





## California Energy Commission April 10, 2025 Business Meeting Backup Materials for NORESCO, LLC

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

**RESOLUTION NO: 25-0410-09** 

#### STATE OF CALIFORNIA

## STATE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

**RESOLUTION: NORESCO, LLC** 

**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 400-24-002 with NORESCO, LLC for a \$10,550,000 contract to provide technical support services for developing, updating, and maintaining the California Energy Code for residential and nonresidential buildings; developing, updating, and maintaining the California Energy Code reference compliance software, CBECC and CBECC-Res; and developing, updating, and maintaining the California Energy Code compliance data infrastructure, compliance documents, and other supporting documentation that aids the Energy Code compliance program; 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 April 10, 2025.

AYE: NAY: ABSENT: ABSTAIN:	
	Dated:
	Kristine Banaag Secretariat



## STATE OF CALIFORNIA CALIFORNIA ENERGY COMMISSION

## CONTRACT REQUEST FORM (CRF)

### A. New Agreement Number

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

New Agreement Number: 400-24-002

#### **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

Contractor's Legal Name: NORESCO, LLC

2. Federal ID Number: 90-0453168

## D. Title of Project

Title of project: Energy Code Development Support

#### E. Term and Amount

Start Date: 04/15/2025
 End Date: 06/30/2028
 Amount: \$10,550,000

#### 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: 04/10/2025
- 4. Consent or Discussion? Discussion
- 5. Business Meeting Presenter Name: Elizabeth Butler
- 6. Time Needed for Business Meeting: 5 minutes.
- 7. The email subscription topic is: 1-Building Energy Efficiency Standards; 2-Efficiency Topics; and 3-Solicitations, Awards, and Funding Workshops Announcements.

### **Agenda Item Subject and Description:**

Proposed resolution approving agreement 400-24-002 with NORESCO, LLC for a \$10,550,000 contract to provide technical support services for developing, updating, and maintaining the California Energy Code for residential and nonresidential buildings; developing, updating, and maintaining the California Energy Code reference compliance software, CBECC and CBECC-Res; and developing, updating, and maintaining the California Energy Code compliance data infrastructure, compliance documents, and other supporting documentation that aids the Energy Code compliance program. (ERPA and COIA funding) Contact: Elizabeth Butler (Staff Presentation: 5 minutes)



## 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 the California Energy Code.

## 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



Additional Documents	Applies
Environmental Impact Report	No
Statement of Overriding Considerations	No
None	Yes

## H. Is this project considered "Infrastructure"?

### 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
A2 Efficiency, Inc. (A2E)	\$0
Big Ladder Software, LLC	\$0
Bruce A. Wilcox, P.E. Inc.	\$0
Charles S. Barnaby	\$0
Coded Energy, Inc.	\$0
Cohen Ventures, Inc., dba Energy Solutions	\$0
Dimitri Contoyannis, dba Model Efficiency	\$0
Donald J. Shannon II, dba DHS Associates	\$0
Ecotope, Inc.	\$0
Energetics Consulting Engineers, LLC	\$0
Energy and Environmental Economics, Inc. (E3)	\$0
Energy Docs Home Performance Contractor, Inc.	\$0
Erik Kolderup, dba Kolderup Consulting	\$0
Frank A. Bergamaschi, Architect	\$0
Frontier Energy, Inc.	
Gabel Associates, LLC, dba Gabel Energy	
GARD Analytics, Inc.	
Glumac	\$0
Hicks Consulting Group, Inc., dba Hicks Professional Group	
Hugo J. Schmidt	
Larson Energy Research, LLC	\$0
L'Monte Information Services, Inc.	\$0
Morton Green Building Services	\$0
O'Brien and Company, LLC	
OTS Energy, LLC	
Proctor Engineering Group, Ltd.	
Robert Hitchcock, dba Hitchcock Consulting	



