



STATE OF CALIFORNIA

**GRANT REQUEST FORM (GRF)**

CEC-270 (Revised 12/2019)

CALIFORNIA ENERGY COMMISSION

**A) New Agreement # EPC-22-005 (to be completed by CGL office)**

<b>B) Division</b>	<b>Agreement Manager:</b>	<b>MS-</b>	<b>Phone</b>
ERDD	Ben Wender	43	916-776-0823

<b>C) Recipient's Legal Name</b>	<b>Federal ID Number</b>
Gridscape Solutions, Inc.	46-1804754

<b>D) Title of Project</b>
Scalable, Resilient V2B Multi-Vehicle DC Platform (MVP DC) Demonstration at Public Buildings in California

**E) Term and Amount**

<b>Start Date</b>	<b>End Date</b>	<b>Amount</b>
8/15/2022	1/31/2026	\$ 4,000,000

**F) Business Meeting Information**

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

Proposed Business Meeting Date 8/10/2022 ☐ Consent ☒ Discussion

Business Meeting Presenter Ben Wender Time Needed: 5 minutes

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

**Agenda Item Subject and Description:****Gridscape Solutions, Inc.**

Gridscape Solutions, Inc. Proposed resolution approving agreement EPC-22-005 with Gridscape Solutions, Inc. for a \$4,000,000 grant to advance and demonstrate an innovative direct current-coupled bidirectional charging platform capable of discharging multiple EVs using a centralized Rule 21-compliant grid forming inverter, and adopting staff's determination that this action is exempt from CEQA. The project will demonstrate discharging of EVs to power public buildings at three sites located in low-income, disadvantaged, and Tribal community. (EPIC funding) Contact: Ben Wender. (Staff Presentation: 5 minutes).

**G) California Environmental Quality Act (CEQA) Compliance**

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

☒ Yes (skip to question 2)

☐ No (complete the following (PRC 21065 and 14 CCR 15378)):

Explain why Agreement is not considered a "Project":

2. If Agreement is considered a "Project" under CEQA:

a) ☒ Agreement **IS** exempt.

☐ Statutory Exemption. List PRC and/or CCR section number:

☒ Categorical Exemption. List CCR section number: Cal. Code Regs., tit. 14, § 15303 ; Cal. Code Regs., tit. 14, § 15304

☐ Common Sense Exemption. 14 CCR 15061 (b) (3)

**GRANT REQUEST FORM (GRF)**

Explain reason why Agreement is exempt under the above section: Cal. Code Regs., tit. 14, sec. 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. This project consists of installation of new electric vehicle charging stations that will not result in serious or major disturbance to an environmental resource. Therefore, the project falls within section 15303 and will not have a significant effect on the environment.

Cal. Code Regs., tit. 14, sect. 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 and agricultural purposes are categorically exempt from the provisions of CEQA. In this project, Gridscape will trench and backfill to extend electrical lines and conduit to the new electric vehicle charging stations. The trenching will occur in an existing asphalt parking lots, which will not include the removal of healthy, mature, or scenic trees. Therefore, the project falls within section 15304 and will not have a significant effect on the environment.

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

Check all that apply

- ☐ Initial Study  
☐ Negative Declaration  
☐ Mitigated Negative Declaration  
☐ Environmental Impact Report  
☐ Statement of Overriding Considerations

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

<b>Legal Company Name:</b>	<b>Budget</b>
Electric Power Research Institute, Inc.	\$ 1,150,000
Rhombus Energy Solutions, Inc.	\$ 258,224
Build Momentum (d.b.a. Momentum)	\$ 140,000
THE ENERGY COALITION	\$ 99,000
BYD Solutions	\$ 50,000
	\$

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

<b>Legal Company Name:</b>



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**J) Budget Information**

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
EPIC	21-22	301.001I	\$4,000,000

R&amp;D Program Area: EGRO: Transportation

TOTAL: \$ 4,000,000

Explanation for "Other" selection

Reimbursement Contract #: Federal Agreement #:

**K) Recipient's Contact Information****1. Recipient's Administrator/Officer**

Name: Vipul Gore

Address: 46711 Fremont Blvd

City, State, Zip: Fremont, CA  
94538-6539

Phone: 510-894-6030

E-Mail: vipulgore@grid-scape.com

**2. Recipient's Project Manager**

Name: Vipul Gore

Address: 46711 Fremont Blvd

City, State, Zip: Fremont, CA  
94538-6539

Phone: 510-894-6030

E-Mail: vipulgore@grid-scape.com

**L) Selection Process Used**

- ☒ Competitive Solicitation Solicitation #: GFO-21-303-08
- ☐ First Come First Served Solicitation Solicitation #:
- ☐ Non-Competitive Bid Follow-on Funding (SB 115)

**M) The following items should be attached to this GRF**

- |   |  |
|---|--|
| 1. Exhibit A, Scope of Work                                     | <input checked="" type="checkbox"/> Attached |
| 2. Exhibit B, Budget Detail                                     | <input checked="" type="checkbox"/> Attached |
| 3. CEC 105, Questionnaire for Identifying Conflicts             | <input checked="" type="checkbox"/> Attached |
| 4. Recipient Resolution <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached            |
| 5. CEQA Documentation <input type="checkbox"/> N/A              | <input checked="" type="checkbox"/> Attached |

