California Energy Commission
August 13, 2025 Business Meeting
Backup Materials for Long Hill Energy Partners, LLC

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

[PROPOSED]

RESOLUTION NO: 25-0813-11d

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: Long Hill Energy Partners, LLC

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-25-010 with Long Hill Energy Partners, LLC for a $9,995,463 grant. This project will design, construct, and operate an innovative, low-cost, eight megawatt-hour, organic redox flow battery system, which will provide energy resiliency to the High Desert Regional Health Center in northern Los Angeles County; 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 August 13, 2025.

AYE:
NAY:
ABSENT:
ABSTAIN:

Dated:

_____
Kim Todd
Secretariat

STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION

CEC-270 (Revised 01/2024)

GRANT REQUEST FORM (GRF)

A. New Agreement Number

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

New Agreement Number: EPC-25-010

B. Division Information

1. Division Name: ERDD
2. Agreement Manager: Elyse Kedzie
3. MS-:51
4. Phone Number: 916-805-7435

C. Recipient's Information

1. Recipient's Legal Name: Long Hill Energy Partners, LLC
2. Federal ID Number: 93-3192440

D. Title of Project

Title of project: Storage Technology and New Energy Resiliency Demonstration (STANDERD)

E. Term and Amount

1. Start Date: 9/15/2025
2. End Date: 12/31/2029
3. Amount: $9,995,463.00

F. Business Meeting Information

1. Are the ARFVTP agreements $75K and under delegated to Executive Director? No
2. The Proposed Business Meeting Date: 8/13/2025 .
3. Consent or Discussion? Discussion
4. Business Meeting Presenter Name: Elyse Kedzie
5. Time Needed for Business Meeting: 10 minutes.
6. The email subscription topic is: Electric Program Investment Charge (EPIC)

Agenda Item Subject and Description:

Long Hill Energy Partners, LLC. Proposed resolution approving agreement EPC-25-010 with Long Hill Energy Partners, LLC for a $9,995,463 grant, and adopting staff's recommendation that this action is exempt from CEQA. This project will design, construct, and operate an innovative, low-cost, five megawatt-hour, organic redox flow battery system, which will provide energy resiliency to the High Desert Regional Health Center in northern Los Angeles County. (EPIC funding) Contact: Elyse Kedzie

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, § 15301; Cal. Code Regs., tit. 14, § 15303 ; Cal. Code Regs., tit. 14, § 15304 ;

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

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, § 15301 provides that projects which consist of the operation, repair, maintenance, permitting, leasing, licensing, or minor alternations of existing public or private structures, facilities, mechanical equipment, or topographical features, and which involve negligible or no expansion of existing or former use at the time of the lead agency's determination, are categorically exempt from the provisions of the California Environmental Quality Act (CEQA). Examples listed in section 15301 include, but are not limited to, existing facilities of both investor and publicly owned utilities used to provide electric power, natural gas, sewerage, or other public utility services. The proposed project will install and demonstrate a five megawatt-hour organic redox flow battery system to provide energy resiliency to the High Desert Regional Health Center located at 335 E Avenue I, Lancaster, CA. The demonstration will be located on an existing, unoccupied, brownfield site. Thus, the Project will involve the minor alternation of an existing power generation facility and would not result in expansion of use. This project will result in negligible or no expansion of use beyond that already existing infrastructure. Therefore, the project falls within section 15301 and will not have a significant effect on the environment.

Cal. Code Regs., tit. 14, § 15303 provides that projects which consist of construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure, are categorically exempt from the provisions of CEQA.

Up to 1,000 feet of trenching at a depth of 4 feet will be required to install electrical cable and then backfilled. Ground surface will be covered with crushed gravel and containers will be placed on helical piers. Associated support equipment (inverters, transformers, switchgear, metering) will be installed on concrete pads. Therefore, the proposed project falls within section 15303 and will not have a significant effect on the environment.

