



**CALIFORNIA
ENERGY COMMISSION**



**California Energy Commission
June 16, 2023 Business Meeting
Backup Materials for Agenda Item No 03c:
Herter Energy Research Solutions**

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

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: Herter Energy Research Solutions

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 400-22-002 with Herter Energy Research Solutions for a \$1,200,000 contract to lead a team of professional architectural and engineering consultants to provide technical support for developing, updating, and maintaining regulatory standards for flexible demand features and technologies in consumer and commercial appliances; 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 June 16, 2023.

AYE:

NAY:

ABSENT:

ABSTAIN:

Dated:

Liza Lopez
Secretariat



CONTRACT REQUEST FORM (CRF)

A. New Agreement Number

New Agreement Number: 400-22-002

B. Division Information

1. Division Name: Efficiency Division
2. Agreement Manager: Elizabeth Butler
3. MS-28
4. Phone Number: (916) 903-4533

C. Contractor's Information

1. Contractor's Legal Name: Herter Energy Research Solutions
2. Federal ID Number: 92-3845487

D. Title of Project

Title of project: Flexible Demand Appliance Standards Advanced Research and Proposal Development

E. Term and Amount

1. Start Date: July 1, 2023
2. End Date: June 30, 2026
3. Amount: \$1,200,000.00

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: 06-16-23
4. Consent or Discussion? Consent
5. Business Meeting Presenter Name: Elizabeth Butler
6. Time Needed for Business Meeting: 0 minutes.
7. The email subscription topic is: 1-Solicitations and Awards Announcements; 2-Appliance Efficiency Standards; 3-Efficiency Topics; 4-Flexible Demand Appliances and Load Management and Demand Response

Agenda Item Subject and Description:

Proposed resolution approving Agreement 400-22-002 with Herter Energy Research Solutions for a \$1,200,000 contract to lead a team of professional architectural and engineering consultants to provide technical support for developing, updating, and maintaining regulatory standards for flexible demand features and technologies in consumer and commercial appliances. (COIA funding) 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 the professional architectural and engineering consulting services required to provide technical support for developing, updating, and maintaining regulatory standards for flexible demand features and technologies in consumer and commercial appliances.

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. 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
Auroral LLC	\$ 0.00
Kenneth Wacks, Ph.D.	\$ 0.00
Horizon Technologies Inc.	\$ 0.00
Robert Cruickshank Associates	\$ 0.00
CIMI Energy	\$ 0.00
Sugarpine Engineering Inc.	\$ 0.00

I. 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

J. 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 2022-23	370.400	\$400,000.00
COIA	FY 2023-24	370.400	\$400,000.00
COIA	FY 2024-25	370.400	\$400,000.00

TOTAL Amount: \$1,200,000.00

R&D Program Area: Not applicable

Explanation for "Other" selection Not applicable

Reimbursement Contract #: Not applicable

Federal Agreement #: Not applicable

K. Contractor's Contact Information

1. Contractor's Administrator/Officer

Name: Karen Herter

Address: 1219 Priscilla Lane

City, State, Zip: Arroyo Grande, CA 93420

Phone: (916) 397-0101



E-Mail: Dr.Karen.Herter@gmail.com

2. Contractor's Project Manager

Name: Karen Herter

Address: 1219 Priscilla Lane

City, State, Zip: Arroyo Grande, CA 93420

Phone: (916) 397-0101

E-Mail: Dr.Karen.Herter@gmail.com

L. Selection Process Used

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

Selection Process	Additional Information
Competitive Solicitation #	RFQ-22-401, 1, Not applicable

M. Contractor Entity Type

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

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

The contractor is a certified: Not applicable.

O. Civil Service Considerations

- Not Applicable (Agreement is with a CA State Entity or a membership/co-sponsorship)? No
- Public Resources Code 25620, et seq., authorizes the Commission to contract for the subject work. (PIER) No
- The Services Contracted: Yes.

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 employee
- 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: are of such a highly specialized or technical nature that the expert knowledge, expertise, and ability are not available through the civil service system.

- 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?

Occasional nature.

Justification:

This architectural and engineering professional services technical support contract will provide access to building energy experts not available within State service. Additionally, some tasks are of a short-term and occasional nature.

