

CONTRACT REQUEST FORM (CRF)

CEC-94 (Revised 10/2015)

CALIFORNIA ENERGY COMMISSION

A) New Agreement 300-15-008 (To be completed by CGL Office)

B) Division	Agreement Manager:	MS-	Phone
ERDD	Joshua Croft	51	916-445-5328

C) Contractor's Legal Name	Federal ID Number
Itron, Inc., which will do business in California as IBS	91-1011792

D) Title of Project
Research Roadmap for Getting to Zero Net Energy Buildings

E) Term and Amount	Start Date	End Date	Amount
	6/1/2016	5/30/2018	\$ 999,884

F) Business Meeting Information			
<input type="checkbox"/> Operational agreement (see CAM Manual for list) to be approved by Executive Director			
<input type="checkbox"/> ARFVTP agreements under \$75K delegated to Executive Director.			
Proposed Business Meeting Date	4/13/2016	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
Business Meeting Presenter	Joshua Croft	Time Needed:	5 minutes
Please select one list serve. EPIC (Electric Program Investment Charge)			

Agenda Item Subject and Description
ITRON, INC., WHICH WILL DO BUSINESS IN CALIFORNIA AS IBS. Proposed resolution approving Agreement 300-15-008 with Itron, Inc. which will do business in California as IBS for a \$999,884 contract to work with Energy Commission staff to develop, in consultation with stakeholders and subject matter experts, a technical assessment of key ZNE building research, development, demonstration and deployment (RDD&D) needs and develop a research roadmap that identifies, describes and prioritizes those needs for achieving the state's goals for Zero-Net Energy buildings in a safe, equitable and cost-beneficial manner. (EPIC funding) Contact: Joshua Croft. (Staff presentation: 5 minutes)

G) California Environmental Quality Act (CEQA) Compliance
1. Is Agreement considered a "Project" under CEQA? <input type="checkbox"/> Yes (skip to question 2) <input checked="" type="checkbox"/> No (complete the following (PRC 21065 and 14 CCR 15378)): Explain why Agreement is not considered a "Project": This contract provides funding for work that has no potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. This work consists of academic research, information gathering, interviews, public workshops, data analysis performed on computers, and the development of the final paper report, i.e., a roadmap. These activities do not involve any physical changes in the environment, and therefore this work is not a project pursuant to California Code of Regulations, title 14, section 15378 .
2. If Agreement is considered a "Project" under CEQA: <input type="checkbox"/> a) Agreement IS exempt. (Attach draft NOE) <input type="checkbox"/> Statutory Exemption. List PRC and/or CCR section number: _____ <input type="checkbox"/> Categorical Exemption. List CCR section number: _____ <input type="checkbox"/> Common Sense Exemption. 14 CCR 15061 (b) (3) _____ Explain reason why Agreement is exempt under the above section: <input type="checkbox"/> b) Agreement IS NOT exempt. (Consult with the legal office to determine next steps.) Check all that apply <input type="checkbox"/> Initial Study <input type="checkbox"/> Environmental Impact Report <input type="checkbox"/> Negative Declaration <input type="checkbox"/> Statement of Overriding Considerations <input type="checkbox"/> Mitigated Negative Declaration

H) List all subcontractors (major and minor) and equipment vendors: (attach additional sheets as necessary)				
Legal Company Name:	Budget	SB	MB	DVBE
Amerit Consulting	\$ 50,010	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
New Buildings Institute, Inc.	\$ 200,171	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Davis Energy Group	\$ 90,050	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Integral Group	\$ 84,490	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
University of California, Davis	\$ 80,160	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electric Power Research Institute, Inc. (EPRI)	\$ 119,948	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

J) Budget Information			
Funding Source	Funding Year of Appropriation	Budget List No.	Amount
EPIC	14-15	301.001B	\$999,884
R&D Program Area: EDMFO: EDMF		TOTAL:	\$999,884
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

K) Contractor's Administrator/ Officer				Contractor's Project Manager			
Name:	Angela Nenn			Name:	Smita Gupta		
Address:	330 Madson PL			Address:	330 Madson PL		
City, State, Zip:	Davis, CA 95618-6599			City, State, Zip:	Davis, CA 95618-6599		
Phone:	858-724-2646/	Fax:	- -	Phone:	509-891-3189 /	Fax:	- -
E-Mail:	Angela.Nenn@itron.com			E-Mail:	smita.gupta@itron.com		

L) Selection Process Used (For amendments, address amendment exemption or NCB, do not identify solicitation type of original agreement.)							
<input checked="" type="checkbox"/>	Solicitation RFP	Solicitation #:	RFP-15-315	# of Bids:	6	Low Bid?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
<input type="checkbox"/>	Non Competitive Bid (Attach CEC 96)						
<input type="checkbox"/>	Exempt Select Exemption (see instructions)						

M) Contractor Entity Type	
<input checked="" type="checkbox"/>	Private Company (including non-profits)
<input type="checkbox"/>	CA State Agency (including UC and CSU)
<input type="checkbox"/>	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?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
If yes, check appropriate box:	<input type="checkbox"/> SB <input type="checkbox"/> MB <input type="checkbox"/> DVBE

O) Civil Service Considerations
<input type="checkbox"/> Not Applicable (Agreement is with a CA State Entity or a membership/co-sponsorship)
<input type="checkbox"/> Public Resources Code 25620, et seq., authorizes the Commission to contract for the subject work. (PIER)
<input checked="" type="checkbox"/> The Services Contracted:
<input type="checkbox"/> are not available within civil service
<input type="checkbox"/> cannot be performed satisfactorily by civil service employees
<input checked="" type="checkbox"/> are of such a highly specialized or technical nature that the expert knowledge, expertise, and ability are not available through the civil service system.
<input checked="" type="checkbox"/> The Services are of such an:
<input type="checkbox"/> urgent
<input checked="" type="checkbox"/> temporary, or
<input type="checkbox"/> occasional nature
that the delay to implement under civil service would frustrate their very purpose.

**Justification:**

California has adopted policy goals to require buildings to be zero-net energy (ZNE). Senate Bill 96 (2013) directs the Energy Commission to award EPIC funds for projects that will benefit electricity ratepayers and lead to technological advancement and breakthroughs to overcome the barriers that prevent achieving the state's statutory energy goals. Itron, the proposed contractor, has the experience, expertise, knowledge, and skills to provide in-depth assessment of the technical, financial and market barriers that must be addressed to achieve the state's ZNE goals. This work will involve developing cost targets for a wide range of technologies needed to make ZNE commercially viable and evaluating the technical merits of current research and development being conducted in the United States, including the Department of Energy's National Laboratories. This work will also involve comparing new technologies being developed with existing commercial products available in California, and identifying research and development gaps to overcome technical and cost barriers for ZNE. The nexus and breadth of skills, including in-depth familiarity with private companies and commercial markets, required to do this highly complex work is not available within civil service. For these reasons, the proposed work is of such a highly specialized or technical nature such that the nexus of expert knowledge, expertise, and ability to evaluate a range of multiple, complex technical and financial components are not available through the civil service system.

