STATE OF CALIFORNIA

GRANT REQUEST FORM (GRF)

CEC-270 (Revised 12/2019) CALIFORNIA ENERGY COMMISSION

A) New Agreement # EPC-21-027 (to be completed by CGL office)

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

C) Recipient's Legal Name	Federal ID Number
Mutual Housing California	94-3093354

D) Title of Project
Mutual Housing at Fairview Terrace

E) Term and Amount

Start Date	End Date	Amount
5/15/2022	6/30/2024	$ 1,000,000

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 Time Needed: 5 minutes

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

Agenda Item Subject and Description:

MUTUAL HOUSING CALIFORNIA. Proposed resolution approving Agreement EPC-21-027 with Mutual Housing California for a $1,000,000 grant to design a four-story, all-electric, in-fill, mixed-use development, and adopting staff's determination that this action is exempt from CEQA. The design will feature affordable housing for seniors with office space for social services on the ground floor. Resiliency features will be incorporated into the design to help protect tenants against natural disasters and power shutoffs and will serve as a shelter and cooling center for the community. The project design is slated for a historically underserved neighborhood in south Stockton close to public transit and an adjacent health care clinic. (EPIC funding) Contact: Anthony Ng.

G) California Environmental Quality Act (CEQA) Compliance

1. Is Agreement considered a "Project" under CEQA?
   ☒ Yes (skip to question 2)
   ☐ No (complete the following (PRC 21065 and 14 CCR 15378)):

   Explain why Agreement is not considered a "Project":

2. If Agreement is considered a "Project" under CEQA:
   a) ☒ 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 15061 (b) (3)

Explain reason why Agreement is exempt under the above section: This grant agreement will fund the design, economic analysis, performance modeling, and construction feasibility of an all-electric, in-fill 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.

This agreement will not result in the adoption of a plan that will have a legally binding effect on later activities. 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.

This agreement is therefore statutorily exempt from environmental review pursuant to section 15262 of the CEQA Guidelines because it consists of feasibility or planning studies for possible future actions which the Energy Commission has not yet approved, adopted, or funded and does not require the preparation of an EIR or negative declaration but does require consideration of environmental factors. The agreement is also 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 section 15061(b)(3) of the CEQA Guidelines, the common sense exemption. The project does not involve any unusual circumstances, will not result in damage to any scenic resources within a highway officially designated as a state scenic highway, the project site is not included on any list compiled pursuant to Government Code section 65962.5, and the project will not cause a substantial adverse change in the significance of a historical resource. The project, when considered as a whole, will not result in a cumulative impact that is significant on the environment. Therefore, none of the exceptions to exemptions listed in CEQA Guidelines section 15300.2 apply to this project and this project will not have a significant effect on the environment.

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

Check all that apply

- ☐ Initial Study
- ☐ 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
ARCHITECTURAL NEXUS, INC.	$ 574,756
Community Energy Labs, Inc.	$ 180,244
Capital Engineering Consultants, Inc.	$ 70,000
Shalley-Dibble, Incorporated dba Engineering Enterprise	$ 25,000
GRID Alternatives, Inc.	$ 20,000
Sunseri Construction, Inc. (match only)	$ 0
City of Stockton (match only)	$ 0
Stocktonians Taking Action to Neutralize Drugs (STAND) (match only)	$ 0
TBD for Civil and Site Design (match only)	$ 0

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	18-19	301.001F	$500,000
EPIC	20-21	301.001H	$500,000
			$

R&D Program Area: EDMFO: EDMF TOTAL: $ 1,000,000

Explanation for “Other” selection

Reimbursement Contract #: Federal Agreement #:

K) Recipient’s Contact Information

1. Recipient’s Administrator/Officer

Name: Keith Bloom

Address: 3321 Power Inn Rd Ste 320

Suite 320

City, State, Zip: Sacramento, CA 95826-3893

Phone: 916-453-8400 x219

E-Mail: keith@mutualhousing.com

2. Recipient’s Project Manager

Name: Keith Bloom

Address: 3321 Power Inn Rd Ste 320

Suite 320

City, State, Zip: Sacramento, CA 95826-3893

Phone: 916-453-8400 x219

E-Mail: keith@mutualhousing.com

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		☒ Attached
2.	Exhibit B, Budget Detail		☒ Attached
3.	CEC 105, Questionnaire for Identifying Conflicts		☒ Attached
4.	Recipient Resolution	☒ N/A	☐ Attached
5.	CEQA Documentation	☒ N/A	☐ Attached