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**Agreement Manager**

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**Date**

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**Office Manager**

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**Date**

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**Deputy Director**

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**Date**

**Exhibit A**  
**Scope of Work**  
**Gridscape Solutions, Inc.**

**I. TASK ACRONYM/TERM LISTS**

**A. Task List**

Task #	CPR <sup>1</sup>	Task Name
1		General Project Tasks
2		Community Engagement
3	X	System Design and Engineering
4		System Construction and Commissioning
5	X	Operations, Measurement and Verification
6		Evaluation of Project Benefits
7		Technology/Knowledge Transfer Activities

**B. Acronym/Term List**

Acronym/Term	Meaning
BTM	Behind the meter
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CBO	Community based organization
CEC	California Energy Commission
CPR	Critical Project Review
DSO	Distribution system operator
EV	Electric vehicle
CAISO	California Independent System Operator
MVP DC	Multi vehicle DC platform
HPGP	HomePlug Green Phy
OEM	Original Equipment Manufacturer
PSPS	Public safety power shutoff
TAC	Technical Advisory Committee
V2B	Vehicle to Building

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

**A. Purpose of Agreement**

The purpose of this Agreement is to advance and demonstrate an innovative multi-vehicle DC platform (MVP DC) vehicle-to-building (V2B) electric vehicle (EV) charger configuration to provide backup power to small, medium, or large public buildings that serve as community energy resilience centers during public safety power shutoff (PSPS) or intentional islanding events.

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<sup>1</sup> 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**  
**Gridscape Solutions, Inc.**

**B. Problem/ Solution Statement**

**Problem**

Public buildings that serve as emergency and community centers typically rely on polluting fossil fuel generators with fuel storage tanks to support operations in the event of prolonged grid outages. While stationary lithium-ion battery energy storage can provide backup power with significantly lower emissions, these systems are expensive particularly if scaled to cover a multi-day outage. Large behind-the-meter (BTM) stationary energy storage may have a low utilization factor with a large fraction of the capacity unused. While V2B technologies can provide backup power at potentially lower costs than stationary BTM storage, previous demonstrations have typically focused on a single vehicle powering a single building.

**Solution**

The MVP DC solution uses bidirectional EV chargers equipped with DC-to-DC converters to feed a centralized, grid-forming, black-start capable, California Public Utilities Commission Electric Rule 21 (Rule 21) compliant, off-the-shelf DC-AC inverter. This novel configuration allows the EV chargers to manage many combinations of vehicle types with different communications protocols, voltage levels, and discharge rates. All EV charging load or export can be aggregated to a single inverter managed by a microgrid control. The project will advance first-of-a kind control algorithms to manage connected EV chargers independently through DC-DC converters at each EV charger pedestal and demonstrate rotation of multiple EVs through available chargers to provide long duration backup power capabilities. This project will also evaluate incentive structures to engage and compensate EV drivers for allowing use of their vehicles for V2B operations.

**C. Goals and Objectives of the Agreement**

**Agreement Goals**

The goals of this Agreement include the following:

1. Demonstrate use of the MVP DC to provide V2B backup power from multiple EVs at small, medium or large public buildings that serve as energy resilience centers located in low-income, disadvantaged, and Tribal communities during power outages or intentional islanding events
2. Advance V2B technology readiness and adoption across EV and charging equipment manufacturers, charging service providers, building and fleet owners, and utilities
3. Pilot business models and incentive structures to compensate EV owners for use of their vehicle in V2B operations.

**Ratepayer Benefits:**<sup>2</sup> This Agreement will result in the ratepayer benefits of greater electricity reliability and resilience by advancing V2B technologies that can provide backup power for long durations at a lower cost than stationary BTM storage. The MVP DC V2B meets all Rule 21 requirements and can safely interconnect with electricity distribution systems while providing additional benefits such as peak demand management to reduce site energy costs. The

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<sup>2</sup> 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](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/167664.PDF)).

## **Exhibit A Scope of Work Gridscape Solutions, Inc.**

technology demonstrated can replace fossil-based backup generators resulting in reduced greenhouse gas and local criteria pollutant emissions. Additionally, this agreement will fund partnerships with community-based organizations (CBOs) to demonstrate how the MVP DC technology can support critical resilience centers and mitigate the impacts of PSPS and other reliability events.

Technological Advancement and Breakthroughs:<sup>3</sup> 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 a novel DC bidirectional charging platform capable of managing multiple EV types simultaneously to provide backup power. The agreement will produce open-source, standardized controls software that enable a range of use cases and applications in a replicable and scalable manner. The MVP DC can be deployed quickly because it builds on commercially available V2B-capable EV charging hardware with DC-to-DC converters to feed a central grid-forming, black-start capable, Rule 21 compliant, off-the-shelf inverter.