P) Payment Method

- A. Reimbursement in arrears based on:
- Itemized Monthly Itemized Quarterly Flat Rate One-time
- B. Advanced Payment
- C. Other, explain:

Q) Retention

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

R) Justification of Rates

This contract was selected through a competitive solicitation process. As part of this competitive solicitation process, 30 percent of the total score is based on the average loaded hourly rate. The score for Average Loaded Hourly Rate is derived from a mathematical cost formula which compares the cumulative average loaded hourly rate of all loaded hourly rates listed in the subject Bidder's Cost Bid, with the cumulative average loaded hourly rate of all loaded hourly rates listed in the Lowest Bidder's cost bid.

S) Disabled Veteran Business Enterprise Program (DVBE)

1. Exempt (Interagency/Other Government Entity)
2. Meets DVBE Requirements DVBE Amount:\$ 50,010 DVBE %: 5.0
- Contractor is Certified DVBE
- Contractor is Subcontracting with a DVBE: Amerit Consulting
3. Contractor selected through CMAS or MSA with no DVBE participation.
4. Requesting DVBE Exemption (attach CEC 95)



T) Miscellaneous Contract Information

- | | | |
|---|--|---|
| 1. Will there be Work Authorizations? | <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes |
| 2. Is the Contractor providing confidential information? | <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes |
| 3. Is the Contractor going to purchase equipment? | <input checked="" type="checkbox"/> No | <input type="checkbox"/> Yes |
| 4. Check frequency of progress reports
<input type="checkbox"/> Monthly <input checked="" type="checkbox"/> Quarterly <input type="checkbox"/> | | |
| 5. Will a final report be required? | <input type="checkbox"/> No | <input checked="" type="checkbox"/> Yes |
| 6. Is the agreement, with amendments, longer than a year? If yes, why? | <input type="checkbox"/> No | <input checked="" type="checkbox"/> Yes |

The California Energy Commission is requesting an exemption to do a multi-year contract of two years. The proposed extended agreement would result from the Energy Commission's pending request for proposals under the Electric Program Investment Charge (EPIC) Program, RFP-15-315, entitled "Research Roadmap for Getting to Zero Net Energy Buildings"

The time necessary to develop a high-quality, stakeholder-driven Zero Net Energy Roadmap is greater than one year. Development of this roadmap will begin with the development of a methodology for collecting information, incorporating expert input, and seeking and incorporating stakeholder and public comments. As this work is being completed the contractor will first perform an in-depth literature review, then will conduct interviews with subject matter experts, and lastly analyze the data. This first portion of the contract is anticipated to take approximately 9 months as each of the aforementioned steps are path-dependent and build on the finished results of the previous step. After the initial research is complete the contractor will need to hold several stakeholder workshops to collect information and inform the contractor's analysis of the data and preparation of the draft roadmap, adding an additional 9 months to the roadmap process. This is because each workshop needs to be separated by an adequate time to allow for full stakeholder review, submission of comments/input, and incorporation of that input by the contractor before the next workshop can take place. The remainder of the project term will be focused on finalizing the roadmap, including a final public workshop and incorporation of final comments. This remaining work is expected to take 3-6 months, as the contractor can go through multiple rounds of edits and approval with the Energy Commission to ensure the roadmap adequately represents stakeholder and expert input.

As required by CPUC Decision 12-05-037, the Energy Commission must make efficient use of ratepayer monies in administering the EPIC Program.

Staff's request for a two-year contract will:

1. Allow for a more cost-effective approach. A shorter term contract would result in interrupting the flow of knowledge and additional person-hours spent by staff and a new contract team in gaining familiarity with the intricacies of the Program and the clean energy market.
2. Allow for a more full range of stakeholder input. A shorter term contract would result in insufficient time for stakeholders to provide multiple rounds of feedback and input while additionally allowing time for the roadmap to be finalized.

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. CEC 96, NCB Request | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 4. CEC 30, Survey of Prior Work | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |
| 5. CEC 95, DVBE Exemption Request | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 6. CEQA Documentation | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 7. Resumes | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |
| 8. 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

Task List

Task #	CPR	Task Name
1		Contract Management
2		Technical Assessment of Zero Net Energy Technologies and Strategies
3		Finalize Methodology for Developing the Zero Net Energy Gaps Analysis
4	X	Develop the Zero Net Energy Gaps Analysis
5		Finalize the Zero Net Energy Gaps Analysis

KEY WORDS/TERMS

Word/Term	Definition
CAM	Commission Agreement Manager, the person designated by the Energy Commission to oversee the performance of a contract and to serve as the main point of contact for the Recipient
CAO	Commission Agreement Officer
Contractor	Recipient that will perform the tasks specified in this Scope of Work under the direction of the Energy Commission's Agreement Manager
CPUC	California Public Utilities Commission
EPIC	Electric Program Investment Charge, the source of funding for this Contract
Energy Commission	California Energy Commission
IOU	Investor-Owned Utility, including Pacific Gas and Electric Co., San Diego Gas and Electric Co., and Southern California Edison Co.
Project Manager	The person designated by the bidder to oversee the project and to serve as the main point of contact for the Energy Commission
Project Partner	An entity or individual that contributes financially or otherwise to the project (e.g., match funding, provision of a demonstration site), and does not receive Energy Commission funds
Proposal, The	Proposal #03, submitted by the Contractor in response to Solicitation RFP-15-315 - Research Roadmap for Getting to Zero Net Energy Buildings
Research Roadmap	Research Roadmap for Getting to Zero Net Energy Buildings
Recipient	Itron Inc., which will do business in California as IBS
RDD&D	Research, Development, Demonstration and Deployment
State	State of California
TAC	Technical Advisory Committee
ZNE	Zero-Net Energy

BACKGROUND/PROBLEM STATEMENT

Residential and commercial buildings are the largest users of electricity in California, accounting for over 60 percent of the state's electricity consumption.¹ California has adopted a number of policies to reduce energy use from the building sector including: the California Public Utilities Commission (CPUC)'s Long-Term Energy Efficiency Strategic Plan which calls for all new

¹California Energy Demand 2014-2024 Final Forecast Volume 2: Electricity Demand by Utility Planning Area.

