

GRANT REQUEST FORM (GRF)

CEC-270 (Revised 10/2015)

CALIFORNIA ENERGY COMMISSION

New Agreement EPC-16-008 (To be completed by CGL Office)

Division	Agreement Manager:	MS-	Phone
ERDD	Rachel Salazar	51	916-445-5316

Recipient's Legal Name	Federal ID Number
City of Santa Monica	95-6000790

Title of Project
Santa Monica Advanced Energy District

Term and Amount	Start Date	End Date	Amount
	9/15/2016	3/30/2018	\$ 1,487,609

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

Proposed Business Meeting Date	8/10/2016	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
Business Meeting Presenter	Rachel Salazar	Time Needed:	5 minutes

Please select one list serve. EPIC (Electric Program Investment Charge)

Agenda Item Subject and Description

CITY OF SANTA MONICA. Proposed resolution approving Agreement EPC-15-008 with the City of Santa Monica for a \$1,487,609 grant to plan and design a microgrid in Santa Monica that will incorporate renewable energy, energy storage, and electric vehicle charging. This project will develop an Advanced Energy Community based around a multiuser microgrid through partnerships with private developers and city owned properties and create a model that will lay a foundation for policy and financial frameworks to enable public and private investment in future district scale systems.

California Environmental Quality Act (CEQA) Compliance

1. Is Agreement considered a "Project" under CEQA?
 Yes (skip to question 2) No (complete the following (PRC 21065 and 14 CCR 15378)):
 Explain why Agreement is not considered a "Project":
 Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because

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 Feasibility and Planning Studies
 Categorical Exemption. List CCR section number: Cal. Code Regs., tit 14 §15306 Information Collection

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

14 CCR Section 15306 Information Collection Exemption: 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.

14 CCR 15262 Feasibility and Planning Studies: This agreement will fund feasibility and planning studies for possible development of an advanced energy community which has not been approved, adopted, or funded by an agency, board, or commission and will not result in the adoption of a plan that will have a legally binding effect on later activities.

14 CCR 15061 Common Sense Exemption: 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.

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 | |

GRANT REQUEST FORM (GRF)



List all subcontractors (major and minor) and equipment vendors: (attach additional sheets as necessary)	
Legal Company Name:	Budget
Energy & Environmental Economics, Inc.	\$ 250,674
The Regents of the University of California	\$ 185,000
ICLEI - USA	\$ 45,703
Hathaway Dinwiddie Construction Company	\$ 124,628
Miller Hull Partnership	\$ 97,796
Buro Happold Engineering	\$ 150,000
Quicksilver Communications	\$ 3,000
To Be Determined	\$ 630,808
	\$

List all key partners: (attach additional sheets as necessary)	
Legal Company Name:	
Southern California Edison	
Worthe Real Estate Group	

Budget Information			
Funding Source	Funding Year of Appropriation	Budget List No.	Amount
EPIC	15-16	301.001C	\$1,487,609
			\$
			\$
			\$
			\$
			\$
R&D Program Area:	EDMFO: EDMF	TOTAL:	\$1,487,609
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

Recipient's Administrator/ Officer		Recipient's Project Manager	
Name:	Garrett Wong	Name:	Garrett Wong
Address:	1717 4th Street, Suite 100	Address:	1717 4th Street, Suite 100
City, State, Zip:	Santa Monica, CA 90401-3319	City, State, Zip:	Santa Monica, CA 90401-3319
Phone:	310-458-2238 / Fax: - -	Phone:	310-458-2238 / Fax: - -
E-Mail:	Garrett.wong@smgov.net	E-Mail:	Garrett.wong@smgov.net

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 type="checkbox"/> N/A <input checked="" 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		General Project Tasks
2		Use Case Framework
3		Research and Selection of Distributed Energy Resources
4	X	Microgrid Modeling and Optimization
5		Business, Regulatory and Financial Models and Implementation Plan
6		Case Study, Tools and Dissemination
7		Evaluation of Project Benefits

