

CALIFORNIA ENERGY COMMISSION

68-0022994

Federal ID Number

A)New Agreement # EPC-21-021 (to be completed by CGL office)

B) Division	Agreement Manager:	MS-	Phone
ERDD	Rachel Salazar	51	916-776-0806

C) Recipient's Legal Name

ConSol

D) Title of Project

Reimagining Affordable Mixed-Use Development in a Carbon-Constrained Future

E) Term and Amount

Start Date	End Date	Amount
5/15/2022		\$ 999,936

F) Business Meeting Information

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

Proposed Business Meeting Date 4/26/2022
Consent
Discussion

Business Meeting Presenter Anthony Ng Needed: 5 minutes

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

Agenda Item Subject and Description:

ConSol. Proposed resolution approving Agreement EPC-21-021 with ConSol for a \$999,936 grant to design an all-electric, mixed-use, 100 percent affordable housing development in Woodland, and adopting staff's determination that this action is exempt from CEQA. The project will incorporate innovative energy efficiency measures and clean energy technologies, and provide shared electric transportation to create an environmentally friendly neighborhood for residents. The project team will solicit feedback from the community and other key stakeholders to help inform options for the non-residential space. The project team will coordinate with partners to provide future residents with opportunities for local employment training and workforce development. (EPIC funding) Contact: Anthony Ng.

G) California Environmental Quality Act (CEQA) Compliance

- 1. Is Agreement considered a "Project" under CEQA?
 - \boxtimes 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) \boxtimes Agreement **IS** exempt.
 - Statutory Exemption. List PRC and/or CCR section number: Cal. Code Regs. tit. 14, § 15262
 - Categorical Exemption. List CCR section number:
 - Common Sense Exemption. 14 CCR §§ 15262, 15061 (b) (3)

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Explain reason why Agreement is exempt under the above section:

The grant agreement will fund feasibility, design, and planning studies for an all electric, mixed-use development, which has not been approved, adopted, or funded by the CEC, and which will not result in the adoption of a plan that will have a legally binding effect on later activities. This falls within title 14, Cal. Code Regs. tit. 14, § 15262, Feasibility and Planning Studies: The CEC has considered environmental factors.

The grant agreement will fund the design of a mixed-use development project and the improvement of methods for possible use in advanced energy development efforts (e.g., planning, architectural, and engineering work). Activities will include information collection, research, design, and energy and emissions analyses. Activities will also include economic analysis, preparation of conceptual drawings and design plans, performance modeling, and construction feasibility analysis.

No construction or changes to the physical environment will be funded by the grant or occur during the design and analysis work. The design activities will take place in existing office buildings, and professionals will visit the proposed development site. Therefore, there is no possibility that the activities may have a significant effect on the environment.

The grant agreement is covered by the common sense exemption that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. This falls within title 14, Cal. Code Regs. tit. 14, § 15061(b)(3), Common Sense Exemption.

- b) Agreement **IS NOT** exempt. (consult with the legal office to determine next steps)
 - Check all that apply
 - Initial Study
 - Negative Declaration

Mitigated Negative Declaration

Environmental Impact Report

Statement of Overriding Considerations

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

Legal Company Name:	Budget
Swell Energy Inc.	\$ 99,999
Nuvve Holding Corp.	\$ 50,000
Envoy Technologies, Inc.	\$ 50,000
Skysource	\$ 25,000
The Regents of the University of California, on Behalf of the Davis Campus,	\$ 50,000
Center for Regional Change	
California Coalition for Rural Housing Project	\$ 50,000
John H. Hodgson (DBA The Hodgson Company)	\$ 85,000
Bardis & Miry Development, LLC	\$ 80,000
BSB Design, Inc.	\$ 30,000
Community Energy Labs	\$ 175,482



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

Legal Company Name:

J) Budget Information

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
EPIC	20-21	301.001H	\$999,936

R&D Program Area: EDMFO: EDMF

Explanation for "Other" selection

Reimbursement Contract #:	Federal Agreement #:
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K) Recipient's Contact Information