Agreement Manager **Date**

Office Manager **Date**

Deputy Director **Date**

Exhibit A
Scope of Work
Mutual Housing California

I. TASK ACRONYM/TERM LISTS

A. Task List

Task #	CPR [1]	Task Name
1		General Project Tasks
2		Conceptual Design
3	X	Research and Development
4		Community Outreach, Business, and Operations Plan
5		Evaluation of Project Benefits
6		Technology/Knowledge Transfer Activities
7		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
MEP	Mechanical, Electrical, Plumbing engineering
SEED	Social, Economic, and Environmental Design. An accredited public interest design process that is evaluated by the SEED Network to ensure that community input is thoughtfully obtained throughout the project's design phase.
TAC	Technical Advisory Committee

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

A. Purpose of Agreement

The purpose of this Agreement is to remove traditional market driven barriers and fund an integrated and collaborative design and research process to address the critical

[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.

need for mixed-use affordable senior housing. This integrated approach will elevate the current model of affordable mixed-use housing through the testing of specific emerging technologies, cutting edge tools and advanced design and construction techniques. Integration of an all-electric, zero-emission approach, with innovative, grid-interactive software and hardware solutions, will yield a regenerative model for housing which is scalable, affordable, equitable, emissions-free, highly efficient, and climate-resilient.

B. Problem/ Solution Statement

Problem

The need for affordable housing throughout California is critical. There is no greater need than in Stockton; one of the state's poorest communities. One out of every 4.5 residents of its approximately 300,000 residents live in poverty--dramatically higher than the 15.1 percent State average. Per the City's Housing Element, 7,000 (41 percent) of Stockton's 17,000 senior households 65 years of age or older have a housing-cost burden. Many seniors' only source of income is Supplemental Security Income (SSI) which currently provides $794 per month for an individual and $1,191 for an eligible couple. As such, SSI recipients are likely to have difficulty finding housing that fits within their budgets. Additionally, 42 percent of Stockton's seniors are disabled. Many do not have the financial and/or physical capacity to own and/or drive a car and thus are reliant on public transportation to complete their daily tasks such as getting to the grocery store and medical appointments. The built environment can exacerbate this problem by construction practices, location of buildings and CO2 emissions from building operations. This can cause global and regional air quality issues as well as indoor air quality challenges that can greatly impact the health and well-being of occupants. Green buildings, energy efficient technologies, and housing near amenities do exist, but are often not available for lower income households.

Developers designing and constructing affordable senior housing today are currently constrained by market conditions and budget impracticalities and are thus disincentivized to explore and ultimately include innovative, emerging and new technologies in their projects. Sustainable design and construction techniques, advanced building materials, and technological advancements are slow to break into the market.

Building systems are typically static binary systems; in simple terms, they are either "on" or "off." When a tenant feels hot they adjust the thermostat and the HVAC system

switches from off to on. Many variables, including human behavior or personality, could influence this action which leads to energy use. Energy use, which is often priced on a sliding scale based on demand, has a high demand load during specific times during the day. Individuals also have unique, yet predictable routines and energy use patterns. These patterns, established at both the individual and community level, are not yet factored into refining efficiency of energy use of individual tenants. Today, sustainably generated power is often not stored on site. Much of this energy is gathered through photovoltaic cells and is collected during daylight hours. Any excess is pushed back to the main electrical grid at that instant. When energy storage is included on site, an opportunity for efficiency through communication between the main grid and the local micro-grid remains untapped. Additionally, climate change and extreme weather events have been increasing in frequency with dramatic influences on the main energy grid. The emergency preparedness and resiliency of residential communities to respond and survive is incomplete or missing.