Subcontractor Legal Company Name	Budget
SAC Software Solutions, LLC	\$0
TRC Engineers, Inc.	\$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 / COIA /	FY 2024/25	370.400 / 370.401	\$500,000 / \$750,000 /
ERPA	1 1 202 1/20	/ 400.001	\$2,000,000
COIA / COIA /	FY 2025/26	370.400 / 370.401	\$500,000 / \$1,150,000 /
ERPA	1 1 2023/20	/ 400.001	\$2,000,000
COIA / COIA /	FY 2026/27	370.400 / 370.401	\$500,000 / \$1,150,000 /
ERPA	F1 2020/21	/ 400.001	\$2,000,000

**TOTAL Amount:** \$10,550,000

R&D Program Area: Not applicable

Explanation for "Other" selection: Not applicable

Reimbursement Contract #: Not applicable

Federal Agreement #: Not applicable

#### L. Contractor's Contact Information

#### 1. Contractor's Administrator/Officer

Name: Troy Walters

Address: 510 Thornall Street, Suite 170

City, State, Zip: Edison, NJ 08837

Phone: (732) 590-1868

E-Mail: <a href="mailto:twalters@noresco.com">twalters@noresco.com</a>
2. Contractor's Project Manager

Name: Rahul Athalye

Address: 2151 Michelson Drive, Suite 231

City, State, Zip: Irvine, CA 92612

Phone: (415) 652-8929

E-Mail: rathalye@noresco.com



#### M. Selection Process Used

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

Selection Process	Additional Information
Competitive Solicitation #	RFQ-24-401, # of bids 1
Non-Competitive Bid (Attach DGS-GSPD-09-007 https://www.dgs.ca.gov/PD/Forms)	Not applicable
Exempt	Not applicable

### N. Contractor Entity Type

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

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

The contractor is a certified: Not applicable

#### P. Civil Service Considerations

- a. Not Applicable (Agreement is with a CA State Entity or a membership/co-sponsorship)? No
- b. Public Resources Code 25620, et seq., authorizes the Commission to contract for the subject work. (PIER): No
- c. 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 not available within civil service, cannot be performed satisfactorily by civil service employee, and 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 that the delay to implement under civil service would frustrate their very purpose.



CALIFORNIA ENERGY COMMISSION

#### 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. The Contractor will work under the direction of the CEC to complete Energy Code Development Support.

### Q. 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

#### R. Retention

Is Agreement subject to retention? Yes

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

#### S. Justification of Rates

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

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

Provide requested additional information.

- 1. Exempt (Interagency/Other Government Entity): No
- 2. Meets DVBE Requirements DVBE: Yes

Amount: \$0 DVBE %: 3.01%

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".

Donald J. Shannon II, dba DHS Associates (1.90%)

Hicks Consulting Group, Inc., dba Hicks Professional Group (1.11%)

- 4. Contractor selected through CMAS or MSA with no DVBE participation: No
- 5. Requesting DVBE Exemption (attach CEC 95): No

#### **U. 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? No
- 6. Is the Agreement, with amendments, longer than three years? If yes, why? Yes, the term of this agreement will be three years and two months. This is necessary to avoid an interruption of important technical support services during a critical time for development and updates to the California Energy Code.



## 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:** 02/14/2025 **Deputy Director:** Will Vicent **Approval Date:** 02/18/2025

**Director:** Michael Sokol

**Approval Date:** 02/19/2025

#### **BACKGROUND SUMMARY**

The Warren-Alquist Act, Public Resources Code (PRC) section 25000 et seq., established the California Energy Commission (CEC) as California's primary energy policy and planning agency. It also mandated that the CEC create and periodically update the Building Energy Efficiency Standards, which include building energy efficiency requirements in the Energy Code (California Code of Regulations, Title 24 ["Title 24"], Part 6) and voluntary building energy efficiency standards in the California Green Building Standards Code ("CALGreen", Title 24, Part 11).

The Energy Code, in combination with appliance efficiency standards and utility-sponsored incentive programs, was a major contributor to California's per capita electricity consumption levels remaining relatively flat since the mid-1970s. First adopted in 1977, the Energy Code has been updated approximately on a three (3) year cycle. The most recent update, the 2025 Building Energy Efficiency Standards, will become effective January 1, 2026.

