



**California Energy Commission
April 8, 2026 Business Meeting
Backup Materials for Sonoma Clean Power Authority**

The following backup materials for the above-referenced agenda item are available in this PDF packet as listed below:

1. Proposed Resolution
2. Grant Request Form
3. Scope of Work

CALIFORNIA ENERGY COMMISSION

PROPOSED RESOLUTION: Sonoma Clean Power Authority

RESOLUTION NO: 26-0408-XX

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 PIR-25-003 with Sonoma Clean Power Authority for a \$599,774 grant. This project will conduct in-depth, localized analyses of the challenges and opportunities for decarbonization for the Sonoma Clean Power Authority rural customer base, providing insight and effective strategies for maximizing customer and socioeconomic benefits; and

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

APPROVED AND ADOPTED this 8th day of April 2026, by the following vote:

AYE:

NAY:

ABSENT:

ABSTAIN:

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 approved and adopted by affirmative vote of the CEC at a meeting held on April 8, 2026.

Kim Todd
Secretariat



GRANT REQUEST FORM (GRF)

A. New Agreement Number

IMPORTANT: New Agreement # to be completed by Contracts, Grants, and Loans Office.

New Agreement Number: PIR-25-003

B. Division Information

1. Division Name: ERDD
2. Agreement Manager: Emily Field
3. MS-:43
4. Phone Number: 916-258-2983

C. Recipient's Information

1. Recipient's Legal Name: Sonoma Clean Power

D. Title of Project

Title of project: A Community-based Assessment of Energy Transition Barriers in Rural and Tribal Areas

E. Term and Amount

1. Start Date: 4/22/2026
2. End Date: 3/31/2029
3. Amount: \$599,774.00

F. Business Meeting Information

1. Are the ARFVTP agreements \$75K and under delegated to Executive Director? No
2. The Proposed Business Meeting Date: 4/8/2026 .
3. Consent or Discussion? Discussion
4. Business Meeting Presenter Name: Mithra Moezzi
5. Time Needed for Business Meeting: 5 minutes.
6. The email subscription topic is: General Natural Gas and LNG Issues.

Project Description:

Sonoma Clean Power . Proposed resolution approving agreement PIR-25-003 with Sonoma Clean Power for a \$599,774 grant and adopting staff's recommendation that this action is exempt from CEQA. This project will conduct in-depth, localized analyses of the challenges and opportunities for decarbonization for the Sonoma Clean Power rural customer base, providing insight and effective strategies for maximizing customer and socioeconomic benefits. (PIER NG funding) Contact: Mithra Moezzi

G. California Environmental Quality Act (CEQA) Compliance

1. Is Agreement considered a "Project" under CEQA?

Yes

If yes, skip to question 2.

If no, complete the following (PRC 21065 and 14 CCR 15378) and explain why Agreement is not considered a "Project":



Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because:

2. If Agreement is considered a “Project” under CEQA answer the following questions.

a) Agreement **IS** exempt?

Yes

Statutory Exemption?

No

If yes, list PRC and/or CCR section number(s) and separate each with a comma. If no, enter “None” and go to the next question.

PRC section number: None

CCR section number: None

Categorical Exemption?

Yes

If yes, list CCR section number(s) and separate each with a comma. If no, enter “None” and go to the next question.

CCR section number: Cal. Code Regs., tit. 14, § 15306 ;

Common Sense Exemption? 14 CCR 15061 (b) (3)

No

If yes, explain reason why Agreement is exempt under the above section. If no, enter “Not applicable” and go to the next section.

Cal. Code Regs., tit. 14, sect; 15306 exempts basic data collection, research, experimental management, and resource evaluation activities which do not result in serious or major disturbance to an environmental resource. This project is a computer-based and field-based research project to identify high-leverage strategies to support fossil gas end-use conversion in California's residential and commercial sectors and to understand the social, technological, and socioeconomic barriers to the gas transition in rural and tribal communities. They will determine the area-specific costs and benefits of such a transition, including to health, the local economy, and energy system reliability to identify achievable pathways and timelines for selected and comparable communities to meet statewide electrification goals. Recipient will obtain feedback from at least 250 residents of the selected communities including surveys, focus groups, interviews, and stakeholder meetings, prioritizing representation of a diverse range of demographic and contextual conditions in rural and tribal communities. This work will not result in a serious or major disturbance to an environmental resource. For these reasons, the proposed project will have no significant effect on the environment and is categorically exempt under section 15306.