### **Agreement Objectives**

The objectives of this Agreement are to:

- 1) Demonstrate grid interactive Rule 21 compliant V2B technologies at facilities that are accessible to the public and located in low-income, disadvantaged, and Tribal communities
- 2) Advance the technology readiness of the MVP DC and demonstrate safe disconnection from utility distribution systems and reliable black start and support of building loads with multiple different light- and medium-duty EV makes and types
- 3) Develop open-source control algorithm(s) integrated with the on-site microgrid controller and energy management system to enable the following:
  - i. Optimized power sharing between multiple EVs as well as existing distributed energy resources to provide backup power for long duration outages
  - ii. Extended resiliency and flexibility by allowing EVs to connect and disconnect in the off-grid mode without interrupting the building's power supply
  - iii. Grid interactive functions to provide additional benefits such as energy arbitrage services
- 4) Design, test, and evaluate a trial compensation mechanism(s) to incentivize participation from EV owners for allowing use of their vehicles for V2B operations such as provision of backup power, providing demand charge reduction, or participating in other grid services
- 5) Partner with CBOs in project design and execution to improve engagement, dissemination, and delivery of resilience benefits to community members
- 6) Support development of scalable and replicable V2B technology and business models

### **III. TASK 1 GENERAL PROJECT TASKS**

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

**Exhibit A**  
**Scope of Work**  
**Gridscope Solutions, Inc.**

**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:

**Exhibit A**  
**Scope of Work**  
**Gridscape Solutions, Inc.**

- Data sets will be in MS Access or MS Excel file format (version 2007 or later), or any other format approved by the CAM.
  - Text documents will be in MS Word file format, version 2007 or later.
  - Project management documents will be in Microsoft Project file format, version 2007 or later.
- **Software Application Development**
- Use the following standard Application Architecture components in compatible versions for any software application development required by this Agreement (e.g., databases, models, modeling tools), unless the CAM approves other software applications such as open source programs:
- Microsoft ASP.NET framework (version 3.5 and up). Recommend 4.0.
  - Microsoft Internet Information Services (IIS), (version 6 and up) Recommend 7.5.
  - Visual Studio.NET (version 2008 and up). Recommend 2010.
  - C# Programming Language with Presentation (UI), Business Object and Data Layers.
  - SQL (Structured Query Language).
  - Microsoft SQL Server 2008, Stored Procedures. Recommend 2008 R2.
  - Microsoft SQL Reporting Services. Recommend 2008 R2.
  - XML (external interfaces).

Any exceptions to the Electronic File Format requirements above must be approved in writing by the CAM. The CAM will consult with the CEC's Information Technology Services Branch to determine whether the exceptions are allowable.

**MEETINGS**

**Subtask 1.2 Kick-off Meeting**

The goal of this subtask is to establish the lines of communication and procedures for implementing this Agreement.

**The Recipient shall:**

- Attend a "Kick-off" meeting with the CAM, the Commission Agreement Officer (CAO), and any other CEC staff relevant to the Agreement. The Recipient will bring its Project Manager and any other individuals designated by the CAM to this meeting. The administrative and technical aspects of the Agreement will be discussed at the meeting. Prior to the meeting, the CAM will provide an agenda to all potential meeting participants. The meeting may take place in person or by electronic conferencing (e.g., WebEx), with approval of the CAM.

The administrative portion of the meeting will include discussion of the following:

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



**Exhibit A**  
**Scope of Work**  
**Gridscape Solutions, Inc.**

The technical portion of the meeting will include discussion of the following:

- The CAM's expectations for accomplishing tasks described in the Scope of Work;
  - An updated Project Schedule;
  - Technical products (subtask 1.1);
  - Progress reports (subtask 1.5);
  - Final Report (subtask 1.6);
  - Technical Advisory Committee meetings (subtasks 1.10 and 1.11); and
  - Any other relevant topics.
- Provide *Kick-off Meeting Presentation* to include but not limited to:
    - Project overview (i.e. project description, goals and objectives, technical tasks, expected benefits, etc.)
    - Project schedule that identifies milestones
    - List of potential risk factors and hurdles, and mitigation strategy
  - Provide an *Updated Project Schedule, Match Funds Status Letter, and Permit Status Letter*, as needed to reflect any changes in the documents.

**The CAM shall:**

- Designate the date and location of the meeting.
- Send the Recipient a *Kick-off Meeting Agenda*.

**Recipient Products:**

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

**CAM Product:**

- Kick-off Meeting Agenda

**Subtask 1.3 Critical Project Review (CPR) Meetings**

The goal of this subtask is to determine if the project should continue to receive CEC funding, and if so whether any modifications must be made to the tasks, products, schedule, or budget. CPR meetings provide the opportunity for frank discussions between the CEC and the Recipient. As determined by the CAM, discussions may include project status, challenges, successes, advisory group findings and recommendations, final report preparation, and progress on technical transfer and production readiness activities (if applicable). Participants will include the CAM and the Recipient and may include the CAO and any other individuals selected by the CAM to provide support to the CEC.

