



STATE OF CALIFORNIA

CONTRACT REQUEST FORM (CRF)

CEC-94 (Revised 12/2019)

CALIFORNIA ENERGY COMMISSION

A) New Agreement # 400-21-005 (to be completed by CGL office)

| B) Division | Agreement Manager: | MS- | Phone |
|-------------------------|--------------------|-----|--------------|
| 400 Efficiency Division | Elizabeth Thomsen | | 916-891-9048 |

| C) Contractor's Legal Name | Federal ID # |
|----------------------------|--------------|
| Arup US, Inc. | 36-2711213 |

| D) Title of Project |
|--|
| Building Decarbonization and Energy Efficiency Compliance Strategies Development |

E) Term and Amount

| Start Date | End Date | Amount |
|----------------|----------------|--------------|
| 06 / 15 / 2022 | 06 / 14 / 2025 | \$ 1,800,000 |

F) Business Meeting Information

☐ Operational agreement (see CAM Manual for list) to be approved by Executive Director

☐ ARFVTP agreements \$75K and under delegated to Executive Director

Proposed Business Meeting Date 06 / 08 / 2022 ☐ Consent ☒ Discussion

Business Meeting Presenter Elizabeth Thomsen Time Needed: 5 minutes

Please select one list serve. 1-Efficiency Topics; 2-Decarbonization Topics; 3-Building Energy Efficiency Standards; 4-RFPs, Solicitations, Contracts, Funding Announcements

Agenda Item Subject and Description:

Proposed resolution approving Agreement 400-21-005 with Arup US, Inc. for a three-year, \$1,800,000 contract to lead a team of professional architectural and engineering consultants to provide technical support for evaluating and implementing strategies to advance the decarbonization of residential and nonresidential buildings and to increase Energy Code compliance. (COIA Funding) Contact: Elizabeth Thomsen (Staff Presentation 5 minutes)

G) California Environmental Quality Act (CEQA) Compliance

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

☐ Yes (skip to question 2) ☒ No (complete the following (PRC 21065 and 14 CCR 15378)):

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 evaluating and implementing strategies to advance decarbonization of residential and nonresidential buildings and to increase Energy Code compliance.

2. If Agreement is considered a "Project" under CEQA:

a) ☐ Agreement **IS** exempt.

☐ Statutory Exemption. List PRC and/or CCR section number:

☐ Categorical Exemption. List CCR section number:



STATE OF CALIFORNIA

CONTRACT REQUEST FORM (CRF)

CEC-94 (Revised 12/2019)

CALIFORNIA ENERGY COMMISSION

☐ Common Sense Exemption. 14 CCR 15061 (b) (3) Explain reason why Agreement is exempt under the above section:

b) ☐ Agreement **IS NOT** exempt. (consult with the legal office to determine next steps)

Check all that apply

☐ Initial Study

☐ Negative Declaration

☐ Mitigated Negative Declaration

☐ Environmental Impact Report

☐ Statement of Overriding Considerations

H) List all subcontractors (major and minor) and equipment vendors: (attach additional sheets as necessary)

| Legal Company Name: | Budget |
|--|---------|
| Subcontractor: KMEA | \$ 0.00 |
| Subcontractor: Center for Sustainable Energy | \$ 0.00 |
| Subcontractor: Energy and Environmental Economics, Inc. (E3) | \$ 0.00 |

I) List all key partners: (attach additional sheets as necessary)

| |
|---------------------|
| Legal Company Name: |
| None |

J) Budget Information

| Funding Source | Funding Year of Appropriation | Budget List Number | Amount |
|----------------|-------------------------------|--------------------|-----------|
| COIA | FY 2021-22 | 370.400 | \$600,000 |
| COIA | FY 2022-23 | 370.400 | \$600,000 |
| COIA | FY 2023-24 | 370.400 | \$600,000 |

R&D Program Area: N/A

TOTAL: **\$1,800,000**

Explanation for "Other" selection N/A

Reimbursement Contract #: N/A

Federal Agreement #: N/A

K) Contractor's Contact Information

1. Contractor's Administrator/Officer

Name: Erin McConahey

Address: 900 Wilshire Blvd, 19th Floor

City, State, Zip: Los Angeles, CA 90017

Phone: (310) 578-4439

E-Mail: Erin.McConahey@arup.com

2. Contractor's Project Manager

Name: Erin McConahey

Address: 900 Wilshire Blvd, 19th Floor

City, State, Zip: Los Angeles, CA 90017

Phone: (310) 578-4439

E-Mail: Erin.McConahey@arup.com

**CONTRACT REQUEST FORM (CRF)****L) Selection Process Used**

- ☒ Solicitation RFQ Solicitation #: RFQ-21-403 # of Bids: 5 Low Bid ☒ No ☐ Yes
☐ Non Competitive Bid (Attach DGS-GSPD-09-007 <https://www.dgs.ca.gov/PD/Forms>)
☐ Exempt N/A