In order to address these severe challenges facing California, an improved approach to mixed-use affordable housing is needed.

Solution

To address this need for regenerative mixed-use affordable housing, Mutual Housing California (Recipient) will develop a new concept of a building that is zero-emission, equitable, affordable and human centered. The design will exemplify smart growth—a compact, high density infill development that integrates residential and commercial uses in close proximity to public transportation.

To accomplish an all-electric, zero-emission pursuit that is highly resilient and grid-interactive, this project will have a high-performance envelope, state of the art electric HVAC systems, PV systems and on-site energy storage, and a compliment of digital energy management tools to match. The solutions include multi-benefit and low-cost components such as affordable sensors and modeling tools, façade-integrated PV that produces energy while reducing cooling loads, and 'human-in-the-loop' interfaces that use pre-heating, pre-cooling, and other forms of intelligent load control without compromising occupant comfort, convenience, or affordability. These technologies have the ability to adapt to human behavior and utilize machine learning to optimize loads and predict future demands. To respond to climate change impacts like the increase in wildfires and public safety power shut off events, Fairview Terrace will have the ability to fully operate as a resilient, renewable, grid-independent micro grid system. This will

include power to assist community residents to shelter in place during an emergency event.

C. Goals and Objectives of the Agreement

Agreement Goals

The goals of this Agreement are to:

- Generate Conceptual Design Documents to validate an all-electric, zero-emission, mixed-use, 59-unit residential project which integrates innovative, emerging and new technologies. Confirm the proposed design and construction approach with coordination of all integrated emerging technologies and the associated cost estimates and analysis.
- Perform Research and Development on the integration of innovative, emerging, and new technologies and their interaction with the project's micro-grid and building systems, occupants, and the main power grid. Explore the ability to predict and reduce loading based on human behavior and the selection of highly efficient systems.
- Engagement is necessary for the project residents and surrounding community; communicate the benefits and implications of the strategies and approaches employed and the influence of behavior and decision making on the individual level. Also, at a macro scale, communication and messaging for the developer, design and construction communities will facilitate replication and scalability of project developed technological strategies.
- Market transformation goals will include developing an outreach plan to multiple industries to present the Case Study project. This includes presentations, conferences, periodicals, journals, awards, and third-party certifications.

Ratepayer Benefits:[2] This Agreement will result in the ratepayer benefit of greater electricity reliability by having a renewably powered (on-site) micro grid to bridge interruptions in the main power grid. It also will result in the ratepayer benefit of lower costs by lowering main grid utility consumption through onsite energy production, highly efficient electrical systems, optimizing load through machine learning, and establishment of power utilization personas which will offset or reduce the typical demand from the power grid. It will also result in the ratepayer benefit of increased safety by providing emergency power during a power interruption or other emergency

[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).

event to charge cellular phones and devices as well as the refrigeration of medicine and food and the provision for HVAC heating and cooling.

Technological Advancement and Breakthroughs:[3] This Agreement will lead to technological advancement and breakthroughs by overcoming barriers to the achievement of the State of California's statutory energy goals by partnering the cutting-edge innovators with an established development team. Allowing the space (and funding) for these collaborations to occur will advance efficiency in many ways.

- One of the major findings of CEC, CPUP & CARB's joint report for charting path to meet goals set by SB100 (released on Mar-15th 2021) is that this transition to zero-carbon electricity can be made more affordable through renewable energy resource diversity and by better managing electricity demand. This highly efficient housing project will be adding renewable resources for 100 percent of its energy requirements and utilizing on-site energy storage, grid-interactive and flexible load-optimizing technologies aiming to help with California's 2045 goals and reduce stress on the existing electricity grid.
- Priority will be placed on the emerging technology solutions which have been previously established and developed with funding from CEC, CalSEED, and other State of California funding programs. Our working relationship with our local CleanStart.org will help us prioritize the most effective and relevant technologies.

