



GRANT REQUEST FORM (GRF)

A) New Agreement # EPC-19-055 (to be completed by CGL office)

B) Division	Agreement Manager:	MS-	Phone
ERDD	Tanner Kural		916-327-1542

C) Recipient's Legal Name	Federal ID Number
ReJoule Incorporated	82-1644047

D) Title of Project
Enabling EV Battery Circular Economy

E) Term and Amount

Start Date	End Date	Amount
7/18/2020	12/31/2023	\$ 2,970,774

F) Business Meeting Information

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

Proposed Business Meeting Date 6/25/2020 Consent Discussion

Business Meeting Presenter Tanner Kural Time Needed: 5 minutes

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

Agenda Item Subject and Description:

REJOULE INCORPORATED. Proposed resolution approving agreement EPC19-055 with ReJoule Incorporated for a \$2,970,774 grant to develop novel battery grading tools to more quickly and accurately assess the health of repurposed EV batteries for stationary storage, and adopting staff's determination that this action is exempt from CEQA. This project will also validate the ability of second-life EV batteries to integrate solar and provide resiliency benefits at two pilot sites: a homeless shelter and a commercial building that supports multiple small businesses (EPIC funding) Contact: Tanner Kural.

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

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

Explain reason why Agreement is exempt under the above section: California Code of Regulations (CCR) 14, Section 15301 exempts from CEQA minor alterations to existing facilities with no expansion of use. This project will involve



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minor alteration of existing mechanical equipment and will result in negligible or no expansion of the existing use. The demonstrations will not have a significant impact on local air quality, noise, or traffic. For these reasons, the project falls under the categorical exemption listed in 14 C.C.R. 15301.

CCR 14, Section 15303 exempts from CEQA new construction or conversion of small structures. This project involves the construction, location, and installation of new, small facilities, structures, and equipment within an existing industrial facility. Specifically, this project will consist of installing solar PV on rooftops of two existing buildings and will be within the size limits listed in 14 C.C.R. 15303. The solar PV system is necessary for the project demonstration and will be paired with lithium-ion battery energy storage. The installation of the energy storage will require minimal construction activity and will not have a significant impact on local air quality, noise, or traffic and will not induce additional operations at the site. For these reasons, the project will not have a significant effect on the environment and falls under the categorical exemption listed in 14 C.C.R.; 15303.

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

Check all that apply

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

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

Legal Company Name:	Budget
CleanSpark LLC	\$ 433,762
GRID Alternatives	\$ 415,608
Big Battery	\$ 126,559
TBD- Roofing Contractor	\$ 70,000
Engineering Subcontractor (TBD)	\$ 20,000
TBD Engineering	\$ 10,000
	\$
	\$
	\$
	\$

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

Legal Company Name:



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J) Budget Information

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
EPIC	18-19	301.001F	\$2,970,774
			\$
			\$
			\$
			\$
			\$

R&D Program Area: EGRO: Renewables

TOTAL: \$ 2,970,774

Explanation for "Other" selection

Reimbursement Contract #: Federal Agreement #:

K) Recipient's Contact Information

1. Recipient's Administrator/Officer

Name: Zora Chung

Address: 7690 Lampson Ave

City, State, Zip: Garden Grove, CA 92841-4105

Phone: 805)395-9268

E-Mail: zora@rejouleenergy.com

2. Recipient's Project Manager

Name: Zora Chung

Address: 7690 Lampson Ave

City, State, Zip: Garden Grove, CA 92841-4105

Phone: 805)395-9268

E-Mail: zora@rejouleenergy.com

L) Selection Process Used

Competitive Solicitation Solicitation #: GFO-19-310

First Come First Served Solicitation Solicitation #:

M) The following items should be attached to this GRF

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

Agreement Manager

Date

Office Manager

Date

Deputy Director

Date

**Exhibit A
Scope of Work
ReJoule Inc.**

I. TASK ACRONYM/TERM LISTS

A. Task List

Task #	CPR ¹	Task Name
1		General Project Tasks
2		Develop Battery Grading Process
3		Accelerated Aging Laboratory Testing
4		Degradation Model and Degradation Reduction Algorithm
5		ESS Design and Prototype
6	X	Finalize Solar + ESS Design
7		Battery Grading and Pack Assembly
8		UL Certification for BMS and ESS
9		Full System Installation
10	X	Full System Checklist and Maintenance
11		Evaluation of Project Benefits
12		Technology/Knowledge Transfer Activities

B. Acronym/Term List

Acronym/Term	Meaning
2LB	Second-life Battery
BMS	Battery Management System
BMU	Battery Management Unit
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CPR	Critical Project Review
EIS	Electrochemical Impedance Spectroscopy
EMS	Energy Management System
ESS	Energy Stationary Storage
HPPC	Hybrid Power Pulse Characterization
PHEV	Plug-in Hybrid EV
PV	Photovoltaic
RUL	Remaining Useful Life
SOH	State of Health
TAC	Technical Advisory Committee

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

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

A. Purpose of Agreement

The purpose of this Agreement is to fund 1) the development of novel battery grading tools to more quickly and accurately assess the viability of repurposing used electric vehicle (EV) batteries, and 2) the demonstration of a solar + storage site in a commercial industrial building with used EV batteries to demonstrate technology advancements that minimize battery degradation.

B. Problem/ Solution Statement

Problem

As more full electric vehicles (EVs) and plug-in hybrid EVs (PHEVs) reach their end of life, there are serious looming concerns regarding the enormous amount of toxic waste that decommissioned EV/PHEV batteries will produce. However, these batteries often retain 70-90% of their original capacity, making them ideal candidates for repurposed, second-life energy storage applications. Unfortunately, safety concerns and a lack of reliable performance projections prove to be unsurpassable roadblocks for many potential customers. The biggest barriers to repurposing used EV batteries are the cost of disassembly, long test times, and uncertainty about the remaining useful life (RUL). While there are a variety of tests and grading methods, none exist to safely, reliably, and cost effectively test and grade used batteries for second-life applications.

Solution

The Recipient will 1) develop a battery-grading tool for assessing and ensuring the safety of repurposed batteries for stationary energy storage applications and 2) extend the life and performance of second-life batteries (2LBs) using ReJoule's novel battery management system (BMS). This technology will enable more accurate battery models and predictive battery health algorithms to optimize the operation of 2LBs and extend its useful life through actively load-balancing and real-time degradation modeling. ReJoule will demonstrate a successful operational strategy for grading and extending the life/performance of 2LBs for safe, inexpensive, and reliable energy storage for solar photovoltaic (PV) installations in under-served, low-income communities.

C. Goals and Objectives of the Agreement

Agreement Goals - battery health related tasks

The goals of this Agreement are to:

From a technical standpoint:

- Demonstrate the improved accuracy using a novel state of health (SOH) assessment technique.
- Adapt the BMS technology to 2LBs.
- Extend the lifetime of the 2LB by reducing battery degradation rate.
- Ensure reliability and safety of a 2LB system.

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From an economic standpoint:

- Reduce the cost of the solar PV system.
- Allow for access/availability of clean energy to low-income communities.
- Reduce the lifetime cost of the battery by maximizing the battery's use.
- Provide renewable/clean sources of power during blackouts.

From a social/ecological standpoint:

- Increase the battery diagnostic use for longer battery lifetime.
- Reduce the overall greenhouse gas emissions impact of batteries.
- Address supply chain concerns by sourcing from retired electric vehicle batteries.
- Enable adoption of clean energy, specifically in low-income communities.

Ratepayer Benefits:² This Agreement will result in the ratepayer benefits of greater electricity reliability, lower costs, and increased safety by developing and demonstrating an innovative technical and operational strategy. More accurate degradation tracking will enable the BMS and energy management system (EMS) to better manage battery stress factors, therefore maximizing battery lifetime and improving energy efficiency, resulting in lower battery costs. Additionally, the modular system design keeps replacement costs low, reduces downtime, and increases maintenance safety.