M) Contractor Entity Type

- ☒ Private Company (including non-profits)
☐ CA State Agency (including UC and CSU)
☐ Government Entity (i.e. city, county, federal government, air/water/school district, joint power authorities, university from another state)

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

If yes, check appropriate box(es): ☐ SB ☐ MB ☐ DVBE

O) Civil Service Considerations

- ☐ Not Applicable (Agreement is with a CA State Entity or a membership/co-sponsorship)
☐ Public Resources Code 25620, et seq., authorizes the Commission to contract for the subject work. (PIER)
☒ The Services Contracted:
☒ 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 Services are of such an:
☐ urgent
☐ temporary, or
☒ occasional nature
that the delay to implement under civil service would frustrate their very purpose.

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 Energy Commission to complete Building Decarbonization and Energy Efficiency Strategies Development.

P) Payment Method

- ☒ Reimbursement in arrears based on:
☒ Itemized Monthly ☐ Itemized Quarterly ☐ Flat Rate ☐ One-time
- ☐ Advanced Payment
- ☐ Other, explain:

Q) Retention

- Is Agreement subject to retention? ☐ No ☒ Yes
If Yes, Will retention be released prior to Agreement termination? ☐ No ☒ Yes

**CONTRACT REQUEST FORM (CRF)****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)

1. ☐ Exempt (Interagency/Other Government Entity)
2. ☒ Meets DVBE Requirements DVBE Amount:\$ 0 DVBE %:7%
 - a. ☐ Contractor is Certified DVBE
 - b. ☒ Contractor is Subcontracting with a DVBE: KMEA
3. ☐ Contractor selected through CMAS or MSA with no DVBE participation
4. ☐ Requesting DVBE Exemption (attach CEC 95)

T) Miscellaneous Agreement Information

1. Will there be Work Authorizations? ☐ No ☒ Yes
2. Is the Contractor providing confidential information? ☒ No ☐ Yes
3. Is the contractor going to purchase equipment? ☒ No ☐ Yes
4. Check frequency of progress reports
☒ Monthly ☐ Quarterly ☐ Other
5. Will a final report be required? ☐ No ☒ Yes
6. Is the Agreement, with amendments, longer than three years? ☒ No ☐ Yes
If yes, why?

U) The following items should be attached to this CRF (as applicable)

- | | | |
|---|---|--|
| 1. Exhibit A, Scope of Work | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |
| 2. Exhibit B, Budget Detail | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |
| 3. DGS-GSPD-09-007, NCB Request | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 4. CEC 95, DVBE Exemption Request | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 5. CEQA Documentation | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 6. Resumes | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |
| 7. CEC 105, Questionnaire for Identifying Conflicts | | <input checked="" type="checkbox"/> Attached |

Agreement Manager

Date

Office Manager

Date

Deputy Director

Date

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:

- Evaluating and implementing strategies to advance decarbonization of residential and nonresidential buildings and to increase Energy Code compliance.

Work will focus on developing innovative strategies to optimize the use and operations of buildings in order to reduce GHG emissions and improve Energy Code compliance.

ACRONYMS/GLOSSARY

Specific acronyms and terms used throughout this SOW are defined as follows:

| ACRONYMS & TERMS | DEFINITION |
|------------------|---|
| AHJ | Authorities Having Jurisdiction |
| ATTCP | Acceptance Test Technician Certification Providers |
| CALGreen | The California Green Building Standards Code, which are the voluntary provisions included in Part 11 of Title 24 of the California Code of Regulations. |
| CBECC | California Building Energy Code Compliance application; used to collectively refer to CBECC-Com and CBECC-Res |
| CBECC-Com | California Building Energy Code Compliance application for high-rise residential and nonresidential buildings |
| CBECC-Res | California Building Energy Code Compliance application for low-rise residential buildings |
| CCDR | Commission Compliance Document Repository |
| CEC | California Energy Commission |
| CPUC | California Public Utilities Commission |
| Energy Code | Building Energy Efficiency Standards codified in Part 1, Chapter 10, and Part 6 of Title 24 of the California Code of Regulations addresses newly constructed buildings and additions and alterations to existing residential and nonresidential buildings. |
| FDAS | Flexible Demand Appliance Standards |
| GHG | Greenhouse Gas |
| HERS | Home Energy Rating System |

