



**CALIFORNIA  
ENERGY COMMISSION**



**California Energy Commission  
January 21, 2026 Business Meeting  
Backup Materials for The Regents of the University of California, on behalf of the  
Davis campus**

The following backup materials for the above-referenced agenda item are available in this PDF packet as listed below:

1. Proposed Resolution
2. Contract Request Form
3. Scope of Work

**[PROPOSED]**

**RESOLUTION NO: 26-0121-XX**

**STATE OF CALIFORNIA**

**STATE ENERGY RESOURCES  
CONSERVATION AND DEVELOPMENT COMMISSION**

**RESOLUTION: The Regents of the University of California, on behalf of the Davis campus**

**RESOLVED**, that the State Energy Resources Conservation and Development Commission (CEC) adopts the staff CEQA findings contained in the Agreement or Amendment Request Form (as applicable); and

**RESOLVED**, that the CEC approves agreement 400-25-001 with the Regents of the University of California, on behalf of the Davis campus for a \$100,000 contract to provide technical support services for developing Compliance Test Procedures for Flexible Demand Appliance Standards; and

**FURTHER BE IT RESOLVED**, that the Executive Director or their designee shall execute the same on behalf of the CEC.

**CERTIFICATION**

The undersigned Secretariat to the CEC does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the CEC held on January 21, 2026.

AYE:

NAY:

ABSENT:

ABSTAIN:

Dated:

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Kim Todd  
Secretariat



## CONTRACT REQUEST FORM (CRF)

### A. New Agreement Number

**IMPORTANT:** New Agreement # to be completed by Contracts, Grants, and Loans Office.

New Agreement Number: 400-25-001

### B. Division Information

1. Division Name: Efficiency Division
2. Agreement Manager: Elizabeth Butler
3. MS-28
4. Phone Number: (916) 232-9018

### C. Contractor's Information

1. Contractor's Legal Name: The Regents of the University of California, on behalf of the Davis campus

### D. Title of Project

Title of project: Developing Compliance Test Procedures for Flexible Demand Appliance Standards

### E. Term and Amount

1. Start Date: 02/01/2026
2. End Date: 01/31/2029
3. Amount: \$100,000

### F. Business Meeting Information

1. Operational agreement to be approved by Executive Director? No
2. Are the ARFVTP agreements \$75k and under delegated to Executive Director? No
3. The Proposed Business Meeting Date: 01/21/2026
4. Consent or Discussion? Consent
5. Business Meeting Presenter Name: N/A
6. Time Needed for Business Meeting: N/A
7. The email subscription topic is: Flexible Demand Appliances and Load Management and Demand Response

#### Agenda Item Subject and Description:

The Regents of the University of California, on behalf of the Davis campus. Proposed resolution approving agreement 400-25-001 with the Regents of the University of California, on behalf of the Davis campus for a \$100,000 contract to provide technical support services for developing Compliance Test Procedures for Flexible Demand Appliance Standards. (COIA) Contact: Elizabeth Butler

### G. California Environmental Quality Act (CEQA) Compliance

1. Is Agreement considered a "Project" under CEQA?

No



If yes, skip to question 2.

If no, complete the following (PRC 21065 and 14 CCR 15378) and explain why Agreement is not considered a "Project":

Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because: its purpose is to obtain technical support services for developing Compliance Test Procedures for Flexible Demand Appliance Standards.

**2. If Agreement is considered a "Project" under CEQA answer the following questions.**

a) Agreement **IS** exempt?

No

Statutory Exemption?

No

If yes, list PRC and/or CCR section number(s) and separate each with a comma. If no, enter "None" and go to the next question.

PRC section number: None

CCR section number: None

Categorical Exemption?

No

If yes, list CCR section number(s) and separate each with a comma. If no, enter "None" and go to the next question.

CCR section number: None

Common Sense Exemption? 14 CCR 15061 (b) (3)

No

If yes, explain reason why Agreement is exempt under the above section. If no, enter "Not Applicable" and go to the next section.

Not Applicable

b) Agreement **IS NOT** exempt.