1. Recipient's Administrator/Officer

Name: Kodie Baig
Address: 1610 R St Ste 200
Suite 200
City, State, Zip: Sacramento, CA 95811-6682
Phone: 310-990-9514
E-Mail: kbaig@consol.org

2. Recipient's Project Manager

TOTAL: \$ 999,936

Name: Kodie Baig Address: 1610 R St Ste 200 Suite 200 City, State, Zip: Sacramento, CA 95811-6682 Phone: 310-990-9514 E-Mail: kbaig@consol.org

L) Selection Process Used

Competitive Solicitation Solicitation #: GFO-20-305

First Come First Served Solicitation Solicitation #:

Non-Competitive Bid Follow-on Funding (SB 115)

M) The following items should be attached to this GRF

- 1. Exhibit A, Scope of Work
- 2. Exhibit B, Budget Detail
- 3. CEC 105, Questionnaire for Identifying Conflicts
- 4. Recipient Resolution 🛛 N/A
- 5. CEQA Documentation X/A

- Attached
- Attached
- Attached
- Attached
- Attached



CALIFORNIA ENERGY COMMISSION

Agreement Manager	Date
Office Manager	Date

Deputy Director

Date

I. TASK ACRONYM/TERM LISTS

A. Task List

Task #	CPR ¹	Task Name
1		General Project Tasks
2		Community Engagement
3	Х	Design Development
4		Controls Hierarchy and Integration Design
5		Measurement and Verification Plan Development
6		Review of Anticipated Project Costs and Funding
7		Evaluation of Project Benefits
8		Technology/Knowledge Transfer Activities
9		Build Phase Selection

B. Acronym/Term List

Acronym/Term	Meaning
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CPR	Critical Project Review
TAC	Technical Advisory Committee

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.

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

A. Purpose of Agreement

The purpose of this Agreement is to fund the design of an all-electric, mixed-use development that addresses both greenhouse gas emissions and rising housing costs. This development must be designed to demonstrate a scalable pathway to zero-emission mixed-use development that is technically and economically feasible, takes advantage of advanced building design and construction practices, and provides Californians of all income levels with access to safe, healthy, affordable, and desirable living environments.

B. Problem/ Solution Statement

Problem

Greenhouse gas emissions must be dramatically reduced to mitigate projected catastrophic impacts from climate change. Building decarbonization must be employed to support California's state and local government aggressive energy policy and zero emission goals. Simultaneously, California's housing affordability crisis is blocking 50 percent of households from living in the area where they work.

Solution

This all-electric, mixed-use affordable housing development concept is design to be 100 percent affordable to qualified low-income renters, incorporate state-of-the art energy efficient solutions, incorporate flexible load management controls, provide shared electric transportation, and showcase emerging innovative clean energy technologies to create an environmentally friendly neighborhood for residents.

To provide a viable, scalable, plug-and-play zero-emissions pathway for mixed-use development, the design will include several key emerging energy technologies. The following technologies will be assessed for inclusion in the final design: a wood-to-energy deployed water system, vehicle-to-grid charging station, and demand response services. Additionally, plug-in battery storage units for each of the residential units will be explored to create four tiers of critical load resilience and enhance the aggregated energy storage demand response capability.

C. Goals and Objectives of the Agreement

Agreement Goals

The goals of this Agreement are to:

• Benefit California investor-owned electric utility ratepayers by increasing reliability, lowering costs, and increasing safety through four tiers of critical load resilience.

- Lead to technological advancement and breakthroughs that overcome barriers to achieving the state's statutory energy goals through integration of both existing and emerging zero-emission technologies.
- Increase access to affordable housing in an innovative mixed-use development within walking and biking distance of new jobs, shared community space, and electric vehicle car sharing.

<u>Ratepayer Benefits</u>:² This Agreement will result in the ratepayer benefit(s) of greater electricity reliability, lower costs, or increased safety by providing 1) distributed energy resources that have a high degree of redundancy so that a single failure of any part of the system can be tolerated, 2) real time energy monitoring of all circuits to provide actionable feedback to tenants and to identify energy reduction opportunities and energy "leaks," as well as use of artificial intelligence to monitor and optimize energy usage behaviors; and 3) zero up-front economic investment to tenants to clean power generation and management.