Agreement Objectives

The objectives of this Agreement are to:

- Provide an all-electric, mixed-use affordable senior housing solution which removes obstacles for the emerging technology sector to integrate with the design and construction professionals, and with developers, to advance multiple efficiencies, strategies and technologies that improve upon an all-electric zero-emissions project model. This model aims to impact and inform the residential construction industry. The specific objectives with measurable outcomes include:
- Schematic Design Package. Identify and validate the various technology and systems that will be included with Schematic Design level documents. This package will include the System Analysis (MEP). The cost, performance, space requirements, complexity of operation of the mechanical, electrical, and plumbing systems will be prepared in a comparative analysis.
- Design Development Package. Further documentation of the various technology and systems that will be included with Design Development level documents. This package will include the mechanical system selections incorporated with

other elements of the design that impact the target HVAC loading like emerging technologies, building orientation, building envelope design, systems selection, etc.

- Cost Estimate. Provided at Schematic Design and Design Development phases. Establish cost implications for all building elements and compare to a baseline.
- Zero-Emission Cost-Benefit Analysis Report
- Architectural-Scale model to test the building orientation, visual bulk, massing and 'fit' of building and components on the site
- Energy Model Summary
- Energy and Emissions Performance Model Report
- Emerging Technologies and Strategies Report
- Basis of Design Report
- Onsite battery sizing calculations and feedback for Tier 1 and Tier 2 emergencies
- Commissioning Results and Findings Report
- Community Engagement. Implement a reiterative engagement process to obtain input from the community about the design, and provide them with updated information, such as the certified public interest design process established by the Social, Economic, and Environmental Design (SEED) Network.
- Community Engagement Plan with a local community-based organization (CBO).

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 administrative portion 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 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 (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
  - 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* 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
- 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 no match funds 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 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)*
- 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 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.

Exhibit A
Scope of Work
Mutual Housing California

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 identify key performance targets for the project. 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.

The Recipient shall:

- Complete and submit the draft *Project Performance Metrics Questionnaire* to the CAM prior to the Kick-off Meeting.
- Present the draft *Project Performance Metrics Questionnaire* 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 final *Project Performance Metrics Questionnaire*.
  - TAC comments the recipient does not propose to incorporate with and explanation why.
- Submit a final *Project Performance Metrics Questionnaire* with incorporated TAC feedback.
- 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 Performance Metrics Questionnaire*.
- Discuss the final *Project Performance Metrics Questionnaire* and *Project Performance Metrics Results* at the Final Meeting.

Products:

- Project Performance Metrics Questionnaire (draft and final)
- TAC Performance Metrics Summary
- Project Performance Metrics Results

IV. TECHNICAL TASKS

TASK 2 CONCEPTUAL DESIGN

The goal of this task is to complete a conceptual design that demonstrates the incorporation of innovative all-electric technologies into a mixed-use affordable housing case study that can be constructed and scaled.

Subtask 2.1 Schematic Design

The goal of this subtask is to prepare a *Schematic Design Package* for TAC and CAM review.

The Recipient shall:

- Perform background, research, and data collection to inform design solutions.
- Conduct integrated design team meetings with all design team members and technology partners to start design process and test high level concept solutions. Design team includes, but is not limited to: Architectural, Mechanical, Electrical, and Plumbing (MEP) Engineering, Developer, Cost Estimator, Technology Partners, Commissioning Agent.
- Design and test high level concept solutions.
- Prepare a *Schematic Design Package* which includes the following but is not limited to:
    - Schematic Plans: Floor Plans, Roof Plan
    - Exterior Elevations
    - Representative Building/ Wall Sections as required to demonstrate design intent
    - Building Areas and Volumes
    - MEP System Definitions
    - Performance Criteria Goals
    - Project Brief and Design Intent Sketches
    - Schematic Design Cost Estimate
    - Cost comparisons from Subtask 2.4.
- Present the Schematic Design Package to the TAC and CAM for their feedback.
- Respond to TAC and CAM review questions and incorporate their feedback as necessary.

Products:

- Schematic Design Package

Subtask 2.2 System Analysis (MEP)
The goal of this subtask is to analyze and test potential MEP system solutions for the Schematic Design being conducted in Subtask 2.1.