**IMPORTANT:** consult with the legal office to determine next steps.

No

If yes, answer yes or no to all that applies. If no, list all as "no" and "None" as "yes."

| Additional Documents                   | Applies |
|--|---------|
| Initial Study                          | No      |
| Negative Declaration                   | No      |
| Mitigated Negative Declaration         | No      |
| Environmental Impact Report            | No      |
| Statement of Overriding Considerations | No      |
| None                                   | Yes     |



**H. Is this project considered “Infrastructure”?**

No

**I. Subcontractors**

List all Subcontractors listed in the Budget (s). Insert additional rows if needed. If no subcontractors to report, enter “No subcontractors to report” and “0” to funds. **Delete** any unused rows from the table.

| Subcontractor Legal Company Name | Budget |
|----------------------------------|--------|
| None                             | \$0    |

**J. Key Partners**

List all key partner(s). Insert additional rows if needed. If no key partners to report, enter “No key partners to report.” **Delete** any unused rows from the table.

| Key Partner Legal Company Name |
|--------------------------------|
| No key partners to report      |

**K. Budget Information**

Include all budget information. Insert additional rows if needed. If no budget information to report, enter “N/A” for “Not Applicable” and “0” to Amount. **Delete** any unused rows from the table.

| Funding Source | Funding Year of Appropriation | Budget List Number | Amount    |
|----------------|-------------------------------|--------------------|-----------|
| COIA           | FY 2025/26                    | 370.400            | \$100,000 |

**TOTAL Amount: \$100,000**

R&D Program Area: N/A

Explanation for “Other” selection: N/A

Reimbursement Contract #: N/A

Federal Agreement #: N/A

**L. Contractor’s Contact Information**

**1. Contractor’s Administrator/Officer**

Name: Sharai Parmenter, Financial Specialist – California Lighting Technology Center

Address: 633 Pena Drive

City, State, Zip: Davis, CA 95618

Phone: (530) 754-3824

E-Mail: [separmenter@ucdavis.edu](mailto:separmenter@ucdavis.edu)



## 2. Contractor's Project Manager

Name: Cori Jackson, Program Director – California Lighting Technology Center

Address: 633 Pena Drive

City, State, Zip: Davis, CA 95618

Phone: (530) 902-8360

E-Mail: [cmjackson@ucdavis.edu](mailto:cmjackson@ucdavis.edu)

## M. Selection Process Used

There are three types of selection process. List the one used for this CRF.

| Selection Process  | Additional Information |
|--|------------------------|
| Competitive Solicitation #   | N/A                    |
| Non-Competitive Bid ( <i>Attach DGS-GSPD-09-007</i><br><a href="https://www.dgs.ca.gov/PD/Forms">https://www.dgs.ca.gov/PD/Forms</a> ) | N/A                    |
| Exempt   | Other CA State Agency  |

## N. Contractor Entity Type

| Contractor Entity Type   | Yes or No? |
|--|------------|
| Private Company ( <i>including non-profits</i> )   | No         |
| CA State Agency ( <i>including UC and CSU</i> )  | Yes        |
| Government Entity ( <i>i.e., city, county, federal government, air/water/school district, joint power authorities, university from another state</i> ) | No         |

## O. Is Contractor a certified Small Business (SB), Micro Business (MB), or Disabled Veterans Business Enterprise (DVBE)?

The contractor is a certified: N/A

## P. Civil Service Considerations

- Not Applicable (Agreement is with a CA State Entity or a membership/co-sponsorship)? Yes
- Public Resources Code 25620, et seq., authorizes the Commission to contract for the subject work. (PIER)

No

- The Services Contracted: No

If no, go to the next question. If yes, which of the following applies to the contract? More than one can apply, list each answer choice, and separate them with a comma:

- are not available within civil service.
- cannot be performed satisfactorily by civil service employees.
- are of such a highly specialized or technical nature that the expert knowledge, expertise, and ability are not available through the civil service system.

The following applies to the contract: N/A



- d. The Services are of such an urgent, temporary, or occasional nature that the delay to implement under civil service would frustrate their very purpose?