P. Payment Method

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

Reimbursement.

If Other, explain: Not applicable.

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

Itemized monthly.

Q. Retention

Is Agreement subject to retention? Yes.

If Yes, Will retention be released prior to Agreement termination? Yes.

R. Justification of Rates

Rates were negotiated under the RFQ process based on a salary survey of comparable entities for like work.

S. Disabled Veteran Business Enterprise Program (DVBE)

Provide requested additional information.

1. Exempt (Interagency/Other Government Entity) No.

2. Meets DVBE Requirements DVBE Yes.

Amount: \$ 420,000 DVBE %:35%

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".

Sugarpine Engineering Inc.

4. Contractor selected through CMAS or MSA with no DVBE participation No.

5. Requesting DVBE Exemption (attach CEC 95) No.



T. Miscellaneous Agreement Information

1. Will there be Work Authorizations? Yes.
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? Yes.
6. Is the Agreement, with amendments, longer than three years? If yes, why?

No

U. 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: 05/01/2023

Office Manager: Peter Strait

Approval Date: 5/1/2023

Deputy Director: Christine Collopy

Approval Date: 5/1/2023

EXHIBIT A

Scope of Work

PURPOSE

The purpose of this Agreement is for the prime contractor to lead a team of professional architectural and engineering consultants to provide technical support for:

- Developing, updating, and maintaining regulatory standards for flexible demand features and technologies in consumer and commercial appliances.

Work will focus on the development and implementation of appliance standards consistent with statutory direction to adopt, by regulation, and periodically update, standards for appliances to facilitate the deployment of flexible demand technologies.

ACRONYMS/GLOSSARY

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

ACRONYMS & TERMS	DEFINITION
APA	Administrative Procedures Act
CAM	Commission Agreement Manager
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
DOE	United States Department of Energy
DVBE	Disabled Veteran Business Enterprise
FDAS	Flexible Demand Appliance Standards
GHG	Greenhouse Gas
MS	Microsoft
PDF	Adobe Portable Document Format
PRC	Public Resources Code
SOW	Scope of Work
TDV	Time Dependent Valuation (of energy)
WA	Work Authorization
WAM	Work Authorization Manager

EXHIBIT A

Scope of Work

WORK AUTHORIZATIONS

The Agreement that results from this solicitation shall be conducted as a "Work Authorization" Agreement. No work shall be undertaken unless authorized by the Commission Agreement Manager (CAM) through a specific written document called a "Work Authorization" (WA).

The CAM will prepare and issue the written WAs and shall set a maximum price, budget, and schedule for the work to be performed. The CAM will work, in consultation with the Contractor, to assign work to either the Contractor or a Subcontractor.

RETAINER CONTRACT

This is a no-fee "retainer" contract. The Contractor will be held on retainer and will be assigned work via WAs, which will be assigned by expertise, or project workload. The California Energy Commission (CEC) makes no guarantee that any or all the funds will be assigned in any given year.

NO WORK GUARANTEE

The CEC does not guarantee any minimum or maximum amount of work to the prime Contractor or any Subcontractor under the Agreement.

WORKSHOPS AND HEARINGS

All workshops and hearings are sponsored, organized, and facilitated by the CEC. The CEC is responsible for any costs associated with a workshop or hearing. Contractor shall provide labor only.

INCIDENTAL SERVICES

Contractor shall provide incidental services to support the technical tasks that the CEC will undertake to update, develop, and implement Flexible Demand Appliance Standards (FDAS). Technical Tasks 2-4 provide more detailed task activities for these areas:

- Graphic Design/Document Support for reports and other deliverables related to the FDAS.
- Public Outreach and Communication/Marketing/Public Relations/Program Development necessary to complete the goals of this Agreement.

DRAFT AND FINAL DELIVERABLES/REPORTS

The Contractor may be required to produce several iterations of draft deliverables in order to incorporate CEC's comments and edits. A deliverable is considered final when the CAM 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, the following:

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- [Energy Commission Style Manual: Fourth Edition](https://ww2.energy.ca.gov/2020publications/CEC-180-2020-001/CEC-180-2020-001.pdf) located at <https://ww2.energy.ca.gov/2020publications/CEC-180-2020-001/CEC-180-2020-001.pdf>.
- [Consultant Report Template](https://www.energy.ca.gov/sites/default/files/2020-02/Consultant_Report_Template_0_ada.docx) located for download at https://www.energy.ca.gov/sites/default/files/2020-02/Consultant_Report_Template_0_ada.docx.