The project does not involve impacts on any particularly sensitive environment; will not impact an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies; does not involve any cumulative impacts of successive projects of the same type in the same place that might be considered significant;



does not involve unusual circumstances that might have a significant effect on the environment; will not result in damage to 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. Therefore, none of the exceptions to categorical 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.

IMPORTANT: consult with the legal office to determine next steps.

No

If yes, answer yes or no to all that applies. If no, list all as “no” and “None” as “yes”.

Additional Documents	Applies
Initial Study	No
Negative Declaration	No
Mitigated Negative Declaration	No
Environmental Impact Report	No
Statement of Overriding Considerations	No
None	Yes

H. Is this project considered “Infrastructure”?

No

I. Subcontractors

List all Subcontractors listed in the Budget (s) (major and minor). Insert additional rows if needed. If no subcontractors to report, enter “No subcontractors to report” and “0” to funds. **Delete** any unused rows from the table.

Subcontractor Legal Company Name	CEC Funds	Match Funds
Energy & Environmental Economics, Inc.	\$ 249,406	\$0
See Change Institute, LLC	\$ 199,990	\$0
Indicia Consulting LLC	\$42,000	\$0

J. Vendors and Sellers for Equipment and Materials/Miscellaneous

List all Vendors and Sellers listed in Budget(s) for Equipment and Materials/Miscellaneous. Insert additional rows if needed. If no vendors or sellers to report, enter “No vendors or sellers to report” and “0” to funds. **Delete** any unused rows from the table.

Vendor/Seller Legal Company Name	CEC Funds	Match Funds
Hopland Economic Development Corporation	\$30,000	\$0



User Interviews, Inc.	\$3,000	\$0
Laura Rider Wills	\$2,000	\$0

K. Key Partners

List all key partner(s). Insert additional rows if needed. If no key partners to report, enter “No key partners to report.” **Delete** any unused rows from the table.

Key Partner Legal Company Name
Hopland Band of Pomo Indians, California
Town of Hopland
City of Willits
Town of Graton

L. Budget Information

Include all budget information. Insert additional rows if needed. If no budget information to report, enter “N/A” for “Not Applicable” and “0” to Amount. **Delete** any unused rows from the table.

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
NG Subaccount, PIERDD	21-22	501.001	\$ 599,774

TOTAL Amount: \$ 599,774

R&D Program Area: ESB: EA

Explanation for “Other” selection Not applicable

Reimbursement Contract #: Not applicable

Federal Agreement #: 601 Program Continuous Appropriation

M. Recipient’s Contact Information

1. Recipient’s Administrator/Officer

Name: Scott Salyer

Address: 431 E St

City, State, Zip: Santa Rosa, CA 95404-4333

Phone: 707-791-1346

E-Mail: ssalyer@sonomacleanpower.org

2. Recipient’s Project Manager

Name: Scott Salyer

Address: 431 E St

City, State, Zip: Santa Rosa, CA 95404-4333



STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION

Grant Request Form
CEC-270 (Revised 01/2024)

Phone: 707-791-1346

E-Mail: ssalyer@sonomacleanpower.org

N. Selection Process Used

There are three types of selection process. List the one used for this GRF.

Selection Process	Additional Information
Competitive Solicitation #	GFO-24-501
First Come First Served Solicitation #	Not applicable
Other	Not applicable

O. Attached Items

1. List all items that should be attached to this GRF by entering “Yes” or “No”.

Item Number	Item Name	Attached
1	Exhibit A, Scope of Work/Schedule	Yes
2	Exhibit B, Budget Detail	Yes
3	CEC 105, Questionnaire for Identifying Conflicts	Yes
4	Recipient Resolution	Yes
5	Awardee CEQA Documentation	Yes

Approved By

Individuals who approve this form must enter their full name and approval date in the MS Word version.