B. Acronym/Term List

Acronym/Term	Meaning
AEC	An Advanced Energy Community (AEC) is a community based on systems integration in which energy efficiency, renewable energy generation, and smart-grid technologies meet the energy supply and demand needs of its residents and supports local grid reliability and safety. Advanced Energy Communities can be a new, reconstruction, or retrofit development of a residential, commercial, or municipal development in new, unused or underutilized lands.
BAC	In 2014, the City selected Worthe Development Group, a private developer, to develop 5.8 acres of the City-owned Bergamot Arts Center (BAC) into what is anticipated to be 250,000 square feet of art gallery, hotel, creative office, retail/restaurant and cultural/performance space. Actual development of the site would not begin until 2018, when the current lease expires.
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
City	The City of Santa Monica
CPR	Critical Project Review
CYP	The City Yards Project (CYP) is a pre-existing effort to redevelop the City Yards, the 14.7-acre site owned by the City, which houses the City's facilities maintenance, custodial services, street maintenance, fleet maintenance, traffic operations, resource recovery and recycling, water and wastewater operations, hazardous waste storage and a Fire Department training area. The site will be redeveloped in order to accommodate the incremental growth and changes of City services and operations over the years. In January 2015, the City Council voted to move forward with a \$115 million redevelopment of the industrial site to better align the operational relationships and improve the functionality of the spaces used by the City's 9 departments and agencies that occupy this site.

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.

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Acronym/Term	Meaning
CYP Team	The City Yards Project (CYP) Team consists of City staff, primarily in the Architecture Services Division, and the design-build team, which consists of a combination of subcontractors and project partners.
DER	Distributed Energy Resources
MVMHP	The Mountain View Mobile Home Park is a City-owned 4.8 acre property, located just south of the City Yards, comprised of 105 rental spaces for manufactured homes and includes common area facilities such as office/meeting space, bathrooms, laundry facilities and a small pool. All of the homes are restricted to be affordable to the low-income market. In 2010, 20 homes were replaced with prefabricated units that included 2kW of solar panels each.
SAIDI	System Average Interruption Duration Index (SCE)
SAIFI	System Average Interruption Frequency Index (SCE)
SCE	Southern California Edison
SMAED	The Santa Monica Advanced Energy District is a concept, built upon the notion of an Advanced Energy Community, in which multiple buildings on contiguous properties including and surrounding the City Yards will be integrated into a multiuser microgrid that supports onsite renewable generation, energy storage, sophisticated EV charging and controls. The City Yards, Bergamot Arts Center and the Mountain View Mobile Home Park will serve as the initial participating properties.
TAC	Technical Advisory Committee
V-2-G	Vehicle-to-Grid

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

A. Purpose of Agreement

The purpose of this Agreement is to fund the planning and design of a multiuser microgrid in Santa Monica that will incorporate renewable energy, energy storage, and electric vehicle charging. This project will plan an Advanced Energy Community based around a multiuser microgrid through partnerships with private developers and city owned properties and create a model that will lay a foundation for policy and financial frameworks to enable public and private investment in future district scale systems.

B. Problem/ Solution Statement

Problem

Advanced Energy Community (AEC) systems, such as microgrids and district energy systems (such as central plants, district heating or cooling through steam, chilled water, and/or heat recovery) struggle to be realized in the marketplace because market pressure for conventional development has outpaced regulatory reform and capital availability. Real estate developers are generally unaware of the opportunities available from these AEC systems and are also risk averse. The upfront costs and required planning are major barriers to the development of district scale AEC systems.

Solution

The Recipient intends to address these concerns by developing the Santa Monica Advanced Energy District (SMAED). The SMAED will primarily incorporate various buildings located on

Exhibit A Scope of Work

multiple City-owned lots that are adjacent to each other. The primary mechanism for realizing the SMAED will be through a multiuser microgrid (Microgrid). The City's City Yards Project (CYP), which is currently preparing to undergo redevelopment as part of a larger master plan, external to this agreement, will serve as the central core of the Microgrid. The Microgrid will maximize on-site renewable energy systems, energy storage, controls, and electric vehicle charging for City and non-City vehicles. Under this agreement, the CYP Team will coordinate and integrate the CYP redevelopment with the planning and design efforts of the Microgrid for the SMAED.

The SMAED will also incorporate non-City entities located on City-owned properties that are adjacent to the CYP: the Bergamot Arts Center (BAC) and the Mountain View Mobile Home Park (MVMHP). The BAC, located on a 5-acre site, is also slated for redevelopment by a private developer which will add commercial and residential uses. Under this agreement, the Recipient will work with the private developer to develop appropriate requirements and incentives through the entitlement and development agreement process and establish a unique partnership model by which the private buildings can be incorporated into the SMAED.

MVMHP is a mobile home community located on a 4.8-acre City-owned property, which is rented at affordable rates to 105 mobile home tenants. In 2010, 20 homes were replaced with prefabricated units that included 2 kW of solar panels each. The SMAED project team will engage with the City's Housing Division, as well as MVMHP residents, to scale-up the design of the Microgrid that can serve the needs of the MVMHP community.

A master plan for the SMAED, covering the entire area of 25.3 acres will be developed to delineate the integration and interconnection between the City, private entities and the utility.

