

GRANT REQUEST FORM (GRF)

CEC-270 (Revised 10/2015)

CALIFORNIA ENERGY COMMISSION

New Agreement EPC-15-061 (To be completed by CGL Office)

Division	Agreement Manager:	MS-	Phone
ERDD	Nicholas Blair	51	916-445-5377

Recipient's Legal Name	Federal ID Number
The Regents of the University of California, on behalf of the Los Angeles campus	95-6006143

Title of Project
Accelerating AEC Deployment Around Existing Buildings in Disadvantaged Communities Through Unprecedented Data Analysis and Comprehensive Community Engagement

Term and Amount	Start Date	End Date	Amount
	6/13/2016	3/30/2018	\$ 1,497,996

Business Meeting Information
 ARFVTP agreements under \$75K delegated to Executive Director.

Proposed Business Meeting Date	5/17/2016	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
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Business Meeting Presenter	Anthony Ng	Time Needed:	5 minutes
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Please select one list serve. EPIC (Electric Program Investment Charge)

Agenda Item Subject and Description

REGENTS OF THE UNIVERSITY OF CALIFORNIA, LOS ANGELES. Proposed resolution approving Agreement EPC-15-061 with The Regents of the University of California, on behalf of the Los Angeles campus for a \$1,497,996 grant to fund the creation of an advanced energy community design for disadvantaged communities in Claremont, California, using meter-level energy demand data to conduct evidence-based analyses, and establishing community infrastructure efforts to reach homeowners and renters in disadvantaged communities. (EPIC funding) Contact: Nicholas Blair (Staff presentation: 5 minutes)

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":



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

- a) Agreement **IS** exempt. (Attach draft NOE)
 - Statutory Exemption. List PRC and/or CCR section number: CCR., tit 14 §15262
 - Categorical Exemption. List CCR section number: CCR., tit 14 §15306
 - Common Sense Exemption. 14 CCR 15061 (b) (3)

Explain reason why Agreement is exempt under the above section:

14 CCR Section 15262: This statutory exemption applies for a project "involving only feasibility or planning studies for possible future actions which the agency, board, or commission, has not yet approved, adopted, or funded." The project consists of the feasibility study and planning of a proposed Advanced Energy Community in disadvantaged communities in the City of Claremont and the development of a program model to aid implementation in other communities. Creation and funding of the Advanced Energy Community will be subject to future environmental review, funding, and approval by other entities. Therefore, the project qualifies for statutory exemption under Section 15262.

14 CCR Section 15306 Information Collection Exemption: This categorical exemption applies to basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. These may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded. This agreement will fund information collection, research, analysis and evaluation activities related to existing processes, planning, and funding opportunities for possible use by advanced energy development efforts, and which do not result in a serious or major disturbance of an environmental resource. Specifically, this project will be performing feasibility and planning studies, through energy-meter data analysis and community engagement activities that create a community-level design for possible future projects which the Energy Commission has not yet approved or funded. No physical changes to the environment will be made. Therefore, the project falls within section 15306 and will not have a significant effect on the environment.

14 CCR 15061(b)(3) Common Sense Exemption: A project is exempt from CEQA if the activity is covered by the general rule that CEQA applies only to projects that have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is not possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. This agreement will fund information collection, research, analysis and evaluation activities related to existing processes, planning, and funding opportunities for possible use by advanced energy development efforts without the possibility of having a significant effect on the environment because it consists of information gathering, analysis, and sharing. . Specifically, this project will be performing feasibility and planning studies, through energy-meter data analysis and community engagement activities that create a community-level design for possible future projects which the Energy Commission has not yet approved or funded. No physical changes to the environment will be made. Therefore, the project falls within the common sense exemption and will not have a significant effect on the environment.

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

Check all that apply

- Initial Study
- Environmental Impact Report
- Negative Declaration
- Statement of Overriding Considerations
- Mitigated Negative Declaration

List all subcontractors (major and minor) and equipment vendors: (attach additional sheets as necessary)	
Legal Company Name:	Budget
Los Angeles County Office of Sustainability	\$ 400,000 (CEC), \$256,793 (match)
Los Angeles Cleantech Incubator	\$ 31,908

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

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CALIFORNIA ENERGY COMMISSION



Budget Information			
Funding Source	Funding Year of Appropriation	Budget List No.	Amount
EPIC	14-15	301.001B	\$1,497,996
			\$
R&D Program Area: EDMFO: EDMF		TOTAL:	\$1,497,996
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

Recipient's Administrator/ Officer				Recipient's Project Manager			
Name:	Alice Young-Singleton			Name:	Felicia Federico		
Address:	11000 Kinross Ave Ave Ste 211			Address:	619 Charles E Young Dr		
City, State, Zip:	Los Angeles, CA 90095-2000			City, State, Zip:	Los Angeles, CA 90095-0001		
Phone:	/	Fax:	- -	Phone:	310-709-4203 /	Fax:	- -
E-Mail:	alice.young-singleton@research.ucla.edu			E-Mail:	ffederico@ioes.ucla.edu		