Agreement Manager: Emily Field

Approval Date: 02/25/2026

Branch Manager: Alex Horangic

Approval Date: 02/27/2026

Director: Alex Horangic for Jonah Steinbuck

Approval Date: 02/27/2026

Exhibit A Scope of Work Sonoma Clean Power

I. TASK ACRONYM/TERM LISTS

A. Task List

Task #	CPR ¹	Task Name
1		General Project Tasks
2	X	Social Science Research
3	X	Benefit-Cost Analysis and Electrification Timeline Scenarios
4		Evaluation of Project Benefits
5		Technology/Knowledge Transfer Activities

B. Acronym/Term List

Acronym/Term	Meaning
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CEC	California Energy Commission
CPR	Critical Project Review
IDI	In-depth Interview
SCP	Sonoma Clean Power
TAC	Technical Advisory Committee

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

A. Purpose of Agreement

The purpose of the agreement is to fund gas transition research in three representative rural and Tribal communities, focusing on the unique barriers and frictions of those customers with respect to electrification of end-uses.

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

Exhibit A

Scope of Work

Sonoma Clean Power

B. Problem/ Solution Statement

Problem

With statewide goals setting an ambitious timeline for moving away from fossil gas, rural and tribal communities are at risk of being left behind and bearing disproportionate costs of the energy transition. Additionally, these residents face unique technical and practical barriers to impending all-electric requirements, such as grid reliability.

Solution

The project will conduct in-depth, localized analyses of the challenges and opportunities of decarbonization for the Sonoma Clean Power (SCP) rural customer base and provide a better understanding of how these communities value and prioritize different aspects of energy consumption. Additionally, the research will answer key questions regarding system reliability, workforce needs, and community impacts of rural fossil gas decommissioning. Finally, these findings will produce insights, methodologies, and strategies that can be applied to similar areas statewide.

To achieve this, SCP will engage with at least three communities – including a federally-recognized tribe – facing unique infrastructure, cultural, and practical barriers to adoption of low-carbon residential and commercial energy technologies. By employing a combination of customized technical, economic, and social science methods, the project team will investigate the community-specific circumstances surrounding gas use and identify effective strategies for maximizing customer and socioeconomic benefits.

C. Goals and Objectives of the Agreement

Agreement Goals

The goals of this Agreement are to:

- Gain a detailed understanding of the social, technological, and socioeconomic barriers to the gas transition in rural and tribal communities.
- Determine the area-specific costs and benefits of such a transition, including to health, the local economy, and energy system reliability.
- Identify achievable pathways and timelines for selected and comparable communities to meet statewide electrification goals.
- Examine and interpret how the outcomes of the project can be applied to other rural and Tribal locations.
- Summarize rural gas end-uses in rural and tribal areas of the state.

Ratepayer Benefits:² This Agreement will result in the ratepayer benefits of greater energy reliability and lower future costs as communities with electricity reliability challenges transition to gas.

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)

Exhibit A Scope of Work Sonoma Clean Power

With lower electrification rates in rural and tribal communities, these customers are more likely to face higher infrastructure cost burdens due to there being fewer users on the gas system. This project has the potential to identify ratepayer cost savings for these customers from avoided pipe replacement and gas system pruning at the transmission and/or distribution levels.

Additionally, the research will investigate the interactive effects of the gas and electric systems in the selected communities, with a focus on safety and reliability. In particular, the reliability of the local electric grid will heavily impact attitudes toward electrification of end-uses, such as cooking and space conditioning.

Technological Advancement and Breakthroughs:³ There is a clear lack of research on the unique costs and benefits of electrification in rural and Tribal communities. This Agreement will lead to technological advancement and breakthroughs to overcome barriers to the achievement of the State of California's statutory energy goals by advancing the current state of rural energy evaluation techniques through the use of interdisciplinary methods, including multi-modal social science research and an innovative approach to modeling the economic outcomes of fossil gas system decommissioning and strategic electrification scenarios. Specifically, this research will identify and analyze key social and cultural barriers influencing the gas transition in rural communities and investigate the relationship between these factors and interactions between the fossil gas and electric systems, in terms of reliability, emissions, ratepayer impacts, and customer experience.