<u>Technological Advancement and Breakthroughs</u>:³ This Agreement will lead to technological advancement and breakthroughs that overcome barriers to the achievement of the State of California's statutory energy goals by focusing on the scalability of the project regardless of the region. Each commercially available and pre-commercial technology selected for the project is orchestrated and balanced in a novel, scalable, and resilient manner. Project elements are designed for reproducibility, leveraging both the selected technologies and alternate distributed energy resources depending on the climate, local topographies, the community, and the space constraints of future projects. Implementation of flexible load management controls abstract the source of clean energy. The project will provide vital technology integration and demonstration data that will be studied, analyzed, and disseminated by our consortium of university and regional partners to create new best practices to achieve goals identified by the CEC.

Agreement Objectives

The objective of this Agreement is to provide uninterrupted, equitable access to clean energy, clean drinking water, and clean transportation.

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).

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)**. All products submitted which will be viewed by the public, must comply with the accessibility requirements of Section 508 of the federal Rehabilitation Act of 1973, as amended (29 U.S.C. Sec. 794d), and regulations implementing that act as set forth in Part 1194 of Title 36 of the Federal Code of Regulations. All technical tasks should include product(s). 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 California Energy Commission's (CEC) 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.

The following describes the accepted formats for electronic data and documents provided to the CEC 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.
- 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 CEC'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 CEC 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 <u>administrative portion</u> of the meeting will include discussion of the following:

- Terms and conditions of the Agreement;
- Invoicing and auditing procedures;
- Administrative products (subtask 1.1);
- CPR meetings (subtask 1.3);
- Match fund documentation (subtask 1.7);
- Permit documentation (subtask 1.8);
- Subcontracts (subtask 1.9); and
- Any other relevant topics.

The <u>technical portion</u> 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 (subtask 1.5);
- Final Report (subtask 1.6);
- Technical Advisory Committee meetings (subtasks 1.10 and 1.11); and
- Any other relevant topics.
- Provide *Kick-off Meeting Presentation* to include but not limited to:
 - Project overview (i.e. project description, goals and objectives, technical tasks, expected benefits, etc.)
 - Project schedule that identifies milestones
 - o List of potential risk factors and hurdles, and mitigation strategy
- Provide an *Updated Project Schedule, Match Funds Status Letter,* and *Permit Status Letter,* 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:

- Kick-off Meeting Presentation
- Updated Project Schedule (*if applicable*)
- Match Funds Status Letter (subtask 1.7) (if applicable)
- Permit Status Letter (subtask 1.8) (*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 CEC 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 CEC 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 CEC.

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 CEC, 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 and submit 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.
- 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* with 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)

CAM Products:

- CPR Agenda
- 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 CEC 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 procured equipment.
 - The CEC'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 copies of *All Final Products* on a USB memory stick, organized by the tasks in the Agreement.

Products:

- Final Meeting Agreement Summary (*if applicable*)
- Schedule for Completing Agreement Closeout Activities
- All Final 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 Funds 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. When creating the Final Report Outline and the Final Report, the Recipient must use the CEC 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 *Energy Commission Style Manual* provided by the CAM.

Recipient Products:

• Final Report Outline (draft and final)

CAM Product:

- Energy Commission 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, Energy Commission 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)
- Submit a draft of the Executive Summary to the TAC for review and comment.

- Develop and submit a *Summary of TAC Comments on Draft Final Report* received on the Executive Summary. For each comment received, the recipient will identify in the summary the following:
 - Comments the recipient proposes to incorporate.
 - Comments the recipient does propose to incorporate and an explanation for why.
- 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.
- Incorporate all CAM comments into the *Final Report*. If the Recipient disagrees with any comment, provide a *Written Responses to Comments* explaining why the comments were not incorporated into the final product.
- Submit the revised *Final Report* electronically with any Written Responses to Comments within 10 days of receipt of CAM's Written Comments on the Draft Final Report, unless the CAM specifies a longer time period or approves a request for additional time.