CPR meetings generally take place at key, predetermined points in the Agreement, as determined by the CAM and as shown in the Task List on page 1 of this Exhibit. However, the CAM may schedule additional CPR meetings as necessary. The budget will be reallocated to cover the additional costs borne by the Recipient, but the overall Agreement amount will not increase. CPR meetings generally take place at the CEC, but they may take place at another location, or may be conducted via electronic conferencing (e.g., WebEx) as determined by the CAM.

**The Recipient shall:**

**Exhibit A**  
**Scope of Work**  
**Gridscope Solutions, Inc.**

- 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(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 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.

**Exhibit A**  
**Scope of Work**  
**Gridscope Solutions, Inc.**

- “Surviving” Agreement provisions such as repayment provisions and confidential products.
- Final invoicing and release of retention.
- Prepare a *Final Meeting Agreement Summary* that documents any agreement made between the Recipient and Commission staff during the meeting.
- Prepare a *Schedule for Completing Agreement Closeout Activities*.
- Provide copies of *All Final Products* on a USB memory stick, organized by the tasks in the Agreement.

**Products:**

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

**REPORTS AND INVOICES**

**Subtask 1.5 Progress Reports and Invoices**

The goals of this subtask are to: (1) periodically verify that satisfactory and continued progress is made towards achieving the project objectives of this Agreement; and (2) ensure that invoices contain all required information and are submitted in the appropriate format.

**The Recipient shall:**

- Submit a monthly *Progress Report* to the CAM. Each progress report must:
  - Summarize progress made on all Agreement activities as specified in the scope of work for the preceding month, including accomplishments, problems, milestones, products, schedule, fiscal status, and an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. See the Progress Report Format Attachment for the recommended specifications.
- Submit a monthly or quarterly *Invoice* that follows the instructions in the “Payment of Funds” section of the terms and conditions, including a financial report on Match Funds and in-state expenditures.

**Products:**

- Progress Reports
- Invoices

**Subtask 1.6 Final Report**

The goal of this subtask is to prepare a comprehensive Final Report that describes the original purpose, approach, results, and conclusions of the work performed under this Agreement. When creating the Final Report Outline and the Final Report, the Recipient must use the CEC Style Manual provided by the CAM.

**Subtask 1.6.1 Final Report Outline**

**The Recipient shall:**

- Prepare a *Final Report Outline* in accordance with the *Energy Commission Style Manual* provided by the CAM.

**Recipient Products:**

- Final Report Outline (draft and final)

## Exhibit A Scope of Work Gridscape Solutions, Inc.

### CAM Product:

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

### Subtask 1.6.2 Final Report

#### The Recipient shall:

- Prepare a *Final Report* for this Agreement in accordance with the approved Final Report Outline, Energy Commission Style Manual, and Final Report Template provided by the CAM with the following considerations:
  - Ensure that the report includes the following items, in the following order:
    - Cover page (**required**)
    - Credits page on the reverse side of cover with legal disclaimer (**required**)
    - Acknowledgements page (optional)
    - Preface (**required**)
    - Abstract, keywords, and citation page (**required**)
    - Table of Contents (**required**, followed by List of Figures and List of Tables, if needed)
    - Executive summary (**required**)
    - Body of the report (**required**)
    - References (if applicable)
    - Glossary/Acronyms (If more than 10 acronyms or abbreviations are used, it is required.)
    - Bibliography (if applicable)
    - Appendices (if applicable) (Create a separate volume if very large.)
    - Attachments (if applicable)
- Submit a draft of the Executive Summary to the TAC for review and comment.
- Develop and submit a *Summary of TAC Comments* received on the Executive Summary. For each comment received, the recipient will identify in the summary the following:
  - Comments the recipient proposes to incorporate.
  - Comments the recipient does propose to incorporate and an explanation for why.
- Submit a draft of the report to the CAM for review and comment. The CAM will provide written comments to the Recipient on the draft product within 15 days of receipt.
- Incorporate all CAM comments into the *Final Report*. If the Recipient disagrees with any comment, provide a *Written Responses to Comments* explaining why the comments were not incorporated into the final product.
- Submit the revised *Final Report* electronically with any Written Responses to Comments within 10 days of receipt of CAM's Written Comments on the Draft Final Report, unless the CAM specifies a longer time period or approves a request for additional time.

#### Products:

- Summary of TAC Comments
- Draft Final Report
- Written Responses to Comments (*if applicable*)
- Final Report

## Exhibit A Scope of Work Gridscape Solutions, Inc.

### CAM Product:

- Written Comments on the Draft Final Report

### **MATCH FUNDS, PERMITS, AND SUBCONTRACTS**

#### **Subtask 1.7 Match Funds**

The goal of this subtask is to ensure that the Recipient obtains any match funds planned for this Agreement and applies them to the Agreement during the Agreement term.

While the costs to obtain and document match funds are not reimbursable under this Agreement, the Recipient may spend match funds for this task. The Recipient may only spend match funds during the Agreement term, either concurrently or prior to the use of CEC funds. Match funds must be identified in writing, and the Recipient must obtain any associated commitments before incurring any costs for which the Recipient will request reimbursement.