As part of the SMAED project, the Recipient will analyze approaches and mechanisms that allow the Microgrid to scale into surrounding city owned and non-city owned developments. Financial and business models will be investigated and a portfolio of approaches will be recommended. Regulations, ordinances, and other laws will be studied and recommendations will be made as to how these could be modified to support the development of the Microgrid. Stakeholder involvement will help gain support and participation in the SMAED from surrounding non-city developments. Financial and non-financial benefits of the system will be communicated through outreach efforts.

C. Goals and Objectives of the Agreement

Agreement Goals

The goals of this Agreement are to:

- Design a Microgrid to be sited within the CYP
- Identify what facilities would be needed to support the SMAED, beyond the City Yards.
- Consider a range of Distributed Energy Resources (DER) options, including but are not limited to:
 - Solar photovoltaics
 - Combined heat and power
 - Energy storage
 - Small-scale waste-to-energy generation
 - Cogeneration options
 - Electric vehicle vehicle-to-grid (V-2-G) applications

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- Identify how local government and the electric utility can support the development of an advanced energy community, and reduce financial and regulatory barriers to successful implementation.
- Identify the best model for ownership and operation of the Microgrid.
- Identify the optimum portfolio of financing mechanisms.
- Identify what role the private sector can play.

Ratepayer Benefits:² This Agreement will result in the ratepayer benefits including enhanced energy reliability, lower energy costs, and a reduced environmental footprint including reduced greenhouse gas emissions.

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 investigating and recommending financial mechanisms that will allow the penetration of advanced community energy solutions – such as microgrids – to be implemented in urban / infill locations throughout the State. It will also recommend regulatory solutions that will help overcome current barriers to implementation.

Agreement Objectives

The objectives of this Agreement are to:

- Based on input from the CYP, SMAED project stakeholders, including the City and CYP project designers, will characterize the optimum technical solution, for the City Yards to ensure its operational needs are met, ensure a resilient and clean energy supply, ensure financial viability, and to allow the Microgrid to scale to serve the surrounding community.
- Identify energy efficiency, renewable energy, and alternative energy scenarios for the entire community that will make utilization of the Microgrid feasible for the full SMAED.
- Develop technological solutions that allows the Microgrid to be scaled-up for the entire SMAED.
- Identify energy accounting requirements between users of the Microgrid. Identify the energy accounting and tariff implications between the Microgrid and the utility company.
- Investigate public and private financing solutions and recommend a portfolio of approaches.
- Develop a framework that will enable the SMAED to be adapted and applied to other communities.

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.

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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.

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:

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- 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);
- Match fund documentation (subtask 1.7);

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- 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.

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.

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- 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.

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.

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- 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

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.

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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
- Acceptance 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.
 - 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.

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- 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.

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

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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.

- 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*)

Exhibit A Scope of Work

- 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*)

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.
- 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;

Exhibit A Scope of Work

- 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.
- 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)

Exhibit A Scope of Work

- 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 Use Case Framework

The goals of this task are to review and summarize previous efforts and studies from completed advanced energy community and Microgrid projects, and develop recommendations based on existing and historical efforts to develop community energy systems in the selected project area that achieves at or near zero-net energy.

The Recipient shall:

- Review and summarize relevant steps that have been taken in the project area to develop the SMAED and the CYP (e.g. past studies, active community organizations).
 - Review the findings and recommendations provided in the existing City Yard Master Plan Feasibility Study and Preliminary Designs that were developed previously.
 - Engage key stakeholders from the City’s Task Force on the Environment, established in 1991 by the Santa Monica City Council to advise City Council on environmental program and policy issues, by inviting members into the project TAC.
- Review previous efforts, studies, and completed advanced energy community and Microgrid projects.
- Summarize the major barriers, concerns, and solutions to developing a Microgrid. This includes:
 - Economic barriers and concerns:
 - Engage key finance stakeholders by inviting them into the project TAC. Key finance stakeholders include financial institutions, district energy operators, renewable energy companies, developers, City Economic Development Division, etc.
 - Identify the availability and limitations of financing methods.
 - Determine the areas where infrastructure modifications are required in the project area.
 - Work with local utilities to understand the existing technical engineering concerns to increasing renewable technology in the project area.
 - Regulatory barriers and concerns:
 - Engage key regulatory stakeholders by inviting them into the project TAC. Key stakeholders include utility representatives, City Building and Safety Division, City Planning Division, etc.
 - List codes, regulations and standards applicable to a community wide project in the selected area.
 - Identify known potential regulatory issues (such as crossing public rights of way).
 - Develop range of policy and economic incentives available to the City and stakeholders.
 - Social and political barriers and concerns:
 - List local community groups and neighborhood associations in the project area.
 - Engage key local community and neighborhood stakeholders by inviting them into the project TAC.