The Recipient shall:

- Perform background, research, and data collection to inform design solutions.
- Participate in integrated design team meetings with all design team members and technology partners to start design process and test high level concept solutions.
- Prepare system narratives and sketches as required for the Schematic Design Package product being developed in Subtask 2.1.
- Identify mechanical systems that meet the performance criteria and perform comparative analysis to weigh factors that include, but are not limited to; cost, performance, space requirements, and complexity of operation.
- Identify electrical base line demand loads and identify how various generation options impact the project for cost, space requirements, and reliability.
- Evaluate the system selections being proposed in Subtask 2.1, using grid interactive emerging technology.
- Identify water reduction and reclamation strategies and perform comparative analysis to weigh factors that include, but are not limited to cost, performance, space requirements, and complexity of operation.

Products:

- None

Subtask 2.3 Design Development
The goal of this subtask is to build upon work done in the Schematic Design Package and to prepare a Design Development Package for TAC and CAM review.

The Recipient shall:

- Conduct integrated design team meetings with all design team members and technology partners to further the design process and verify concept solutions.
- Prepare a *Design Development Package* for TAC and CAM review, which includes but is not limited to:
    - Site Plan, Floor Plans, Roof Plan, Reflected Ceiling Plans, and Enlarged Plans
    - Exterior Elevations, Interior Elevations, and Enlarged Elevations
    - Key Building and Wall Sections

  - Window/ Door Schedules
  - Typical Building System Details
  - Material Selections
  - MEP System Narratives, Schedules, and Diagrams
  - Performance Criteria Goals Update
  - Design Development Cost Estimate.
  - Cost comparisons from Subtask 2.4.
- Present the draft Design Development Package to the TAC and CAM and incorporate suggested changes as necessary, into the final.

Products:

- Design Development Package (draft and final)

Subtask 2.4 Milestone Cost Estimates

The goal of this subtask is to prepare a cost estimate for each milestone submittal for the Schematic Design Package and the Design Development Package developed earlier in Task 2.

The Recipient shall:

- Participate in Integrated Design Team meetings.
- Provide cost feedback on the solutions being proposed for the Schematic Design Package and Design Development Package.
- Provide cost estimates for inclusion in the Schematic Design Package and Design Development Package.
- Provide constructability impacts and suggestions on the solutions being proposed in the Schematic Design Package and Design Development Package.
- Provide cost comparisons of zero-emission buildouts compared to standard building design, construction, and operations. These cost comparisons will be developed separately for, but submitted as part of, the Schematic Design (Subtask 2.1) and the Design Development (Subtask 2.3).

Products:

- None

Subtask 2.5 Optimization and Integration of Systems (MEP)

The goal of this subtask is to build upon the work completed in the Schematic Design Package, and refine, optimize, and coordinate the MEP systems and emerging technology solutions for the Design Development Package.

The Recipient shall:

- Conduct a charette with the design team to determine the load profile for the project.
- Develop high level strategies around controls integration to meet performance goals and optimize the effectiveness of emerging grid interactive and battery technologies.
- Verify grid interactive equipment and determine devices through analysis and collaboration within the integrated design process.
- Verify the building thermal dynamic profile and grid interactive opportunities.
- Identify efficient electrical distribution strategies.
- Identify opportunities to limit piping runs and take advantage of alternate services/sources like reclaimed water, rainwater, condensate, etc.
- Refine mechanical system sections in integrated design team meetings with other elements of the design that impact the HVAC loading like emerging technologies, building orientation, building envelope design, systems selection, etc.
- Prepare system narratives and sketches as required for the Design Development Package.

Products:

- None

Subtask 2.6 Visual Materials

The goal of this subtask is to produce milestone renderings and sketches for the Schematic Design Package and Design Development Package, as well as presentation materials for a forum.

The Recipient shall:

- Develop and provide renderings and concept sketches to aid in the Schematic Design and Design Development processes.
- Provide at least three *Presentation Level Building Renderings* for a forum related to zero-emission buildings. This shall include, but not be limited to the following:
    - Bird's Eye
    - Exterior
    - Interior
- Develop *Case Study Project Animations* to convey information and other concepts for education, knowledge transfer, and market transformation purposes.