The 2028 Energy Code will continue to pursue three (3) major goals: 1) reducing the wasteful, uneconomic, inefficient, or unnecessary consumption of energy used by buildings; 2) building decarbonization in newly constructed and existing buildings; and 3) encouraging load flexibility and grid reliability.

The CEC develops and maintains two (2) free computer programs for use in demonstrating performance compliance with the Energy Code. California Building Energy Code Compliance Commercial (CBECC) is used for demonstrating performance compliance for nonresidential and multifamily buildings, and California Building Energy Code Compliance Residential (CBECC-Res) is used for demonstrating performance compliance for single-family residential buildings. The CEC is also responsible for certifying third-party software options that demonstrate compliance with the Energy Code.

In alignment with the Energy Code, CBECC and CBECC-Res are used to determine a building's energy budget. The programs then compare the user's proposed building design to check for compliance or noncompliance with that energy budget. CBECC consists of a basic user interface that choreographs interactions between a Compliance Manager – that contains rulesets to assess whether a building complies – and a reference physics engine called EnergyPlus. CBECC-Res is similar to CBECC but uses the California Simulation Engine (CSE) as the reference physics engine instead of EnergyPlus.

The CEC updates both CBECC and CBECC-Res in coordination with the Energy Code updates and also completes several additional software maintenance releases. These two (2) programs are a critical component of the Energy Code in that they provide a means for flexible compliance with the Energy Code while also helping to meet the State's greenhouse gas (GHG) reduction goals.

In addition, the CEC estimates that homes built in accordance with the 2022 Energy Code are, on average, at least fifty-two percent (52%) more efficient than those built under national model codes (i.e., International Energy Conservation Code 2021). This demonstrates the success of California's Building Energy Efficiency Standards, which have made a monumental cumulative impact over the past forty (40) plus years. However, these projections assume that the regulations are properly reflected in energy calculations and modeling, design drawings, and construction, and that compliance with the regulations are verified by building departments. If any of these steps are inaccurate, incomplete, or bypassed, it could result in noncompliance with the Energy Code and unrealized potential energy savings to the State. To mitigate these potential losses in energy and emissions savings, and to reduce transaction and labor costs for building departments and field professionals, the CEC administers a robust Energy Code compliance program.

This program develops, updates, and maintains the California Energy Code compliance documents and associated data registries, and helps to ensure buildings are designed, constructed, inspected, and tested to meet the requirements of the Energy Code. The Energy Code compliance program also provides resources to Authorities Having Jurisdiction (AHJs) or building departments and oversees residential and nonresidential field verification and diagnostic testing programs.

#### **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 the California Energy Code for residential and nonresidential buildings;
- Developing, updating, and maintaining the California Energy Code reference compliance software, CBECC and CBECC-Res; and
- Developing, updating, and maintaining the California Energy Code compliance data infrastructure, compliance documents, and other supporting documentation that aids the Energy Code compliance program.

Work will focus primarily on the development, implementation, and compliance support for the 2025 and 2028 Energy Codes but will also support maintenance and enhancements to the 2022 Energy Code and will support preliminary work on future Energy Codes (2031 and beyond).

## 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
AHJ	Authorities Having Jurisdiction
APA	Administrative Procedure Act
BEES	Building Energy Efficiency Standards, including requirements in the Energy Code, voluntary standards in CALGreen, and associated Administrative Regulations in Title 24, Part 1
CALGreen	California Green Building Standards Code (CCR, Title 24, Part 11)
CAM	Commission Agreement Manager, which is the CEC staff person who manages and oversees agreements after execution
CAO	Commission Agreement Officer, which is the CEC staff person from the Contracts, Grants, and Loans Office who oversees solicitations and the preparation of agreements before execution
CBECC	California Building Energy Code Compliance software for nonresidential and multifamily buildings
CBECC-Res	California Building Energy Code Compliance software for single- family residential buildings
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
Contractor	NORESCO, LLC
CSE	California Simulation Engine
DOE	United States Department of Energy
DRRM	Data Registry Requirements Manual
DVBE	Disabled Veteran Business Enterprise
Energy Code	CCR, Title 24, Part 6 and associated administrative regulations in Title 24, Part 1
FV&DT	Field Verification & Diagnostic Testing