Selection Process Used	
<input checked="" type="checkbox"/> Competitive Solicitation	Solicitation #: GFO-15-312
<input type="checkbox"/> First Come First Served Solicitation	

The following items should be attached to this GRF	
1. Exhibit A, Scope of Work	<input checked="" type="checkbox"/> Attached
2. Exhibit B, Budget Detail	<input checked="" type="checkbox"/> Attached
3. CEC 105, Questionnaire for Identifying Conflicts	<input checked="" type="checkbox"/> Attached
4. Recipient Resolution	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Attached
5. CEQA Documentation	<input type="checkbox"/> N/A <input checked="" type="checkbox"/> Attached

_____	_____	_____	_____	_____	_____
Agreement Manager	Date	Office Manager	Date	Deputy Director	Date

Exhibit A Scope of Work

I. TASK ACRONYM/TERM LISTS

A. Task List

Task #	CPR ¹	Task Name
1	N/A	General Project Tasks
2		Case Study
3	x	Master Community Design
4		Tools and Recommendations
5		Financial and Business Models
6		Outreach Strategy
7		Evaluation of Project Benefits
8		Technology/Knowledge Transfer Activities

B. Acronym/Term List

Acronym/Term	Meaning
AEC	Advanced Energy Community
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CPR	Critical Project Review
Energy Commission	California Energy Commission
SoCalREN	Southern California Regional Energy Network
TAC	Technical Advisory Committee
UCLA	University of California, Los Angeles

II. PURPOSE OF AGREEMENT, PROBLEM/SOLUTION STATEMENT, AND GOALS AND OBJECTIVES

A. Purpose of Agreement

The purpose of this Agreement is to fund the creation of new information to reduce risks and uncertainties around advanced energy community (AEC) design, permitting and financing for existing buildings in disadvantaged areas, the development of an AEC program model and pilot site design, and the creation of replication documentation, tools and outreach.

B. Problem/ Solution Statement

Problem

Existing buildings contribute 40% of the State's greenhouse gas emissions. While billions of dollars have been spent on energy efficiency upgrades across the state, there remains little meter level before and after data on the impacts of these expenditures. Further, relatively few

¹ Please see subtask 1.3 in Part III of the Scope of Work (General Project Tasks) for a description of Critical Project Review (CPR) Meetings.

Exhibit A Scope of Work

of these funds are spent on retrofits in disadvantaged communities, despite the fact that it is these communities that are home to most of the worst performing buildings and the people with the least resources to complete the retrofits themselves. While bills like SB 535 have made strides in this area, there is still much to be done.

There are many reasons why the potential for retrofitting existing buildings into advanced energy communities (AECs) has yet to be realized, and why so little of this work is done in disadvantaged communities. This project aims to address four of the most critical: **(1) Lack of data on program effectiveness.** A lack of meter level data and meter level energy program before and after studies, limits the ability to target locations most in need and most likely to be successful. It also limits the ability to monetize retrofit benefits, which inhibits financing for this work. **(2) Lack of full community engagement.** The wide array and disaggregated nature of financing programs, energy efficiency products, and service providers creates a confusing array of choices and potential risks. This is amplified in disadvantaged communities, where financial risks have more impact, greater portions of residents are renters, and education and/or language barriers inhibit knowledge transfer. **(3) Local obstacles to state code implementation.** These include issues related to planning/building department processes, design standards, inspection procedures and enforcement policies. **(4) Inadequate business and financing strategies.** Implementation of deep-energy building retrofits are hampered as programs and contractors attempt to locate and execute individual opportunities one at a time. This prevents the development of standardized product design and delivery at scale, suppresses pricing efficiencies, limits the number of retrofits per year, and hampers analysis of quality and effectiveness.

Solution

Our project combines academic research with on-the-ground expertise in an approach that is uniquely positioned to overcome these challenges. This partnership will accelerate AEC deployment around existing buildings in disadvantaged communities through unprecedented data analysis and comprehensive community engagement. By leveraging the only meter-level energy demand, consumption and historic program participation data set in California (the University of California, Los Angeles (UCLA) Energy Atlas), our team will conduct evidence-based analyses to understand the effectiveness of energy efficiency programs and develop tools and recommendations to guide local and statewide strategies.

We will establish a community infrastructure to provide the intensive local engagement, education and peer-to-peer strategy approach that is necessary to reach homeowners and renters in disadvantaged communities. This also includes laying the groundwork for the aggregation of products and services critical to making retrofit choices easier and more affordable in disadvantaged communities. Program documentation and other replication tools will support the accelerated adoption and deployment of our AEC Program Model in other communities. We will conduct a detailed assessment of local obstacles to state code implementation in the City of Claremont to document best practices, identify areas for improvement, and provide recommendations to accelerate and streamline existing building retrofits and integrated AEC planning.

C. Goals and Objectives of the Agreement

Exhibit A

Scope of Work

Agreement Goals

The goal of this Agreement is to develop the data, models, tools and outreach necessary to support deployment and replication of AECs in disadvantaged communities.

