility technologies in at least five (5) IAW subsectors
- Use Hub research findings to assess and make recommendations

*Further details are on pages 6-7 of the solicitation manual



Project Focus Areas (cont.)

Stakeholder Engagement and Partnerships:

- Annual program evaluations and review meetings
- Engage in proceedings and standards development
- Partner with equipment manufacturers

*Further details are on page 7 of the solicitation manual



Project Requirements

Administrative Requirements:

- Budget for Prime applicant limited to **no more than 25 percent** of the requested EPIC funds
 - Remaining budget must be allocated to subrecipients
- Must have **at least five (5)** organizations as major subrecipients
- Demonstrate emerging technologies for **at least five (5)** different IAW subsectors
- Use interim research results and input from the Technical Advisor Committee to refine projects
- Proposal must include a Year 1 workplan that:
 - Describes in detail **at least three (3)** first year research projects
 - Framework for refining and updating annual workplans
- Refer to the solicitation manual for complete list of requirements.



Research Requirements - Projects

- Initial technology readiness level (TRL) 5-9
 - Advance TRL level by at least one level
- Demonstrate a minimum of 5 percent reduction in annual energy costs from demand flexibility
- 5 year or shorter payback for each site
- Research projects must be enrolled in:
 - a load serving entity or third-party DR program, or
 - Emergency Load Reduction Program (ELRP)
- If using a price server, use the Market Informed Demand Automation Server (MIDAS), when feasible
- **Additional projects after agreement execution must be reviewed and approved by CEC CAM and possible Business Meeting approval.**
- Refer to the solicitation manual for complete list of requirements.



Research Requirements - Sites

- Projects can occur at one or more sites
- Sites must be located in California IOU territories
 - Sites encouraged to have climate zone and IOU diversity
- At least three (3) sites from three (3) different IAW subsectors must be identified in the proposal
 - Minimum of 10 sites over the course of the agreement
 - **Adding sites after agreement execution subject to CEC CAM and possible Business Meeting approval.**
 - Sites must represent at least 5 different IAW subsectors
- Refer to the solicitation manual for complete list of requirements.



Eligible Applicants

- **This solicitation is only accepting private entities as prime applicants.**
 - **Public entities (national labs, public universities, etc.) can only apply as subrecipients to prime applicants.**
- Applicants must accept the EPIC terms and conditions.
 - T&Cs available online:
<https://www.energy.ca.gov/funding-opportunities/funding-resources>
- All recipients must be registered and in good standing to enter into an agreement with the Energy Commission:
<http://www.sos.ca.gov>
 - Applicants are encouraged to register with the California Secretary of State, as soon as possible.



Application Requirements

Each Applicant must complete and include the following:

- | | |
|-----------------------------------|--|
| 1. Executive Summary Form (.docx) | 8. Past Projects (.docx) |
| 2. Project Narrative (.docx) | 9. Commitment and Support Letters (.pdf) |
| 3. Project Team Form (.docx) | 10. Project Performance Metrics |
| 4. Scope of Work (.docx) | 11. Applicant Declarations (.docx) |
| 5. Project Schedule (.xlsx) | 12. *CEQA Reference Guide* |
| 6. Budget (.xlsx) | |
| 7. CEQA Compliance Form (.docx) | |

*** Only for reference and not required to be included as part of application package**



Project Narrative (Attachment 2)

- 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 electric ratepayers?
 - Address the requirements as described in Section I.C.

Respond to the scoring criteria described in Section IV.F.



Project Narrative Guidelines

Include the following in Project Narrative (Attachment 2).

- Research Plans
 - Describe how the proposed demand flexibility technologies and strategies will cost-effectively enable end uses.
 - Describe the demonstration and deployment sites selected for Year 1 and site selection criteria for future years.
 - Identify, describe, and determine baseline values and targets for performance metrics.
- Refer to the solicitation manual for complete list of items to include.



Project Narrative Guidelines (cont.)

Include the following in Project Narrative (Attachment 2).

- Hub Administration and Coordination Strategy
 - Describe the overall vision for the IAW FlexHub and how it will meet the objectives.
 - Describe plan to manage the IAW FlexHub.
 - Describe the IAW FlexHub engagement strategy.
- Refer to the solicitation manual for complete list of items to include.



Scope of Work (Attachment 4)

- Tell us exactly what you are proposing to do in your project.
- Identify what will be deliver 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 5):
 - Product deliverables that correspond with the Scope of Work.
 - Realistic dates on when product deliverables can be completed.



Budget (Attachment 6)

- 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 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 9)

- 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.