Agreement Objectives

The objectives of this Agreement are to:

- Collect and analyze empirical data on rural and tribal customer sentiments, concerns, and priorities regarding fossil gas use and electrification.
- Understand the motivations and practices of supply chain actors, including local contractors, through stakeholder meetings and interviews, with a goal of at least 13 participants.
- To obtain feedback from at least 250 residents of the selected communities through all outreach channels, including surveys, focus groups, interviews, and stakeholder meetings, prioritizing representation of a diverse range of demographic and contextual conditions.
- Characterize the majority of the building stock in the research areas to provide data on sector (residential and non-residential), home vintage and square feet, and share of renters vs. owners.
- Provide a clear picture of the unique challenges and likely impacts of the gas transition on the three rural and tribal communities in the research study.
- Research impacts of electrification to ratepayers, system reliability, and infrastructure.
- Consider non-energy benefits, such as improved indoor and outdoor air quality, higher occupant comfort levels, and customer satisfaction, as well as potential non-energy costs,

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

Exhibit A Scope of Work Sonoma Clean Power

such as reduced energy reliability in the short-term and mid-term, higher energy or other customer costs, loss of existing end uses, and impacts on local businesses.

- Outline 1-3 timeline scenarios for an equitable transition for California rural and tribal communities.

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.

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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);

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- 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

Exhibit A Scope of Work Sonoma Clean Power

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.

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- 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 Monthly Calls

- The goal of this task is to have calls at least monthly between the CAM and Recipient to verify that satisfactory and continued progress is made towards achieving the objectives of this Agreement on time and within budget.
- The objectives of this task are to verbally summarize activities performed during the reporting period, to identify activities planned for the next reporting period, to identify issues that may affect performance and expenditures, to verify match funds are being proportionally spent concurrently or in advance of CEC funds or are being spent in accordance with an approved Match Funding Spending Plan, to form the basis for determining whether invoices are consistent with work performed, and to answer any other questions from the CAM. Monthly calls might not be held on those months when a quarterly progress report is submitted or the CAM determines that a monthly call is unnecessary.

The CAM shall:

- Schedule monthly calls.
- Provide questions to the Recipient prior to the monthly call.
- Provide call summary notes to Recipient of items discussed during call.

The Recipient shall:

- Review the questions provided by CAM prior to the monthly call
- Provide verbal answers to the CAM during the call.

Product:

- Email to CAM concurring with call summary notes.

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Subtask 1.6 Quarterly 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 Quarterly 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 reporting period, 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. Progress reports are due to the CAM the 10th day of each January, April, July, and October. The Quarterly Progress Report template can be found on the ECAMS Resources webpage available at: <https://www.energy.ca.gov/media/4691>
- Submit a monthly or quarterly Invoice on the invoice template(s) provided by the CAM.

Recipient Products:

- Quarterly Progress Reports
- Invoices

CAM Product:

- Invoice template

Subtask 1.7 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 1.7.1 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 Products:

- Energy Commission Style Manual
- Comments on Draft Final Report Outline
- Acceptance of Final Report Outline

Exhibit A Scope of Work Sonoma Clean Power

Subtask 1.7.2 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

Exhibit A Scope of Work Sonoma Clean Power

CAM Product:

- Written Comments on the Draft Final Report

MATCH FUNDS, PERMITS, AND SUBCONTRACTS

Subtask 1.8 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*)

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

Subtask 1.9 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 1.10 Obtain and Execute Subcontracts and Agreements with Site Hosts

The goals of this subtask are to: (1) procure and execute subrecipients and site host agreements, as applicable, required to carry out the tasks under this Agreement; and (2) ensure that the subrecipients and site host agreements are consistent with the Agreement terms and conditions and the Recipient's own contracting policies and procedures.