ACRONYMS & TERMS	DEFINITION
GHG	Greenhouse gas
HERS	Home Energy Rating System
HVAC	Heating, Ventilation, and Air-conditioning systems
LSC	Long-term System Cost, defined in CCR, Title 24, Part 1, is the CEC-projected present value of costs to California's energy systems over a period of 30 years
Measures	Energy, GHG, and peak load savings opportunities
Nonresidential Compliance Manual	The Nonresidential Compliance Manual developed by the CEC, under PRC, section 25402.1(e), to aid designers, builders, and contractors in meeting the energy efficiency requirements for nonresidential buildings.
MS	Microsoft
PDF	Adobe Portable Document Format
РМ	Program Manager
PRC	Public Resources Code
Prime Contractor	NORESCO, LLC
Residential Compliance Manual	The Residential Compliance Manual developed by the CEC, under PRC, section 25402.1(e), to aid designers, builders, and contractors in meeting the energy efficiency requirements for residential buildings.
SOW	Scope of Work
State	State of California
WA	Work Authorization
WAM	Work Authorization Manager
Warren-Alquist Act	The Warren-Alquist State Energy Resources Conservation and Development Act, PRC section 25000 et seq.

## **WORK AUTHORIZATIONS**

This Agreement shall be conducted as a "Work Authorization" (WA) Agreement. No work shall be undertaken unless authorized by the Commission Agreement Manager (CAM) through a specific written document called a 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 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 for Energy Code Development Support in the general topic areas listed below. Technical Tasks 2 through 7 provide more detailed task activities for these areas:

- Graphic Design/Document Support for reports and other deliverables related to the Energy Code.
- 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 to incorporate CEC's comments and edits. A deliverable is considered final when the CAM or Work Authorization Manager (WAM) 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 WAM, the following:

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

The CEC typically requires the submission of products in an electronic format. If a hard copy deliverable is required, each final hard copy deliverable shall be delivered as one (1) original, reproducible,  $8 \frac{1}{2}$ " by 11", camera-ready master in black ink, unless otherwise directed by the CAM or WAM. Illustrations and graphs shall be sized to fit an  $8 \frac{1}{2}$ " by 11" page and readable if printed in black and white.

#### **OWNERSHIP OF WORK PRODUCT**

All deliverables, reports, data, memoranda, and other supporting documents developed under this SOW, whether completed or not, shall become the property of the CEC.

### **ELECTRONIC FILE FORMAT**

The Contractor shall submit all required data and documents as products 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 WAM.

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

- 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 <u>Section 508</u> of the federal Rehabilitation Act of 1973, which is located at (https://www.access-board.gov/about/law/ra.html#section-508-federal-electronicand-information-technology). The Contractor shall provide the native file format as well.
- Project management documents shall be in a file format specified by the CAM or WAM.

#### **PRIMARY TASKS**

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

TASK #	TASK NAME
1	Agreement Management
2	Energy Code Update Measure Identification and Analysis
3	Energy and Climate Accounting Methodologies for the Energy Code
4	Energy Code Software Tools Development and Maintenance
5	Energy Code Software Tools Documentation and Deployment
6	Energy Code Compliance Documentation, Compliance Analysis & Compliance Data Infrastructure Support
7	Contingencies

### TASK 1: AGREEMENT MANAGEMENT

A maximum of ten 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 dedicated 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 Program Manager (PM) is responsible for directing the work performed by the Contractor Team to meet the objectives of the contract.

The PM is also responsible for ensuring the quality and timely delivery of all deliverables, both technical and administrative, from the Contractor Team. The PM will be the primary point of contact for the Contractor Team and is responsible for oversight of all work under this contract. The PM is also responsible for managing all Subcontractor work, including ensuring quality products, 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 include, but are not 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 and other appropriate CEC staff. The CAM will designate the specific location. The Contractor shall include its PM, 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.
- If necessary, provide the information necessary for the CAM to complete a Form 805 identifying any individuals designated as consultants.

Note that individuals designated as consultants under this contract must file a Form 700. The Contractor and Subcontractors shall not invoice for the time spent filing the Form 700. For additional information, see Exhibit E (Conflict of Interest).