N/A

**Justification:**

N/A

**Q. Payment Method**

1. Is the payment method Reimbursement, Advanced Payment, or Other?

Reimbursement

If Other, explain: N/A

2. If Reimbursement, is it in arrears based on Itemized Monthly, Itemized Quarterly, Flat Rate, or One-time?

Itemized Monthly

**R. Retention**

Is Agreement subject to retention? No

If Yes, will retention be released prior to Agreement termination? N/A

**S. Justification of Rates**

The rates are standardized and negotiated by the Regents of the University of California, Davis Campus, and the State of California.

**T. Disabled Veteran Business Enterprise Program (DVBE)**

Provide requested additional information.

1. Exempt (Interagency/Other Government Entity) Yes

2. Meets DVBE Requirements DVBE: N/A

Amount: N/A DVBE %: N/A

3. Is the Contractor Certified DVBE or Subcontracting with a DVBE? If subcontracting with a DVBE, provide the name of the DVBE company. If none applies, enter "Not Applicable."

Not Applicable

4. Contractor selected through CMAS or MSA with no DVBE participation: N/A

5. Requesting DVBE Exemption (attach CEC 95: No

**U. Miscellaneous Agreement Information**

1. Will there be Work Authorizations? No

2. Is the contractor providing confidential information? No

3. Is the contractor going to purchase equipment? No

4. What is the check frequency of the progress reports? Monthly, Quarterly, or Other? If Other, please provide explanation.

Monthly



5. Will a final report be required? No

6. Is the Agreement, with amendments, longer than three years? If yes, why?

No

**V. The following items should be attached to this CRF (as applicable)**

List all items that should be attached to this CRF by entering "Yes" or "No."

| Item Number | Item Name  | Attached |
|-------------|--|----------|
| 1           | Exhibit A, Scope of Work/Schedule                | Yes      |
| 2           | Exhibit B, Budget Detail                         | Yes      |
| 3           | DGS-GSPD-09-007, NCB Request                     | No       |
| 4           | CEC 95, DVBE Exemption Request                   | No       |
| 5           | Awardee CEQA Documentation                       | No       |
| 6           | Resumes  | Yes      |
| 7           | CEC 105, Questionnaire for Identifying Conflicts | Yes      |

**Approved By**

Individuals who approve this form must enter their full name and approval date in the MS Word version.

**Agreement Manager:** Elizabeth Butler

**Approval Date:** 11/04/2025

**Branch Manager:** Rajiv Dabir

**Approval Date:** 11/06/2025

**Director:** Michael Sokol

**Approval Date:** 11/25/2025



## Exhibit A – Scope of Work

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### PROJECT SUMMARY & SCOPE OF WORK

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☒ Contract ☐ Grant

Does this project include research (as defined in the UTC)? ☐ Yes ☒ No

**Principal Investigator (PI) Name:** Keith Graeber

**Project Title:** Developing Compliance Test Procedures for Flexible Demand Appliance Standards

#### Project Summary/Abstract

An industry test procedure to verify compliance with load shift requirements as described in the (draft) Flexible Demand Appliance Standards (FDAS) for thermostats and for Battery Energy Storage Systems (BESS) currently does not exist. Therefore, staff must develop an original Compliance Test Procedure (CTP) that is feasible, detailed, and specific to determine if an appliance under scope is capable of shifting load based upon “signals” described in the (draft) FDAS, as well as other elements required by the regulations (e.g., cybersecurity assurance, automatic reset of time clock at power loss, shutoff to a drop of hertz frequency, etc.).

#### If Third-Party Confidential Information is to be provided by the State:

- ☐ Performance of the Scope of Work (SOW) is anticipated to involve use of third-party Confidential Information and is subject to the terms of this Agreement; **OR**
- ☐ A separate Confidential Nondisclosure Agreement (CNDA) between the University and third-party is required by the third-party and is incorporated in this Agreement as Exhibit A7, Third Party Confidential Information.