The Recipient shall:

- Execute and manage subawards and coordinate subrecipient activities in accordance with the requirements of this Agreement.
- Notify the CEC in writing immediately, but no later than five calendar days, if there is a reasonable likelihood the project site cannot be acquired or can no longer be used for the project.

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- 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.
- Submit a *Subaward and Site Letter* to the CAM describing the subawards and any site host agreement needed or stating that no subawards or site host agreements are required.
- If required by the CAM, submit a draft of each *Subaward* and any *Site Host Agreement* required to conduct the work under this Agreement.
- If requested by the CAM, submit a final copy of each executed *Subaward* and any *Site Host Agreement*.
- Notify and receive written approval from the CAM prior to adding any new subrecipient (see the discussion subrecipient additions in the terms and conditions).

Products:

- Subaward and Site Letter
- Draft Subawards (*if requested by the CAM*)
- Draft Site Host Agreement (*if requested by the CAM*)
- Final Subawards (*if requested by the CAM*)
- Final Site Host Agreement (*if requested by the CAM*)

TECHNICAL ADVISORY COMMITTEE

Subtask 1.11 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.

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- 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 ensure 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 1.12 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.

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- 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 ensure a long-term perspective on decision-making and progress toward the project's strategic goals.
- Review and provide comments to proposed project performance metrics.
- 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 1.13 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.

The Recipient shall:

- Complete and submit the project performance metrics section of 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

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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

TASK 2: SOCIAL SCIENCE RESEARCH

Subtask 2.1: Project Management and Coordination

The Recipient shall:

- Manage project timeline and milestones, tracking progress against the Scope of Work and coordinating internal and partner teams to ensure timely completion of tasks.
- Facilitate regular communication between the Recipient and other project partners, including scheduling and participating in check-in meetings, providing updates, and addressing issues as they arise.
- Coordinate internal Subrecipient team, ensuring that research, operations, and communication functions are aligned and adequately resourced.
- Support integration of fieldwork data and develop a *Fieldwork Integration Report*, to align and synthesize community engagement results with technical and modeling insights.

Products:

- Fieldwork Integration Report

Subtask 2.2: Discovery and Design

The goal of this task is to initiate a fieldwork phase, align on preliminary analysis conducted by partners, and design all fieldwork protocols and methods for community engagement.

The Recipient shall:

- Attend a handover meeting between the Recipient and other project partners to align on any technical assumptions, scenarios, and relevant findings that will inform community engagement design.
- Conduct a discovery process to align research goals, engagement scope, and target stakeholder groups, incorporating insights from kickoff discussions and work.
- Detail the *Participant Recruitment Plan Memo*, which will include a consent procedure, screening criteria for the survey, stakeholder meetings, in-depth interviews, and focus groups.
- Coordinate with project partners and other key stakeholders to inform content of questions to be included in the data collections listed previously.
- Develop a *Data Collection Protocols Memo* in English and Spanish (as applicable) for all data collection methods listed previously.

Products:

- Participant Recruitment Plan Memo
- Data Collection Protocols Memo

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Subtask 2.3: Community Survey

The goal of this task is to collect broad input from residents, businesses, and tribal members in the target communities regarding energy use, electrification barriers, and community values via a community survey.

The Recipient shall:

- Design Survey Instrument, integrating open-ended responses where feasible, coordinating with the CEC. Program and test the *Survey Instrument*, ensuring it functions correctly across devices and meets ethical and usability standards.
- Consult with CEC and coordinate with local partners to produce a *Programmed Survey Instrument and Survey Distribution Strategy* with messaging for recruitment and outreach, using SCP customer lists and local networks.
- Disseminate the survey via email invitations, local channels, and social media, with attention to representation biases and gaps.
- Monitor survey response rates and provide *Ongoing Survey Updates* to the project team. Analyze survey data, cleaning and coding responses to generate descriptive statistics and identify key themes and write a *Survey Results Memo*.
- Prepare a *CPR Report #1* in accordance with subtask 1.3 (CPR Meetings).
- Participate in a CPR meeting.