#### 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.
- Complete the Form 805 (if necessary)

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

- An updated schedule of deliverables (if applicable)
- Form 700 (for individuals designated as consultants)

#### 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 7, 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 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
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 the Exhibit B of the Terms and Conditions of the Agreement.
  - Invoices shall be submitted with the same frequency as progress reports (Subtask 1.4).
  - 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.

#### The CAM shall:

Provide the format for invoices.

#### **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, 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 shall:

Provide the format for the progress reports.

#### Contractor Subtask Deliverables:

Monthly progress reports

#### **SUBTASK 1.5: MANAGEMENT OF WAS**

WAs define the SOW, schedule of deliverables, and the project(s) budget. The goal of this subtask is to develop and manage all technical and budgetary aspects of WAs in accordance with the requirements of this Agreement for work to be performed under Technical Tasks 2 through 7.

#### The Contractor shall:

- At the direction of the CAM, assist the CEC in preparing the WAs in accordance with contract requirements.
- Submit all required WA documents to the CAM.
- Administer WAs.
- Develop project schedules and adhere to the promised schedules for deliverable delivery to the CEC.
- Provide audit and accounting services for all WAs.
- Determine the fiscal status of each WA and the overall Agreement.
- Prevent cost overruns.
- Provide oversight and first-level review of reports and documentation, and comment on the content of deliverables.
- Ensure that final deliverables have been reviewed for technical accuracy, are ready for publication, and comply with all web accessibility requirements.
- Adequately document all analyses so that the public can easily follow the logic of each analysis.
- Monitor and track each WA and the overall Agreement.
- Provide updated WA project schedules, as needed, and determine if each WA is on schedule and deliverables are satisfactory.
- Immediately report any significant variances affecting performance of WAs and
  recommend mitigation actions for consideration by the PM and CAM. Examples
  of significant variances include the inability to submit deliverables by key WA due
  dates, unavailability of key personnel that will affect timely submittal of
  deliverables, and key technical issues that would require change in scope,
  redirection of the effort, or discontinuation of the project.

- Track the start, progress, and closure of each WA.
- Coordinate with the CAM to close out completed WAs and remaining unallocated balances.

#### The CAM shall:

Provide the WA template and specify the required content.

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

WA documents

#### SUBTASK 1.6: MANAGE SUBCONTRACTORS

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

#### The Contractor shall:

- At the direction of and in collaboration with the CAM, review and prepare WA scopes, deliverables, and budgets.
- The Contractor is responsible for the quality of all Subcontractor work and for ensuring that Subcontractor work adheres to the promised schedule for deliverable delivery to the CEC.
- 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 CEC's process for adding or replacing
  Subcontractors. Subcontractors must be added to this Agreement prior to
  beginning any work.

#### SUBTASK 1.7: FINAL MEETING

The goal of this subtask 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. The CAM
and Contractor PM 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.

- Present findings, conclusions, and recommended next steps (if any) for the Agreement.
- Prepare a written document of meeting agreements and unresolved activities.
- 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
- Schedule for completing closeout activities
- Findings, conclusions, and recommendations

### TASK 2: ENERGY CODE UPDATE MEASURE IDENTIFICATION AND ANALYSIS

The goal of this task is to develop Measure Proposals for updates to the Energy Code's residential and nonresidential provisions that include all the information and analysis necessary to amend the Energy Code and are consistent with the CEC's goals.

At the direction of the WAM, the Contractor shall identify energy, GHG, and peak load savings opportunities (measures) for residential and nonresidential buildings for updates to the Energy Code, 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:

- More energy efficient levels of the measures currently included in the Energy Code;
- Measures for achieving California's GHG reduction goals;
- Measures that are options for compliance in the performance 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 gathering 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 <u>Building Energy Efficiency Measure Proposal Template</u> located for download at (https://www.energy.ca.gov/media/3538). Note this template will likely be updated for the 2028 Energy Code cycle.