- Create an *Architectural-Scale Model* of the project for the Zero-Emission Building Forum.

Products:

- Presentation Level Building Renderings
- Case Study Project Animations
- Architectural-Scale Model

TASK 3 RESEARCH AND DEVELOPMENT

The goal of this task is to test design assumptions for integration and implementation of the strategies identified in the concept design process and research additional ways systems can be efficient and usable by the building tenants and facilities.

Subtask 3.1 Building Performance and Energy Modeling

The goal of this subtask is to provide continuous and ongoing building and energy modeling in parallel of work being conducted in Task 2 to inform the design decisions.

The Recipient shall:

- Create a *Benchmark Energy Model Findings* summary that demonstrates the performance of a typical project of this type.
- Conduct ongoing energy and performance modeling to inform system selections and design decisions for the conceptual design.
- Develop a *Basis of Design Report* for Subtask 2.4.

Products:

- Benchmark Energy Model Findings
- Basis of Design Report

Subtask 3.2 Resilience Planning

The goals of this subtask are to 1) complete thorough research and testing of the resilient systems, 2) verify system redundancies are in place and that one will always be operational during emergencies and 3) identify emerging technologies that can strengthen the project's resilience at the building and community scale.

The Recipient shall:

- Participate in community engagement workshops for community and tenants and incorporate their feedback into products for this subtask as necessary.

- Develop resilience strategies to be included in the Schematic Design Package and Design Development Package in Task 2.
- Develop a Resilient Plan for urgent life-safety events and non-urgent life-safety events, to help educate tenants, building users, and the community.
- Develop a *Community and Building Resilience Report* with established resilient goals.
- Identify emerging battery technology options and analysis to weigh in factors that include, but are not limited to, integration with grid interactive and microgrid technologies, cost, performance, space requirements, and complexity of operation.
- Identify additional redundant strategies and how to operate each system during emergencies.
- Investigate and apply to any applicable load shifting, demand response, and/or virtual power plant grants or programs which may enable the project site and its residents to benefit from those services.
- Determine project and residence eligibility and the logistics of deploying load shifting devices in coordination with the other technologies and services brought to the project site.
- Provide battery sizing calculations and feedback for Tier 1 and Tier 2 emergencies emerging technology recommendations during Schematic Design and Design Development. Include detailed energy analysis, feedback, and overall feasibility assessments for all considered emerging energy technologies, including emergency services and resilience for critical infrastructure. Develop a *Building Operations & Maintenance Plan* with a section on resilience for facilities and an additional training plan for tenants.
- Provide clear communication and education to users on the resilient strategies and interconnections of the building and systems to help ensure continuous building operations.

Products:

- Resilient Plan
- Community and Building Resilience Report
- Building Operations & Maintenance Plan

Subtask 3.3 Commissioning

The goal of this Subtask is for a commissioning agent to review and verify system and design selections against project goals during the conceptual design.

The Recipient shall:

- Participate and establish sustainability and energy goals for the Energy and Emissions Performance Model Report.
- Review the Basis of Design for compliance with project requirements and the Energy and Emissions Performance Model Report.
- Review and provide feedback on system selections, emerging technologies, energy savings and automatic features, and innovations (Solar-thermal Hot water, Battery storage, Induction cooktops, VRF, etc.).
- Review the Design Development Package including, but not limited to: equipment type, size, available features, clearance requirements, equipment interface options, cross discipline early review, system layout review, etc.
- Review control diagrams, sequence of operations, proposed point lists, equipment level interfaces, system level interfaces during System Optimization in Subtask 2.5.
- Recommend enhanced energy efficient control sequences, fail safe features/alarm list.
- Review the energy models and provide comments.
- Review details, layouts, and calculations, control systems, controls dashboard being developed under Task 2.
- Prepare *Results and Findings Report* on proposed features, sequences, and recommend options under consideration.
- Prepare *CPR Report #1*, in accordance with Subtask 1.3.
- Participate in a CPR meeting.