<http://www.energy.ca.gov/2013publications/CEC-200-2013-004/CEC-200-2013-004-V2-CMF.pdf>

Exhibit A Scope of Work

residential construction and all new commercial construction in California to be Zero-Net Energy (ZNE) by 2020 and 2030, respectively,² and AB 758 (2009, Skinner) which requires the Energy Commission, in collaboration with the CPUC and stakeholders, to develop a comprehensive program to achieve greater energy efficiency in existing buildings.³

Senate Bill 96 (2013) directs the Energy Commission to award Electric Program Investment Charge (EPIC) funds for projects that will benefit electricity ratepayers and lead to technological advancement and breakthroughs to overcome the barriers that prevent achieving the state's statutory energy goals. To help ensure that EPIC funds are strategically focused and sufficiently narrow to make advancement on the most significant technological challenges, new analysis is needed that identifies and prioritizes Research, Development, Demonstration and Deployment (RDD&D) gaps to achieving California's ZNE goals for residential and commercial buildings.

RATEPAYER BENEFITS, TECHNOLOGICAL ADVANCEMENTS, AND BREAKTHROUGHS

California Public Resources Code Section 25711.5(a) requires EPIC-funded projects to:

- Benefit electricity ratepayers; and
- Lead to technological advancement and breakthroughs to overcome the barriers that prevent the achievement of the state's statutory energy goals.

The CPUC defines "ratepayer benefits" as greater reliability, lower costs, and increased safety.⁴ The CPUC has also adopted the following guiding principles as complements to the key principle of electricity ratepayer benefits: societal benefits; greenhouse gas (GHG) emissions mitigation and adaptation in the electricity sector at the lowest possible cost; loading order; low-emission vehicles/transportation; economic development; and efficient use of ratepayer monies.⁵

This contract will fund research to develop an analysis of the most critical RDD&D gaps that need to be addressed to achieve California's goals of zero net energy buildings for all new construction of residential buildings by 2020 and for commercial buildings by 2030. Results of the analysis will be used by Energy Commission staff to develop a research roadmap that strategically targets future EPIC investments in a manner that provides optimal benefits to Investor-Owned Utility (IOU) electric ratepayers, and maximizes the use of public research and development investments

The Contractor must describe how the contract will: (1) benefit California IOU ratepayers by increasing reliability, lowering costs, and/or increasing safety; and (2) lead to technological advancement and breakthroughs to overcome barriers to achieving the state's statutory energy goals. The Contractor may also discuss any benefits related to the EPIC guiding principles.

Goals and Objectives of the Contract

The goal of this Contract is to develop, in consultation with stakeholders and subject matter experts, a technical assessment of the current baseline and best-in-class ZNE building technologies and strategies; and a gaps analysis of key RDD&D needs for achieving the state's

² California Energy Efficiency Strategic Plan. January 2011 Update.

http://www.energy.ca.gov/ab758/documents/CAEnergyEfficiencyStrategicPlan_Jan2011.pdf

³ Assembly Bill 758. Skinner, 2009.

http://www.energy.ca.gov/ab758/documents/ab_758_bill_20091011_chaptered.pdf

⁴ CPUC "Phase 2" Decision 12-05-037 at page 19,

http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/167664.PDF.

⁵ *Id.* at pp. 19-20.

Exhibit A Scope of Work

goals for ZNE buildings in a safe, equitable, and cost-beneficial manner. Specifically, the gaps analysis must synthesize the input of stakeholders and experts in order to:

1. Analyze stakeholder recommendations on research most needed to achieve cost-effective ZNE buildings.
2. Provide a detailed description of barriers that hinder the adoption of ZNE building technology in the marketplace.
3. Analyze performance and cost targets for promising ZNE technologies.
4. Develop critical indicators of success for ZNE building adoption.

Potential topics to be covered in the technical assessment and gaps analysis include, but are not limited to, the following:

- Building energy efficiency technologies:
 - Lighting.
 - Heating, ventilation, and air conditioning (HVAC).
 - Water efficiency and reuse technologies that also provide electricity savings.
 - Building envelope.
 - Plug-loads.
 - Whole-building strategies such as DC-DC, retrofits that incorporate innovative energy efficiency technology, and appliance electrification.
- Behavioral research of current and potential ZNE building residents.
- Demand response.
- Distributed- and community-scale renewables, as enabler for ZNE.
- Smart grid connectivity related to ZNE, such as:
 - Interaction between building to electrical grid (B2G), including system capacity.
 - Smart building controls, home area networks, and information/action displays that give real-time data and control to the resident and/or building owner.
 - Electric vehicle charging and vehicle-to-grid (V2G).
 - Controllable loads.
- Energy storage, as enabler to ZNE.
- Public health and safety including indoor air quality (incorporating findings from the upcoming Energy Commission *Environmental Public Health Research Roadmap*).
- Planning and permitting of ZNE buildings.

The Contractor will perform the tasks specified in this Scope of Work under the direction of the Commission Agreement Manager (CAM). The CAM will oversee the management and administration of the contract.

FORMAT/REPORTING REQUIREMENTS

Deliverables/Reports

Exhibit A Scope of Work

When creating reports, the Contractor shall use and follow, unless otherwise instructed in writing by the CAM, the latest version of the Consultant Reports Style Manual published on the Energy Commission's web site:

http://www.energy.ca.gov/contracts/consultant_reports/index.html

Electronic File Format

The Contractor shall deliver an electronic copy (CD ROM or memory stick or as otherwise specified by the CAM) of the final Roadmap in a compatible version of Microsoft Word (.doc).

The following describes the accepted formats of electronic data and documents provided to the Energy Commission as contract deliverables and establishes the computer platforms, operating systems and software versions that will be required to review and approve all software deliverables.

- Data sets shall be in Microsoft (MS) Access or MS Excel file format.
- PC-based text documents shall be in MS Word file format.
- Documents intended for public distribution shall be in PDF file format, with the native file format provided as well.
- Project management documents shall be in MS Project file format.

Task 1 – Contract Management

The Contractor shall manage a team capable of undertaking all work assignments identified in this Scope of Work. Final assignment of tasks and maximum payment for individual projects will be described in the Contract.

All project work performed by the Contractor team shall be directed by and coordinated with Energy Commission staff as designated by the CAM. Work performed by the Contractor or its subcontractors beyond the term end date of the contract will not be reimbursed for payment.