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 each workshop

and, working with CEC staff and subject matter experts, address issues raised by stakeholders 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 energy conservation codes for relevance to the Energy Code update;
- Review of Measure Proposals submitted to staff by outside parties;
- Assessment of new methods for determining compliance;
- Updates to the Compliance Manuals; and
- Development, research, and analysis of proposed or potential measures to meet the requirements for inclusion in the Energy Code.

#### **Contractor 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
- Compliance Manual updates
- Other deliverables to be defined as needed through WAs

## TASK 3: ENERGY AND CLIMATE ACCOUNTING METHODOLOGIES FOR THE ENERGY CODE

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 in Task 2, as well as to complete the documentation required under the Administrative Procedure 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 measures, as well as incorporate these accounting methodologies into an overall methodology for assessing the life cycle benefits and costs of proposed updates to the Energy Code.

### **SUBTASK 3.1: ENERGY ACCOUNTING METHODOLOGIES**

The goal of this subtask is to update accounting methodologies used for the Energy Code to value the electricity and gas energy savings, including methods to value the cost of water used in buildings and the potential savings from water efficiency measures installed in buildings. The work in this task is expected to include, but not be limited to, the following:

- Review and revise the Long-term System Cost (LSC) methodology, 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, GHG emissions, criteria pollutant 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.

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

- Energy Accounting Methodology Report detailing the technical methods and tools used to assess measures for the Building Energy Efficiency Standards
- Portions or chapters of financial impact documentation required under APA
- Portions or chapters of environmental impact documentation required under CEQA
- Other deliverables to be defined as needed through WAs

#### SUBTASK 3.2 – LIFE CYCLE COST ANALYSIS

The goal of this subtask is to update the methodology used to assess the building life cycle costs and savings for the measures to be considered in the Energy Code updates, including leveraging the energy accounting methodologies developed under Task 3.1. The work in this task is expected to include, but not be limited to, the following:

Review and revise the Energy Code Life Cycle Cost methodology.

## **EXHIBIT A**

## **Scope of Work**

- Review and revise reference climatic data and climate methodologies that impact energy savings and accounting for Energy Code measures.
- Establish cost reduction curves for different classes of technology predicting reductions in costs due to adoption of mandatory measures.
- 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 building and appliance efficiency standards.
- Complete life cycle cost analyses to determine the cost-effectiveness of measures for inclusion in the Energy Code, both incrementally and in combination as specified by the WAM.
  - Document all economic assumptions, periods of analysis, and energy forecasts (e.g., electricity, peak cooling, peak demand, 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.

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

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

#### TASK 4: ENERGY CODE SOFTWARE TOOLS DEVELOPMENT AND MAINTENANCE

The goal of this task is to update and create residential and nonresidential software tools and associated documentation essential for demonstrating compliance with the Energy Code. The work in this task is expected to include, but not be limited to, the following:

- Developing and maintaining building energy modeling software tools.
- Piloting and beta testing new versions of the software tools, or other tools, with CEC staff and with building industry stakeholders, including research versions of the software tools used for Energy Code Update Measure Identification and Analysis.

## **EXHIBIT A**

## Scope of Work

- Modeling building design scenarios appropriate for energy efficient or low-carbon buildings to include at least the following systems and compliance options under the Energy Code:
  - Energy storage systems (battery, thermal);
  - Photovoltaic and solar thermal systems;
  - Heating, Ventilation and Air-conditioning (HVAC) systems;
  - Domestic and service water heating systems;
  - Envelope and infiltration modeling;
  - Lighting and daylight modeling;
  - Covered process modeling; and
  - Demand flexibility measures.
- Preparing instructions for users that explain how the software tools should be used to demonstrate compliance with the Energy Code.
- Preparing documentation that explains all significant modifications made to the Energy Code data dictionaries, compliance rulesets, and software tools.
- Providing support for software tools to ensure a successful transition to future versions.
- Developing or integrating existing parametric run generation capability that allows batch processing and analysis, results retrieval, and summary. Modifying software tools as needed to work with a parametric run generator to model existing and proposed technologies that need to be evaluated.
- Adding or updating modeling capabilities and compliance modeling rules within software tools essential for demonstrating compliance with the Energy Code.
- Developing functionality or tools that allow for the creation and evaluation of building energy metrics for newly constructed buildings and additions or alterations to existing buildings.
- Supporting development and implementation of performance compliance reporting for both CBECC and CBECC-Res, including integration with the registries and reporting schemas.