#### Task List

| TASK # | TASK NAME  |
|--------|--|
| 1      | Agreement Management   |
| 2      | CTP for Thermostats FDAS   |
| 3      | CTP for BESS FDAS  |
| 4      | Contingencies and Additional Topic Areas for Developing CTPs for Thermostats and BESS FDAS |

## Exhibit A – Scope of Work

### Acronyms/Glossary

Specific acronyms and terms used throughout this Scope of Work (SOW) are defined as follows:

| ACRONYMS & TERMS | DEFINITION   |
|------------------|--|
| Agreement        | Executed contract between the CEC and the Contractor   |
| BESS             | Battery Energy Storage Systems   |
| CAM              | Commission Agreement Manager – CEC staff who manages and oversees the Agreement in its entirety                              |
| CEC              | California Energy Commission   |
| CNDA             | Confidential Nondisclosure Agreement   |
| Contractor       | The Regents of the University of California, on behalf of the Davis Campus   |
| CTPs             | Compliance Test Procedures   |
| DTC              | Designated Technical Contact – CEC staff who assists the CAM in managing technical aspects of the Agreement only             |
| FDAS             | Flexible Demand Appliance Standard(s)  |
| MIDAS            | Market Informed Demand Automation Server   |
| MS               | Microsoft  |
| PDF              | Adobe Portable Document Format   |
| PI               | Principal Investigator – UC staff who has been designated by the UC to direct the project/program supported by the Agreement |
| SAM              | State Administrative Manual  |
| SB 49            | Energy: appliance standards and State Water Project assessment. (Skinner, Chapter 697, Statutes of 2019)                     |
| SOW              | Scope of Work  |
| UC               | The University of California system, as represented by the specific campus   |
| URL              | Uniform Resource Locator   |
| UTC              | University Terms and Conditions  |

## **Exhibit A – Scope of Work**

### **Background/Problem Statement**

The California Energy Commission (CEC) was given legislative authority to create standards in Senate Bill 49 (Skinner, Chapter 697, Statutes of 2019) (SB 49) that require appliances, when sold as new in California, to shift load to support grid reliability and avoid greenhouse gas emissions. To certify compliance with such a standard, staff determined the use of a performance test procedure is necessary. A test procedure requires the certifier to demonstrate full compliance with a standard to the CEC and can be used by the CEC's Office of Compliance Assistance and Enforcement to verify compliance and otherwise pursue a Notice of Violation and potential monetary penalties.

To date, no industry test procedure exists to verify load shift as described in the (draft) FDAS for thermostats or BESS. Therefore, staff must derive a test procedure that is feasible and specific to determine if an appliance is capable of shifting load based upon signals, as well as other elements required by the standards (e.g., cybersecurity assurance, automatic reset of time clock at power loss, shutoff to a drop of hertz frequency, etc.). In keeping with the CEC's collaborative attitude in all rulemaking activities it undertakes, staff issued an Invitation to Participate in a test procedure working group. A mix of stakeholders are included in this CEC-led working group, which is composed of representatives from industry, utilities, consumer advocates, academia, researchers, and more.

Complete consensus among working group members on a single test procedure for determining compliance with the CEC's load flexibility standards for scoped appliances, in this case thermostats and BESS, is unlikely to be earned. For this reason, the Contractor must deliver a test procedure that is feasible, cost effective, and sufficient to demonstrate full compliance with the standard. The Contractor may need to conduct outreach and education to stakeholders to provide a "reality check" on aspects of the procedure they want to incorporate. When facing stiff opposition to a requirement in the test procedure, the Contractor – in consultation with the CEC's Designated Technical Contact (DTC) – may need to propose alternatives to obtain necessary test outputs for demonstrating compliance.

The final deliverable shall consist of a test procedure that a technician in a CEC certified test lab can follow to obtain stated test procedure outputs as described in the following section, "Goals/Objectives of the Agreement."

### **Goals/Objectives of the Agreement**

The primary goals and objectives of this Agreement are to create CTPs for thermostat and BESS FDAS that are reproduceable and accepted by industry. The deliverables shall describe in clear, precise language, and in detail, a test procedure that a technician in a CEC-certified test lab can follow to obtain stated test procedure outputs.