Task 1.1 Kick-off Meeting

The goal of this subtask is to establish the lines of communication and procedures for implementing this Contract. The meeting will be held in Sacramento, CA and the CAM will designate the specific location, or via Web-Ex or teleconference. The administrative and technical aspects of this Contract will be discussed at the meeting.

The administrative portion of the meeting will include discussion of the following:

- Terms and conditions of the Contract
- Administrative deliverables
- Project meetings and briefings
- Permit documentation (if applicable)
- Subcontracts and
- Any other relevant topics.

The technical portion of the meeting will include discussion of the following:

- The CAM's expectations for accomplishing tasks described in the Scope of Work;
- An updated Project Schedule
- Technical deliverables

Exhibit A Scope of Work

- Progress reports and invoices
- Final Report
- Technical Advisory Committee meetings and
- Any other relevant topics.

The Contractor shall:

- Attend a “kick-off” meeting with the CAM, the Commission Agreement Officer (CAO), and a representative of the Accounting Office.
 - The meeting will be held in Sacramento, CA, or via Web-Ex or teleconference. The Contractor shall include their Project Manager, Contracts Administrator, Accounting Officer, and others designated by the CAM in this meeting. The administrative and technical aspects of this Contract 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 a Kick-off Meeting Agenda to all potential meeting participants prior to the kick-off meeting.

Contractor Deliverables:

- Updated Schedule of Deliverables (if applicable)

CAM Deliverables:

- Kick-Off Meeting Agenda

Task 1.2 Invoices

The goal of this subtask is to ensure that invoices contain all required information and are submitted in the appropriate format.

The Contractor shall:

- Prepare *Quarterly Invoices* for all reimbursable expenses incurred performing work under this Contract. The *Quarterly Invoices* must only invoice for activities in compliance with Exhibit B of the Terms and Conditions of the Contract. The *Quarterly Invoices* must be in the correct format as provided in a Quarterly Invoice Template by the CAM.
- In addition, each invoice must document and verify:
 - Energy Commission funds received by California-based entities
 - Energy Commission funds spent in California (if applicable)
- Invoices shall be submitted with the same frequency as progress reports (task 1.3). Invoices must be submitted to the Energy Commission’s Accounting Office.

Contractor Deliverables:

- Quarterly Invoices

CAM Deliverables:

- Quarterly Invoice Template

Exhibit A Scope of Work

Task 1.3 Quarterly Progress Reports

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

The Contractor shall:

- Prepare *Quarterly Progress Reports* that summarize all Contract activities conducted by the Contractor and any subcontractors for the reporting period, including an assessment of the ability to complete the Contract within the current budget and any anticipated cost overruns. Each progress report is due within 15 calendar days after the end of the reporting period. The CAM will provide the format for the progress reports in a *Quarterly Progress Report Format Template*.

Contractor Deliverables:

- Quarterly Progress Reports

CAM Deliverables:

- Quarterly Progress Report Format Template

Task 1.4 Manage Subcontractors

The goal of this subtask is to ensure quality products, to enforce subcontractor Contract provisions, and in the event of failure of the subcontractor to satisfactorily perform services, recommend solutions to resolve the problem.

The Contractor shall:

- Manage and coordinate subcontractor activities. The Contractor is responsible for the quality of all subcontractor work and the Energy Commission will assign all work to the Contractor. If the Contractor decides to add new subcontractors, the Contractor shall 1) comply with the Terms and Conditions of the Contract, and 2) submit *Written Notification to the CAM of Subcontractor Change*.
- Prepare and submit a *Draft Subcontractor Conflict of Interest Policy* to ensure that no conflicts of interest exist between subcontractors and subawardees.
- Prepare and submit a *Final Subcontractor Conflict of Interest Policy* incorporating CAM comments.

Contractor Deliverables:

- Written notification to CAM of Subcontractor Change
- Subcontractor Conflict of Interest Policy (Draft and Final)

CAM Deliverables:

- Comments on Draft Subcontractor Conflict of Interest Policy

Task 1.5 Project Meetings and Briefings

The goal of this subtask is to determine whether any modifications must be made to the tasks, products, schedule, or budget. Project meetings provide the opportunity for frank discussions between the Energy Commission and the Contractor. As determined by the CAM, discussions may include project status, challenges, successes, findings, project goals and benefits, recommendations, and final report preparation. Participants will include the CAM and the Contractor, and may include the CAO and any other individuals selected by the CAM to provide support to the Energy Commission.

Exhibit A Scope of Work

The Contractor shall:

- Attend or participate in program support and project-related meetings or discussions in person or via WebEx or conference call, as requested by the CAM.
- Submit *Responses* to e-mails or other written communication requests regarding project management status and issues, as requested by the CAM.
- Prepare *Meeting Notes* for each Project Meeting that: (1) discusses the progress of the Contract toward achieving its goals and objectives; and (2) includes recommendations and conclusions regarding continued work on the project, as requested by the CAM.
- Submit the *Meeting Notes* to the CAM for review and approval.

Deliverables:

- Responses to written requests on project status.
- Meeting Notes for each formal meeting.

Task 1.6 Technical Advisory Committee (TAC)

The goal of this subtask is to create an advisory committee for this Contract. The TAC should be composed of diverse professionals in the ZNE building sector. The composition will vary depending on interest, availability, and need. TAC members will serve at the CAM's discretion. The purpose of the TAC is to:

- Provide guidance in project direction. The guidance may include scope and methodologies, timing, and coordination with other projects. The guidance may be based on:
 - Technical area expertise;
 - Knowledge of market applications; or
 - Linkages between the Contract work and other past, present, or future projects (both public and private sectors) that TAC members are aware of in a particular area.
- Review products and provide recommendations for needed product adjustments, refinements, or enhancements.
- Evaluate the tangible benefits of the project to the State of California, and provide recommendations as needed to enhance the benefits.

The TAC shall be composed of qualified professionals with expertise which may span the following types of disciplines:

- Researchers knowledgeable about the project subject matter;
- Members of trades that will apply the results of the project (e.g., designers, engineers, architects, contractors, and trade representatives);
- Product developers relevant to the project;
- Members of relevant technical society committees.

Exhibit A Scope of Work

The Contractor shall:

- Prepare a *List of Potential TAC Members* that includes the names, companies, physical and electronic addresses, and phone numbers of potential members. The list will be discussed at the Kick-off meeting, and a schedule for recruiting members and holding the first TAC meeting will be developed.
- Recruit TAC members. Ensure that each individual understands member obligations and the TAC meeting schedule developed in subtask 1.7.
- Prepare a *List of TAC Members* once all TAC members have committed to serving on the TAC.
- Submit *Documentation of TAC Member Commitment* (such as Letters of Acceptance) from each TAC member to the CAM.