Cal. Code Regs., tit. 14, § 15304 provides that projects which consist of minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes are categorically exempt from the provisions of CEQA. Examples listed in section 15304 include, but are not limited to, minor trenching and backfilling where the surface is restored. The proposed project consists of up to 1,000 feet trenching and backfilling in bare land for installation of electric cable. The Project would not remove any healthy, mature, or scenic trees. The trenching would be temporary and the surface would be restored. Therefore, the project falls within section 15304 and 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
Quino Energy, Inc.	$ 8,948,147	**$**5,827,241
Natural Capitalism Solutions Inc	$ 150,052	**$**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
Schinner & Shain, LLP	**$**57,500	**$**0
TBD - Consulting	**$**52,500	**$**0
Quino Energy, Inc.	$5,536,047	$681,716
Vendors of Quino Energy, Inc.		
Potelco, Inc.	$2,000,000	$1,000,000
Leidos DB, Inc.	$1,800,000	$1,000,000
Electric Power Research Institute, Inc.	$360,000	$500,000

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
No key partners to report

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
EPIC	24-25	301.001L	$ 9,995,463

TOTAL Amount: $ 9,995,463

R&D Program Area: ESTB: ETSI

Explanation for "Other" selection Not applicable

Reimbursement Contract #: Not applicable

Federal Agreement #: 101

M. Recipient's Contact Information

1. Recipient's Administrator/Officer

Name: Edward Chiao

Address: 10080 N Wolfe Rd Ste 200 Ste 200

City, State, Zip: Cupertino, CA 95014-2515

Phone: 408-206-0834

E-Mail: echiao@longhillfunds.com

2. Recipient's Project Manager

Name: Edward Chiao

Address: 10080 N Wolfe Rd Ste 200 Ste 200

City, State, Zip: Cupertino, CA 95014-2515

Phone: 408-206-0834

E-Mail: echiao@longhillfunds.com

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-23-317
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	No
5	Awardee CEQA Documentation	No

Approved By

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

Agreement Manager: Elyse Kedzie

Approval Date: 6/26/2025

Branch Manager: Reynaldo Gonzalez

Approval Date: 7/2/2025

Director: Jonah Steinbuck (Delegated to Branch Manager)

Approval Date: 7/2/2025

EXHIBIT A
SCOPE OF WORK
Long Hill Energy Partners, LLC

I. TASK ACRONYM/TERM LISTS

A. Task List

Task #	CPR[1]	Task Name
1		General Project Tasks
2		Research & Development at Quino Energy
3		Assess Site Requirements
4	X	Project Development and Contracting
5		Pre-Construction
6		Construction
7	X	System Testing & Commissioning
8		Operations & Maintenance
9		Evaluation of Project Benefits
10		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
DC	Direct Current
DCDHAQ	Dihydroxy Dicarboxymethyl Anthraquinone
DOE	Department of Energy
EPC	Engineering, Procurement, and Construction
HDRHC	High Desert Regional Health Center
LDES	Long Duration Energy Storage
LCOS	Levelized Cost of Storage
ORFB	Organic Redox Flow Battery
MW	Megawatt
MWh	Megawatt-hour
RFB	Redox Flow Battery
TAC	Technical Advisory Committee
TRL	Technology Readiness Level
VRFB	Vanadium Redox Flow Battery
$/kWh	$ / kilowatt-hour

[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
Long Hill Energy Partners, LLC

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

A. Purpose of Agreement

The purpose of this Agreement is to fund the design, construction, and operation of an innovative, low-cost 5 megawatt-hour (MWh) organic redox flow battery system to provide energy resiliency to the High Desert Regional Health Center (HDRHC). The HDRCH, located in a disadvantaged and low-income community, serves both local and surrounding communities in critical Very High Fire Hazard Severity and Seismic Hazard Zones in northern Los Angeles County.

This demonstration is important for validating the performance and cost-savings of the Project Team's organic flow battery system to meet 3rd party bankability requirements for future projects.