Exhibit A Scope of Work

- Identify barriers and concerns from various community and neighborhood stakeholder perspectives.
- Develop a range of community benefits that would be required to ensure project success and ongoing support.
- Develop a *Policy and Incentive Matrix* that identifies the relevant stakeholders, the primary barriers to adoption, the potential policies and incentives to barrier removal, the market impact, and the economic, regulatory, and social and political barriers as described above. Submit the *Policy and Incentive Matrix* to the CAM for approval.
- Conduct meetings, presentations, surveys, and general outreach with the stakeholders to discuss and develop a set of criteria and objectives for the SMAED. The criteria may include the relative value and importance of items such as:
 - Which DERs and energy storage technologies are preferred?
 - What are the desired economic performance targets for the Microgrid at the City Yards and the full SMAED?
 - What are the desired environmental and sustainability aspects of the SMAED, e.g. Zero Net Energy, Low Carbon, etc.?
 - What level of energy resiliency and continuity is needed/desired?
 - How will the Microgrid interact with other local infrastructure, such as vehicle charging?
- Draft a *Project Requirements Summary* for the City, that includes findings and recommendations from these previous review subtasks, including but not limited to the following:
 - Goals of the development of the CYP, including existing and newly identified goals.
 - Existing studies and organizations for the SMAED.
 - Existing regulatory, social, economic, and technical frameworks for the SMAED, including:
 - The general needs of the CYP and SMAED.
 - The functional requirements of the CYP and SMAED, including operational limits and constraints.
 - The non-functional requirements of the CYP and SMAED.
 - The transactional features, including dashboards and operational performance information that needs to be provided/available to the CYP and SMAED operators.
 - Barriers, concerns, gaps in research or outreach, and potential solutions.
 - Proposed changes or additions to the design process and case study that should be made based on these findings.
- Submit the draft *Project Requirements Summary* to the key stakeholders, TAC, and the CAM.
- Revise the *Project Requirements Summary* based on feedback from the stakeholders, TAC, and CAM, and submit the final *Project Requirements Summary* to the CAM for approval.

Products:

- Policy and Incentive Matrix
- Project Requirements Summary (draft and final)

TASK 3: RESEARCH AND SELECTION OF DISTRIBUTED ENERGY RESOURCES

The goals of this task are to identify, characterize, and score various load/demand management, storage, and supply-side technology options (collectively called DERs) for the SMAED.

Exhibit A Scope of Work

The Recipient shall:

- Research and assess a range of DERs as supply and onsite generation options available for the CYP and SMAED.
 - Research a range of DER options available to meet Agreement Goals, including but not limited to:
 - Solar photovoltaics
 - Combined heat and power
 - Energy storage
 - Small-scale waste-to-energy generation
 - Cogeneration options
 - Electric vehicle vehicle-to-grid (V-2-G) applications.
 - Develop criteria for evaluating DER options (e.g. cost, resiliency, constructability), based on the Project Requirements Summary and feedback received from the TAC in Task 2.
 - Assess and rank DER alternatives for selection against criteria.
 - Summarize and prepare a comprehensive characterization of the DER options for use in the modeling and analysis to be conducted under Task 4. This includes estimating benefits and costs and assessing DER alternatives.
 - Consider load management solutions as DER options.
- Develop and submit to the CAM and TAC, a Draft *DER Options Report* that shall include but is not limited to the following:
 - Description of the major DER options/solutions.
 - Description of DER planning, regulatory, and permitting solution(s), including:
 - The range of permitting and planning options available with the various DERs.
 - Criteria developed for evaluation.
 - An assessment of options for DER selection against the developed criteria.
 - A ranked list of DER options, preferences, and characteristics to be included in the modeling to be performed under Task 4.
- Provide a *Summary of the Draft DER Options Report Presentation* to key stakeholders for their review and feedback and submit it to the CAM for approval.
- Revise the *DER Options Report* based on feedback from the key stakeholders, TAC, and CAM.
- Submit a final *DER Options Report* to the CAM for approval.

Products:

- DER Options Report (draft and final)
- Summary of the Draft DER Options Report Presentation

TASK 4: MICROGRID MODELING AND OPTIMIZATION

The goal of this task is to create several models (i.e. scenarios) of the Microgrid using standard microgrid analysis and design software. Specifically, generation and storage modeling will be conducted to match the individual loads and demand profiles of the City and local participants' facilities, using inputs provided by key stakeholders.