Products:

- Summary of TAC Comments on Draft Final Report
- Draft Final Report
- Written Responses to Comments (*if applicable*)
- 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 CEC 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 <u>no match funds</u> were part of the proposal that led to the CEC 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 CEC 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.
 - If different from the solicitation application, provide 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 <u>no permits</u> 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*)
- 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.

- 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 each 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.
- Help set the project team's goals and contribute to the development and evaluation of its statement of proposed objectives as the project evolves.
- Provide a credible and objective sounding board on the wide range of technical and financial barriers and opportunities.
- Help identify key areas where the project has a competitive advantage, value proposition, or strength upon which to build.
- Advocate, to the extent the TAC members feel is appropriate, on behalf of the project in its effort to build partnerships, governmental support and relationships with a national spectrum of influential leaders.
- Ask probing questions that insure a long-term perspective on decision-making and progress toward the project's strategic goals.

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.
- 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.

The TAC shall:

- Help set the project team's goals and contribute to the development and evaluation of its statement of proposed objectives as the project evolves.
- Provide a credible and objective sounding board on the wide range of technical and financial barriers and opportunities.

- Help identify key areas where the project has a competitive advantage, value proposition, or strength upon which to build.
- Advocate on behalf of the project in its effort to build partnerships, governmental support and relationships with a national spectrum of influential leaders.
- Ask probing questions that insure a long-term perspective on decision-making and progress toward the project's strategic goals.
- Review and provide comments to proposed project Draft Technology Transfer Plan.

Products:

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

Subtask 1.12 Project Performance Metrics

The goal of this subtask is to finalize key performance targets for the project based on feedback from the TAC and report on final results in achieving those targets. The performance targets should be a combination of scientific, engineering, techno-economic, and/or programmatic metrics that provide the most significant indicator of the research or technology's potential success.

- Complete and submit the project performance metrics from the *Initial Project Benefits Questionnaire*, developed in the Evaluation of Project Benefits task, to the CAM.
- Present the draft project performance metrics at the first TAC meeting to solicit input and comments from the TAC members.
- Develop and submit a *TAC Performance Metrics Summary* that summarizes comments received from the TAC members on the proposed project performance metrics. The *TAC Performance Metrics Summary* will identify:
 - TAC comments the Recipient proposes to incorporate into the *Initial Project* Benefits Questionnaire, developed in the Evaluation of Project Benefits task.
 - TAC comments the Recipient does not propose to incorporate with and explanation why.
- Develop and submit a *Project Performance Metrics Results* document describing the extent to which the Recipient met each of the performance metrics in the *Final Project Benefits Questionnaire*, developed in the Evaluation of Project Benefits task.
- Discuss the Project Performance Metrics Results at the Final Meeting.

Products:

- TAC Performance Metrics Summary
- Project Performance Metrics Results

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: COMMUNITY ENGAGEMENT

The goals of this task are to deploy multiple communication strategies to engage the local community, affordable housing stakeholders, and utility stakeholders for feedback. Another goal is to evaluate the use of additional community engagement activities targeting local vulnerable and disadvantaged populations.

- Develop at least one draft *Community Survey* to gather input from the community. Work with community partners to revise the survey(s) as necessary before finalizing.
- Implement community engagement through the following activities:
 - Conduct community survey(s) through which community members can share needs, identify opportunities, and provide feedback on specific components of the project.
 - Provide presentation(s) on community engagement plans to community members and stakeholders.
 - Plan and conduct at least three meetings to openly discuss and engage with stakeholders representing various community-based organizations, local governmental agencies, and local businesses to understand their needs.
- Solicit feedback and action items from the following stakeholders:
 - Pacific Gas and Electric Company
 - CEC CAM
 - City of Woodland
 - Other potential stakeholders
- Lead at least one formal community workshop and focus group with prospective affordable housing residents.
- Provide a *Summary of Initial Key Stakeholder Engagement and Action Items* which includes a summary of the responses from the community surveys as well as the presentation materials, input received, and action items identified during the meetings, workshops, and focus groups conducted during this task.
- Evaluate and develop an *Additional Community Engagement Activities Plan* in partnership with local nonprofits and community stakeholders, to include but not be limited to:

- Affirmative marketing strategies or plans targeting nearby neighborhoods with residents that are low-income and/or populations that are located in vulnerable or disadvantaged areas as defined by state statute.
- Funding and partnering with a community-based organization or service provider with a history of working in the local community to conduct displacement prevention work.
- Funding a community multi-lingual tenant legal counseling service.
- Implementation of an overlay zone to protect and assist small businesses.
- Establishment of a small business advocate office and single point of contact for every small business owner.
- Creation and maintenance of a small business alliance.
- o Increased visibility of the jurisdiction's small business assistance programs.
- Formal program to ensure that a specified proportion of a jurisdiction's purchases of goods and services come from local businesses.
- Prioritization of Minority and Women Business Enterprises for public contracting.

Products:

- Community Survey(s) (draft and final)
- Summary of Initial Key Stakeholder Engagement and Action Items
- Additional Community Engagement Activities Plan

TASK 3: DESIGN DEVELOPMENT

The goal of this task is to develop the final design for the project by defining baseline and optimized use cases for both the residential and commercial spaces of the mixed-use development.

- Define technical equipment performance specifications and configuration options, including but not limited to:
 - Cost effectiveness
 - o Resiliency
 - Performance efficiency
 - Integration complexity and considerations
- Model both commercial and residential use cases using the following tools:
 - Simulate baseline energy consumption using 8760 data from EnergyPro or similar energy use modeling tools.
 - Energy use impacts analysis based on varying equipment performance and configuration options.
 - Define Baseline and Optimized Use Cases, to include the following:
 - Evaluation of system costs versus economic impacts, such as bill savings.
 - Simulation of energy storage and solar use cases using various modeling tools, including but not limited to Python, Genability rates database, Excel, PV Watts, and Aurora Solar.

• Revise and finalize a variety of use cases characterized by different use scenarios, including but not limited to resiliency, demand reduction, bill savings, and cost effectiveness. Document these in a *Summary of Use Case Simulation Findings*.

Products:

- Baseline and Optimized Use Cases (draft and final)
- Summary of Use Case Simulation Findings

TASK 4: CONTROLS HIERARCHY AND INTEGRATION DESIGN

The goal of this task is to develop a control hierarchy suitable to multiple energy-related use cases, dynamic pricing and/or grid signals, and scenarios such as demand response, peak shaving, overall building energy efficiency, and "charging up" energy storage systems combined with non-critical load shedding in anticipation of a potential outage ride-through using a microgrid technologies as backup.

The Recipient shall:

- Develop a controls hierarchy and draft a *Functional Hierarchy Diagram*, to include:
 - Defined use cases, control strategies and impact on occupant thermal comfort.
- Work with an energy modeler to assess the potential impact of various control strategies on use cases, load shape, and energy objectives.
- Examine assumptions regarding application programming interfaces, user interaction and interfaces. Test with equipment manufacturers, TAC, and community focus groups, and integrate feedback into the diagram.
- Assess the extent to which controls used in the building are anticipated to be compatible with existing platforms such as the CEC MIDAS rates database and IEEE 2030.5 (for the technology controls platform), CTA-2045b (for heat pump water heaters), and OpenADR2.0b (for HVAC and/or whole-building controls).
- Finalize Functional Hierarchy Diagram.

Products:

• Functional Hierarchy Diagram (draft and final)

TASK 5: MEASUREMENT AND VERIFICATION PLAN DEVELOPMENT

The goal of this task is to develop the Measurement and Verification plan for the project based on the final controls hierarchy, integration, and use cases.

- Develop a *Measurement and Verification Plan* to validate the impact on energy consumption based on the following:
 - Equipment
 - Use cases

- Controls
- Identify the key data metrics and how these will be quantified.
- Finalize controls hierarchy.
- Incorporate findings into a formal *Measurement and Verification Plan.*

Products:

• Measurement and Verification Plan (draft and final)

TASK 6: REVIEW OF ANTICIPATED PROJECT COSTS AND FUNDING

The goal of this task is to review the anticipated project costs and available funding and incentives for both the building development and the technology components to assess ratepayer benefits and project economic feasibility following design, community/stakeholder feedback, and use case simulation testing.