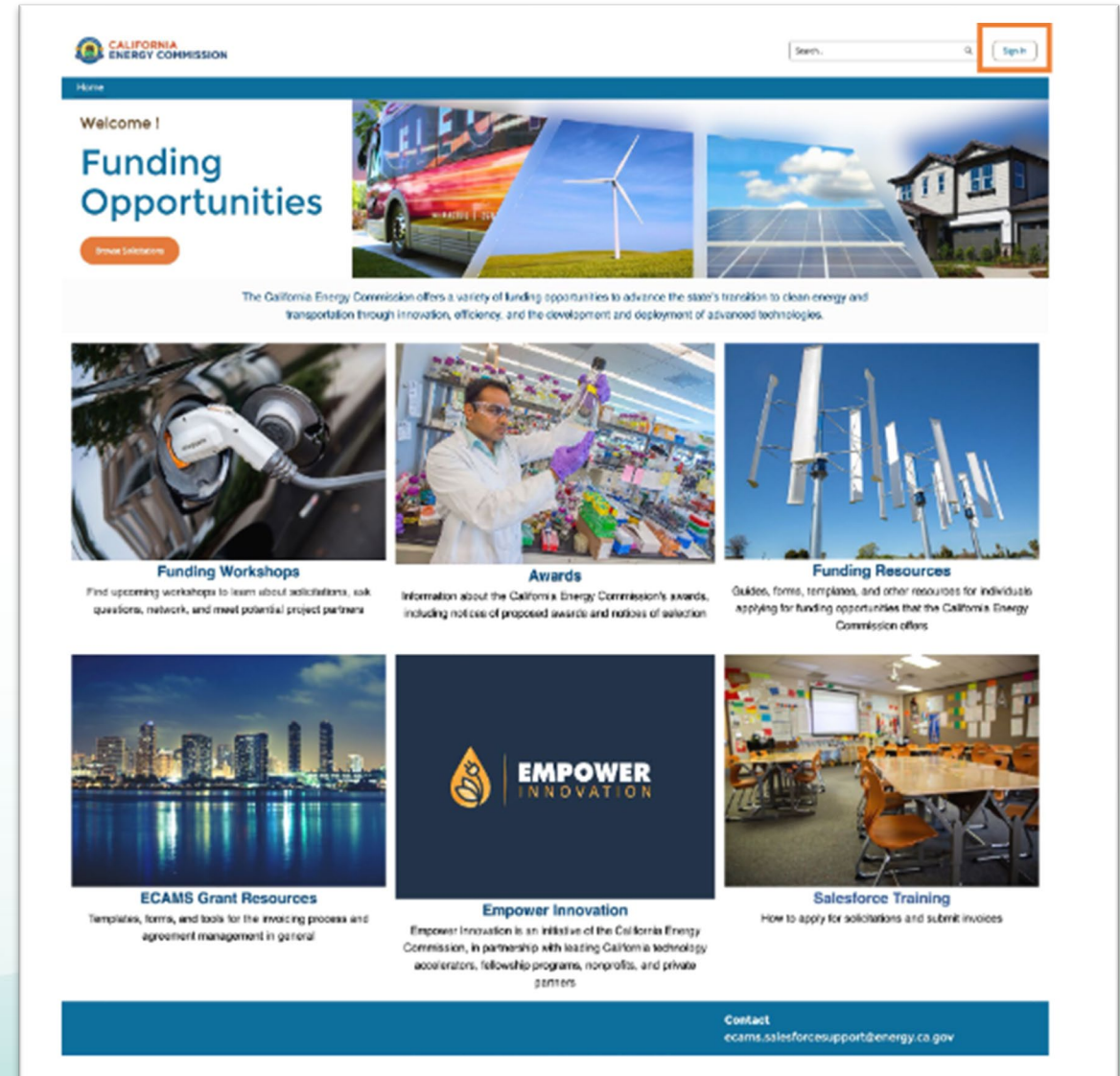
GFO Submission Requirements

- Applicants must have or must create a user account to submit a solicitation application. To create an account, please see the guidance **User Registration Instructions** at:

<https://www.energy.ca.gov/media/7893>

Note: One account manager per organization, but users can be added by account manager

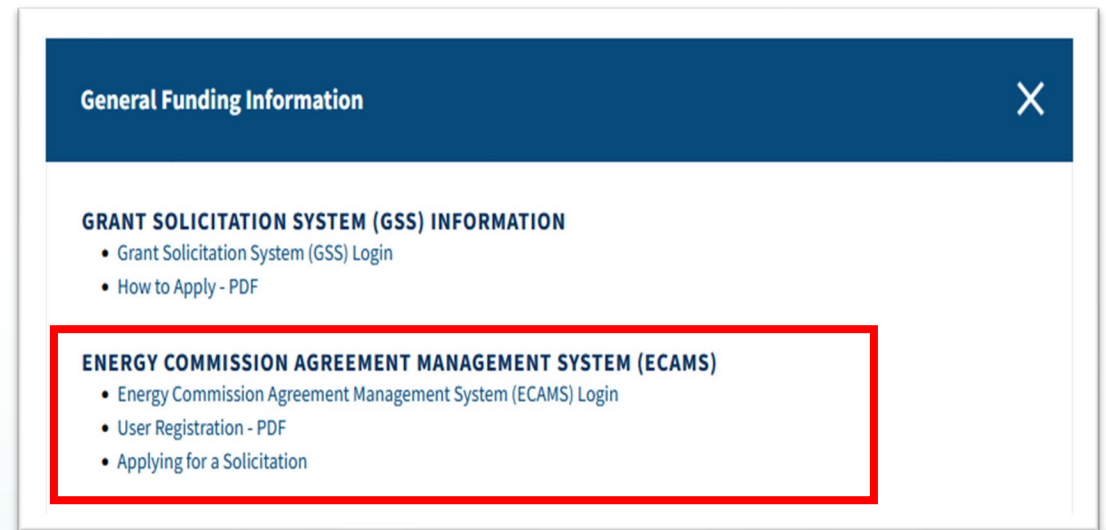
- Applications must be submitted through the **Energy Commission Agreement Management System (ECAMS)** at: <https://ecams.energy.ca.gov/>





GFO Submission Requirements (cont.)