Deliverables:

- List of Potential TAC Members
- List of TAC Members
- Documentation of TAC Member Commitment

Task 1.7 TAC Meetings

The goal of this subtask is for the TAC to provide strategic guidance for the project by participating in regular meetings, which may be held in person or via teleconference.

The Contractor shall:

- Discuss the *TAC Meeting Schedule* with the CAM at the Kick-off meeting. Determine the number and location of meetings (in-person and via teleconference) in consultation with the CAM.
- Prepare a *TAC Meeting Schedule* that will be presented to the TAC members during recruiting. Revise the schedule after the first TAC meeting to incorporate meeting comments.
- Prepare a *TAC Meeting Agenda* and *TAC Meeting Back-up Materials* for each TAC meeting.
- Organize and lead TAC meetings in accordance with the TAC Meeting Schedule. Changes to the schedule must be pre-approved in writing by the CAM.
- Prepare *TAC Meeting Summaries* that include any recommended resolutions of major TAC issues.

Deliverables:

- TAC Meeting Schedule (draft and final)
- TAC Meeting Agendas (draft and final)
- TAC Meeting Back-up Materials
- TAC Meeting Summaries

Task 1.8 Final Report

The goal of this subtask is to prepare a written Final Report. The Final Report shall be prepared in language easily understood by the public or layperson with a limited technical background.

Exhibit A Scope of Work

The Final Report must be completed before the termination date of the Contract in accordance with the Schedule of Deliverables.

The Final Report shall be a public document. If the Contractor's work on all or part of this project has obtained confidential status from the Energy Commission, then the Contractor must prepare both a public and a confidential version of the Final Report, and the Contractor shall perform the following subtasks for both the public and confidential versions of the Final Report. When creating the Final Report, the Recipient must use a Style Manual provided by the CAM.

Task 1.8.1 Final Report Outline

The Contractor shall:

- Prepare and Submit the *Draft Outline of the Final Report* to the CAM for review and approval. The CAM will provide Written Comments on the Draft Outline of the Final Report to the Contractor on the draft outline. The Contractor shall review the comments and discuss any concerns regarding the recommended changes with the CAM.
- Prepare and submit the *Final Outline of the Final Report*, incorporating the CAM's comments.

Contractor Deliverables:

- Outline of the Final Report (Draft and Final)

CAM Deliverables:

- Written Comments on the Draft Outline of the Final Report

Task 1.8.2 Final Report

The Contractor shall:

- Prepare and Submit the *Draft Final Report* in accordance with the approved Final Report Outline for review and comment. The CAM will provide Written Comments on Draft Final Report to the Contractor. The Contractor shall review the comments and discuss any issues with the recommended changes with the CAM.
- Prepare and submit the *Final Report*, incorporating CAM comments.

Contractor Deliverables:

- Draft Final Report
- Final Report

CAM Deliverables:

- Written Comments on Draft Final Report

Task 1.9 Final Meeting

The goal of this subtask is to discuss closeout of this Contract and review the project. The meeting will be held in Sacramento, CA and the CAM will designate the specific location, or via Web-Ex or teleconference. The administrative and technical aspects of Contract closeout will be discussed at the meeting.

The Contractor shall:

Exhibit A Scope of Work

- Meet with Energy Commission staff prior to the term end-date of this Contract. This meeting will be attended by the Contractor Project Manager and the CAM. The CAM will determine any additional appropriate meeting participants.
- Present findings, conclusions, and recommended next steps (if any) for the Contract, based on the information included in the Final Report.
- Prepare a *Written Document of Meeting Agreements and Unresolved Activities*.
- Prepare a *Schedule for Completing the Closeout Activities* for this Contract, based on determinations made during the meeting.
- Provide ALL Draft and Final written deliverables provided under this Contract on a CD-ROM or USB memory stick, organized by the tasks in the Contract.

Deliverables:

- Written Documentation of Meeting Agreements and Unresolved Activities
- Schedule for Completing Closeout Activities
- CD-ROM or USB memory stick containing ALL draft and final written deliverables provided under this Contract, organized by task

Task 1.10 Match Funds (If applicable)

The goal of this subtask is to ensure that the Contractor obtains any match funds planned for this Contract and applies them to the Contract during the Contract term.

While the costs to obtain and document match funds are not reimbursable under this Contract, the Contractor may spend match funds for this task. The Contractor may only spend match funds during the Contract term, either concurrently or prior to the use of Energy Commission funds. Match funds must be identified in writing, and the Contractor must obtain any associated commitments before incurring any costs for which the Contractor will request reimbursement.

The Contractor shall:

- If match funds were a part of the proposal that led to the Energy Commission awarding this Contract, prepare a *Match Funds Status Letter* that documents the match funds committed to this Contract and includes:
 - A list of the match funds that identifies:
 - The amount of cash match funds, their source(s) (including a contact name, address, and telephone number), and the task(s) to which the match funds will be applied.
 - The amount of each in-kind contribution, a description of the contribution type (e.g., property, services), the documented market or book value, the source (including a contact name, address, and telephone number), and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Contractor must identify its owner and provide a contact name, address, telephone number, and the address where the property is located.
 - A copy of a letter of commitment from an authorized representative of each source of match funding that the funds or contributions have been secured.
- At the Kick-off meeting, discuss match funds and the impact on the project if they are significantly reduced or not obtained as committed. If applicable, match funds will be included as a line item in the progress reports and will be a topic at project meetings and briefings.

Exhibit A Scope of Work

- Provide a *Supplemental Match Funds Notification Letter* to the CAM if receipt of additional match funds is obtained.
- Provide a *Match Funds Reduction Notification Letter* to the CAM if existing match funds are reduced during the course of the contract. Reduction of match funds may trigger a project meeting.

Deliverables:

- Match Funds Status Letter
- Supplemental Match Funds Notification Letter (if applicable)

Technical Tasks

Task 2 - Technical Assessment of Zero Net Energy Technologies and Strategies

The goal of this task is to develop a technical assessment of the current baseline and best-in-class zero net energy building technologies and strategies, including analyses of cost and performance.