The Recipient shall:

- Draft and finalize a *Building Funding Plan,* incorporating a review of building project costs and funding elements, including:
 - Building funding for match funds
 - Energy efficiency measures
 - Advanced construction strategy time and cost savings
- Draft and finalize a *Technology Funding Plan,* incorporating a review of technology project costs and funding elements, including:
 - Technology financing strategy review
 - System configuration costs versus use case scenarios
 - System aggregation and grid services value
 - o Bill savings value
 - Resiliency value
 - Incentive program eligibility
 - Commercialized benefits to the building owner/operator
 - Payback analysis across different value scenarios

Products:

- Building Funding Plan (draft and final)
- Technology Funding Plan (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 *the Initial Project Benefits Questionnaire*. The Initial Project Benefits Questionnaire shall be initially completed by the Recipient with 'Kick-off' selected for the 'Relevant data collection period' and submitted to the CAM for review and approval.

- Complete the *Annual Survey* by January 31st of each year. The Annual Survey includes but is not limited to the following information:
 - Technology commercialization progress
 - New media and publications
 - Company growth
 - Follow-on funding and awards received
- Complete the *Final Project Benefits Questionnaire*. The Final Project Benefits Questionnaire shall be completed by the Recipient with 'Final' selected for the 'Relevant data collection period' and submitted to the CAM for review and approval.
- Respond to CAM questions regarding the questionnaire drafts.
- Complete and update the project profile on the CEC's public online project and recipient directory on the <u>Energize Innovation website</u> (<u>www.energizeinnovation.fund</u>), and provide *Documentation of Project Profile on EnergizeInnovation.fund*, including the profile link.
- If the Prime Recipient is an Innovation Partner on the project, complete and update the organizational profile on the CEC's public online project and recipient directory on the <u>Energize Innovation website</u> (www.energizeinnovation.fund), and provide *Documentation of Organization Profile on EnergizeInnovation.fund*, including the profile link.

Products:

- Initial Project Benefits Questionnaire
- Annual Survey(s)
- Final Project Benefits Questionnaire
- Documentation of Project Profile on EnergizeInnovation.fund
- Documentation of Organization Profile on EnergizeInnovation.fund

TASK 8: TECHNOLOGY/KNOWLEDGE TRANSFER ACTIVITIES

The goal of this task is to ensure the technological learning that resulted from the demonstration(s) is captured and disseminated to the range of professions that will be responsible for future deployments of this technology or similar technologies.

- Develop and submit a *Project Case Study Plan* that outlines how the Recipient will document the planning, construction, commissioning, and operation of the technology or system being demonstrated. The Project Case Study Plan should include:
 - An outline of the objectives, goals, and activities of the case study.
 - The organization that will be conducting the case study and the plan for conducting it.

- A list of professions and practitioners involved in the technology's deployment.
- Specific activities the recipient will take to ensure the learning that results from the project is disseminated to those professions and practitioners.
- Presentations/webinars/training events to disseminate the results of the case study.
- Present the draft *Project Case Study Plan* to the TAC for review and comment.
- Develop and submit a *Summary of TAC Comments* that summarizes comments received from the TAC members on the draft *Project Case Study Plan*. This document will identify:
 - TAC comments the recipient proposes to incorporate into the final *Technology Transfer Plan*.
 - TAC comments the recipient does not propose to incorporate with and explanation why.
- Submit the final *Project Case Study Plan* to the CAM for approval.
- Execute the final Project Case Study Plan and develop and submit a Project Case Study (draft and final)
- When directed by the CAM, develop presentation materials for a CEC sponsored conference/workshop(s) on the project.
- When directed by the CAM, participate in annual EPIC symposium(s) sponsored by the CEC.
- Provide at least (6) 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.