Products:

- Programmed Survey Instrument and Survey Distribution Strategy (Draft and Final)
- Ongoing Survey Updates
- Survey Results Memo
- CPR Report #1

Subtask 2.4: Stakeholder Meetings

The goal of this task is to gather input from key stakeholder groups in each community through existing or bespoke engagement sessions. These meetings will support trust-building, elicit local insights, and support recruitment for additional research activities.

The Recipient shall:

- Identify and generate a *List of Key Stakeholders* in each community, including government bodies, business associations, workforce-centered groups, tribal entities, and local sustainability organizations.
- Schedule Stakeholder Meetings, either during an existing meeting time or via a bespoke one-on-one or group session.
- Facilitate virtual and/or in-person Stakeholder Meetings, presenting project goals and gathering input through open discussion.
- Provide *Ongoing Stakeholder Meeting Updates* during Monthly Calls (Subtask 1.5) to the project team and incorporate feedback from the CEC CAM.
- Analyze stakeholder meeting insights to identify common themes, concerns, and questions raised across groups and geographies.

Products:

- List of Key Stakeholders
- Ongoing Stakeholder Meeting Updates with Minutes

Subtask 2.5: In-Depth Interviews

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The goal of this task is to collect detailed, contextual insights from individuals representing a range of stakeholder perspectives on energy-related behaviors, decisions, and constraints in rural and tribal communities.

The Recipient shall:

- Recruit interview participants representing diverse perspectives, including residents (3-6), businesses and workforce members (2-4), and tribal members (1-2) across the communities.
- Develop a written *Interview Guide* informing CEC on approach for conducting interviews.
- Generate an *In-Depth Interview (IDI) Recruitment Tracker* to monitor recruitment and interview progress, including a brief note on how each participant was identified or recruited.
- Conduct IDIs, either virtually or in person, based on participant preference and availability.
- Provide regular *Ongoing IDI Updates* to the CEC and Recipient during Monthly Calls (Subtask 1.5) summarizing ongoing results.
- Transcribe and code interviews using open coding methods to organize responses thematically across stakeholder types and geographies.
- Analyze interview findings to identify patterns, outliers, and actionable insights, and summarize in *Interview Findings Memo* with presentation to CEC in monthly meeting.

Products:

- Interview Guide
- IDI Recruitment Tracker
- Ongoing IDI Tracker Updates
- Interview Findings Memo

Subtask 2.6: Focus Groups

The goal of this task is to gather in-depth, group-based insights into energy behaviors, electrification barriers, and community values from a diverse set of stakeholder perspectives.

The Recipient shall:

- Recruit focus group participants from the three target communities, ensuring diverse representation from key stakeholder groups.
- Develop a *Focus Group Guide Memo* informing CEC on approach for focus group recruitment.
- Generate a *Focus Group Recruitment Tracker* to monitor recruitment and focus group progress, including brief notes on how participants were identified or recruited
- Facilitate up to four focus groups, including at least one in Spanish. Focus groups may be conducted virtually or in person.
- Provide regular *Ongoing Focus Group Guide Updates* to the CEC and team during Monthly Calls (Subtask 1.5), summarizing ongoing results.
- Transcribe and analyze focus group data, identifying key themes, points of convergence/divergence across groups, and implications for equitable transition strategies.

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Products:

- Focus Group Guide Memo
- Focus Group Recruitment Tracker
- Ongoing Focus Group Guide Updates

Subtask 2.7: Synthesis and Reporting

The goal of this task is to synthesize findings from all fieldwork activities into a comprehensive topline report that informs the technical analysis and supports equitable, actionable pathways for transitioning away from gas in rural and tribal communities. Additionally, the recipient and subrecipients will unify and align the project findings to confirm the validity of transition pathway assumptions and conclusions.

The Recipient shall:

- Synthesize findings from the survey, stakeholder meetings, interviews, and focus groups into key themes, insights, and recommendations.
- Prepare a *Draft Fieldwork Topline Report*.
- Share the draft report with project team for review and feedback.
- Revise the report based on partner input.
- Prepare and deliver a *Final Fieldwork Topline Report*, summarizing key findings, methodology, and implications for SCP's use in final deliverables to CEC.
- Present findings at a Monthly Meeting

Products:

- Fieldwork Topline Report (Draft & Final)

TASK 3: BENEFIT-COST ANALYSIS AND ELECTRIFICATION TIMELINE SCENARIOS

Subtask 3.1: Data Collection and Development

The goal of this task is to review and develop key data to support benefit-cost analysis. This includes empirical and simulated customer usage data, gas and electric infrastructure data, and building characterization data.