Products:

- Results and Findings Report
- CPR Report #1

TASK 4 COMMUNITY OUTREACH, BUSINESS AND OPERATIONS PLAN

The goal of this task is to utilize a third-party stakeholder system to develop and implement a *Community Outreach Plan* during the *Schematic Design* and *Design Development Subtasks*.

Subtask 4.1 Community Engagement Plan

The goal of this subtask is to develop and implement a Community Engagement Plan early in the design process.

The Recipient shall:

- Develop a *Draft Community Engagement Plan* with a local CBO, including an engagement process following the one set forth by the SEED Network. Identify key community groups and invite and involve project stakeholders. The plan will use these groups as a way for the design team to receive ideas and share back ideas creating an iterative process that is integrated into the design process.
- Implement a four-step process of listening, analyzing, designing, and then reporting back to the public during at least three key points in the design process to solicit and incorporate feedback from stakeholders.
- Implement community outreach efforts aiming to help qualified residents gain access to clean mobility options. Coordinate with partner organizations implementing low-carbon transportation equity programs to ensure all viable funding and implementation options are explored.
- Incorporate all viable clean mobility solutions into the design of the overall energy systems and emerging technologies implemented on site.
- Identify and assess the ability to provide in-depth, hands-on, and classroom-based workforce development opportunities throughout all phases of the project as it relates to energy technologies and the implementation of resilience measures. If this project is funded to progress on to the Build Phase, the most feasible and relevant workforce development opportunities may be implemented.
- Develop a *Summary of Community Engagement Process and Findings*.
- Submit the engagement activities and results to a third-party organization for evaluation of the process, such as the SEED network.

Products:

- Draft Community Engagement Plan
- Summary of Community Engagement Process and Findings

Subtask 4.2 Tenant Interface/ Building Management

The goal of this subtask is to develop a Tenant Interface Plan which will serve as a guide to the Recipient's onsite staff in providing training to the project's residents and commercial tenants.

The Recipient shall:

- Develop a *Tenant Interface Plan* that incorporates grid-interactive benchmarking and user persona development, as well as an operational budget proforma. The plan will include the following but not be limited to:
    - Directions on the most efficient way to operate the heating and cooling systems.

- How to read and evaluate the energy monitors.
- How to read and comprehend the utility bills.
- Suggestions on ways to minimize energy usage and lower utility bills.

Products:

- Tenant Interface Plan

TASK 5 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 Energize Innovation website (www.energizeinnovation.fund), and provide *Documentation of Project Profile on EnergizeInnovation.fund*, including the profile link.
- If the 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 Energize Innovation website (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 6 TECHNOLOGY/KNOWLEDGE TRANSFER ACTIVITIES

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

The Recipient Shall:

- Develop and submit a *Project Case Study Plan (Draft/Final)* 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/Final)*
- Research opportunities for presentations, awards, papers, and articles within relevant industries to promote the concepts of the project.
- Participate in relevant industry conferences' and tradeshows' discussion of the project.
- Develop a *Market Transformation Plan* identifying industry targets and relevant dates for submitting case study.
- Identify and submit for third party certifications, including but not limited to: ILFI Zero Energy Certification and SEED Network certification.
- When directed by the CAM, develop presentation materials for an CEC-sponsored conference/workshop(s) on the project.
- When directed by the CAM, participate in annual EPIC symposium(s) sponsored by the California 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/Final)
- Summary of TAC Comments
- Project Case Study (Draft/Final)
- Market Transformation Plan
- High Quality Digital Photographs

TASK 7 BUILD PHASE Application Package

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.

RESOLUTION NO: 22-0426-5d

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: Mutual Housing California

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- 027 with Mutual Housing California for a $1,000,000 grant to design a four-story, all-electric, in-fill, mixed-use development. The design will feature affordable housing for seniors with office space for social services on the ground floor. Resiliency features will be incorporated into the design to help protect tenants against natural disasters and power shutoffs and will serve as a shelter and cooling center for the community. The project design is slated for a historically underserved neighborhood in south Stockton close to public transit and an adjacent health care clinic; 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