The Contractor shall:

- Prepare and submit to CAM, for review and comment, a *Draft Literature Review* of peer-reviewed technical journals, government reports, trade journals, performance specifications of technology used in current zero net energy building installations, and other relevant, high-quality sources. Contractor shall include references for all sources.
- Prepare and submit a *Final Literature Review*, incorporating CAM comments.
- Using information from the *Final Literature Review*, prepare and submit a *Draft List of Experts to Interview* regarding currently feasible energy demand targets and energy use intensity targets for California climate zones; cost and performance attributes of specific technologies and strategies for achieving zero net energy building goals; and other critical indicators of success. The CAM will provide written comments to the Contractor on the Draft List of Experts to Interview.
- Using information from the literature review, prepare and submit a *Draft List of Interview Questions* to use when interviewing experts on topics listed above to the CAM for review and approval. The CAM will provide written comments to the Contractor on the Draft List of Interview Questions.
- Submit the *Final List of Experts to Interview* and *Final List of Interview Questions*, incorporating the CAM's comments.
- Conduct interviews with experts regarding advancing ZNE building technologies, including currently feasible energy demand targets and energy use intensity targets for California's varying climate zones; cost and performance attributes of specific ZNE building technologies; and other critical indicators of success.
- Using information from the literature review and expert interviews, prepare and submit a *Draft Outline of the Technical Assessment* to the CAM for review and approval. The CAM will provide written comments to the Contractor. The Contractor shall review the comments and discuss any concerns regarding the recommended changes with the CAM. The contents of the Draft Outline of the Technical Assessment shall include but not be limited to:

Exhibit A Scope of Work

- A draft Table of Contents
- A draft Executive Summary
- A draft References page.
- Submit the *Final Outline of the Technical Assessment*, incorporating the CAM's comments.
- Submit a *Draft Technical Assessment of Zero Net Energy Technologies and Strategies* for review and comment. The CAM will provide written comments to the Contractor. The Contractor shall review the comments and discuss any concerns regarding the recommended changes with the CAM.
- Submit the *Final Technical Assessment of Zero Net Energy Technologies and Strategies*, incorporating the CAM's comments.

Contractor Deliverables:

- Literature Review (Draft and Final)
- List of Experts to Interview (Draft and Final)
- List of Interview Questions (Draft and Final)
- Outline of the Technical Assessment (Draft and Final)
- Technical Assessment of Zero Net Energy Technologies and Strategies (Draft and Final)

CAM Deliverables:

- Written Comments on Draft Literature Review
- Written Comments on Draft List of Experts to Interview
- Written Comments on Draft List of Interview Questions
- Written Comments on Draft Outline of the Technical Assessment
- Written Comments on Draft Technical Assessment of Zero Net Energy Technologies and Strategies

Task 3 - Finalize Methodology for Developing the Zero Net Energy Gaps Analysis

The goal of this task is to finalize the methodology for developing a gaps analysis that will be used by Energy Commission staff to develop the Research Roadmap for Getting to Zero-Net Energy Buildings (Research Roadmap). The Contractor shall finalize the *Methodology for Developing the Gaps Analysis* based on comments from the CAM and other Energy Commission staff on the draft methodology submitted in The Proposal and the Technical Assessment of Zero Net Energy Technologies and Strategies to be prepared in Task 2.

The Contractor shall:

- Meet with the CAM, and others invited by the CAM, to discuss finalizing the Draft Methodology for Developing the Gaps Analysis. This strategy meeting shall take place within ten (10) business days after the Kick-Off Meeting. This strategy meeting will be held at the Energy Commission.

The *Draft Methodology for Gaps Analysis* should describe, at a minimum:

- Proposed topics to be covered in the gaps analysis.

Exhibit A Scope of Work

- The Contractor's proposed approach to:
 - Incorporate information from the Technical Assessment of Zero Net Energy Technologies and Strategies to be prepared in Task 2 into the Research Roadmap.
 - Coordinate and collaborate with Energy Commission staff, including periodic check-in points with the CAM at key milestones and decision-points in the development of the Research Roadmap. The approach must include the CPR meeting described in Task 4 and may include other periodic check-in points.
 - Solicit input from experts and stakeholders on RDD&D gaps and needs for achieving zero net energy buildings.
 - Analyze stakeholder recommendations on RDD&D needs.
 - Identify and recruit experts and stakeholders to participate in topic-specific workshops.
 - Coordinate with Energy Commission staff to identify and select venue(s) for topic specific workshops (including plans for recording and creating detailed workshop transcripts).
 - Create all necessary presentation materials and hand-outs for workshop attendees, and submit to CAM for edit and approval.
 - Schedule, set up, and facilitate workshop(s) to solicit input from experts and stakeholders on RDD&D gaps and needs for key topics in the gaps analysis.
- Prepare and submit a *Summary of Comments* received at the strategy meeting.
- Prepare and Submit a *Final Methodology for Developing the Gaps Analysis* by incorporating feedback from CAM and Energy Commission staff.

Deliverables:

- Methodology for Developing the Gaps Analysis (Draft and Final).
- Summary of Comments.

Task 4 - Develop the Zero Net Energy Gaps Analysis

The goal of this task is to develop the gaps analysis in accordance with methodology finalized in Task 3. When creating the gaps analysis, the Contractor must use the CEC Style Manual, which will be supplied by the CAM. The gaps analysis must include but may not be limited to the following:

- A detailed description of barriers the state must address on its path to achieving its zero net energy building goals.
- Analysis of past and current research efforts and results around key topics identified in the Research Roadmap.
- Description of RDD&D gaps; and analysis on stakeholder recommendations for RDD&D activities for each topic needed to achieve cost-effective ZNE buildings, including:
 - Technical performance and cost targets for promising technologies.
 - Critical indicators of success.
 - Analysis on the sequencing (Chronologically) and prioritization of RDD&D activities recommended by stakeholders.
 - Analysis on funding amounts for RDD&D activities recommended by stakeholders

Exhibit A Scope of Work

- Coordination and timing with other activities and programs.
- Description of the Methodology used in developing the gaps analysis. This description should be found as an appendix to the gaps analysis and include a list of experts and stakeholders, including their organization and area of expertise, consulted during the development of the analysis.