The Recipient shall:

- Conduct energy modeling and identify baseline load.

Exhibit A Scope of Work

- Review and document Southern California Edison's (SCE) existing electrical service costs and usage for City and private entity's facilities invited by the Recipient for participation in the Microgrid.
 - These entities include the owner-operator of the BAC property that will remain or be redeveloped and the residents of the MVMHP.
 - The Recipient will request that project stakeholders submit release forms to SCE in order to provide the project team with demand and consumption data. If data is not available, then the project team will utilize industry averages and information from sources like the End Use Survey.
- Gather reliability statistics (e.g., SAIDI, SAIFI, etc.) for the previous 5-10 years within the substation area.
- Perform energy modeling and baseline/growth establishment of the new City Yard buildings as well as the non-City building loads.
- Refine and document desired City and participant level of resiliency (time/scale) using the Project Requirements from Task 2.
- Conduct generation modeling.
 - Model distributed energy generation options to meet resilience criteria, including the following options:
 - Roof top photovoltaics
 - Fuel cells
 - EV storage applications including V-2-G
 - Waste-to-energy (if applicable to the community/stakeholder members)
 - Integrated transport energy opportunities (e.g., such as bus and light-rail power coupling)
 - Water-system coupled resources
 - Develop final concepts for energy generation and resiliency. The results of the DER (generator) modeling shall include but not be limited to:
 - Technology assessed
 - Suitability
 - Any particular issues that resulted
 - Permitting and interconnection
 - Scale required for the project
 - Economic analysis and business case
 - Conduct Energy Storage Modeling. Model energy storage options for the Microgrid to meet resilience criteria, including but not limited to: chemical/flow batteries, compressed and liquid air, and thermal energy storage. *The HOMER Pro⁴ software will be used for this modeling effort.* The results of the energy storage modeling shall include:
 - Technology assessed
 - Suitability
 - Any particular issues that resulted
 - Permitting and interconnection
 - Scale required for the project
 - Economic analysis and business case
- Describe and define the available and optimal technical solution(s):
 - Overall solution: describe how sub-systems and solutions interact to form the overall solution, describing benefits and drawbacks of this integration and how the overall solution meets the identified goals of the work.

⁴ From HOMER Energy LLC

Exhibit A Scope of Work

- Energy generation systems: describe service, capacity, location(s), operations and use cases, and ancillary benefits (e.g. assistance towards stated goals for renewable energy, concerns about local density of renewables).
- Energy storage systems: describe service, capacity, location(s), operations and use cases, and ancillary benefits (e.g. reduction in necessary demand capacity due to storage, increased resiliency).
- Supporting infrastructure: describe location and boundaries, service, and purpose.
- Electrical, Mechanical, and Water systems: describe service, capacity, location(s) and boundaries, operations and use cases, and ancillary benefits.
- Estimate costs and financial implications for all technical solutions.
- Submit the final *Microgrid Models* conducted above to the CAM.
- Draft the *Santa Monica Advanced Energy District Technical Options Report* based off the results of the modeling analyses, optimization, and feasibility of the available options conducted in earlier subtasks. This report shall include, but not be limited to, the following:
 - A summary, discussion, and rationale for each of the primary elements of the SMAED, including the Microgrid.
 - A preliminary schematic design of up to five (5) microgrid options, along with a weighted ranking of each, based on the Project Requirements Summary provided in Task 2.
 - Significant economic results (capital cost, net present value, life-cycle costs, etc.), for each option.
- Submit the *Draft Santa Monica Advanced Energy District Technical Options Report* to key stakeholders (e.g., City Yards Design-Build team and the BAC private developer) and the CAM for review and comment.
- Present a *Summary of the Santa Monica Advanced Energy District Technical Options Report Presentation* to the TAC and key stakeholder groups as recommended by the TAC.
- Submit the *Final Santa Monica Advanced Energy District Technical Options Report* based on stakeholder, TAC, and CAM feedback.
- Prepare a *CPR Report* and participate in a CPR Meeting, per subtask 1.3.

Products:

- Microgrid Models
- Santa Monica Advanced Energy District Technical Options Report (draft and final)
- Summary of the Santa Monica Advanced Energy District Technical Options Report Presentation
- CPR Report

TASK 5: BUSINESS, REGULATORY, AND FINANCIAL MODELS AND IMPLEMENTATION PLAN

Exhibit A Scope of Work

The goals of this task are to assess potential business and financial models, and develop an implementation plan for the SMAED. The implementation plan will include recommendations for the most optimized approach that keeps costs low, manages risks, and generates public benefits. Life cycle cost assessments on various technical options will be conducted to determine the preferred advanced energy community system (comprised of preferred individual components). Additionally, potential delivery mechanisms (e.g., governance structures, business models, financing options, and mix and match options) will be evaluated to determine the optimal delivery mechanism. Finally, high level market sounding will be conducted to evaluate the potential market for the delivery options being considered.