Ratepayer Benefits:² This Agreement will result in the ratepayer benefits of greater electricity reliability, lower costs, and increased safety.

This Agreement will result in broad benefits to ratepayers by reducing the cost of future Advanced Energy Communities (AEC) developments. This Agreement will result in a better understanding of AEC developments at the local jurisdiction level, resulting in streamlined permitting, and planning processes related to these developments. Additionally, the financial and business models developed under this Agreement will make AEC developments more financially attractive to both developers and consumers, increasing the likelihood of future AEC developments throughout California.

Benefits to ratepayers, after implementation of the AEC, will include:

- Substantial energy cost savings through implementation of deep energy retrofits, including building weatherization, energy efficient appliances and water saving fixtures;
- Improved standard of living in households by providing more affordable energy services and increased comfort in dwelling units;
- Reduced health risks and reduced local pollutants through adoption of clean energy generation;
- Increased resiliency during utility system power outages, natural disasters, weather events and other emergencies;
- Increased community safety through a more resilient and reliable energy system;
- Alleviation of local energy grid constraints with locally produced clean energy;

Technological Advancement and Breakthroughs:³ This Agreement will support the development and commercialization of technological advancements and breakthroughs that overcome barriers to the achievement of the State of California's statutory energy goals by radically increasing sales of energy efficiency products and services. The AEC Program Model will be based on the Community Home Energy Retrofit Program engagement process, and includes the following major components:

- Strategic integration of all existing energy efficiency / retrofit programs in one community to maximize synergies and eliminate competition among initiatives;
- Aggregation of the disaggregated market into purchasing groups, to reduce homeowner costs, improve buying power, and rapidly increase speed of delivery across the community;
- Partnering with construction and real estate professionals, as critical participants; Education and engagement of local community organizations and training of local volunteers;

² California Public Resources Code, Section 25711.5(a) requires projects funded by the Electric Program Investment Charge (EPIC) to result in ratepayer benefits. The California Public Utilities Commission, which established the EPIC in 2011, defines ratepayer benefits as greater reliability, lower costs, and increased safety (See CPUC "Phase 2" Decision 12-05-037 at page 19, May 24, 2012, http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/167664.PDF).

³ California Public Resources Code, Section 25711.5(a) also requires EPIC-funded projects to lead to technological advancement and breakthroughs to overcome barriers that prevent the achievement of the state's statutory and energy goals.

Exhibit A Scope of Work

- Development of webinars, social media, customer relationship management (CRM) software, videos, websites, workshops and initiatives to engage and educate a local community;
- Creation of new economic models to address renters and low/middle income (LMI) households;
- Deployment of the best technologies available, from off-the-shelf materials to the latest, patented product innovations.

Agreement Objectives

The objectives of this Agreement are to:

- Develop evidence-based data on energy program efficiency and create prioritization tools to inform future building retrofit investments in AEC communities;
- Develop an AEC Program Model for existing buildings in a disadvantaged community;
- Prepare designs and site maps for a pilot implementation;
- Provide tools and recommendations for rapid replication of this model in other communities
- Conduct outreach to widely disseminate project results

Exhibit A

Scope of Work

III. TASK 1 GENERAL PROJECT TASKS

PRODUCTS

Subtask 1.1 Products

The goal of this subtask is to establish the requirements for submitting project products (e.g., reports, summaries, plans, and presentation materials). Unless otherwise specified by the Commission Agreement Manager (CAM), the Recipient must deliver products as required below by the dates listed in the **Project Schedule (Part V)**. Products that require a draft version are indicated by marking “**(draft and final)**” after the product name in the “Products” section of the task/subtask. If “(draft and final)” does not appear after the product name, only a final version of the product is required. With respect to due dates within this Scope of Work, “**days**” means working days.

The Recipient shall:

For products that require a draft version, including the Final Report Outline and Final Report

- Submit all draft products to the CAM for review and comment in accordance with the Project Schedule (Part V). The CAM will provide written comments to the Recipient on the draft product within 15 days of receipt, unless otherwise specified in the task/subtask for which the product is required.
- Consider incorporating all CAM comments into the final product. If the Recipient disagrees with any comment, provide a written response explaining why the comment was not incorporated into the final product.
- Submit the revised product and responses to comments within 10 days of notice by the CAM, unless the CAM specifies a longer time period, or approves a request for additional time.

For products that require a final version only

- Submit the product to the CAM for acceptance. The CAM may request minor revisions or explanations prior to acceptance.

For all products

- Submit all data and documents required as products in accordance with the following:

Instructions for Submitting Electronic Files and Developing Software:

- **Electronic File Format**
 - Submit all data and documents required as products under this Agreement in an electronic file format that is fully editable and compatible with the Energy Commission’s software and Microsoft (MS)-operating computing platforms, or with any other format approved by the CAM. Deliver an electronic copy of the full text of any Agreement data and documents in a format specified by the CAM, such as memory stick or CD-ROM.