The Contractor shall:

Conduct the following activities in accordance with the Final Gaps Analysis Methodology finalized in Task 3:

- Incorporate information from the Technical Assessment to be prepared in Task 2 into the Gaps Analysis.
- Conduct a Critical Project Review (CPR) meeting. The CPR meeting will provide the opportunity for frank discussions between the Energy Commission and the Recipient. As determined by the CAM, discussions may include project status, challenges, successes, advisory group findings and recommendations, final report preparation, and progress on technical transfer and production readiness activities (if applicable). Participants will include the CAM and the Recipient, and may include the CAO and any other individuals selected by the CAM to provide support to the Energy Commission.
- Prepare a *CPR Report* for each CPR meeting that: (1) discusses the progress of the Agreement toward achieving its goals and objectives; and (2) includes recommendations and conclusions regarding continued work on the project.
- Submit the CPR Report along with any other *Task Products* that correspond to the technical task for which the CPR meeting is required (i.e., if a CPR meeting is required for Task 2, submit the Task 2 products along with the CPR Report).
- Attend the CPR meeting.
- Present the CPR Report and any other required information at each CPR meeting.
- Coordinate and collaborate with the CAM and other Energy Commission staff, including periodic check-in points with the CAM at the Critical Project Review (CPR) meeting, key milestones, and decision-points in the development of the Gaps Analysis.
- Solicit input from experts and stakeholders on RDD&D gaps and needs for key topics in the research roadmap.
- Analyze stakeholder recommendations on important RDD&D gaps.
- Identify and recruit experts and stakeholders to participate in at least 3 topic-specific workshops unless otherwise specified in writing by the CAM.
- Coordinate with Energy Commission staff to identify and select venue(s) for topic-specific workshops (including plans for recording and creating detailed workshop transcripts)
- Create all necessary *Workshop Presentation Materials* and hand-outs for workshop attendees, and submit to CAM for review and approval.
- Schedule, set up and facilitate workshop(s) that include Web-Ex or other similar forms of online participation to solicit input from experts and stakeholders on RDD&D gaps and needs for key topics in the Research Roadmap.
- Prepare and submit a *Draft Public Workshop Agenda* to the CAM for review and comment. The CAM will provide written comments to the Contractor.

Exhibit A

Scope of Work

- Prepare and submit a *Final Public Workshop Agenda*, incorporating CAM comments.
- Conduct a public workshop in accordance with the *Final Public Workshop Agenda* to solicit stakeholder comments on the Research Roadmap.
- Prepare and submit a *Summary of All Interviews and Questionnaires* conducted with subject matter experts and industry stakeholders as part of the Research Roadmap development.
- Prepare and Submit a *Summary of All Workshop Outcomes and Presentations*, including all comments received and responses.
- Using the *Summaries*, prepare and submit the *Draft Outline of the Gaps Analysis* to the CAM for review and comment. The CAM will provide written comments to the Contractor on the *Draft Outline of the Gaps Analysis*. The Contractor shall review the comments and discuss any concerns regarding the changes with the CAM.
- Prepare and submit the *Final Outline of the Gaps Analysis*, incorporating the CAM's comments.
- Prepare and submit the *Draft Gaps Analysis* for review and comment. The CAM will provide written comments to the Contractor. The Contractor shall review the comments and discuss any issues with the changes with the CAM. The Contractor shall incorporate the CAM's comments into the *Draft Gaps Analysis*.

The Contractor shall:

- Determine the location, date, and time of each CPR meeting with the Recipient's input.
- Send the Recipient a CPR Agenda and a *List of Expected CPR Participants* in advance of the CPR meeting. If applicable, the agenda will include a discussion of match funding and permits.
- Conduct and make a record of each CPR meeting. Provide the Recipient with a *Schedule for Providing a Progress Determination* on continuation of the project.
- Determine whether to continue the project, and if so whether modifications are needed to the tasks, schedule, products, or budget for the remainder of the Agreement. If the CAM concludes that satisfactory progress is not being made, this conclusion will be referred to the Deputy Director of the Energy Research and Development Division.
- Provide the Recipient with a *Progress Determination* on continuation of the project, in accordance with the schedule. The Progress Determination may include a requirement that the Recipient revise one or more products.

Contractor Deliverables:

- Workshop Presentation Materials
- Public Workshop Agendas (Draft and Final)
- Summary of All Interviews and Questionnaires
- Summary of All Workshop Outcomes and Presentations
- Outline of the Gaps Analysis (Draft and Final)
- Gaps Analysis (Draft)
- CPR Report
- Task Products (draft and/or final as specified in the task)

Exhibit A Scope of Work

CAM Deliverables:

- CEC Style Manual
- Written Comments on Public Workshop Agendas
- Written Comments on Outline of the Gaps Analysis
- Written Comments on the Gaps Analysis
- CPR Agenda
- List of Expected CPR Participants
- Schedule for Providing a Progress Determination
- Progress Determination

Task 5 - Finalize the Zero Net Energy Gaps Analysis

The goal of this task is to finalize the Gaps Analysis in accordance with the Gaps Analysis Methodology finalized in Task 3 and the Draft Gaps Analysis finalized in Task 4.

The Contractor shall:

- Prepare and submit a *Final Gaps Analysis*, incorporating CAM comments.
The Gaps Analysis shall be written in a format that is beneficial for both technical experts and a more general audience, including visual aids to outline priority research areas. The Gaps Analysis shall include an executive summary that summarizes analysis. The Gaps Analysis shall also include a discussion of how estimates regarding customer adoption and technology development were developed.
- Prepare and submit a *Bibliography* of all relevant sources and materials used in preparation of the Gaps Analysis.
- Prepare and submit all *Analytical Data* used to prepare the estimates included in the Analysis.
- Schedule, set up and facilitate workshop(s) to solicit input on the Gaps Analysis.
- Conduct, with approval from CAM, a public workshop to solicit stakeholder comments on the Gaps Analysis and compile *Public Workshop Meeting Minutes*.

Deliverables:

- Final Gaps Analysis.
- Bibliography.
- Analytical Data.
- Public Workshop Meeting Minutes.