EXHIBIT A

Scope of Work

| ACRONYMS & TERMS | DEFINITION |
|----------------------------------|---|
| IEPR | Integrated Energy Policy Report |
| LMS | Load Management Standards |
| MS | Microsoft |
| Nonresidential Compliance Manual | The Nonresidential Compliance Manual developed by the CEC, under Public Resources Code, section 25402.1(e), to aid designers, builders, and contractors in meeting the energy efficiency requirements for nonresidential buildings. |
| PDF | Adobe Portable Document Format |
| PRC | Public Resources Code |
| Residential Compliance Manual | The Residential Compliance Manual developed by the CEC, under Public Resources Code, section 25402.1(e), to aid designers, builders, and contractors in meeting the energy efficiency requirements for residential buildings. |
| SB 350 | Clean Energy and Pollution Reduction Act (de León, Chapter 547, Statutes of 2015) |
| SOW | Scope of Work |
| TDV | Time Dependent Variable |
| Warren-Alquist Act | The Warren-Alquist State Energy Resources Conservation and Development Act, PRC section 25000 et seq |

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 CAM through a specific written document called a “Work Authorization.”

The CAM will prepare and issue the written Work Authorizations 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 Work Authorizations, 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.

EXHIBIT A

Scope of Work

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 evaluate, develop, update, and implement strategies to inform and advance decarbonization of residential and nonresidential buildings, increase Energy Code Compliance, and enhance the Commission Compliance Document Repository (CCDR) in the general topic areas listed below. Technical Tasks 2-5 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 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:

- [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.

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.

EXHIBIT A

Scope of Work

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 | Strategies to Expand, Enhance, and Maintain the CEC's CCDR |
| 3 | Existing Buildings Decarbonization Technical Support |
| 4 | Identify, Develop, and Implement Innovative Strategies and Technical Support for Increased Energy Code Compliance and Improved Installation of Energy Efficiency Measures |
| 5 | Contingencies and Additional Topic Areas for Building Decarbonization and Energy Code Compliance Technical Support |

TASK 1 – AGREEMENT MANAGEMENT

Each Work Authorization 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.

EXHIBIT A

Scope of Work

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 Work Authorization. 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.

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.

EXHIBIT A

Scope of Work

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 WORK AUTHORIZATIONS

The goal of this task is to facilitate the preparation of Work Authorizations.

The Contractor shall:

- At the direction of the CAM, assist the CEC in preparing the Work Authorizations, 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:

- At the direction of and in collaboration with the CAM, review and prepare Work Authorization scopes, deliverables, and budgets. 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.
- 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

EXHIBIT A

Scope of Work

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.

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.
- 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 – STRATEGIES TO EXPAND, ENHANCE, AND MAINTAIN THE CEC's CCDD

As authorized in the Energy Code, the CEC is developing the Commission Compliance Document Repository or CCDD to support the evaluation of Energy Code compliance, analyses of policy issues, and identification of innovative solutions for policy and code compliance. To expedite its development, broaden its functionality, and facilitate its implementation, the Contractor shall provide technical and strategic assistance to CEC staff to expand, enhance, and maintain the CCDD, and evaluate innovative strategies to improve the associated software tools and documentation. These items are essential to supporting increased Energy Code implementation and compliance; improved policies and programs to advance decarbonization; and supporting the Authorities Having Jurisdiction (AHJ) with Energy Code compliance.

EXHIBIT A

Scope of Work

The Contractor shall:

- Propose and evaluate data sources relevant to Energy Code compliance. Prepare an inventory that describes scope of available data and information. Identify caveats, constraints, and costs for each source.
- Gather and secure information and data through surveys and interviews to support Energy Code compliance evaluations, inform CCDR expansion, and identify opportunities for building energy policy improvements.
- Provide technical support for the development of innovative tools that facilitate the secure submission of compliance data, documents, and information to the CCDR by the Home Energy Rating System (HERS) Providers, the Acceptance Test Technician Certification Providers (ATTCP), and others potential sources of data and information.
- Provide technical support and innovative solutions for software tools, ensure successful operation and enhancement of the CCDR , and revisions.
- Evaluate programming options that expand CCDR functionality for efficient and automated data intake followed by extraction and loading to a database. End uses include staff analysis and data exploration to define compliance behavior, norms, distinguish best practices, and identify outliers.
- Work with the CEC's CCDR team to expand the repository database so that it includes an inventory of a project's scope and parameters, to be integrated with auxiliary data about efficiency measure costs of installation and Energy Code compliance and other related data sources.
- Prepare instructions for users that explain how to use the software tools to submit data, improve data management, enhance data analyses, and maintain the CCDR.