#### **The Recipient shall:**

- Prepare a *Match Funds Status Letter* that documents the match funds committed to this Agreement. If no match funds were part of the proposal that led to the CEC awarding this Agreement and none have been identified at the time this Agreement starts, then state this in the letter.

If match funds were a part of the proposal that led to the CEC awarding this Agreement, then provide in the letter:

- A list of the match funds that identifies:
  - The amount of cash match funds, their source(s) (including a contact name, address, and telephone number), and the task(s) to which the match funds will be applied.
  - The amount of each in-kind contribution, a description of the contribution type (e.g., property, services), the documented market or book value, the source (including a contact name, address, and telephone number), and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Recipient must identify its owner and provide a contact name, address, telephone number, and the address where the property is located.
  - If different from the solicitation application, provide a letter of commitment from an authorized representative of each source of match funding that the funds or contributions have been secured.
- At the Kick-off meeting, discuss match funds and the impact on the project if they are significantly reduced or not obtained as committed. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.
- Provide a *Supplemental Match Funds Notification Letter* to the CAM of receipt of additional match funds.
- Provide a *Match Funds Reduction Notification Letter* to the CAM if existing match funds are reduced during the course of the Agreement. Reduction of match funds may trigger a CPR meeting.

#### **Products:**

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

## **Exhibit A Scope of Work Gridscape Solutions, Inc.**

### **Subtask 1.8 Permits**

The goal of this subtask is to obtain all permits required for work completed under this Agreement in advance of the date they are needed to keep the Agreement schedule on track. Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement, with the exception of costs incurred by University of California recipients. Permits must be identified and obtained before the Recipient may incur any costs related to the use of the permit(s) for which the Recipient will request reimbursement.

#### **The Recipient shall:**

- Prepare a *Permit Status Letter* that documents the permits required to conduct this Agreement. If no permits are required at the start of this Agreement, then state this in the letter. If permits will be required during the course of the Agreement, provide in the letter:
  - A list of the permits that identifies: (1) the type of permit; and (2) the name, address, and telephone number of the permitting jurisdictions or lead agencies.
  - The schedule the Recipient will follow in applying for and obtaining the permits.

The list of permits and the schedule for obtaining them will be discussed at the Kick-off meeting (subtask 1.2), and a timetable for submitting the updated list, schedule, and copies of the permits will be developed. The impact on the project if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in progress reports and will be a topic at CPR meetings.

- If during the course of the Agreement additional permits become necessary, then provide the CAM with an *Updated List of Permits* (including the appropriate information on each permit) and an *Updated Schedule for Acquiring Permits*.
- Send the CAM a *Copy of Each Approved Permit*.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CAM within 5 days. Either of these events may trigger a CPR meeting.

#### **Products:**

- Permit Status Letter
- Updated List of Permits (*if applicable*)
- Updated Schedule for Acquiring Permits (*if applicable*)
- Copy of Each Approved Permit (*if applicable*)

### **Subtask 1.9 Subcontracts**

The goals of this subtask are to: (1) procure subcontracts required to carry out the tasks under this Agreement; and (2) ensure that the subcontracts are consistent with the terms and conditions of this Agreement.

#### **The Recipient shall:**

- Manage and coordinate subcontractor activities in accordance with the requirements of this Agreement.
- Incorporate this Agreement by reference into each subcontract.
- Include any required Energy Commission flow-down provisions in each subcontract, in addition to a statement that the terms of this Agreement will prevail if they conflict with the subcontract terms.
- If required by the CAM, submit a draft of each *Subcontract* required to conduct the work under this Agreement.

**Exhibit A**  
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- Submit a final copy of each executed subcontract.
- Notify and receive written approval from the CAM prior to adding any new subcontractors (see the discussion of subcontractor additions in the terms and conditions).

**Products:**

- Subcontracts (*draft if required by the CAM*)

**TECHNICAL ADVISORY COMMITTEE**

**Subtask 1.10 Technical Advisory Committee (TAC)**

The goal of this subtask is to create an advisory committee for this Agreement. The TAC should be composed of diverse professionals. The composition will vary depending on interest, availability, and need. TAC members will serve at the CAM's discretion. The purpose of the TAC is to:

- Provide guidance in project direction. The guidance may include scope and methodologies, timing, and coordination with other projects. The guidance may be based on:
  - Technical area expertise;
  - Knowledge of market applications; or
  - Linkages between the agreement work and other past, present, or future projects (both public and private sectors) that TAC members are aware of in a particular area.
- Review products and provide recommendations for needed product adjustments, refinements, or enhancements.
- Evaluate the tangible benefits of the project to the state of California, and provide recommendations as needed to enhance the benefits.
- Provide recommendations regarding information dissemination, market pathways, or commercialization strategies relevant to the project products.
- Help set the project team's goals and contribute to the development and evaluation of its statement of proposed objectives as the project evolves.
- Provide a credible and objective sounding board on the wide range of technical and financial barriers and opportunities.
- Help identify key areas where the project has a competitive advantage, value proposition, or strength upon which to build.
- Advocate, to the extent the TAC members feel is appropriate, on behalf of the project in its effort to build partnerships, governmental support, and relationships with a national spectrum of influential leaders.
- Ask probing questions that insure a long-term perspective on decision-making and progress toward the project's strategic goals.