Exhibit A Scope of Work

The following describes the accepted formats for electronic data and documents provided to the Energy Commission as products under this Agreement, and establishes the software versions that will be required to review and approve all software products:

- Data sets will be in MS Access or MS Excel file format (version 2007 or later), or any other format approved by the CAM.
 - Text documents will be in MS Word file format, version 2007 or later.
 - Documents intended for public distribution will be in PDF file format.
 - The Recipient must also provide the native Microsoft file format.
 - Project management documents will be in Microsoft Project file format, version 2007 or later.
- **Software Application Development**
- Use the following standard Application Architecture components in compatible versions for any software application development required by this Agreement (e.g., databases, models, modeling tools), unless the CAM approves other software applications such as open source programs:
- Microsoft ASP.NET framework (version 3.5 and up). Recommend 4.0.
 - Microsoft Internet Information Services (IIS), (version 6 and up) Recommend 7.5.
 - Visual Studio.NET (version 2008 and up). Recommend 2010.
 - C# Programming Language with Presentation (UI), Business Object and Data Layers.
 - SQL (Structured Query Language).
 - Microsoft SQL Server 2008, Stored Procedures. Recommend 2008 R2.
 - Microsoft SQL Reporting Services. Recommend 2008 R2.
 - XML (external interfaces).

Any exceptions to the Electronic File Format requirements above must be approved in writing by the CAM. The CAM will consult with the Energy Commission's Information Technology Services Branch to determine whether the exceptions are allowable.

MEETINGS

Subtask 1.2 Kick-off Meeting

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

The Recipient shall:

- Attend a "Kick-off" meeting with the CAM, the Commission Agreement Officer (CAO), and any other Energy Commission staff relevant to the Agreement. The Recipient will bring its Project Manager and any other individuals designated by the CAM to this meeting. The administrative and technical aspects of the Agreement will be discussed at the meeting. Prior to the meeting, the CAM will provide an agenda to all potential meeting participants. The meeting may take place in person or by electronic conferencing (e.g., WebEx), with approval of the CAM.

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

- Terms and conditions of the Agreement;
- Administrative products (subtask 1.1);
- CPR meetings (subtask 1.3);

Exhibit A Scope of Work

- Match fund documentation (subtask 1.7);
- Permit documentation (subtask 1.8);
- Subcontracts (subtask 1.9); 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 products (subtask 1.1);
 - Progress reports and invoices (subtask 1.5);
 - Final Report (subtask 1.6);
 - Technical Advisory Committee meetings (subtasks 1.10 and 1.11); and
 - Any other relevant topics.
- Provide an *Updated Project Schedule*, *List of Match Funds*, and *List of Permits*, as needed to reflect any changes in the documents.

The CAM shall:

- Designate the date and location of the meeting.
- Send the Recipient a Kick-off Meeting Agenda.

Recipient Products:

- Updated Project Schedule (*if applicable*)
- Updated List of Match Funds (*if applicable*)
- Updated List of Permits (*if applicable*)

CAM Product:

- Kick-off Meeting Agenda

Subtask 1.3 Critical Project Review (CPR) Meetings

The goal of this subtask is to determine if the project should continue to receive Energy Commission funding, and if so whether any modifications must be made to the tasks, products, schedule, or budget. CPR meetings 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.

CPR meetings generally take place at key, predetermined points in the Agreement, as determined by the CAM and as shown in the Task List on page 1 of this Exhibit. However, the CAM may schedule additional CPR meetings as necessary. The budget will be reallocated to cover the additional costs borne by the Recipient, but the overall Agreement amount will not increase. CPR meetings generally take place at the Energy Commission, but they may take place at another location, or may be conducted via electronic conferencing (e.g., WebEx) as determined by the CAM.

Exhibit A Scope of Work

The Recipient shall:

- 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.

The CAM 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.

Recipient Products:

- CPR Report(s)
- Task Products (draft and/or final as specified in the task)

CAM Products:

- CPR Agenda
- List of Expected CPR Participants
- Schedule for Providing a Progress Determination
- Progress Determination

Subtask 1.4 Final Meeting

The goal of this subtask is to complete the closeout of this Agreement.

The Recipient shall:

- Meet with Energy Commission staff to present project findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement. This meeting will be attended by the Recipient and CAM, at a minimum. The meeting may occur in person or by electronic conferencing (e.g., WebEx), with approval of the CAM.

Exhibit A Scope of Work

The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be divided into two separate meetings at the CAM's discretion.