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 characterizing degradation in a second-life battery installation, offsetting power supplied from non-renewable energy sources, and supplying renewable electricity during peak demand periods.

The specific advancements and breakthroughs being developed under this agreement include 1) a fast and accurate battery grading hardware and software platform to dramatically improve the second-life battery assessment process, 2) an advanced battery management system (BMS) that can grade, monitor, protect, balance, and load manage the second-life battery system in real-time, and 3) a cohesive battery aging model that has been validated for at least two battery chemistries.

Agreement Objectives

The objectives of this Agreement are to:

From a technical standpoint:

- Characterize 2LB battery degradation in a laboratory setting through a bench-scale battery aging study.
- Obtain real-time information on a 2LB installation in a real-world application.

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).

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.

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- Demonstrate novel operational strategies and technologies to reduce battery degradation rate to less than 3% per year and extend the battery life of a 2LB installation.
- Demonstrate energy resilience and load shifting services to a commercial building when pairing a 2LB with solar PV installation.

From an economic standpoint:

- Reduce the cost of a 2LB + solar PV installation by 30% (compared to a new battery + solar PV installation).
- Increase energy savings to the proposed project site owners.
- Extract more value from a used electric vehicle traction battery.

From a social/ecological standpoint:

- Provide a 2LB + solar PV installation to two small/medium commercial buildings.
- Reduce dependency on non-renewable energy sources at two local California business sites.

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Scope of Work
ReJoule Inc.

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)**. 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 Energy Commission’s 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 or CD-ROM.

The following describes the accepted formats for electronic data and documents provided to the Energy Commission 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.

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- Text documents will be in MS Word file format, version 2007 or later.
 - Documents intended for public distribution will be in PDF file format.
 - The Recipient must also provide the native Microsoft file format.
 - 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 Energy Commission'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 Energy Commission 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;
- 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.

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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 and invoices (subtask 1.5);
 - Final Report (subtask 1.6);
 - Technical Advisory Committee meetings (subtasks 1.10 and 1.11); and
 - Any other relevant topics.
- Provide an *Updated Project Schedule, List of Match Funds, and List of Permits*, 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:

- Updated Project Schedule (*if applicable*)
- Updated List of Match Funds (*if applicable*)
- Updated List of Permits (*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 Energy Commission 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 Energy Commission 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 Energy Commission.

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 Energy Commission, 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 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.

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- Submit the CPR Report along with any other *Task Products* that correspond to the technical task for which the CPR meeting is required (i.e., if a CPR meeting is required for Task 2, submit the Task 2 products along with the CPR Report).
- 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* and 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)
- Task Products (draft and/or final as specified in the task)

CAM Products:

- CPR Agenda
- List of Expected CPR Participants
- Schedule for Providing a Progress Determination
- 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 Energy Commission 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 state-owned equipment.

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- Need to file a Uniform Commercial Code Financing Statement (Form UCC-1) regarding the Energy Commission's interest in patented technology.
- The Energy Commission'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 *All Draft and Final Written Products* on a CD-ROM or USB memory stick, organized by the tasks in the Agreement.

Products:

- Final Meeting Agreement Summary (*if applicable*)
- Schedule for Completing Agreement Closeout Activities
- All Draft and Final Written 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 Fund and in-state expenditures.

Products:

- Progress Reports
- Invoices

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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. The CAM will review the Final Report, which will be due at least **two months** before the Agreement end date. When creating the Final Report Outline and the Final Report, the Recipient must use the 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 *Style Manual* provided by the CAM. (See *Task 1.1 for requirements for draft and final products.*)

Recipient Products:

- Final Report Outline (draft and final)

CAM Product:

- 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, 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)
 - Ensure that the document is written in the third person.
 - Ensure that the Executive Summary is understandable to the lay public.
 - Briefly summarize the completed work. Succinctly describe the project results and whether or not the project goals were accomplished.
 - Identify which specific ratepayers can benefit from the project results and how they can achieve the benefits.