The TAC may be composed of qualified professionals spanning the following types of disciplines:

- Researchers knowledgeable about the project subject matter;
- Members of trades that will apply the results of the project (e.g., designers, engineers, architects, contractors, and trade representatives);
- Public interest market transformation implementers;
- Product developers relevant to the project;
- U.S. Department of Energy research managers, or experts from other federal or state agencies relevant to the project;
- Public interest environmental groups;

**Exhibit A**  
**Scope of Work**  
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- Utility representatives;
- Air district staff; and
- Members of relevant technical society committees.

**The Recipient shall:**

- Prepare a *List of Potential TAC Members* that includes the names, companies, physical and electronic addresses, and phone numbers of potential members. The list will be discussed at the Kick-off meeting, and a schedule for recruiting members and holding the first TAC meeting will be developed.
- Recruit TAC members. Ensure that each individual understands member obligations and the TAC meeting schedule developed in subtask 1.11.
- Prepare a *List of TAC Members* once all TAC members have committed to serving on the TAC.
- Submit *Documentation of TAC Member Commitment* (such as Letters of Acceptance) from each TAC member.

**Products:**

- List of Potential TAC Members
- List of TAC Members
- Documentation of TAC Member Commitment

**Subtask 1.11 TAC Meetings**

The goal of this subtask is for the TAC to provide strategic guidance for the project by participating in regular meetings, which may be held via teleconference.

**The Recipient shall:**

- Discuss the TAC meeting schedule with the CAM at the Kick-off meeting. Determine the number and location of meetings (in-person and via teleconference) in consultation with the CAM.
- Prepare a *TAC Meeting Schedule* that will be presented to the TAC members during recruiting. Revise the schedule after the first TAC meeting to incorporate meeting comments.
- Prepare a *TAC Meeting Agenda* and *TAC Meeting Back-up Materials* for each TAC meeting.
- Organize and lead TAC meetings in accordance with the TAC Meeting Schedule. Changes to the schedule must be pre-approved in writing by the CAM.
- Prepare *TAC Meeting Summaries* that include any recommended resolutions of major TAC issues.

**The TAC shall:**

- Help set the project team's goals and contribute to the development and evaluation of its statement of proposed objectives as the project evolves.
- Provide a credible and objective sounding board on the wide range of technical and financial barriers and opportunities.
- Help identify key areas where the project has a competitive advantage, value proposition, or strength upon which to build.
- Advocate on behalf of the project in its effort to build partnerships, governmental support and relationships with a national spectrum of influential leaders.



**Exhibit A**  
**Scope of Work**  
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- Ask probing questions that insure a long-term perspective on decision-making and progress toward the project's strategic goals.
- Review and provide comments to proposed project 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 1.12 Project Performance Metrics**

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

**The Recipient shall:**

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

**Products:**

- TAC Performance Metrics Summary
- Project Performance Metrics Results

**Exhibit A**  
**Scope of Work**  
**Gridscape Solutions, Inc.**

**IV. TECHNICAL TASKS**

**TASK 2 COMMUNITY ENGAGEMENT**

The goal of this task is to engage stakeholders and community members who will access the demonstration sites to build relationships, awareness, and support for the project. This outreach will support local communities with: adoption of clean energy technologies instead of fossil based backup generators; understanding of the benefits of V2B technology; access to electric resilience benefits; and, economic and workforce development opportunities.

**The Recipient shall:**

- Develop a comprehensive *Community Engagement Plan* that includes:
  - Description of targeted community outreach strategies
  - Identification of vulnerable communities who are disproportionately and negatively affected by air pollution, extreme heat or weather events due to climate change, and/or low electric reliability or resilience
  - Identification of potential community partners (e.g., community groups, religious groups, public works staff, workforce)
  - Schedule for planned community outreach activities (e.g., field trips/site tours, community events, informational displays)
  - Pre- and post-outreach surveys to quantify and analyze community understanding and experiences
- Establish a community stakeholder group for each project site
- Implement the community engagement plan
- Collect stakeholder and community member feedback
- Train and provide materials and support for field educators to participate in community organizing and stakeholder engagement.
- Summarize project learnings, results, and recommendations for future activities in a *Community Engagement Report*

**Products:**

- Community Engagement Plan
- Community Engagement Report

**TASK 3 SYSTEM DESIGN AND ENGINEERING**

The goal of this task is to define the requirements, design, and engineer the MVP DC system at each site before beginning construction.