## Exhibit A – Scope of Work

The test procedure shall include, but is not limited to, the following:

- 1) Calibration requirements for instrumentation or equipment (if applicable).
- 2) Test environment conditions (if applicable).
- 3) Description of a standardized CEC test report format to be used for presenting test results.
- 4) Instrumentation and equipment needed to conduct the test (describe specifications).
- 5) Necessary wired and/or wireless connections for power, communication, or other (if applicable) between test devices, instrumentation, equipment, or other, as needed.
- 6) Standardized performance specifications, communication protocols, or other (if applicable).
- 7) Source of “signals” used in the test, such as Market Informed Demand Automation Server (MIDAS) Uniform Resource Locator (URL) or other (if applicable).
- 8) All test inputs, as applicable, such as programmed time schedules, temperature thresholds, or operating modes.
- 9) All test outputs required for compliance and/or compliance verifications (see proposed CEC standard).
- 10) Format for capturing all outputs and reporting specifics for certifying compliance.

### Draft and Final Deliverables/Reports

The Contractor may be required to produce several iterations of draft deliverables to incorporate CEC comments and edits. A deliverable is considered final when the Commission Agreement Manager (CAM) or DTC indicates in writing that the deliverable is considered final. When creating reports, the Contractor shall use and follow, unless otherwise instructed in writing by the CAM or DTC, the following:

- [Energy Commission Style Manual: Fourth Edition](https://www.energy.ca.gov/publications/2020/style-manual-fourth-edition-used-california-energy-commission-staff-lead) located at (https://www.energy.ca.gov/publications/2020/style-manual-fourth-edition-used-california-energy-commission-staff-lead).
- [Consultant Report Template](https://www.energy.ca.gov/media/2216) located at (https://www.energy.ca.gov/media/2216).

The CEC typically requires the submission of deliverables in an electronic format. If a hard copy deliverable is required, each final hard copy deliverable shall be delivered as one (1) original, reproducible, 8 ½” by 11”, camera-ready master in black ink, unless otherwise directed by the CAM or DTC. Illustrations and graphs shall be sized to fit an 8 ½” by 11” page and readable if printed in black and white.

## **Exhibit A – Scope of Work**

### **Electronic File Format**

The Contractor shall submit all required data and documents as deliverables under this Agreement in an electronic file format that is fully editable and compatible with the CEC's software and Microsoft (MS) operating computing platforms, or with any other format approved by the CAM or DTC.

Unless otherwise specified by the CAM or DTC, the following describes the accepted formats of electronic data and documents provided to the CEC as Agreement deliverables and establishes the computer platforms, operating systems, and application versions that will be required to review and approve all application deliverables.

- Data sets shall be in MS Access or MS Excel file format (version 2016 or later).
- PC-based text documents shall be in MS Word file format (version 2016 or later).
- Documents intended for public distribution shall be in Adobe Portable Document Format (PDF) file format and shall comply with the accessibility requirements of [Section 508](https://www.access-board.gov/about/law/ra.html#section-508-federal-electronic-and-information-technology) of the federal Rehabilitation Act of 1973, which is located at (<https://www.access-board.gov/about/law/ra.html#section-508-federal-electronic-and-information-technology>). The Contractor shall also provide the native file format.
- Project management documents shall be in a file format specified by the CAM or DTC.

### **Software Application Development**

If this SOW includes any software application development, including, but not limited to, databases, websites, models, or modeling tools, the Contractor shall utilize the following standard Application Architecture components in compatible versions:

- Microsoft ASP.NET framework (version 3.5 and up) Recommend 4.0
- Microsoft Internet Information Services (IIS), (version 6 and up) Recommend 7.5  
Visual Studio.NET (version 2008 and up) Recommend 2010
- C# Programming Language with Presentation (UI), Business Object and Data Layers SQL (Structured Query Language)
- Microsoft SQL Server 2008, Stored Procedures Recommend 2008 R2 Microsoft SQL Reporting Services Recommend 2008 R2
- XML (external interfaces)

Any exceptions to the Software Application Development requirements above must be approved in writing by the CEC Information Technology Services Branch.

## **Exhibit A – Scope of Work**

### **Workshops and Hearings**

If this SOW includes workshops and hearings, they will be sponsored, organized, and facilitated by the CEC. The CEC is responsible for any costs associated with a workshop or hearing. The Contractor shall provide labor only.