The Recipient shall:

- Evaluate different project governance/legal structures, including but not limited to: 501(c)(3)s, community facilities districts (CFD), business improvement districts (BIDs), joint powers authority (JPA), or a combination of the above.
- Evaluate different business models/ownership structures, including but not limited to: public-private partnerships, public, and private ownership.
- Evaluate different delivery and financing solutions.
 - Identify a range of financing options available, including but not limited to: public financing options (enhanced infrastructure financing districts, assessment districts, lease-revenue bonds, etc.) and private financing options (private bonds, commercial debt, equity, etc.).
 - Develop criteria for evaluation.
 - Assess options for selection against criteria.
 - Identify viable delivery methods (e.g., governance structures, business models, financing options, and procurement methods).
 - Review options for individual assets and combinations of assets.
 - Conduct risk assessment for project design and delivery, including but not limited to: technology, design, construction, permitting, rights of way and environmental, interfaces, service quality and performance, contractor and supplier performance.
 - Perform qualitative and quantitative comparison of delivery options, matching risk profile for owners and/or customers with the appropriate delivery model.
 - Develop and submit a *Strategic Roadmap for Implementation*.
 - Conduct high level market research on financing sources, alternatives, trends and pricing.
 - Conduct high level market sounding with potential developers to evaluate the viability of the delivery models considered.
- Develop a *Project Delivery Concept* that includes the analysis defined in the subtasks above, defines the preferred governance structure and business model, and the preferred financing strategy and revenue model for assessment of delivery options.
- Develop the *Santa Monica Advanced Energy District Implementation Plan* that matches the timeline and scheduling of the CYP and BAC redevelopment activities. As appropriate, the plan will include, but not be limited to the following:
 - Maps, graphics, diagrams, and schematics.
 - Design and construction schedule, including: key events and estimated dates, equipment schedules, key decision points, possible delay points and methods to correct those delays.
 - Discussion of the critical design and construction processes, equipment, facilities, personnel resources, and support systems needed to produce a commercially viable Microgrid.

Exhibit A Scope of Work

- A projected life cycle cost assessment for the design, procurement, installation and operation of the SMAED Microgrid. This will be included in the *Santa Monica Advanced Energy District Implementation Plan*.
- The expected investment and ownership criteria necessary to implement the full Microgrid.
- Data on potential job creation, market potential, economic development, increased state revenue as a result of expected future expansion, and other non-energy benefits of the SMAED.
- An estimate of the Microgrid's energy savings and other benefits, as well as potential statewide energy savings for replicability in other jurisdictions.
- Submit a *Draft Santa Monica Advanced Energy District Implementation Plan* to key stakeholders and the CAM for review and comment.
- Provide a *Summary of the Santa Monica Advanced Energy District Implementation Plan Presentation* to the TAC and key stakeholder groups as recommended by the TAC for comment.
- Submit the *Final Santa Monica Advanced Energy District Implementation Plan* based on TAC, stakeholder, and CAM feedback and submit it to the CAM for final approval.

Products:

- Project Delivery Concept
- Strategic Roadmap for Implementation
- Santa Monica Advanced Energy District Implementation Plan (draft and final)
- Summary of the Santa Monica Advanced Energy District Implementation Plan Presentation

TASK 6: CASE STUDY, TOOLS, AND DISSEMINATION

The goals of this task are to develop a detailed case study and tools to assist governments, developers, and similar entities; to disseminate this information through strategic outreach in order to make the knowledge gained, experimental results, and lessons learned available to the public and key decision makers; and finally to encourage the development of other advanced energy communities in the state.

The Recipient shall:

- Develop *Draft AEC Development Tools*, to assist public departments, developers, and other EPIC Challenge recipients to better review and process future submittals that support an advanced energy community. Examples of tools include:
 - Technical modeling tools to assist in sizing of advanced energy systems.
 - Financial tools to improve forecasting and financing exercises for community energy projects.
 - Planning and permitting guidelines and best practices manuals to improve processing times and reduce the number of errors.
- Develop a *Draft Case Study*, including but not limited to the following components.
 - Financing and Business methods: provide recommended financial and business method(s) to support the selected project area and advanced energy communities in general, focusing on easily reproducible methods.
 - Policies: describe policies that enable development of advanced energy communities, and recommendations for how to encourage adoption of such policies.
 - Permitting and Planning methods: provide recommended method(s) for building and planning departments, and developers, to encourage quick and streamlined planning, permitting, and development of advanced energy communities.