**The Recipient shall:**

- Prepare a *System Requirements Document* (one for each site) that includes, but is not limited to, the following:
  - Definition of functional requirements at California independent system operator (CASO), distribution system operator (DSO), local transformer, and MVP DC-system levels
  - Definition of specific use cases for which the system will be used
  - Definition of a test plan(s) to validate the performance of the MVP DC in specific use cases and operational scenarios

**Exhibit A**  
**Scope of Work**  
**Gridscope Solutions, Inc.**

- Definition of required control signals and data exchanges between sub-systems (for example, CAISO, DSO, local transformer, site controller, bidirectional charger, and EV)
- Definition of data acquisition requirements
- Definition of a data warehousing plan and a platform
- Definition of cybersecurity requirements for integration with the targeted V2B systems
- Prepare a *System Architecture Document* (one for each site) that includes, but is not limited to, the following:
  - Allocation of system functional requirements into different modules of the system including, CAISO, DSO, local transformer monitor/controller, bidirectional charger, and EV
  - Definition of communications channels in the form of physical connectivity including wired (e.g., Ethernet, HomePlug Green Phy(HPGP)), WiFi, or other appropriate methods
  - Definition of client/server connection protocols among diverse physical and virtual (simulated) actors, including server locations, data exchange protocols (e.g., HTTP) and data security practices (e.g., encryption, number of bits, specific algorithms)
  - Definition of appropriate open standards used to communicate between all of the actors including but not limited to: Society of Automotive Engineers (SAE) J1772, SAE J2931/1, SAE J2847/3, SEP2 (Institute of Electrical and Electronics Engineers [IEEE] 2030.5), SAE J3072, Open Charge Point Protocol (OCPP), OpenADR 2.0b, and International Organization for Standardization (ISO) 15118
- Prepare a *System Design Document* (one for each site) that includes, but is not limited to, the following:
  - Definition of CAISO and DSO modeling requirements including functions implemented and input/output (I/O) signals
  - Definition of site resilience requirements and protocol interactions
  - Definition of EV and bidirectional charger requirements for integration including with on-board and in-building systems
  - Definition of open-source software requirements including but not limited to:
    - Identification of functionalities and specific algorithms needed to perform necessary use cases as well as battery cycle life optimization
    - Identification of operating constraints
    - Identification of resilience (off-grid) and interoperability (grid-connected) needs
    - Integration with microgrid controllers
  - Definition of requirements for grid interconnection of bidirectional chargers
  - Definition of equipment and operational requirements to transition from grid connected to islanded operation and vice versa
  - Integration of all Rule 21 compliance elements and requirements into the overall system design
  - Identification of metering and/or submetering requirements and evaluation of these meters within the bidirectional charger or EV in real-world scenarios
  - Definition of equipment and operational requirements for integrating with multiple distributed energy resources (e.g., solar photovoltaics, stationary batteries, backup systems) at sites
  - Design of the end-to-end communications system
- Prepare a *CPR Report #1* in accordance with subtask 1.3

**Exhibit A**  
**Scope of Work**  
**Gridscape Solutions, Inc.**

- Participate in a CPR meeting

**Products:**

- System Requirements Documents
- System Architecture Documents
- System Design Documents
- CPR Report #1

**TASK 4 SYSTEM CONSTRUCTION AND COMMISSIONING**

The goal for this task is procure the materials and equipment necessary for each installation, complete construction, and commission the sites for operation and testing.

**The Recipient Shall:**

- Develop a *Procurement Plan* that identifies all major equipment and components required at each site, what commercial products were considered, and what factors were considered in final procurement decisions
- Develop an *Interconnection Plan* (one for each site) and review with the utility providing service
- Develop a *Construction Plan* (one for each site) that includes, but is not limited to:
  - Equipment purchase and delivery schedule for major components
  - Anticipated timeline for construction and potential risks that could cause delay
  - Solicited bids from multiple contractors for engineering and installation services
  - Major milestones and anticipated completion dates
- Procure necessary equipment and materials from various vendors following the Procurement Plan
- Provide *Photographs of Completed Construction* (one set for each site) once the construction project has been completed and received applicable permits (provided as part of Task 1.8)
- Complete engineering drawings and provide a *Notification of Approved Engineering Drawings* (one for each site)
- Develop a *Commissioning Checklist* for each site that includes but is not limited to:
  - Verification of electrical single-line drawing as approved AHJ and interconnection plan
  - Verification of all communication and data connections
  - Verification of all software configurations
  - Compliance with codes and standards
- Complete commissioning for each site and demonstrate system readiness by providing evidence that each item on the Commissioning Checklist has been completed
- Document system readiness with *Commissioning Reports* (one for each site)
- Submit an *AB 841 Certification* that certifies the project has complied with all Assembly Bill (AB) 841 (Ting, Chapter 372, Statutes of 2020) requirements specified in Exhibit C or describes why the AB 841 requirements do not apply to the project. The certification shall be signed by Recipient's authorized representative.
- Submit *Electric Vehicle Infrastructure Training Program (EVITP) Certification Numbers of Each EVITP-Certified Electrician* that installed electric vehicle charging infrastructure or equipment. EVITP Certification Numbers are not required to be submitted if AB 841 requirements do not apply to the project

**Exhibit A**  
**Scope of Work**  
**Gridscope Solutions, Inc.**

**Products:**

- Procurement Plan
- Interconnection Plans
- Construction Plans
- Photographs of Completed Construction
- Notifications of Approved Engineering Drawings
- Commissioning Checklists
- Commissioning Reports
- AB 841 Certification
- Electric Vehicle Infrastructure Training Program (EVITP) Certification Numbers of Each EVITP-Certified Electrician

**TASK 5 OPERATIONS, MEASUREMENT, AND VERIFICATION**

The goal of this task is to measure and validate the performance of installed V2B systems during operation including through real and/or simulated islanding events. This task will identify what tests will be conducted, what EVs will be used for testing, methods for data collection, and what analyses will be conducted to produce results reports.