Exhibit A
Scope of Work

Schedule of Deliverables and Due Dates

Task	Deliverable	Due Date
1	<u>Contract Management</u>	
1.1	Contractor Deliverables: <ul style="list-style-type: none"> Updated schedule of deliverables (if applicable). CAM Deliverables <ul style="list-style-type: none"> Kick-off Meeting Agenda 	<ul style="list-style-type: none"> 1 week following the Kick-off meeting. At least 24 hours prior to the Kick-off meeting
1.2	Contractor Deliverables: <ul style="list-style-type: none"> Quarterly Invoices CAM Deliverables: <ul style="list-style-type: none"> Quarterly Invoice Template 	<ul style="list-style-type: none"> Quarterly with Progress Reports At least 2 weeks prior to the first Quarterly Invoice
1.3	Contractor Deliverables: <ul style="list-style-type: none"> Quarterly Progress Reports CAM Deliverables: <ul style="list-style-type: none"> Quarterly Progress Report Format Template 	<ul style="list-style-type: none"> Quarterly with Invoices At least 2 weeks prior to the first Quarterly Invoice
1.4	Contractor Deliverables: <ul style="list-style-type: none"> Written notification to CAM of subcontractor change. Draft Subcontractor Conflict of Interest Policy Final Subcontractor Conflict of Interest Policy CAM Deliverables: <ul style="list-style-type: none"> Comments on Draft Subcontractor Conflict of Interest Policy 	<ul style="list-style-type: none"> TBD 2 weeks prior to the Kick-off Meeting At the Kick-off Meeting 1 week prior to the Kick-off Meeting
1.5	<ul style="list-style-type: none"> Responses to written requests on project status. Meeting notes for each formal meeting. 	<ul style="list-style-type: none"> As requested by CAM 1 week after each formal meeting
1.6	<ul style="list-style-type: none"> List of Potential TAC Members List of TAC Members Documentation of TAC Member Commitment 	<ul style="list-style-type: none"> At the Kick-off meeting. 2 weeks following the Kick-off meeting. 4 weeks following the Kick-off meeting.
1.7	<ul style="list-style-type: none"> TAC Meeting Schedule (draft and final) TAC Meeting Agendas (draft and final) TAC Meeting Back-up Materials TAC Meeting Summaries 	TBD

Exhibit A Scope of Work

1.8.1	<p>Contractor Deliverables:</p> <ul style="list-style-type: none"> • Draft outline of the Final Report. • Final outline of Final Report. <p>CAM Deliverables:</p> <ul style="list-style-type: none"> • Written Comments on the Draft Outline of the Final Report 	<ul style="list-style-type: none"> • 6 months prior to contract end-date. • 2 days following receipt of CAM approval.
1.8.2	<p>Contractor Deliverables:</p> <ul style="list-style-type: none"> • Draft Final Report. • Final Report. <p>CAM Deliverables:</p> <ul style="list-style-type: none"> • Written Comments on Draft Final Report 	<ul style="list-style-type: none"> • 4 months prior to contract end-date. • 2 months prior to contract end-date.
1.9	<ul style="list-style-type: none"> • Written Documentation of Meeting Agreements and Unresolved Activities • Schedule for completing closeout activities. • CD-ROM or USB memory stick containing ALL draft and final written deliverables provided under this Contract, organized by task. 	<ul style="list-style-type: none"> • 8 months prior to contract end-date. • 6 months prior to contract end-date. • 2 months prior to contract end-date.
1.10	<ul style="list-style-type: none"> • Match Funds Status Letter • Supplemental Match Funds Notification Letter (if applicable) 	TBD
2	<u>Technical Assessment of Zero Net Energy Technologies and Strategies</u>	
	<p>Contractor Deliverables:</p> <ul style="list-style-type: none"> • Draft Literature Review • Final Literature Review • Draft List of Experts to Interview • Final List of Experts to Interview • Draft List of Interview Questions • Final List of Interview Questions • Draft Outline of Technical Assessment • Final Outline of Technical Assessment • Draft Technical Assessment • Final Technical Assessment <p>CAM Deliverables:</p> <ul style="list-style-type: none"> • Written Comments on Draft Literature Review • Written Comments on Draft List of Experts to Interview • Written Comments on Draft List of Interview Questions • Written Comments on Draft Outline of the Technical Assessment 	<ul style="list-style-type: none"> • Within 3 Months of the Kick-off Meeting • Within 2 weeks of receiving comments • Within 3 Months of the Kick-off Meeting • Within 2 weeks of receiving comments • Within 1 week from the submission of the Final Literature Review • 1 week after receiving comments • TBD • TBD • 2 weeks after submission of Draft Literature Review • 1 week after submission of Draft List of Experts to Interview

**Exhibit A
Scope of Work**

	<ul style="list-style-type: none"> Written Comments on Draft Technical Assessment of Zero Net Energy Technologies and Strategies 	<ul style="list-style-type: none"> TBD TBD
3	<u>Finalize Methodology for Developing the Research Roadmap</u>	
	<ul style="list-style-type: none"> Draft Research Roadmap Methodology Summary of comments Final Research Roadmap Methodology 	<ul style="list-style-type: none"> 2 weeks after Kickoff meeting. TBD 4 weeks after Kickoff meeting.
4	<u>Develop the Research Roadmap</u>	
	<p>Contractor Deliverables:</p> <ul style="list-style-type: none"> Workshop Presentation Materials Draft Public Workshop Agendas Summary of All Interviews and Questionnaires Summary of All Workshop Outcomes and Presentations Draft Outline of the Research Roadmap Final Outline of the Research Roadmap Draft of Research Roadmap CPR Report Task Products <p>CAM Deliverables:</p> <ul style="list-style-type: none"> Written Comments on Public Workshop Agendas Written Comments on Outline of the Research Roadmap Written Comments on the Research Roadmap CPR Agenda List of Expected CPR Participants Schedule for Providing a Progress Determination Progress Determination 	<ul style="list-style-type: none"> 1 week prior to each workshop 1 week prior to each workshop TBD TBD 9 prior to the end of the contract 1 week after receiving CAM comments 1 month after submission of the Final Outline of the Research Roadmap 3 weeks after the CPR Meeting TBD TBD 2 weeks after submission of the Draft Outline of the Research Roadmap 1 month after submission of the Draft Research Roadmap 2 weeks before the CPR Meeting 2 weeks before the CPR Meeting 1 week after the CPR Meeting TBD
5	<u>Finalize the Research Roadmap</u>	
	<ul style="list-style-type: none"> Final Research Roadmap Bibliography Analytical Data Public Workshop Meeting Minutes 	TBD

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: ITRON, INC., WHICH WILL DO BUSINESS IN CALIFORNIA AS IBS

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

RESOLVED, that the Energy Commission approves Agreement 300-15-008 from RFP-15-315 with Itron, Inc. which will do business in California as IBS, for a \$999,884 contract to work with Energy Commission staff to develop, in consultation with stakeholders and subject matter experts, a technical assessment of key ZNE building research, development, demonstration and deployment (RDD&D) needs and develop a research roadmap that identifies, describes and prioritizes those needs for achieving the state's goals for Zero-Net Energy buildings in a safe, equitable and cost-beneficial manner; and

FURTHER BE IT RESOLVED, that the Executive Director or his/her designee shall execute the same on behalf of the Energy Commission.

CERTIFICATION

The undersigned Secretariat to the Commission 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 California Energy Commission held on April 13, 2016.

AYE: [List of Commissioners]

NAY: [List of Commissioners]

ABSENT: [List of Commissioners]

ABSTAIN: [List of Commissioners]

Cody Goldthrite,
Secretariat