- The technical portion of the meeting will involve the presentation of findings, conclusions, and recommended next steps (if any) for the Agreement. The CAM will determine the appropriate meeting participants.
 - The administrative portion of the meeting will involve a discussion with the CAM and the CAO of the following Agreement closeout items:
 - Disposition of any state-owned equipment.
 - Need to file a Uniform Commercial Code Financing Statement (Form UCC-1) regarding the Energy Commission's interest in patented technology.
 - The Energy Commission's request for specific "generated" data (not already provided in Agreement products).
 - Need to document the Recipient's disclosure of "subject inventions" developed under the Agreement.
 - "Surviving" Agreement provisions such as repayment provisions and confidential products.
 - Final invoicing and release of retention.
- Prepare a *Final Meeting Agreement Summary* that documents any agreement made between the Recipient and Commission staff during the meeting.
 - Prepare a *Schedule for Completing Agreement Closeout Activities*.
 - Provide *All Draft and Final Written Products* on a CD-ROM or USB memory stick, organized by the tasks in the Agreement.

Products:

- Final Meeting Agreement Summary (*if applicable*)
- Schedule for Completing Agreement Closeout Activities
- All Draft and Final Written Products

REPORTS AND INVOICES

Subtask 1.5 Progress Reports and Invoices

The goals of this subtask are to: (1) periodically verify that satisfactory and continued progress is made towards achieving the project objectives of this Agreement; and (2) ensure that invoices contain all required information and are submitted in the appropriate format.

The Recipient shall:

- Submit a monthly *Progress Report* to the CAM. Each progress report must:
 - Summarize progress made on all Agreement activities as specified in the scope of work for the preceding month, including accomplishments, problems, milestones, products, schedule, fiscal status, and an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. See the Progress Report Format Attachment for the recommended specifications.
- Submit a monthly or quarterly *Invoice* that follows the instructions in the "Payment of Funds" section of the terms and conditions, including a financial report on Match Fund and in-state expenditures.

Products:

- Progress Reports
- Invoices

Exhibit A

Scope of Work

Subtask 1.6 Final Report

The goal of this subtask is to prepare a comprehensive Final Report that describes the original purpose, approach, results, and conclusions of the work performed under this Agreement. The CAM will review the Final Report, which will be due at least **two months** before the Agreement end date. When creating the Final Report Outline and the Final Report, the Recipient must use the Style Manual provided by the CAM.

Subtask 1.6.1 Final Report Outline

The Recipient shall:

- Prepare a *Final Report Outline* in accordance with the *Style Manual* provided by the CAM. (See Task 1.1 for requirements for draft and final products.)

Recipient Products:

- Final Report Outline (draft and final)

CAM Product:

- Style Manual
- Comments on Draft Final Report Outline
- Approval of Final Report Outline

Subtask 1.6.2 Final Report

The Recipient shall:

- Prepare a Final Report for this Agreement in accordance with the approved Final Report Outline, Style Manual, and Final Report Template provided by the CAM with the following considerations:
 - Ensure that the report includes the following items, in the following order:
 - Cover page (**required**)
 - Credits page on the reverse side of cover with legal disclaimer (required)
 - Acknowledgements page (optional)
 - Preface (required)
 - Abstract, keywords, and citation page (required)
 - Table of Contents (required, followed by List of Figures and List of Tables, if needed)
 - Executive summary (required)
 - Body of the report (required)
 - References (if applicable)
 - Glossary/Acronyms (If more than 10 acronyms or abbreviations are used, it is required.)
 - Bibliography (if applicable)
 - Appendices (if applicable) (Create a separate volume if very large.)
 - Attachments (if applicable)
 - Ensure that the document is written in the third person.
 - Ensure that the Executive Summary is understandable to the lay public.

Exhibit A Scope of Work

- Briefly summarize the completed work. Succinctly describe the project results and whether or not the project goals were accomplished.
- Identify which specific ratepayers can benefit from the project results and how they can achieve the benefits.
- If it's necessary to use a technical term in the Executive Summary, provide a brief definition or explanation when the technical term is first used.
- Follow the Style Guide format requirements for headings, figures/tables, citations, and acronyms/abbreviations.
- Ensure that the document omits subjective comments and opinions. However, recommendations in the conclusion of the report are allowed.
- Include a brief description of the project results in the Abstract.
- Submit a draft of the report to the CAM for review and comment. The CAM will provide written comments to the Recipient on the draft product within 15 days of receipt
- Consider incorporating all CAM comments into the Final Report. If the Recipient disagrees with any comment, provide a written response explaining why the comment was not incorporated into the final product
- Submit the revised Final Report and responses to comments within 10 days of notice by the CAM, unless the CAM specifies a longer time period or approves a request for additional time.
- Submit one bound copy of the *Final Report* to the CAM along with *Written Responses to Comments on the Draft Final Report*.

Products:

- Final Report (draft and final)
- Written Responses to Comments on the Draft Final Report

CAM Product:

- Written Comments on the Draft Final Report

MATCH FUNDS, PERMITS, AND SUBCONTRACTS

Subtask 1.7 Match Funds

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

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

The Recipient shall:

- Prepare a *Match Funds Status Letter* that documents the match funds committed to this Agreement. If no match funds were part of the proposal that led to the Energy Commission awarding this Agreement and none have been identified at the time this Agreement starts, then state this in the letter.