#### **Contractor Task Deliverables:**

- Energy Code compliance analysis software tools functional requirements
- Energy Code compliance analysis software tools specifications
- Energy Code compliance analysis software tools
- Energy Code compliance analysis software tools documentation

- Updates to software tools, as needed
- Other deliverables to be defined as needed through WAs

### TASK 5: ENERGY CODE SOFTWARE TOOLS DOCUMENTATION AND DEPLOYMENT

The goal of this task is to support the CEC's deployment of software tools essential for demonstrating compliance with the Energy Code. The work in this task is expected to include, but not be limited to, the following:

- Updating and tracking issues identified through the project team, end-users, and stakeholder reviews of the software tools and associated support documentation.
- Testing software tools through third parties and Subcontractors as needed (CEC staff may conduct its own testing).
- Developing and maintaining automated testing and batch processing capability for the software tools.
- Piloting and beta testing new versions of software tools with building industry stakeholders to identify and improve issues prior to release.
- Providing technical support to third-party software vendors for integration of Energy Code software tools into their software tools, including:
  - o Documenting all updates to the compliance data model and rulesets.
  - o Developing solutions to vendor issues as directed by the WAM.
- Establishing and/or maintaining a website to host open-source software tools, which may include a bug reporting/tracking mechanism.
- Maintaining or enhancing website(s) for reporting bugs, tracking support, and development issues and responses.
- Establishing procedures for the CEC to assume responsibility for the website(s)
  once deployed and functional. Subcontractors may continue to maintain/enhance
  the website(s) in the event of a transfer of ownership of the website(s) to the
  CEC.

#### **Contractor Task Deliverables:**

- Updated versions of software tools essential for demonstrating compliance with the Energy Code including updates to software tools documentation
- Software tools issue tracking reports
- Software tools source code posted to open-source online repository
- Other deliverables to be defined through WAs

## Task 6: Energy Code Compliance Documentation, Compliance Analysis & Compliance Data Infrastructure Support

The goal of this task is to provide technical support for developing, updating, and maintaining the California Energy Code compliance program. This includes updating data infrastructure, compliance documents (also known as "forms"), and other supporting documentation that aids the Energy Code compliance program.

This may include updating data dictionaries and other necessary data infrastructure to facilitate information exchange with Energy Code compliance software and data registries, and support services such as technical analysis and studies/reports, to enhance CEC's oversight of Field Verification & Diagnostic Testing (FV&DT).

This task will involve updating Energy Code compliance documents and their related technical specifications, the current data registry technical and functional specifications, existing data exchange schemas, and other methods used to communicate Energy Code-related building energy performance, including performing technical analysis to support CEC decisions related to the Home Energy Rating and Labeling program. The work in this task is expected to include, but not be limited to, the following:

- Updating and improving Energy Code compliance forms.
- Enhancing the data dictionary.
- Updating the compliance document XML template infrastructure that is specified in the Energy Code.
- Reviewing and analyzing the results of CEC surveys of compliance documents.
- Updating the data registry requirements, as needed.
- Maintaining the accessibility and functionality of the Report Generator software service(s).
- Providing technical support to third parties involved in the Energy Code compliance program, such as AHJs, Energy Code compliance providers, Home Energy Rating System (HERS) Raters, Acceptance Test Technicians, and other Energy Code compliance professionals.
- Performing technical analysis to support CEC decisions related to the Home Energy Rating and Labeling program.
- Coordinating meetings with public stakeholders to support the proposal, adoption, and implementation of the proposed Home Energy Rating and Labeling program.

#### **Contractor Task Deliverables:**

- Updated compliance documents (forms)
- Updated data dictionaries

- Updated schemas for compliance documents
- Updated document templates (.xslt)
- Updated Data Registry Requirements Manual (DRRM)
- Updated Report Generator programming based on the above deliverables
- Technical reports that support improvements to Energy Code compliance in both the residential and nonresidential sectors
- Materials to support public workshops and formal proceedings to update California's Home Energy Rating & Labeling program
- Technical reports to support a CEC-proposed Home Energy Rating and Labeling program
- Other deliverables to be defined as needed through WAs

#### **TASK 7: CONTINGENCIES**

The Contract team shall assist with work to develop program components beyond what is specifically described in Tasks 2 through 6 related to Energy Code Development 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 the Energy Code and compliance software updates.
- General knowledge transfer to and training of CEC staff.