Products:

- Project Case Study Plan (draft and final)
- Summary of TAC Comments
- Project Case Study (draft and final)
- High Quality Digital Photographs

TASK 9: BUILD PHASE SELECTION

The goal of this task is to conduct activities and prepare deliverables for the selection process for the Build Phase. These deliverables will be used to select which Design Phase projects will receive funding for the Build Phase. In addition, deliverables developed under this task will be used to amend the agreement for those projects chosen to move onto Build Phase.

The Recipient shall:

• Develop and prepare *Conceptual Design and Engineering Report*, describing drawings, design plans, and photos of an architectural-scale model of the project. At least photos from each perimeter side of the model shall be included in the

report (e.g., north, east, south, and west views). The actual architectural-scale models will be on display during the team's project presentation at the event, as well as during a model showcase networking session

- Develop and submit an *Energy and Emissions Performance Model Report*, detailing the plan for software modeling of the development's expected energy and emissions performance and impacts on tenants' energy bills.
- Prepare and submit an *Emerging Technologies and Strategies Report*, describing the emerging technologies and strategies proposed to be used in the Build Phase and why they were chosen.
- Prepare and submit a Zero-Emission Cost-Benefit Analysis Report detailing the estimated cost difference between the zero-emission build-out compared to standard building design, construction, and operations.
- Prepare and submit a *Community Engagement Plan* documenting the strategy for soliciting and incorporating input from the community throughout the design process.
- Create and submit a two-minute *Concept Video* that will air at the Zero-Emission Building Forum (i.e., Showcase Event).
- Develop and submit additional *Presentation Materials* for the Zero-Emission Building Forum, as determined and requested by the CAM.
- Provide a presentation to the Build Phase Evaluation Committee.
- Develop and submit a *Build Phase Amendment* Package that includes revisions as necessary to all of the Design Phase "full application" attachments:
 - Attachment 4 EPIC Application Form (i.e., Design Phase application, confirmed and/or amended, as necessary, for the Build Phase)
 - Attachment 5 EPIC Executive Summary (i.e., Design Phase application, confirmed and/or amended, as necessary, for the Build Phase)
 - Attachment 6 EPIC Project Narrative (i.e., Design Phase application, confirmed and/or amended, as necessary, for the Build Phase)
 - Attachment 7 Project Team Form
 - Attachment 8 Scope of Work
 - Attachment 9 Project Schedule
 - Attachment 10 Budget
 - Attachment 11 CEQA Compliance Form (Must be filled out again, to reflect at a minimum: (a) changes in the proposed project and (b) any changed external circumstances that are relevant to the prior environmental impact analysis.) (Applicant must confer with Lead Agency, if proposed project has increased in magnitude or changed in a way that is relevant to the prior environmental impact analysis.)
 - Attachment 12 References and Work Product Form
 - Attachment 13 Commitment and Support Letters
 - Attachment 14 Project Performance Metrics
 - Attachment 15 -- Applicant Declaration (must be filled out again)

Products:

- Conceptual Design and Engineering Report
- Energy and Emissions Performance Model Report
- Emerging Technologies and Strategies Report
- Zero-Emission Cost-Benefit Analysis Report
- Community Engagement Plan
- Concept Video
- Presentation Materials
- Build Phase Amendment Package

V. PROJECT SCHEDULE

Please see the attached Excel spreadsheet.

STATE OF CALIFORNIA

STATE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: ConSol

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

RESOLVED, that the CEC approves Agreement EPC-21-021 with ConSol for a \$999,936 grant to design an all-electric, mixed-use, 100 percent affordable housing development in Woodland. The project will incorporate innovative energy efficiency measures and clean energy technologies and provide shared electric transportation to create an environmentally friendly neighborhood for residents. The project team will solicit feedback from the community and other key stakeholders to help inform options for the non-residential space. The project team will also coordinate with partners to provide future residents with opportunities for local employment training and workforce development; and

FURTHER BE IT RESOLVED, that the Executive Director or their designee shall execute the same on behalf of the CEC.

CERTIFICATION

The undersigned Secretariat to the CEC does hereby certify that the foregoing is a full, true, and correct copy of a Resolution duly and regularly adopted at a meeting of the CEC held on April 26, 2022.

AYE: NAY: ABSENT: ABSTAIN:

> Liza Lopez Secretariat