B. Problem/ Solution Statement

Problem

Most of the battery storage deployed today relies on lithium-ion technology, but as California's need for long-duration energy storage (LDES) grows, lithium-ion's limitations make it unsuitable for meeting all of the state's evolving energy demands. Li-ion and other emerging flow battery technologies are either too costly to be economically viable or have remaining fundamental challenges with stability and safe operations for use in LDES applications. Additionally, the Project Team, along with LA County, has reviewed an analysis of the High Desert Regional Health Center facility (project demonstration site) and determined it would benefit significantly from the multiple value stacking offered by LDES.

Organic Redox Flow Batteries (ORFBs) hold the promise of lower costs compared to traditional Li-Ion and other flow battery technologies; however, ORFBs have historically also been limited by (a) rapid reactant degradation, and (b) high cost of manufacturing associated with complex, multi-step, and low-yield syntheses of electrolytes designed to avoid such degradation. The performance and/or cost limitations of past organic electrolytes limited the commercial practicality of ORFBs, making them cost-prohibitive as an LDES option.

Solution

The project team's ORFB technology has overcome both long-term stability and cost challenges of previously researched electrolyte materials for organic flow batteries.

The advanced aqueous ORFB technology leverages a zero-waste flow electrosynthesis process that creates Dihydroxy Dicarboxymethyl Anthraquinone (DCDHAQ) from the starting reagents using flow battery hardware as the reactor itself. This unique in-situ strategy further enables rapid scaling of a new chemical at high yield and purity directly. The as-produced DCDHAQ can be used directly to fill the tanks of conventional Redox Flow Battery (RFB) hardware (originally made for vanadium), with no need for any downstream processing or purification. This enables

straightforward domestic manufacturing at a greatly reduced cost of $25/kWh at GWh scale for the negolyte, (negative electrolyte) or a total DC-to-DC system Capital Expenditure of only $60/kWh and a levelized cost of storage (LCOS) of less than $0.05/kWh with a 20-year battery lifetime.

Leveraging mature and reliable vanadium RFB hardware with only minimal modifications, builds on existing expertise and simplifies the scale-up, installation, integration, and operation of the project team's ORFBs.

A long-term cell cycling test over 6 months and around 3500 charge-discharge cycles revealed that batteries made with DCDHAQ materials demonstrated a degradation rate of only 0.17% per year, which is more than 10 times slower than equivalent lithium iron phosphate batteries under identical cycling conditions. The project team's ORFB is the first flow battery technology with potential to deliver lower installed and operating costs and longer lifetime than Li-ion batteries, the dominant energy storage solution today.

C. Goals and Objectives of the Agreement

Agreement Goals

The goals of this Agreement are to:

- Design and deploy an innovative organic water-based ORFB at MWh scale to demonstrate the performance and technology maturity level.
- Provide energy resiliency and validate the benefits of stacking multiple energy use cases to deliver economic savings for a critical healthcare facility in California.
- Demonstrate the long-term field performance of the project team's organic, water-based flow battery system to the energy storage end-user ecosystem.
- Benefit California Investor-Owned Utility ratepayers by reducing electricity costs and increasing electricity safety, reliability, affordability, environmental sustainability to a critical healthcare facility located in a disadvantaged and low-income community.

Ratepayer Benefits:[2]

This Agreement will result in several ratepayer benefits, including but not limited to:

(1) **Improving Electric Safety:** The organic 5 MWh flow battery system will enable the health center to protect itself from power outages and electrical power spikes by automatically islanding from the local grid should unsafe electrical conditions present itself.

(2) **Increasing Reliability:** The newly installed battery system will be capable of providing full & continuous backup power to the facility – serving peak load for an estimated > 10 hours – whenever the electric grid is unavailable due to fire, heat waves, load shedding,

[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).

etc. The Project Team will analyze and report on the "Value of Resiliency" achieved in this demonstration project using a metric developed by the Clean Coalition, a non-profit energy consultancy stakeholder who will perform independent measurement and verification of the system's performance and benefits.