The Recipient shall:

- Work with Pacific Gas & Electric Company to develop important datasets, including:
 - Gas and electric customer usage and billing data. These data will help inform upfront costs and electric load impacts associated with building electrification.
 - Gas infrastructure data, including potential opportunities for gas distribution and gas transmission system cost savings through block- and neighborhood-scale transition from gas.
 - Electric infrastructure data, including potential electric distribution grid impacts associated with widespread building electrification in these communities.
- Develop a building stock and energy usage characterization for the three communities, leveraging data such as:
 - Customer usage data from SCP.
 - Property tax assessor data available to SCP.
 - Statistical building stock and usage data from the Energy Information Administration Residential Energy Consumption Survey and Commercial Building

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Energy Consumption Survey, the CEC's Residential Appliance Saturation Study and Commercial End-Use Survey, and NREL's ResStock and ComStock models.

- Develop an *Energy Usage and Building Stock Characterization Report* summarizing the data collected.

Products:

- Energy Usage and Building Stock Characterization Report (Draft and Final)

Subtask 3.2 Barriers Research and Assessment

The goals of this task are to research potential barriers to conversion from gas and to support the development of materials that can be used to inform community engagement on these topics. For each perceived barrier, this research will explore the extent to which it may pose a technical or economic challenge to electrification in practice and will highlight potential solutions to overcoming the barrier. While some perceived barriers may not actually pose a technical or economic barrier in practice, the perception of a barrier may still hinder electrification progress.

The Recipient shall:

- Develop a list of 10 perceived barriers based on research from Task 2 and SCP's history of customer engagement and outreach.
- Evaluate the extent to which each perceived barrier reflects a technical or economic barrier in practice.
- Highlight potential solutions to each perceived barrier.
- Develop a *Barriers Assessment Report* documenting the findings.

Products:

- Barriers Assessment Report (Draft and Final)

Subtask 3.3: Benefit-Cost Analysis Framework

The goal of this task is to develop a site-specific benefit-cost analysis framework for the three communities, considering benefits and costs from different perspectives.

The Recipient shall:

- Develop upfront cost estimates (like-for-like vs. electrification) for representative customers in each community.
- Develop bill impact assessments (status quo vs. post-electrification) for representative customers in each community.
- Develop a site-specific *Benefit-Cost Analysis Framework*, including:
 - Participant metrics such as net upfront cost, full upfront cost, and net bill impact.
 - Ratepayer metrics including \$/year net revenue requirement impact and c/kWh and \$/therm net rate impacts.
 - Total cost metrics including benefits and costs to all investor-owned utility ratepayers including environmental and emissions impacts (both greenhouse gas and outdoor air quality impacts).
 - Discussion and illustrative evaluation of non-energy benefits including comfort and indoor air quality impacts.
- Prepare a *CPR Report #2* in accordance with subtask 1.3 (CPR Meetings).
- Participate in a CPR meeting.

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Products:

- Benefit-Cost Analysis Framework Memo (Draft and Final)
- CPR Report #2

Subtask 3.4 Community Electrification Timeline Scenarios

The goal of this task is to explore scenarios of electrification transition timelines grounded in equipment lifetimes, economic decision-making, and other decision factors. This task will also explore how different community electrification timelines would interact with policy and economic changes in California and how different timelines would affect members of the communities.