Task Deliverables:

- Energy Code compliance data source inventory, cost assessment, and methods for acquisition report
- Data set information gathered for Energy Code implementation and compliance
- Reports on methods to expand functionality of CCDR and streamline data collection and processing
- Technical documentation on steps to develop and implement tools to facilitate the submission of Energy Code compliance documents and data and for integration with third-party software and database systems
- User instructions and tutorials
- Other deliverables to be defined as needed through Work Authorizations

TASK 3 – EXISTING BUILDINGS DECARBONIZATION TECHNICAL SUPPORT

California is home to approximately 14 million homes and seven million square feet of commercial buildings. As detailed in the 2020 California Building Decarbonization

EXHIBIT A

Scope of Work

Assessment, existing buildings offer significant potential to reduce GHG emissions by more than 40 percent and help the state meet its mid-century climate goals. Strategies to decarbonize these buildings include energy efficiency, load management, electrification, distributed energy resources, reducing leakage of hydrofluorocarbons, and decarbonizing both the gas and electric energy systems. Contractor shall provide technical support to inform, develop, and support strategies, programs, policies, and pathways to reduce GHG emissions in existing buildings.

The Contractor shall:

- Gather, review, analyze, and/or summarize energy, cost, behavior, policies/programs, and building data to inform decarbonization strategies and programs.
- Assess the potential remediation needs and costs associated with building retrofits, energy/efficiency improvements, and preparing a building for electrification. This includes, but is not limited to, the typical added upfront costs due to mold, asbestos, lead pipes, and water damage.
- Develop original surveys or interviews, gather data/feedback, analyze, and provide findings or conclusions.
- Analyze, develop, and model performance standards for existing buildings.
- Analyze impacts of decarbonization strategies on GHG emissions, energy usage, energy bills, statewide or regional demand, building operations, local and state economy, local and state agencies, environment, low income or disadvantaged communities, and tribes.
- Identify issues, barriers, and challenges to decarbonizing or optimizing the operation of buildings, as well as identify and evaluate options to resolve these issues.
- Develop training guides and provide training to CEC staff on utilities' rate development process and components, technological and equipment advancements, and energy modeling.

Task Deliverables:

- Final analyses, reports, draft regulatory language, literature reviews, and presentations
- Data sources identified or used in analyses, reports, literature reviews, or presentations
- Any other data secured to conduct work under this Agreement
- Survey questions and responses
- Training materials and presentations
- Modeling and related assumptions
- Other deliverables to be defined as needed through Work Authorizations

EXHIBIT A

Scope of Work

TASK 4 – IDENTIFY, DEVELOP, AND IMPLEMENT INNOVATIVE STRATEGIES AND TECHNICAL SUPPORT FOR INCREASED ENERGY CODE COMPLIANCE AND IMPROVED INSTALLATION OF ENERGY EFFICIENCY MEASURES

Support the CEC's evaluation of innovative software tools and other tools essential for increasing and demonstrating compliance with the Energy Code.

The Contractor shall:

- Develop targeted interview and survey materials regarding issues, barriers, effective measures, new tools innovation, and evolving practices for improved Energy Code compliance and energy efficiency measure installations at the local level.
- In collaboration with CEC staff, conduct interviews and surveys of representatives of AHJs, Regional Energy Networks, contractors, and other parties involved with local code enforcement regarding best practices, resource requirements, emerging trends, and issues associated with Energy Code compliance.
- Prepare analyses and reports regarding interview and survey results, as well as analyses of new and emerging tools, trends, industry practices, and methods to improve code compliance and energy efficiency measure installations.
- Evaluate software tools and methodologies associated with Energy Code compliance and asset ratings for newly constructed buildings, as well as alterations and additions to existing buildings.
- Inventory and evaluate tools used at the local level for building permit and inspection processes and code compliance determination, as well as identify methods or approaches for integrating such tools into innovative statewide software tools and best practices for improved technical assistance and enhanced code compliance.
- Inventory and evaluate tools and strategies used nationally and in other states to simplify and streamline code compliance, as well as assessing compatibility of those tools and strategies with California's existing tools and building energy policies and requirements.