(3) **Increasing Affordability:** In the first year, the flow battery system will save an estimated $300,000 by intelligently charging during off-peak hours and discharging during peak hours to optimize Time-of-Use bill savings and reduce electric demand charges for the facility with estimated savings nearing $10 million over the life of the system.

(4) **Improving Environmental Sustainability:** The new battery system will allow the site to store excess, unused solar electricity generated from onsite carports during the daytime and use the electricity during the evening. This both increases the ratepayer's expanded use of clean, renewable electricity and reduces costs by consuming lower-cost electricity generated from on-site solar vs. purchasing from the grid.

(5) Improving Equity: The project will pass along 100% of the operating benefits from this battery project to the site host, a public agency which operates and serves in both a U.S. census designated Disadvantaged Community and a Low-Income Community as designated by the California Environmental Protection Agency.

Technological Advancement and Breakthroughs:[3]

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 demonstrating the scale-up performance and bankability of a promising long duration (> 10 hour) flow battery technology.

Demonstrating this technological advancement at scale is a critical step for this technology to achieve commercial bankability and drive manufacturing scale to 1 GWh, at which point the forecasted LCOS of the ORFB technology will fall below Department of Energy (DOE)'s long term goal and California Energy Commission's (CEC) solicitation goal of 5 cents / kWh.

Agreement Objectives

The objectives of this Agreement are to:

- Develop and demonstrate an organic water-based flow battery system at 5 MWh scale.
- Achieve operating availability factor above 95% in the first 12 months of full-scale operation
- Demonstrate average round-trip efficiency (AC) > 65% over a 30-day period
- Demonstrate less than 1% capacity degradation in the first 12 months of full-scale operation
- Advance the organic flow battery storage technology from a prototype-demonstration (Technology Readiness Level (TRL) 6)) to field validation (TRL 8)

[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.

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, and other CEC staff relevant to the Agreement. The Recipient's Project Manager and any other individuals deemed necessary by the CAM or the Project Manager shall participate in 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., Teams, Zoom), with approval of the CAM.

  The Kick-off meeting will include discussion of the following:
  - The CAM's expectations for accomplishing tasks described in the Scope of Work;
  - An updated Project Schedule;
  - Terms and conditions of the Agreement;
  - Invoicing and auditing procedures;
  - Travel;

- Equipment purchases;
- Administrative and Technical products (subtask 1.1);
- CPR meetings (subtask 1.3);
- Monthly Calls (subtask 1.5)
- Quarterly Progress reports (subtask 1.6)
- Final Report (subtask 1.7)
- Match funds (subtask 1.8);
- Permit documentation (subtask 1.9);
- Subawards(subtask 1.10);
- Technical Advisory Committee meetings (subtasks 1.11 and 1.12);
- Agreement changes;
- Performance Evaluations; 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 may 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 may 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. A determination of unsatisfactory progress This may result in project delays, including a potential Stop Work Order, while the CEC determines whether the project should continue.
- 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(s)
- 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 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* organized by the tasks in the Agreement.

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

MONTHLY CALLS, 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.

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

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

CAM Product:

- Written Comments on the Draft Final Report

MATCH FUNDS, PERMITS, AND SUBAWARDS

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. 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 application 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 application 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 1.9 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 Subawards 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 subrecipients activities in accordance with the requirements of this Agreement.

- Execute and manage site host agreements, and ensure the right to use the project site throughout the term of the Agreement, as applicable. A site host agreement is not required if the Recipient is the site host.
- 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.
- Incorporate this Agreement by reference into each subaward.
- Include any required Energy Commission flow-down provisions in each subaward, in addition to a statement that the terms of this Agreement will prevail if they conflict with the subaward 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 requested 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 terms regarding subrecipient additions in the terms and conditions).

Products:

- Subaward[~~s~~] 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.
- 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 1.12.
- 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.
- 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 extent to which the Recipient met each of the performance metrics in the *Final Project Benefits Questionnaire*, developed in the Evaluation of Project Benefits task.
- Discuss the *Project Performance Metrics Results* at the Final Meeting.