### **ADMINISTRATIVE / GENERAL TASK**

#### **Task 1: Agreement Management**

A maximum of 10 percent (10%) of the total Agreement budget will be allocated for this task. The Contractor will be required to perform contract management and administrative duties to manage the Agreement. The Contractor shall also ensure sufficient time and attention is spent on this task by an experienced and qualified administrative staff person. At the discretion of the CAM, meetings, briefings, and discussions may be held via conference call, MS Teams, or Zoom.

The goal of this task is to provide for overall administrative management of the contract by the Contractor. In addition to the specific tasks below, the Contractor's PI is responsible for directing the work performed by the Contractor Team to meet the objectives of the contract.

The PI is also responsible for ensuring the quality and timely delivery of all deliverables, both technical and administrative from the Contractor Team. The PI will be the primary point of contact for the Contractor Team and is responsible for oversight of all work under this contract. The PI is also responsible for managing all subcontractor work, including ensuring quality deliverables, enforcing subcontractor agreement provisions, and in the event of failure of the Subcontractor to satisfactorily perform services, recommending solutions to resolve the problem.

The Contractor's responsibilities under this task will include, but may not be limited to, the following:

#### **Subtask 1.1: Kick-Off Meeting**

The goal of this subtask is to establish the lines of communication and procedures for implementing this Agreement.

#### **The Contractor shall:**

- Attend a "kick-off" meeting with the CAM, DTC, and other appropriate CEC staff. The CAM will designate the specific location. The Contractor shall include its PI, Contracts Administrator, Accounting Officer, and others designated by the CAM in this meeting. The administrative and technical aspects of this Agreement will be discussed at the meeting.
- If necessary, prepare an updated Schedule of Deliverables based on the decisions made in the kick-off meeting.

## **Exhibit A – Scope of Work**

### **The CAM shall:**

- Arrange the meeting including scheduling the date and time.
- Provide all potential meeting participants with an agenda prior to the kick-off meeting.

### **Contractor Subtask Deliverables:**

- An updated schedule of deliverables (if applicable).

### **Subtask 1.2: Program Meetings and Briefings**

The goal of this subtask is to ensure direct collaboration with CEC staff, staff of other public agencies, and participating external stakeholders throughout the completion of Tasks 2 through 4, and to disseminate information to all parties as needed.

### **The Contractor and Subcontractor(s) shall:**

- At the request of the CEC's CAM, be available for meetings or to provide written or verbal briefings to the CEC's staff or others. The cost of meetings requested specifically by the Contractor shall be borne solely by the Contractor. At the discretion of the CAM, meetings, briefings, and discussions may be held via conference call, MS Teams, or Zoom. If requested by the CAM, prepare meeting notes to capture issues, action items, and feedback.

The CEC expects to hold no less than one (1) program briefing meeting per month.

### **Contractor Subtask Deliverables:**

- Meeting notes to capture issues, action items, and feedback (if applicable).

### **Subtask 1.3: Invoices**

The goal of this subtask is to ensure accurate and timely payment for work performed under the contract.

### **The Contractor shall:**

- Prepare invoices for all reimbursable expenses incurred performing work under this Agreement in compliance with Exhibit B of the Terms and Conditions of the Agreement.
  - Invoices shall be submitted with the same frequency as progress reports (Subtask 1.4).
  - If possible, submit invoices to the CEC's Accounting Office no later than fifteen (15) calendar days after the end of the monthly invoice period.

### **The CAM shall:**

- Provide the format for the invoices.

## **Exhibit A – Scope of Work**

### **Contractor Subtask Deliverables:**

- Monthly invoices.

### **Subtask 1.4: Progress Reports**

The goal of this subtask is to periodically verify that satisfactory and continued progress is made towards achieving the objectives of this Agreement.

#### **The Contractor shall:**

- Prepare monthly progress reports that align with the monthly invoices that summarize all Agreement activities conducted by the Contractor for the monthly reporting period, including an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. The Contractor shall provide the CAM a plan to remedy any anticipated cost overruns, as well as provide burn rate estimates to the CAM, upon request.

If possible, submit each progress report no later than fifteen (15) calendar days after the end of the monthly reporting period.

#### **The CAM shall:**

- Provide the format for the progress reports.