Task Deliverables:

- Reports on the evaluation of software tools for use to determine Energy Code compliance
- Survey and interview materials
- Report on compliance tools and asset ratings
- Inventory of local tools and integration report
- Reports on survey and interview results
- Interim and final evaluation reports
- Other deliverables to be defined as needed through Work Authorizations

EXHIBIT A

Scope of Work

TASK 5 – CONTINGENCIES AND ADDITIONAL TOPIC AREAS FOR BUILDING DECARBONIZATION AND ENERGY CODE COMPLIANCE TECHNICAL SUPPORT

The Contractor shall assist with work to evaluate and develop program components beyond what is specifically described in Tasks 2-4 related to innovative building decarbonization strategies, Energy Code compliance technical support, tools, and strategies.

The Contractor shall:

- As requested by the CAM, attend workshops and hearings that support the implementation of and compliance with Energy Code measures and development of building decarbonization strategies.
- Provide general knowledge transfer to CEC staff.

Task Deliverables:

- Other deliverables to be defined as needed through Work Authorizations

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 Work Authorizations. For deliverables listed, Work Authorizations will specify due dates.

| TASK # | DELIVERABLES | TENTATIVE DUE DATES |
|---------------|---|----------------------------|
| 1 | Agreement Management | |
| 1.1 | Kick-Off Meeting | |
| | An updated schedule of deliverables (if applicable) | 2nd quarter 2022 |
| 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 2025 |

EXHIBIT A

Scope of Work

| TASK # | DELIVERABLES | TENTATIVE DUE DATES |
|---------------|--|----------------------------|
| 1.7 | Final Meeting | |
| | Schedule for completing closeout activities | 2nd quarter 2025 |
| | Findings, conclusions, and recommendations | 2nd quarter 2025 |
| 2 | Strategies to Expand, Enhance, and Maintain the CEC's CCDR | |
| | Energy Code compliance data source inventory, cost assessment, and methods for acquisition report | TBD per Work Authorization |
| | Data set information gathered for Energy Code implementation and compliance | TBD per Work Authorization |
| | Reports on methods to expand functionality of CCDR and streamline data collection and processing | TBD per Work Authorization |
| | Technical documentation on steps to develop and implement tools to facilitate the submission of Energy Code compliance documents and data and for integration with third-party software and database systems | TBD per Work Authorization |
| | User instructions and tutorials | TBD per Work Authorization |
| | Other deliverables to be defined as needed through Work Authorizations | TBD per Work Authorization |
| 3 | Existing Buildings Decarbonization Technical Support | |
| | Final analyses, reports, draft regulatory language, literature reviews, and presentations | TBD per Work Authorization |
| | Data sources identified or used in analyses, reports, literature reviews, or presentations | TBD per Work Authorization |
| | Any other data secured to conduct work under this Agreement | TBD per Work Authorization |

EXHIBIT A

Scope of Work

| TASK # | DELIVERABLES | TENTATIVE DUE DATES |
|---------------|--|----------------------------|
| 3 | Existing Buildings Decarbonization Technical Support | |
| | Survey questions and responses | TBD per Work Authorization |
| | Training materials and presentations | TBD per Work Authorization |
| | Modeling and related assumptions | TBD per Work Authorization |
| | Other deliverables to be defined as needed through Work Authorizations | TBD per Work Authorization |
| 4 | Identify, Develop, and Implement Innovative Strategies and Technical Support for Increased Energy Code Compliance and Improved Installation of Energy Efficiency Measures | |
| | Reports on the evaluation of software tools for use to determine Energy Code compliance | TBD per Work Authorization |
| | Survey and interview materials | TBD per Work Authorization |
| | Inventory of local tools and integration report | TBD per Work Authorization |
| | Reports on survey and interview results | TBD per Work Authorization |
| | Interim and final evaluation reports | TBD per Work Authorization |
| | Other deliverables to be defined as needed through Work Authorizations | TBD per Work Authorization |

EXHIBIT A
Scope of Work

| TASK # | DELIVERABLES | TENTATIVE DUE DATES |
|-------------------|---|--------------------------------|
| 5 | Contingencies and Additional Topic Areas for Building Decarbonization and Energy Code Compliance Technical Support | |
| | Other deliverables to be defined as needed through Work Authorizations | TBD per Work Authorization |

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: ARUP US, INC.

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 400-21-005 with Arup US, Inc. for a three-year, \$1,800,000 contract to lead a team of professional architectural and engineering consultants to provide technical support for evaluating and implementing strategies to advance the decarbonization of residential and nonresidential buildings and to increase Energy Code compliance; 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 8, 2022.

AYE:

NAY:

ABSENT:

ABSTAIN:

Liza Lopez
Secretariat