Exhibit A Scope of Work

- Energy and Technical methods: highlight recommended technical solutions for the development of advanced energy communities, discuss availability and market penetration of key technologies and solutions, and estimate general solution energy savings and other benefits (e.g. greenhouse gas reductions).
- Implementation: provide a comprehensive generic roadmap for implementation of all recommended methods and solutions, including general timelines.
- Submit the Draft Case Study and Draft AEC Development Tools to key stakeholders and the CAM for review.
- Develop a *Draft Outreach Strategy and Outreach Materials* to disseminate the Case Study and its findings to stakeholders and the general public.
 - Create outreach materials such as informational bulletins, flyers, email “blasts”, presentation materials, best practices manuals or guidelines, and web-based bulletins or advertisements.
 - Plan informational events such as, but not limited to: presentations, webinars, training sessions with building and planning departments, and meetings with community groups.
- Prepare and present a *Summary of the Draft Case Study, Draft AEC Development Tools, and Draft Outreach Strategy* presentation design concept to the TAC and to key stakeholder groups as recommended by the TAC.
- Prepare and submit the *Final Case Study* and the *Final AEC Development Tools* based on TAC, stakeholder, and CAM feedback.
- Finalize the *Outreach Strategy and Outreach Materials*, based on TAC, stakeholder, and CAM feedback, and submit to the CAM for final approval.
- Implement the Outreach Strategy.
 - Distribute finalized Outreach Materials and the finalized Case Study electronically, and in hard copy form, in accordance with the approved Outreach Strategy.
 - Advertise and hold informational events as planned in the Outreach Strategy.
- Prepare an *Initial Fact Sheet* at the 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.
- 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.

Exhibit A Scope of Work

- Prepare a *Technology/Knowledge Transfer Report* on technology transfer activities conducted during the project.

Products:

- AEC Development Tools (draft and final)
- Case Study (draft and final)
- Outreach Strategy and Outreach Materials (draft and final)
- Summary of the Draft Case Study, Draft AEC Development Tools, and Draft Outreach Strategy Presentation
- Initial Fact Sheet (draft and final)
- Final Project Fact Sheet (draft and final)
- Presentation Materials (draft and final)
- Technology/Knowledge Transfer Plan (draft and final)
- Technology/Knowledge Transfer Report (draft and final)

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.
 - 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

V. Project Schedule

Please see attached Excel spreadsheet.

To: Office of Planning and Research
 PO Box 3044
 1400 Tenth Street, Room 113
 Sacramento, CA 95812-3044

From: California Energy Commission
 1516 Ninth Street, MS-48
 Sacramento, CA 95814

Project Applicant: City of Santa Monica

Project Title: Santa Monica Advanced Energy District

Project Location:

Address	City	County
2500 Michigan Ave	Santa Monica 90404	Los Angeles
2525 Michigan Ave	Santa Monica 90404	Los Angeles
1930 Stewart St	Santa Monica 90404	Los Angeles

Description of Nature, Purpose and Beneficiaries of Project:

The purpose of this project is to plan and design a microgrid in Santa Monica that will incorporate renewable energy, energy storage, and electric vehicle charging. This project will develop an Advanced Energy Community based around a multiuser microgrid through partnerships with private developers and city owned properties and create a model that will lay a foundation for policy and financial frameworks to enable public and private investment in future district scale systems.

Name of Public Agency Approving Project: California Energy Commission

Name of Person or Agency Carrying Out Project: City of Santa Monica

Exempt Status: *(check one)*

- Ministerial Exemption (Pub. Resources Code § 21080(b)(1); Cal. Code Regs., tit 14, § 15268);
- Declared Emergency (Pub. Resources Code § 21080(b)(3); Cal. Code Regs., tit 14, § 15269(a));
- Emergency Project (Pub. Resources Code § 21080(b)(4); Cal. Code Regs., tit 14, § 15269(b)(c));
- Categorical Exemption. State type and section number
15306 Information Collection
- Statutory Exemptions. State code number. 15262 Feasibility and Planning Studies
- Common Sense Exemption. (Cal. Code Regs., tit 14, §15061(b)(3))

Reasons why project is exempt:

14 CCR Section 15306 Information Collection Exemption: 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.

14 CCR 15262 Feasibility and Planning Studies: This agreement will fund feasibility and planning studies for possible development of an advanced energy community which has not been approved, adopted, or funded by an agency, board, or commission and will not result in the adoption of a plan that will have a legally binding effect on later activities.