**The Recipient Shall:**

- Create a *Measurement and Verification Plan* that includes but is not limited to:
  - Description of specific tests and evaluations at relevant conditions, including, but not limited to, real or simulated outage duration, time of year, and supported or curtailed loads at the site
  - Description of critical project performance metrics being validated, including, but not limited to:
    - Energy (kWh) charged and discharged by EVs
    - Power (kW) provided by vehicles to facility loads
    - Power and energy required by the building in off-grid mode
    - Percent of power and energy provided by bidirectional chargers and EVs
    - Power and energy provided by other Distributed Energy Resources (DERs) (battery and solar) at each site
  - Identification of all necessary equipment or measurement tools required for verification including, but not limited to, revenue grade meters, charger data collection and storage, and other energy measurement and monitoring tools
  - List of all necessary or future planned certifications for the MVP DC system
- Operate the V2B system and collect data for a minimum of one year and/or 6 simulated outages across all demonstration sites with EVs from at least 3 different manufacturers
- Analyze collected data to evaluate benefits including but not limited to:
  - Resilience benefits such as duration (hours) and types of loads that can be supported by V2B system in an outage.
  - Economic cost effectiveness of using V2B system v/s stationary solar/battery or traditional fossil-fuel generators for resilience
  - Benefits (technical and economic) analysis on whether it is feasible to use fleet or public electric vehicles for resilience purposes
  - Other data analysis that project team and site hosts deems necessary
- Prepare a *Measurement and Verification Report* which includes but is not limited to:
  - Process and results of the final demonstration

**Exhibit A**  
**Scope of Work**  
**Gridscape Solutions, Inc.**

- Testing of the product
- Technical issues
- Qualitative feedback from demonstration site hosts and community members
- Lessons learned and applicability to future projects
- Prepare a *CPR Report #2* in accordance with subtask 1.3
- Participate in a CPR meeting

**Products:**

- Measurement and Verification Plan
- Measurement and Verification Report
- CPR Report #2

**TASK 6: 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 December 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 7 TECHNOLOGY/KNOWLEDGE TRANSFER ACTIVITIES**

**Exhibit A**  
**Scope of Work**  
**Gridscape Solutions, Inc.**

The goal of this task is to conduct activities that will accelerate the commercial adoption of the technology being supported under this agreement. Eligible activities include, but are not limited to, the following:

- Scale-up analysis including manufacturing analysis, independent design verification, and process improvement efforts.
- Technology verification testing, or application to a test bed program located in California.
- Legal services or licensing to secure necessary intellectual property to further develop the technology
- Market research, business plan development, and cost-performance modeling.
- Entry into an incubator or accelerator program located in California.

**The Recipient Shall:**

- Develop and submit a *Technology Transfer Plan (Draft/Final)* that identifies the proposed activities the recipient will conduct to accelerate the successful commercial adoption of the technology.
- Present the *Draft Technology 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 Technology Transfer 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 Technology Transfer Plan* to the CAM for approval.
- Implement activities identified in *Final Technology Transfer Plan*.
- Develop and submit a *Technology Transfer Summary Report (Draft/Final)* that includes high level summaries of the activities, results, and lessons learned of tasks performed relating to implementing the *Final Technology Transfer Plan*. This report should not include any proprietary information.
- When directed by the CAM, develop presentation materials for an CEC- sponsored conference/workshop(s) on the project.
- When directed by the CAM, participate in annual EPIC symposium(s) sponsored by the 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:**

- Technology Transfer Plan (Draft/Final)
- Summary of TAC Comments
- Technology Transfer Summary Report (Draft/Final)
- High Quality Digital Photographs

**V. PROJECT SCHEDULE**

Please see the attached Excel spreadsheet.

**STATE OF CALIFORNIA**  
**STATE ENERGY RESOURCES**  
**CONSERVATION AND DEVELOPMENT COMMISSION**

**RESOLUTION: Gridscape Solutions, Inc.**

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

**RESOLVED**, that the CEC approves Agreement EPC-22-005 with Gridscape Solutions, Inc. for a \$4,000,000 grant to advance and demonstrate an innovative direct current-coupled bidirectional charging platform capable of discharging multiple EVs using a centralized Rule 21-compliant grid forming inverter. The project will demonstrate discharging of EVs to power public buildings at three sites in a low-income, a disadvantaged, and a Tribal community; 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 10, 2022.

AYE:  
NAY:  
ABSENT:  
ABSTAIN:

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Liza Lopez  
Secretariat