Exhibit A Scope of Work

If match funds were a part of the proposal that led to the Energy Commission awarding this Agreement, then provide in the letter:

- 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 Recipient 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 CPR meetings.
- Provide a *Supplemental Match Funds Notification Letter* to the CAM of receipt of additional match funds.
- Provide a *Match Funds Reduction Notification Letter* to the CAM if existing match funds are reduced during the course of the Agreement. Reduction of match funds may trigger a CPR meeting.

Products:

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

Subtask 1.8 Permits

The goal of this subtask is to obtain all permits required for work completed under this Agreement in advance of the date they are needed to keep the Agreement schedule on track. Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement, with the exception of costs incurred by University of California recipients. Permits must be identified and obtained before the Recipient may incur any costs related to the use of the permit(s) for which the Recipient will request reimbursement.

The Recipient shall:

- Prepare a *Permit Status Letter* that documents the permits required to conduct this Agreement. If no permits are required at the start of this Agreement, then state this in the letter. If permits will be required during the course of the Agreement, provide in the letter:
 - A list of the permits that identifies: (1) the type of permit; and (2) the name, address, and telephone number of the permitting jurisdictions or lead agencies.
 - The schedule the Recipient will follow in applying for and obtaining the permits.

The list of permits and the schedule for obtaining them will be discussed at the Kick-off meeting (subtask 1.2), and a timetable for submitting the updated list, schedule, and copies of the permits will be developed. The impact on the project if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in progress reports and will be a topic at CPR meetings.

Exhibit A Scope of Work

- If during the course of the Agreement additional permits become necessary, then provide the CAM with an *Updated List of Permits* (including the appropriate information on each permit) and an *Updated Schedule for Acquiring Permits*.
- Send the CAM a *Copy of Each Approved Permit*.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CAM within 5 days. Either of these events may trigger a CPR meeting.

Products:

- Permit Status Letter
- Updated List of Permits (*if applicable*)
- Updated Schedule for Acquiring Permits (*if applicable*)
- Copy of each Approved Permit (*if applicable*)

Subtask 1.9 Subcontracts

The goals of this subtask are to: (1) procure subcontracts required to carry out the tasks under this Agreement; and (2) ensure that the subcontracts are consistent with the terms and conditions of this Agreement.

The Recipient shall:

- Manage and coordinate subcontractor activities in accordance with the requirements of this Agreement.
- Incorporate this Agreement by reference into each subcontract.
- Include any required Energy Commission flow-down provisions in each subcontract, in addition to a statement that the terms of this Agreement will prevail if they conflict with the subcontract terms.
- If required by the CAM, submit a draft of each Subcontract required to conduct the work under this Agreement.
- Submit a final copy of the executed subcontract.
- Notify and receive written approval from the CAM prior to adding any new subcontractors (see the discussion of subcontractor additions in the terms and conditions).

Products:

- Subcontracts (draft, if required by the CAM, and final)

TECHNICAL ADVISORY COMMITTEE

Subtask 1.10 Technical Advisory Committee (TAC)

The goal of this subtask is to create an advisory committee for this Agreement. The TAC should be composed of diverse professionals. 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 agreement work and other past, present, or future projects (both public and private sectors) that TAC members are aware of in a particular area.

Exhibit A Scope of Work

- 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.
- Provide recommendations regarding information dissemination, market pathways, or commercialization strategies relevant to the project products.

The TAC may be composed of qualified professionals spanning 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);
- Public interest market transformation implementers;
- Product developers relevant to the project;
- U.S. Department of Energy research managers, or experts from other federal or state agencies relevant to the project;
- Public interest environmental groups;
- Utility representatives;
- Air district staff; and
- Members of relevant technical society committees.

The Recipient 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 1.11.
- 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.

Products:

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

Subtask 1.11 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 via teleconference.

The Recipient 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.

Exhibit A Scope of Work

- 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.

Products:

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

IV. TECHNICAL TASKS

*Products that require a draft version are indicated by marking “(draft and final)” after the product name in the “Products” section of the task/subtask. If “(draft and final)” does not appear after the product name, only a final version of the product is required. **Subtask 1.1 (Products)** describes the procedure for submitting products to the CAM.*

TASK 2: CASE STUDY

The goals of this task are to: (1) develop the AEC Program Model within the disadvantaged tracts of the City of Claremont; (2) estimate benefits; and (3) document the actions taken.

The Recipient shall:

- Establish the community infrastructure associated with the AEC Program Model and initiate community outreach within the disadvantaged tracts of the City of Claremont. The community infrastructure will consist of:
 - Team members executing and maintaining comprehensive, city-wide community engagement and deployment of education initiatives.
 - Team members training and developing local volunteer leaders in the disadvantaged community.
- Prepare quantitative estimates to incorporate into an *Energy / GHG Reductions and Benefits Report*. The quantitative estimates will calculate existing and future energy use, energy / GHG reductions, water and water energy savings, and renewable energy generation and storage capacity using standard CEC and CPUC methodologies and data sources, combined with actual meter-level data and cost information where available from the Energy Atlas.
- Prepare a *Case Study Report* describing the community infrastructure and outreach elements of the AEC Program Model as applied to the case study area.