- For detailed instructions on application submittal, please see the *Applying for a Solicitation* at: <https://www.energy.ca.gov/media/7956>
- Both referenced guidance documents are available at: <https://www.energy.ca.gov/funding-opportunities/funding-resources> under General Funding Information.
- Questions with the ECAMS system should be directed to: ECAMS.SalesforceSupport@Energy.ca.gov





GFO Submission Requirements (cont. 2)

- Electronic files, other than those requiring signatures, must be consistent with the specific file format provided in the solicitation.
- Application documents should meet formatting requirements, and page recommendations as specified in the solicitation manual.
- Attachments requiring signatures (Applicant Declarations and Support/Commitment Letters) may be signed, scanned, and submitted in PDF format.



Submission Warning

START THE PROCESS EARLY!

- Applications must be fully submitted BEFORE the deadline listed in the solicitation manual.
- The ECAMS system will reject applications submitted after the deadline.
- Applications in the process of being submitted prior to the deadline will NOT be accepted after the deadline.
- ECAMS support is ONLY available from 8am – 5pm Monday-Friday.



Application Submission

- Register as a New User (if applicable)
- Log In
- 4-Step Application Submittal Process:
 1. Select Solicitation
 2. Enter Application Information
 3. Upload Files
 - Select documents for upload
 - Tag files with document type
 - Designate confidential documents (if applicable)
 4. Review and Submit
- Confirmation from ECAMS system that submission was successful

All steps must be complete BEFORE the submission deadline



Application Reminders

We recommend you carefully review your application before submission.

- ☐ Verify that all necessary documents have been uploaded.
- ☐ Verify that all documents uploaded are the accurate version you intend to submit as your final.
- ☐ Verify that your documents are not marked "confidential" unless the solicitation allows specific material to be confidential. Most solicitations do not allow submission of confidential information.
- ☐ Verify that your match commitment letters accurately reflect the match amounts included in your budgets, including the match provided by the prime applicant.
- ☐ Verify that support and commitment letters are included, if required.
- ☐ Verify that amounts entered within the system's budget (if any) concur with information included on uploaded budget worksheets.



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 commitment letters that total the minimum match share.
- ☐ 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.**

Scoring Criteria	Maximum Points
1. Research Plans	25
2. Hub Administration and Coordination Strategy	20
3. Impacts and Benefits for CA IOU Ratepayers	15
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
Total	100
Minimum Points to Pass	70



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**

Scoring Criteria	Maximum Points
8. Match Funds	10
9. Disadvantaged & Low-income Communities	5
Total Bonus Points	20



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.



Disadvantaged & Low-Income Communities

- Projects with sites located in disadvantaged and/or low-income 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 other areas with high amounts of pollution and low populations as identified by CalEPA:
<https://calepa.ca.gov/envjustice/ghginvest>
 - 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>



Disadvantaged & Low-Income Communities

- Projects seeking preference points under Scoring Criterion 9, must describe a Community Impact Plan as a separate section under Project Narrative that includes:
 - Partnering with local community-based organizations* and develop a Community Impact Plan that identifies the project's local health, economic, and environmental benefits to the DAC and LI communities where the research is conducted.
 - Refer to solicitation manual for more details.

*As defined in section I.B of solicitation manual



Key Dates

Activity	Date
Solicitation Release	July 5, 2024
Pre-Application Workshop	July 23, 2024 at 10:00 a.m.
Deadline for Written Questions	August 2, 2024 at 5:00 pm
Anticipated Distribution of Questions and Answers	Week of August 19, 2024
Deadline to Submit Applications	October 4, 2024 at <u>11:59 pm</u>
Anticipated Notice of Proposed Award Posting	Week of November 18, 2024
Anticipated Energy Commission Business Meeting	February 2025
Anticipated Agreement Start Date	March 2025
Anticipated Agreement End Date	March 31, 2031



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).



Questions and Answers

- Please chat your question in the Question and Answers window.
- Note that our official response will be given in writing and posted on the GFO webpage:
<https://www.energy.ca.gov/solicitations/2024-07/gfo-23-316-industrial-agricultural-and-water-demand-flexibility-research-and>



Additional Questions

Please send all questions related to GFO-23-316 to:

Laura Williams

Commission Agreement Officer

715 P Street, MS-1

Sacramento, CA 95814

(916) 879-1383

Laura.Williams@energy.ca.gov

Deadline to submit questions:

Friday, August 2 at 5:00 PM



Thank You!