The Recipient shall:

- Leverage the social science research in previous tasks to better understand how community-specific factors may influence electrification timelines.
- Consider how policy and economic factors, such as zero emissions appliance standards and changes in equipment costs and utility rates over time, may influence electrification timelines.
- Based on these factors, develop three community electrification timeline scenarios: slow, mid, and fast.
- Use the Benefit-Cost Analysis framework developed in previous tasks to evaluate the impacts of different timelines on each of the communities, considering the costs and benefits associated with a slower vs. faster electrification transition.
- Recommend steps that SCP and the CEC can take to accelerate electrification timelines in rural communities, *e.g.*, actions that could enable communities to move from a slower to a faster timeline.
- Develop an *Electrification Timeline Scenarios and Benefit-Cost Analysis Report*, detailing the results.

Products:

- Electrification Timeline Scenarios and Benefit-Cost Analysis Report (Draft & Final)

Subtask 3.5: Rural and Tribal Utility Gas Usage Across the State

The goal of this task is to better understand the extent to which rural and tribal customers in California currently receive utility gas service, how these customers use utility gas service, and how access and usage for these customers differs from other customers in the state.

The Recipient shall:

- Evaluate public datasets such as the American Community Survey, Energy Information Administration Residential Energy Consumption Survey and Commercial Building Energy Consumption Survey, the CEC's Residential Appliance Saturation Study and Commercial End-Use Survey, and NREL's ResStock and ComStock models.
- Evaluate public data from gas utilities such as the census tract-level data and the forthcoming AB 1221 mapping data shared in the CPUC's Long-Term Gas Planning proceeding.
- Estimate the share of residential, commercial, and industrial customers in rural and tribal areas that have utility gas services, vs. for electric utility customers outside these areas.
- Estimate the average residential, commercial, and industrial gas usage in rural and tribal areas that have utility gas services, vs. for gas utility customers outside these areas.

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- Explore what existing data indicate about the uses for utility gas in rural and tribal areas, vs. for gas utility customers outside these areas.
- Explore whether existing data suggests distinctions in rural and tribal gas usage in Northern vs. Southern California.
- Develop a *California Rural and/or Tribal Utility Gas Usage Report* detailing the results of the analysis.

Products:

- California Rural and Tribal Utility Gas Usage Report (Draft and Final)

TASK 4: 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 July 15th 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 \(www.energizeinnovation.fund\)](http://www.energizeinnovation.fund), 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 [Energize Innovation website \(www.energizeinnovation.fund\)](http://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 5: KNOWLEDGE TRANSFER ACTIVITIES

The goal of this task is to ensure the scientific and techno-economic analysis and tools developed under this agreement are utilized in the energy policy, and/or planning decisions at the state and/or local levels, academic community and/or commercial sector.

Exhibit A

Scope of Work

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The Recipient Shall:

- Develop and submit a *Knowledge Transfer Plan* that identifies the proposed activities the recipient will conduct to meet the goal of the task. The *Knowledge Transfer Plan* should include at a minimum:
 - Specific policy and planning efforts this project is expected to inform.
 - Specific stakeholder groups and energy policy and planning practitioners who will utilize the results of this project.
 - Proposed activities the recipient will conduct to ensure the tools and results from this project will be utilized and adopted by the groups identified above.
- Present the *Draft Knowledge Transfer Plan* to the TAC for feedback and comments.
- Develop and submit a *Summary of TAC Comments* that summarizes comments received from the TAC members on the *Draft Knowledge Transfer Plan*. This document will identify:
 - TAC comments the recipient proposes to incorporate into the *Final Knowledge Transfer Plan*.
 - TAC comments the recipient does not propose to incorporate, with an explanation why.
- Submit the *Final Knowledge Transfer Plan* to the CAM for approval.
- Implement the activities as described in the *Final Knowledge Transfer Plan*.
- Develop a *Knowledge Transfer Summary Report* that includes high level summaries of the activities, results, and lessons learned of tasks performed relating to implementing the *Final Knowledge Transfer Plan*. This report should not include any proprietary information.
- When directed by the CAM, develop presentation materials for a CEC- sponsored conference/workshop(s) on the project.
- 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:

- Knowledge Transfer Plan (draft and final)
- Summary of TAC Comments
- Knowledge Transfer Summary Report (draft and final)
- High Quality Digital Photographs

V. PROJECT SCHEDULE

Please see the attached Excel spreadsheet.