Products:

- Energy / GHG Reduction and Benefits Report (draft and final)
- Case Study Report (draft and final)

Exhibit A Scope of Work

TASK 3: MASTER COMMUNITY DESIGN

The goals of this task are to: (1) develop the master community designs and site maps; (2) prepare quantitative estimates of energy / GHG reductions and benefits, (3) develop data needed to aggregate energy efficiency / energy production products and services; and (4) prepare a report describing the selection of community-scale technologies.

The Recipient shall:

- Develop *Master Community Designs and Site Maps Report* for the proposed AEC which will include an inventory of building types, calculations of building energy demand by building type, energy reductions through efficiencies matched to building type, and future energy demand increases, as well as evaluation of technology options, benefits calculations, and local siting considerations.
- Prepare quantitative estimates of energy / GHG reductions and benefits.
- Develop project data needed to aggregate energy efficiency / energy production products and services and prepare a *Draft Data Methodology Report* to be submitted to the CAM for feedback before developing the project data
- Incorporate edits, as necessary from the CAM, and submit a *Final Data Methodology Report*.
- Prepare a *Report on Selection of Community-Scale Technologies*, which will include the quantitative estimates of reductions and benefits, and the data needed for aggregation of products and services.
- Prepare a *CPR Report* and participate in a CPR Meeting, as discussed in Subtask 1.3.

Products:

- Master Community Designs and Site Maps Report (draft and final)
- Data Methodology Report (draft and final)
- Report on Selection of Community-Scale Technologies (draft and final)
- CPR Report

Task 4: TOOLS AND RECOMMENDATIONS

The goals of this task are to: (1) use lessons learned from developing the case study and master community design to develop tools and recommendations for use in planning and building departments; and (2) create a prioritization tool for local governments to help select optimal locations for AECs that offer the most benefit to ratepayers and the grid.

The Recipient shall:

- Assess obstacles to state code implementation to identify opportunities and barriers to deploying AEC's.
- Prepare a *Local Implementation Recommendation Report* that describes these opportunities and barriers.
- Develop a Prioritization Tool for local governments using the UCLA Energy Atlas, combined with findings from the energy efficiency program effectiveness analysis (discussed in Task 5) and electrical grid data.
- Create a *Prioritization Tool Report* to describe the local and statewide strategies for building retrofits in AEC communities, and describe how these strategies will offer the most benefit to ratepayers and the electric grid.

Exhibit A Scope of Work

Products:

- Local Implementation Recommendation Report (draft and final)
- Prioritization Tool Report (draft and final)

Task 5: FINANCIAL AND BUSINESS MODELS

The goals of this task are to: (1) generate data critical to informing financing strategy development; and (2) showcase innovative financing strategies that can help make AECs financially attractive.

The Recipient shall:

- Evaluate the effectiveness of energy efficiency programs using the Los Angeles Energy Atlas, and ten years of demand, consumption and program participation data.
- Produce an *Energy Efficiency Program Effectiveness Report*.
- Develop a targeted financing program documenting the tailored financial services created for the master community pilot site from the suite of Southern California Regional Energy Network (SoCalREN) services.
- Produce a *Targeted Financing Program Report*.

Products:

- Energy Efficiency Program Effectiveness Report (draft and final)
- Targeted Financing Program Report (draft and final)

TASK 6: OUTREACH STRATEGY

The goal of this task is to develop an outreach strategy to inform other local governments and developers of the costs, benefits, approaches and methods related to the AEC Program Model, in order to facilitate rapid adoption and replication.

The Recipient shall:

- Develop *AEC Program Model Documentation Portfolio*, including roadmaps, guides and reference materials.
- Write *Journal Articles* for diverse readership audiences.
- Develop *Meeting Presentation Materials*, as powerpoint files, webinar videos and sound recordings, to use when conducting regional and state-level collaboration, including Meeting Presentations through the SoCalREN and Los Angeles Regional Collaborative for Climate Action and Sustainability.
- Develop a *Final Event Agenda* to organize and co-host with the CEC a Final Event showcasing our case study.

Products:

- AEC Program Model Documentation Portfolio
- Journal Articles
- Meeting Presentation Materials
- Final Event Agenda

Exhibit A

Scope of Work

TASK 7: EVALUATION OF PROJECT BENEFITS

The goal of this task is to report the benefits resulting from this project.