### **Contractor Subtask Deliverables:**

- Monthly progress reports.

### **Subtask 1.5: Manage Subcontractors**

The goal of this subtask is to manage Subcontractors' quality control activities.

#### **The Contractor shall:**

- The Contractor is responsible for the quality of all Subcontractor work.
- Establish and maintain subcontract agreements.
- Enforce subcontract provisions and manage Subcontractor activities in accordance with the Agreement Terms and Conditions.
- In the event of Subcontractor failure to perform, recommend solutions to resolve the problem.
- When new Subcontractors are added, the Contractor shall ensure that: 1) The new Subcontractors comply with the Terms and Conditions of the Agreement, and 2) Notify the CAM who will follow the required CEC process for adding or replacing Subcontractors. Subcontractors must be added to this Agreement prior to beginning any work.



## **Exhibit A – Scope of Work**

### **Subtask 1.6: Final Meeting**

The goal of this subtask is to discuss the closeout of this Agreement and review the project.

#### **The Contractor shall:**

- Meet with CEC staff prior to the end date of this Agreement. The CAM will designate the specific location. At the discretion of the CAM, meetings, briefings, and discussions may be held via conference call, MS Teams, or Zoom. The CAM and Contractor PI will attend this meeting. The CAM will determine any additional appropriate meeting participants. The administrative and technical aspects of Agreement closeout will be discussed at the meeting.
- Prepare a written document of meeting agreements and unresolved activities.
  - 1) Prepare a schedule for completing the closeout activities for this Agreement, based on determinations made within the meeting.

#### **Contractor Subtask Deliverables:**

- Written documentation of meeting agreements and unresolved activities.
- Schedule for completing closeout activities.

## **TECHNICAL TASKS**

### **Task 2: CTP for Thermostats FDAS**

The goal of this task is to develop and deliver a clear and reliable CTP for Thermostat FDAS.

#### **Subtask 2.1: Literature Review and Industry Engagement**

The goal of this subtask is to complete a literature review of publicly available materials related to demand-flexible thermostats along with industry engagement activities to identify necessary performance and device characteristics to be included in the CTP for the Thermostats FDAS.

#### **The Contractor shall:**

- Review and synthesize publicly available information applicable to demand-flexible thermostat performance and use as necessary to inform CTP development.
- Compare existing procedures, performance standards, and other identified information against the Thermostats FDAS requirements.
- Participate in the Thermostats FDAS working group to understand and document industry needs, preferences, and concerns surrounding the CTP.
- Compile a summary of applicable existing information, processes, and industry perspectives for use in CTP development for the Thermostats FDAS.

## **Exhibit A – Scope of Work**

### **The CEC shall:**

- Coordinate and host meetings of the Thermostats FDAS working group and provide a summary of comments received from the stakeholders.
- Review and provide feedback/comments on the summary document.

### **Contractor Subtask Deliverables:**

- Summary document on the current state-of-the-science for demand-flexible thermostats relative to the Thermostats FDAS.

### **Subtask 2.2: Develop CTP for Thermostats FDAS**

The goal of this subtask is to develop a complete CTP and test instructions document for the Thermostats FDAS.

### **The Contractor shall:**

- Create a test procedure to address each of the eight (8) thermostat performance framework categories provided by the CEC.
- Compile all newly developed procedures into a single, step-by-step test procedure for demonstrating compliance of demand-flexible thermostats certified for sale as new in California in accordance with its Thermostats FDAS.
- Develop specific outputs (data values) for each of the eight (8) framework categories and requirements from the CTP, which must be delivered by manufacturers or their authorized representatives to be used when certifying to the CEC that their devices are compliant with the Thermostats FDAS.
- Obtain one (1) or more demand-flexible thermostats and test these units using the newly developed CTP.
- Update the CTP, as needed, based on laboratory test outcomes and results.
- Prepare and deliver the draft CTP and test procedure instructions, as needed, for review and discussion with the Thermostats FDAS working group.
- Receive working group comments, edits and/or questions, and create a list of those items; consider each and incorporate, as appropriate, into the final CTP and instructions document.
- Execute one (1) or more additional rounds of test procedure validation in the laboratory, if needed, to ensure updates do not create additional issues, and ensure all compliance requirements are addressed.
- Prepare and deliver a final CTP including all necessary inputs and outputs, formatting requirements, test procedure instructions, and related information to the CEC for review.