Products:
- TAC Performance Metrics Summary
- Project Performance Metrics Results

IV. TECHNICAL TASKS

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

TASK 2 RESEARCH & DEVELOPMENT AT QUINO ENERGY

The goal of this task is to measure electrolyte parameters, model and validate system's fluid dynamics, and modify the energy blocks of the flow battery system, as necessary.

The Recipient shall execute:
- Measure electrolyte parameters
- Model and validate fluid dynamics
- Modify energy blocks based on computational data
- Prepare *a Summary Research & Development Report* that includes but is not limited to:
    - Electrolyte parameter measurements
    - Results of fluid dynamics modeling
    - Summary of energy block modifications

Products:
- Summary Research & Development Report (draft and final)

TASK 3 ASSESS SITE REQUIREMENTS

The goal of this task is to assess the site electrical load and on-site generation and research applicable utility incentive programs to optimize the energy storage system size for operational benefits of electricity cost reduction and energy resiliency.

The Recipient shall execute:
- Assess electrical load and generation at demonstration site facility.

- Research applicable utility programs that can benefit storage demonstration, including but not limited to Southern California Edison and Lancaster Energy demand response programs.
- Optimize storage system sizing based on detailed analysis of site load with any planned photovoltaic.
- Prepare *a Site Assessment Report* that includes but is not limited to:
    - Summary of site electrical load and on-site generation profiles,
    - Applicable utility incentive programs,
    - Expected cost and energy resiliency benefits of optimized storage system
- Prepare *System Measurement and Verification Plan* for energy storage system which includes, but is not limited to, relevant system performance metrics and targeted values for each metric

Products:

- Site Assessment Report (draft and final)
- System Measurement and Verification Plan

TASK 4 PROJECT DEVELOPMENT AND CONTRACTING

The goal of this task is to complete the required site engineering and sign key agreements with project vendors and partners.

The Recipient shall execute:

- Apply for Pre-Manufacture Notice from the US Environmental Protection Agency, required for manufacturing or importing chemicals in quantities greater than 10 tons to enable manufacturing of the redox flow battery negolyte, as applicable.
- Secure binding purchase agreement for redox flow battery hardware, negolyte, and posolyte.
- Design site layout and provide *Preliminary Drawings and Site Layout.*
- Perform civil and/or structural engineering studies.
- Study interconnection requirements and complete *Interconnection Summary* that includes results of the Southern California Edison Customer Side of Meter generator study.
- Assess local codes, standards, and permitting and develop *Permitting Checklist,* which shall include a plan for environmental and construction permits needed for project execution.
- Develop *Community Engagement Plan* to solicit feedback and support from local community stakeholders, which shall include:
    - Summary of engagement activities (completed and planned),
    - Community stakeholder feedback,
    - Letters of support.
- Prepare *a Project Development Report* that includes but is not limited to:
    - Status of progress toward all required project permits,
    - Status of agreements with key vendors and project partners,
    - Community engagement activities organized to date.
- Prepare and submit a *CPR Report #1* in accordance with subtask 1.3 (CPR Meetings).
- Participate in a CPR meeting.

Products:

- Preliminary Drawings and Site Layout
- Interconnection Summary
- Permitting Checklist
- Community Engagement Plan
- Project Development Report (draft and final)
- CPR Report #1

TASK 5 PRE-CONSTRUCTION ACTIVITIES

The goal of this task is to secure all necessary permits and approvals for the energy storage demonstration while selecting an Engineering, Procurement, and Construction (EPC) provider and procuring material inputs from key vendors in preparation for construction.