The Recipient shall:

- Complete three Project Benefits Questionnaires that correspond to three main intervals in the Agreement: (1) *Kick-off Meeting Benefits Questionnaire*; (2) *Mid-term Benefits Questionnaire*; and (3) *Final Meeting Benefits Questionnaire*.
- Provide all key assumptions used to estimate projected benefits, including targeted market sector (e.g., population and geographic location), projected market penetration, baseline and projected energy use and cost, operating conditions, and emission reduction calculations. Examples of information that may be requested in the questionnaires include:
 - For Product Development Projects and Project Demonstrations:
 - Published documents, including date, title, and periodical name.
 - Estimated or actual energy and cost savings, and estimated statewide energy savings once market potential has been realized. Identify all assumptions used in the estimates.
 - Greenhouse gas and criteria emissions reductions.
 - Other non-energy benefits such as reliability, public safety, lower operational cost, environmental improvement, indoor environmental quality, and societal benefits.
 - Data on potential job creation, market potential, economic development, and increased state revenue as a result of the project.
 - A discussion of project product downloads from websites, and publications in technical journals.
 - A comparison of project expectations and performance. Discuss whether the goals and objectives of the Agreement have been met and what improvements are needed, if any.
 - Additional Information for Product Development Projects:
 - Outcome of product development efforts, such copyrights and license agreements.
 - Units sold or projected to be sold in California and outside of California.
 - Total annual sales or projected annual sales (in dollars) of products developed under the Agreement.
 - Investment dollars/follow-on private funding as a result of Energy Commission funding.
 - Patent numbers and applications, along with dates and brief descriptions.
 - Additional Information for Product Demonstrations:
 - Outcome of demonstrations and status of technology.
 - Number of similar installations.
 - Jobs created/retained as a result of the Agreement.
 - For Information/Tools and Other Research Studies:
 - Outcome of project.
 - Published documents, including date, title, and periodical name.

Exhibit A Scope of Work

- A discussion of policy development. State if the project has been cited in government policy publications or technical journals, or has been used to inform regulatory bodies.
 - The number of website downloads.
 - An estimate of how the project information has affected energy use and cost, or has resulted in other non-energy benefits.
 - An estimate of energy and non-energy benefits.
 - Data on potential job creation, market potential, economic development, and increased state revenue as a result of project.
 - A discussion of project product downloads from websites, and publications in technical journals.
 - A comparison of project expectations and performance. Discuss whether the goals and objectives of the Agreement have been met and what improvements are needed, if any.
- Respond to CAM questions regarding responses to the questionnaires.

The Energy Commission may send the Recipient similar questionnaires after the Agreement term ends. Responses to these questionnaires will be voluntary.

Products:

- Kick-off Meeting Benefits Questionnaire
- Mid-term Benefits Questionnaire
- Final Meeting Benefits Questionnaire

TASK 8: TECHNOLOGY/KNOWLEDGE TRANSFER ACTIVITIES

The goal of this task is to develop a plan to make the knowledge gained, experimental results, and lessons learned available to the public and key decision makers.

The Recipient shall:

- Prepare an Initial Fact Sheet at start of the project that describes the project. Use the format provided by the CAM.
- Prepare a Final Project Fact Sheet at the project's conclusion that discusses results. Use the format provided by the CAM.
- Prepare a Technology/Knowledge Transfer Plan that includes:
 - An explanation of how the knowledge gained from the project will be made available to the public, including the targeted market sector and potential outreach to end users, utilities, regulatory agencies, and others.
 - A description of the intended use(s) for and users of the project results.
 - Published documents, including date, title, and periodical name.
 - Copies of documents, fact sheets, journal articles, press releases, and other documents prepared for public dissemination. These documents must include the Legal Notice required in the terms and conditions. Indicate where and when the documents were disseminated.
 - A discussion of policy development. State if project has been or will be cited in government policy publications, or used to inform regulatory bodies.
 - The number of website downloads or public requests for project results.
 - Additional areas as determined by the CAM.

Exhibit A Scope of Work

- Conduct technology transfer activities in accordance with the Technology/Knowledge Transfer Plan. These activities will be reported in the Progress Reports.
- When directed by the CAM, develop Presentation Materials for an Energy Commission- sponsored conference/workshop on the results of the project.
- Provide at least six High-Quality Digital Photographs (minimum resolution of 1300x500 pixels in landscape ratio) of pre- and post-technology installation at the project sites or related project photographs.
- Prepare a Technology/Knowledge Transfer Report on technology transfer activities conducted during the project.

Products:

- Initial Fact Sheet (draft and final)
- Final Project Fact Sheet (draft and final)
- Presentation Materials (draft and final)
- High-Quality Digital Photographs
- Technology/Knowledge Transfer Plan (draft and final)
- Technology/Knowledge Transfer Report (draft and final)

V. PROJECT SCHEDULE

Please see the attached Excel spreadsheet.

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: UNIVERSITY OF CALIFORNIA, LOS ANGELES

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 EPC-15-061 from GFO-15-312 with the Regents of the University of California, on behalf of the Los Angeles campus, for a \$1,497,996 grant to fund the creation of an Advanced Energy Community design for disadvantaged communities in Claremont, California, using meter-level energy demand data to conduct evidence-based analyses, and establishing community infrastructure efforts to reach homeowners and renters in disadvantaged communities; 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 May 17, 2016.

AYE: [List of Commissioners]

NAY: [List of Commissioners]

ABSENT: [List of Commissioners]

ABSTAIN: [List of Commissioners]

Cody Goldthrite,
Secretariat