## **Exhibit A – Scope of Work**

### **The CEC shall:**

- Address questions/queries from Contractor, if appropriate, and as required.
- Review and provide feedback/comments on CTP.

### **Contractor Subtask Deliverables:**

- Draft CTP for the Thermostats FDAS.
- Final CTP for the Thermostats FDAS.

### **Task 3: CTP for BESS FDAS**

The goal of this task is to develop and deliver a clear and reliable CTP for the BESS FDAS.

#### **Subtask 3.1: Literature Review and Industry Engagement**

The goal of this subtask is to complete a literature review of publicly available materials related to demand-flexible BESS along with industry engagement activities to identify necessary performance and device characteristics to be included in the CTP for the BESS FDAS.

### **The Contractor shall:**

- Review and synthesize publicly available information applicable to demand-flexible BESS performance and use as necessary to inform CTP development.
- Compare existing procedures, performance standards, and other identified information against the BESS FDAS requirements.
- Participate in a BESS FDAS working group, if organized by the CEC, to understand and document industry needs, preferences, and concerns surrounding the CTP.
- Compile a summary of applicable existing information, processes, and industry perspectives for use in CTP development for the BESS FDAS.

### **The CEC shall:**

- If applicable, coordinate and host meetings of the BESS FDAS working group, and provide a summary of comments received from the stakeholders.
- Review and provide feedback/comments on the summary document.

### **Contractor Subtask Deliverables:**

- Summary document on current state-of-the-science for demand-flexible BESS relative to the BESS FDAS.

## **Exhibit A – Scope of Work**

### **Subtask 3.2: Develop CTP for the BESS FDAS**

The goal of this subtask is to develop a complete CTP and test instructions document for the BESS FDAS.

#### **The Contractor shall:**

- Document select performance criteria, categories, and/or benchmarks (requirements) for the BESS FDAS test procedure.
- Create a test procedure to address each selected performance requirement.
- Compile all newly developed procedures into a single, step-by-step test procedure for demonstrating compliance of demand-flexible BESS certified for sale as new in California in accordance with its BESS FDAS.
- Develop specific outputs (data values) for each performance requirement, which must be delivered by manufacturers or their authorized representatives to be used when certifying to the CEC that their devices are compliant with the BESS FDAS.
- Obtain at least one (1) BESS and test the unit using the newly developed CTP.
- Update the CTP, as needed, based on laboratory test outcomes and results.
- Prepare and deliver the draft CTP including test instructions, as needed, for review and discussion with the BESS FDAS working group (if applicable).
- Receive working group comments (if applicable), edits and/or questions, and create a list of those items; consider each and incorporate, as appropriate, into the final CTP and instructions document.
- Execute one (1) or more additional rounds of test procedure validation in the laboratory, if needed, to ensure updates do not create additional issues, and ensure all compliance requirements are addressed.
- Prepare and deliver a final CTP including all necessary inputs and outputs, formatting requirements, test procedure instructions, and related information to the CEC for review.

#### **The CEC shall:**

- Address questions/queries from Contractor, if appropriate, and as required.
- Review and provide feedback/comments on CTP.

#### **Contractor Subtask Deliverables:**

- Draft CTP for the BESS FDAS.
- Final CTP for the BESS FDAS.

## **Exhibit A – Scope of Work**

### **Task 4: Contingencies and Additional Topic Areas for Creating CTPs for FDAS Thermostats and BESS**

The Contract Team shall assist with developing program components beyond what is specifically described in Tasks 2-3 related to technical support for developing CTPs for FDAS thermostats and BESS. The work in this task is expected to include, but not be limited to, the following:

- Providing technical expertise to conduct unexpected research and analysis needed to develop program components as they arise throughout the Agreement period.
- Participating in the Rulemaking process, as requested, and as Contractor staff are available, to support the Rulemaking process for the Thermostats and BESS FDAS.
- Delivering general knowledge transfer to CEC staff.