The Recipient shall execute:

- Select EPC contractor and develop schedule and construction phasing plan.
- Secure all required permits and approvals for construction activities.
- Procure key equipment and materials.
- Secure required local permits for negolyte manufacturing site.
- Procure negolyte, posolyte, and redox flow battery hardware and system.
- Prepare *a Pre-Construction Report* that includes but is not limited to:
    - EPC contractor selection and background
    - Schedule for construction activities
    - Status of all identified required permits and approvals
    - Status of materials procurement and lead times

Products:

- Pre-Construction Report (draft and final)

TASK 6 CONSTRUCTION

The goal of this task is to deliver, install, and interconnect the redox flow battery energy storage system at the host site.

The Recipient shall execute:

- Prepare site for construction and provide *Site Safety Plan* which shall include potential site hazards, mitigations, and construction safety plan.
- Deliver and install equipment.
- Interconnect with local utility provider and provide *Permission to Operate Documentation* from Southern California Edison.
- Manage on-going construction activities.
- Prepare *a Construction Summary Report* that includes but is not limited to:
    - Summary of the construction safety plan
    - Schedule and cost summary of equipment delivery and installation

Products:

- Site Safety Plan
- Permission to Operate Documentation
- Construction Summary Report (draft and final)

TASK 7 SYSTEM TESTING & COMMISSIONING
The goal of this task is to fully commission and test the energy storage system at the host site.

The Recipient shall execute:
- Assess the quality of electrical, controls & communications systems.
- Establish reporting and submission of final certifications.
- Commission flow battery system to full power and energy.
- Prepare *a Testing & Commissioning Report* that includes but is not limited to:
    - Summary of quality control checks for electrical, controls, and communications systems,
    - Status of initial power and energy ratings for the storage system upon full commissioning.
- Prepare and submit a *CPR Report #2* in accordance with subtask 1.3 (CPR Meetings).
- Participate in a CPR meeting.

Products:
- Testing and Commissioning Report
- CPR Report #2

TASK 8 FIELD TEST & DEMONSTRATION
The goal of this task is to measure and test the flow battery system against the project's technology performance metrics.

The Recipient shall:
- Develop and execute a *Test & Data Collection Plan.*
- Develop an *Operations & Maintenance Plan* to list the best practices for operating and maintaining the flow battery storage system.
- Operate and maintain the flow battery system for a minimum of twelve months.
- Prepare *a System Operations Summary Report* that includes but is not limited to:
    - System performance against defined technology performance metrics, including degradation rate when providing multiple services, roundtrip efficiency, and average daily charge/discharge profiles.

Products:
- Test & Data Collection Plan
- Operations & Maintenance Plan
- System Operations Summary Report (draft and final)

TASK 9 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 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), 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 10 TECHNOLOGY/KNOWLEDGE TRANSFER ACTIVITIES

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

The Recipient Shall:

- Develop and submit a *Project Case Study Plan* that outlines how the Recipient will document the planning, construction, commissioning, and operation of the technology or system being demonstrated. The Project Case Study Plan should include:
  - An outline of the objectives, goals, and activities of the case study.
  - The organization that will be conducting the case study and the plan for conducting it.
  - A list of professions and practitioners involved in the technology's deployment.
  - Specific activities the recipient will take to ensure the learning that results from the project is disseminated to those professions and practitioners.
  - Presentations/webinars/training events to disseminate the results of the case study.
- Present the draft *Project Case Study Plan* to the TAC for review and comment.

- Develop and submit a *Summary of TAC Comments* that summarizes comments received from the TAC members on the draft *Project Case Study Plan*. This document will identify:
    - TAC comments the Recipient proposes to incorporate into the final *Technology Transfer Plan*.
    - TAC comments the Recipient does not propose to incorporate with and explanation why.
- Submit the final *Project Case Study Plan* to the CAM for approval.
- Execute the final Project Case Study Plan and develop and submit a Project Case Study.
- When directed by the CAM, develop presentation materials for a CEC sponsored conference/workshop(s) on the project.
- When directed by the CAM, participate in annual EPIC symposium(s) sponsored by the 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 and final)
- Summary of TAC Comments
- Project Case Study (draft and final)
- High Quality Digital Photographs

V. PROJECT SCHEDULE

Please see the attached Excel spreadsheet.