Deliverables are typically required 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. Illustrations and graphs shall be sized to fit an 8 ½" by 11" page and readable if printed in black and white.

ELECTRONIC FILE FORMAT

The Contractor shall deliver an electronic copy of the full text in a compatible version of Microsoft (MS) Word (.doc or .docx).

Unless otherwise specified by the CAM, the following describes the accepted formats of electronic data and documents provided to the CEC as contract 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, MS Excel, or another file format as specified by the CAM.
- PC-based text documents shall be in MS Word file format.
- Documents intended for public distribution shall be in Adobe Portable Document Format (PDF) file format, with the native file format provided as well.
- Project management documents shall be in a file format specified by the CAM.

PRIMARY TASKS

The major categories of work are divided into the following tasks:

TASK #	DESCRIPTION OF TASK
1	Agreement Management
2	Flexible Demand Appliance Standards Measure Identification and Analysis
3	Energy and Climate Accounting Methodologies
4	Contingencies and Additional Topic Areas for Technical Support

EXHIBIT A

Scope of Work

TASK 1 – AGREEMENT MANAGEMENT

Each WA will reflect the maximum that can be spent for Agreement Management for each fiscal year. A maximum of 10 percent 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. At the discretion of the CAM, meetings, briefings, and discussions may be held via conference call, MS Teams, or Zoom.

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

TASK 1.1 – KICK-OFF MEETING

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

The Contractor shall:

- Attend a “kick-off” meeting with the CAM, the CAO, and a representative of the Accounting Office. The CAM will designate the specific location. The Contractor shall include its Project Manager, 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.

The CAM shall:

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

Task Deliverables:

- An updated schedule of deliverables (if applicable)

TASK 1.2 – PROGRAM MEETINGS AND BRIEFINGS

The goal of this task 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 shall:

- At the request of the CEC's CAM, be available for meetings or to provide written or verbal program briefings to the CEC's staff or others. The cost of meetings with local governments and public institutions will be included in each WA. The

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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.

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

TASK 1.3 – INVOICES

The goal of this task 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 the Exhibit B of the Terms and Conditions of the Agreement.
 - Invoices shall be submitted with the same frequency as progress reports (Task 1.6).
 - Invoices must be submitted to the CEC's Accounting Office no later than fifteen (15) calendar days after the end of the monthly invoicing period.

Task Deliverables:

- Monthly invoices

TASK 1.4 – MANAGEMENT OF WAS

The goal of this task is to facilitate the preparation of WAs.

The Contractor shall:

- At the direction of the CAM, assist the CEC in preparing the WAs, which define the SOW, the schedule of deliverables, and the project(s) budget.

TASK 1.5 – MANAGE SUBCONTRACTORS

The goal of this task is to manage subcontractors' quality control activities.

The Contractor shall:

- The Contractor is responsible for the quality of all Subcontractor work.
- Enter into subcontracts.
- Enforce subcontract provisions.
- In the event of Subcontractor failure to perform, recommend solutions to resolve the problem.

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- 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 CEC's process for adding or replacing subcontractors. Subcontractors must be added to this Agreement prior to beginning any work.

TASK 1.6 – PROGRESS REPORTS

The goal of this task 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, Disabled Veteran Business Enterprise (DVBE) participation, 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.

Each progress report is due no later than fifteen (15) calendar days after the end of the monthly reporting period. The CAM will provide the format for the progress reports.

Task Deliverables:

- Monthly progress reports

TASK 1.7 – FINAL MEETING

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

The Contractor shall:

- Meet with CEC staff prior to the term 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. This meeting will be attended by the Contractor Project Manager and the CAM. The CAM will determine any additional appropriate meeting participants. The administrative and technical aspects of Agreement closeout will be discussed at the meeting.
- Present findings, conclusions, and recommended next steps (if any) for the Agreement.
- Prepare a written document of meeting agreements and unresolved activities.