14 CCR 15061 Common Sense Exemption: 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.

Lead Agency

Contact Person: Rachel Salazar **Area code/Telephone/Ext:** 916-445-5316

If filed by applicant:

- 1. Attach certified document of exemption finding.
- 2. Has a Notice of Exemption been filed by the public agency approving the project? Yes No

Signature: _____ **Date:** _____ **Title:** _____

Signed by Responsible Agency

Signed by Lead Agency

Signed by Applicant

Date received for filing at OPR: _____

RESOLUTION NUMBER 10963 (CCS)
(City Council Series)

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SANTA MONICA
AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND TO ENTER INTO A
GRANT AGREEMENT WITH THE CALIFORNIA ENERGY COMMISSION FOR
AWARD UNDER THE GRANT FUNDING OPPORTUNITY GFO-15-312

WHEREAS, the California Energy Commission released GFO-15-312 "Accelerating the Deployment of Advanced Energy Communities" inviting applicants to submit projects that would amongst other things: minimize the need for new energy infrastructure; provide energy savings by achieving and maintaining zero net energy community status; support grid reliability and resiliency by incorporating technologies such as energy storage; provide affordable access to renewable energy generation, energy efficiency upgrades, and water efficiency and reuse technologies that reduce electricity consumption for all electric ratepayers within the community; and make use of smart-grid technologies throughout the community; and

WHEREAS, on February 17, 2016, the City of Santa Monica submitted an application entitled, Santa Monica Advanced Energy District, in which the City would design and develop a multi-user microgrid based at its City Yards facility and work with stakeholders to extend the benefits of the microgrid beyond the facility ("Project"); and

WHEREAS, the application submitted to the California Energy Commission included a budget not to exceed \$1,487,609 for the planning and design of Phase 1 of the Project; and

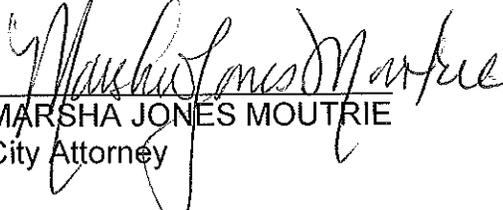
WHEREAS, on March 25, 2016, the California Energy Commission issued a Notice of Proposed Awards awarding the City a grant in the amount of \$1,487,609.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SANTA MONICA DOES RESOLVE AS FOLLOWS:

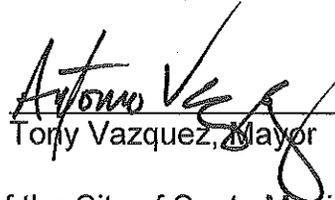
SECTION 1. The City Council of the City of Santa Monica authorizes the City Manager to negotiate and execute any agreements and amendments thereto to accept a grant from the California Energy Commission under GFO-15-312 for the Santa Monica Advanced Energy District award in an amount of \$1,487,609.

SECTION 2. The City Clerk shall certify to the adoption of this Resolution, and thenceforth and thereafter the same shall be in full force and effect.

APPROVED AS TO FORM:


MARSHA JONES MOUTRIE
City Attorney

Adopted and approved this 14th day of June, 2016.



Tony Vazquez, Mayor

I, Denise Anderson-Warren, City Clerk of the City of Santa Monica, do hereby certify that the foregoing Resolution No. 10963 (CCS) was duly adopted at a meeting of the Santa Monica City Council held on the 14th day of June, 2016, by the following vote:

AYES: Councilmembers Himmelrich, Davis, McKeown, O'Connor,
Mayor Pro Tem Winterer, Mayor Vazquez
NOES: None
ABSENT: Councilmember O'Day

ATTEST:



Denise Anderson-Warren, City Clerk

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: CITY OF SANTA MONICA

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-16-008 with the City of Santa Monica for a \$1,487,609 grant to plan and design a microgrid in Santa Monica that will incorporate renewable energy, energy storage, and electric vehicle charging. This project will develop an Advanced Energy Community based around a multiuser microgrid through partnerships with private developers and city owned properties and create a model that will lay a foundation for policy and financial frameworks to enable public and private investment in future district scale systems; 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 August 10, 2016.

AYE: [List of Commissioners]

NAY: [List of Commissioners]

ABSENT: [List of Commissioners]

ABSTAIN: [List of Commissioners]

Cody Goldthrite,
Secretariat