#### Contractor Task Deliverables:

Deliverables to be defined as needed through WAs

## **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)	Five (5) business days after the Kick-Off Meeting
	Form 700 (for individuals designated as consultants)	Thirty (30) calendar days after the Kick-Off Meeting
1.2	Program Meetings and Briefings	
	Meeting notes to capture issues, action items, and feedback	As needed
1.3	Invoices	
	Invoices	Monthly
1.4	Progress Reports	
	Progress reports	Monthly
1.5	Management of WAs	
	WA documents	As needed
1.7	Final Meeting	
	Written documentation of meeting agreements	Five (5) business days after the Final Meeting
	Schedule for completing closeout activities	Five (5) business days after the Final Meeting

TASK #	DELIVERABLES	TENTATIVE DUE DATES
1	Agreement Management	
1.7	Final Meeting	
	Findings, conclusions, and recommendations	Ten (10) business days after the Final Meeting
2	Energy Code Update Measure Identification and Analysis	
	One or more Draft Measure Proposals	4 <sup>th</sup> quarter 2025
	One or more Final Measure Proposals	1 <sup>st</sup> quarter 2026
	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
	Compliance Manual updates	2 <sup>nd</sup> quarter 2027
	Other deliverables to be defined as needed through WAs	TBD per WA
3	Energy and Climate Accounting Methodologies for the Energy Code	
	Energy Accounting Methodology Report	2 <sup>nd</sup> quarter 2025
	Life Cycle Cost Analysis Report	2 <sup>nd</sup> quarter 2025
	Portions or chapters of financial impact documentation required under APA	2 <sup>nd</sup> quarter 2026
	Portions or chapters of environmental impact documentation required under CEQA	2 <sup>nd</sup> quarter 2026
	Other deliverables to be defined as needed through WAs	TBD per WA

TASK #	DELIVERABLES	TENTATIVE DUE DATES
4	Energy Code Software Tools Development and Maintenance	
	Energy Code compliance analysis software tools functional requirements	TBD per WA
	Energy Code compliance analysis software tools specifications	TBD per WA
	Energy Code compliance analysis software tools	TBD per WA
	Energy Code compliance analysis software tools documentation	TBD per WA
	Updates to software tools, as needed	TBD per WA
	Other deliverables to be defined as needed through WAs	TBD per WA
5	Energy Code Software Tools Documentation and Deployment	
	Updated versions of software tools essential for demonstrating compliance with the Energy Code including updates to software tools documentation	TBD per WA
	Software tools issue tracking reports	TBD per WA
	Software tools source code posted to open-source on-line repository	TBD per WA
	Other deliverables to be defined as needed through WAs	TBD per WA
6	Energy Code Compliance Documentation, Compliance Analysis & Compliance Data Infrastructure Support	
	Updated compliance documents (forms)	TBD per WA

TASK #	DELIVERABLES	TENTATIVE DUE DATES
6	Energy Code Compliance Documentation, Compliance Analysis & Compliance Data Infrastructure Support	
	Updated data dictionaries	TBD per WA
	Updated schemas for compliance documents	TBD per WA
	Updated document templates (.xslt)	TBD per WA
	Updated DRRM	TBD per WA
	Updated Report Generator programming based on the above deliverables	TBD per WA
	Technical reports that support improvements to Energy Code compliance in both the residential and nonresidential sectors	TBD per WA
	Materials to support public workshops and formal proceedings to update California's Home Energy Rating & Labeling program	TBD per WA
	Technical reports to support a CEC-proposed Home Energy Rating and Labeling program.	TBD per WA
	Other deliverables to be defined as needed through WAs	TBD per WA
7	Contingencies	
	Deliverables to be defined as needed through WAs	TBD per WA