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- Prepare a schedule for completing the closeout activities for this Agreement, based on determinations made within the meeting.

Task Deliverables:

- Written documentation of meeting agreements
- Schedule for completing closeout activities
- Findings, conclusions, and recommendations

TASK 2 – FLEXIBLE DEMAND APPLIANCE STANDARDS MEASURE IDENTIFICATION AND ANALYSIS

The goal of this task is to develop proposals to adopt, by regulation, and periodically update, standards for appliances to facilitate the deployment of flexible demand technologies, including all of the information and analysis necessary to adopt amendments to California regulations via the rulemaking process.

At the direction of the Work Authorization Manager (WAM), the Contractor shall identify flexible demand opportunities (measures) for residential and commercial appliances, as well as assist in evaluating measure proposals submitted to staff by outside parties. The measures to be considered may include, but are not limited to, the following:

- Minimum specifications for demand scheduling features, including automated features;
- Communication specifications for receiving and responding to demand and price signals sent by utility providers;
- Measures that are options for compliance with demand flexibility standards, but are not required; and
- New measures proposed by stakeholders.

For each identified measure, this task will include development and documentation of plans for additional information about the measure required for completion of subsequent tasks.

Contractor shall document the proposal for each measure in a draft Measure Proposal. See the [Building Energy Efficiency Measure Proposal Template](https://www.energy.ca.gov/media/3538) located for download at <https://www.energy.ca.gov/media/3538> as an example template.

Contractor shall be prepared to complete the necessary research and analysis required by the appropriate Measure Proposal template. This draft will be submitted to the WAM for approval. Upon approval of the draft, the WAM, in consultation with the Contractor, shall schedule the date and location for the workshop(s) for public review. The Contractor may be directed to present the measure(s) at the workshop and, working with CEC staff and subject matter experts, address issues raised by

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stakeholders at the workshop and incorporate changes into a revised measure proposal. Additional workshop(s) to review the revised Measure Proposal will be held if the WAM deems it necessary. As directed, the Contractor will address additional measures or issues identified in later workshops or public comments.

Work in this task may also include:

- Review of national or international codes for relevance to the proposed new regulations;
- Review of measure proposals submitted to staff by outside parties;
- Assessment of new methods for determining compliance;
- Updates to guidance publications and outreach materials; and
- Development, research, and analysis of proposed or potential measures to meet the requirements for inclusion in the California Code of Regulations (CCR).

Task Deliverables:

- One or more Draft Measure Proposals
- One or more Final Measure Proposals
- Reports on research and analysis of proposed or potential measures, including other energy codes from other jurisdictions, states, and counties, as requested
- Other deliverables to be defined as needed through WAs

TASK 3 – ENERGY AND CLIMATE ACCOUNTING METHODOLOGIES

The goal of this task is to develop consistent accounting methodologies for energy and climate impacts (both beneficial and adverse) that can be applied uniformly to the measure proposals specified for Task 2, as well as to complete documentation required under the Administrative Procedures Act (APA) and California Environmental Quality Act (CEQA).

At the direction of the WAM, the Contractor shall update existing and develop new accounting methodologies for assessing the effects of energy efficiency measures, as well as incorporate these accounting methodologies into an overall methodology for assessing the life cycle benefits and costs of proposed flexible demand appliance standards.

TASK 3.1 – ACCOUNTING METHODOLOGIES

Update accounting methodologies used to value the electricity and water use impacts of flexible demand features and technologies, including impacts on peak loads, greenhouse gas (GHG) and criteria pollutant emissions, and utilization of renewable

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energy resources. The work in this task is expected to include, but not be limited to, the following:

- Review and make recommendations for use of the Time Dependent Valuation (TDV) of Energy methodology for FDAS, with the following considerations:
 - Current and projected costs of fuels and electricity based on state and national energy policies, including the potential cost impacts of high concentrations of renewable energy generation in California.
 - Current and projected retail rate structures, including an analysis of what portion of these retail energy costs should be considered fixed versus volumetric (i.e., dependent on the amount of energy used).
 - Current and projected costs of carbon and other environmental impacts of energy use.
- Review and/or develop additional accounting methodologies relating to source energy, site energy, greenhouse gas emissions, criteria pollution emissions, and other potential energy and climate related impacts as necessary to address stakeholder questions and concerns.
- Document the technical details and results of accounting methodologies as needed to comply with statutory and regulatory requirements relating to rulemaking.

Task Deliverables:

- Accounting Methodology Report
- Portions / chapters of financial impact documentation required under APA
- Portions / chapters of environmental impact documentation required under CEQA
- Other deliverables to be defined as needed through WAs

TASK 3.2 – LIFE CYCLE COST ANALYSIS

Update the methodology used to assess the life cycle costs and savings for the measures to be considered in FDAS proposals, including leveraging of the accounting methodologies developed under Task 3.1. Prepare life cycle cost analysis for proposed measures as needed to comply with section 25402(f)(3) of the Public Resources Code (PRC). The work in this task is expected to include, but not be limited to, the following:

- Review and suggest revisions to the CEC Life Cycle Cost methodology.
- Review and revise reference climatic data and climate methodologies that impact energy savings and accounting for FDAS measures.
- Establish cost curves for different classes of technology predicting changes in costs due to adoption of proposed measures.

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- Analyze and incorporate measures as appropriate to leverage all applicable work on this topic completed by the United States Department of Energy (DOE) for federal appliance efficiency standards.
- Complete life cycle cost analyses to determine the cost-effectiveness of proposed measures, both incrementally and in combination as specified by the WAM.
 - Document all economic assumptions, periods of analysis, and energy forecasts (e.g., electricity, natural gas, and propane) that are to be used.
 - Identify any sensitivity or scenario analyses on these and other parameters (e.g., measure performance, measure costs, useful life, fuel costs, avoided costs of climate change, water costs, emissions values, etc.).
- Document the technical details and results of life cycle cost and benefit analysis as needed to comply with statutory and regulatory requirements relating to rulemaking.

Task Deliverables:

- Life Cycle Cost Analysis Report
- Portions / chapters of financial impact documentation required under APA
- Portions / chapters of environmental impact documentation required under CEQA
- Other deliverables to be defined as needed through WAs

TASK 4 – CONTINGENCIES AND ADDITIONAL TOPIC AREAS TECHNICAL SUPPORT

The Contract team shall assist with work to develop program components beyond what is specifically described in Tasks 2-4 related to FDAS technical support. 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.
- Attending workshops and hearings to support outreach on proposed or adopted standards.
- General knowledge transfer to CEC staff.

Task Deliverables:

- Other deliverables to be defined as needed through WAs

EXHIBIT A

Scope of Work

AGREEMENT DELIVERABLES

The following deliverables chart does not represent all deliverables necessary to complete the goals and objectives of this Agreement. Additional deliverables will be outlined in WAs. For deliverables listed, WAs will specify due dates.

TASK #	DELIVERABLES	TENTATIVE DUE DATES
1	Agreement Management	
1.1	Kick-Off Meeting	
	An updated schedule of deliverables (if applicable)	3rd quarter 2023
1.3	Invoices	
	Monthly invoices	Monthly
1.6	Progress Reports	
	Monthly progress reports	Monthly
1.7	Final Meeting	
	Written documentation of meeting agreements	2nd quarter 2026
	Schedule for completing closeout activities	2nd quarter 2026
	Findings, conclusions, and recommendations	2nd quarter 2026
2	Flexible Demand Appliance Standards Measure Identification and Analysis	
	One or more Draft Measure Proposals	TBD per WA
	One or more Final Measure Proposals	TBD per WA
	Reports on research and analysis of proposed or potential measures, or other energy codes from other jurisdictions, states, and countries, as requested	TBD per WA
	Other deliverables to be defined as needed through WAs	TBD per WA

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TASK #	DELIVERABLES	TENTATIVE DUE DATES
3	Energy and Climate Accounting Methodologies	
	Accounting Methodology Report	TBD per WA
	Life Cycle Cost Analysis Report	TBD per WA
	Portions / chapters of financial impact documentation required under APA	TBD per WA
	Portions / chapters of environmental impact documentation required under CEQA	TBD per WA
	Other deliverables to be defined as needed through WAs	TBD per WA
4	Contingencies and Additional Topic Areas for Technical Support	
	Other deliverables to be defined as needed through WAs	TBD per WA