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- If it's necessary to use a technical term in the Executive Summary, provide a brief definition or explanation when the technical term is first used.
- Follow the Style Guide format requirements for headings, figures/tables, citations, and acronyms/abbreviations.
- Ensure that the document omits subjective comments and opinions. However, recommendations in the conclusion of the report are allowed.
- Include a brief description of the project results in the Abstract.
- 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
- Consider incorporating all CAM comments into the Final Report. 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 Final Report and responses to comments within 10 days of receiving the CAM's comments, unless the CAM specifies a longer time period or approves a request for additional time.
- Submit one bound copy of the *Final Report* to the CAM along with *Written Responses to Comments on the Draft Final Report*.

Products:

- Final Report (draft and final)
- Written Responses to Comments on the Draft Final Report

CAM Product:

- Written Comments on the Draft Final Report

MATCH FUNDS, PERMITS, AND SUBCONTRACTS

Subtask 1.7 Match Funds

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

While the costs to obtain and document match funds are not reimbursable under this Agreement, the Recipient may spend match funds for this task. The Recipient may only spend match funds during the Agreement term, either concurrently or prior to the use of Energy Commission 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 Energy Commission 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 Energy Commission 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

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will be applied.

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

Products:

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

Subtask 1.8 Permits

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

The Recipient shall:

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

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

- If during the course of the Agreement additional permits become necessary, then provide the CAM with an *Updated List of Permits* (including the appropriate information on each permit) and an *Updated Schedule for Acquiring Permits*.

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- Send the CAM a *Copy of Each Approved Permit*.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CAM within 5 days. Either of these events may trigger a CPR meeting.

Products:

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

Subtask 1.9 Subcontracts

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

The Recipient shall:

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

Exhibit A Scope of Work ReJoule Inc.

- Provide recommendations regarding information dissemination, market pathways, or commercialization strategies relevant to the project products.

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

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

The Recipient shall:

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

Products:

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

Subtask 1.11 TAC Meetings

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

The Recipient shall:

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

Exhibit A
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ReJoule Inc.

- 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, 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.

Products:

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

Exhibit A

Scope of Work

ReJoule Inc.

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: DEVELOP BATTERY GRADING PROCESS

The goal of this task is to develop a fast battery grading process that estimates usable capacity via shorter impedance-based measurements.

The Recipient shall:

- Develop the battery testing hardware and software protocols specific to the battery modules.
- Perform testing on all batteries.
 - Gather battery measurements, including electrochemical impedance spectroscopy (EIS), and hybrid pulse-power characterization (HPPC).
 - Cycle all the batteries to gather capacity information (open circuit voltage test).
- Build the capacity estimation model using ReJoule machine learning techniques.
 - Determine statistical relevance of the capacity determination.
 - Define a grading system based on State of Health (SOH) and variability in the dataset.
- Develop a *Draft Battery Grading Protocol and Report*, to include but not be limited to:
 - A procedure detailing the battery grading process for each chosen battery type
 - A section that describes high level details regarding the various tests and test requirements
 - A section that contains initial battery data tests and analysis for the purpose of battery grading for Task 7
 - A brief overview of the hardware and software technologies developed or to-be-developed for the battery grading
 - An Underwriters’ Laboratories Standard 1974 (UL 1974, Standard for Evaluation for Repurposing Batteries) compliance assessment

Products:

- Draft Battery Grading Protocol and Report

TASK 3: ACCELERATED AGING LABORATORY TESTING

The goals of this task are to (1) develop and execute an accelerated aging design of experiments to model used electric vehicle battery degradation and (2) collect the required data for establishing a preliminary used electric vehicle battery degradation model.

The recipient shall:

- Develop a design of experiments plan that will enable the collection of data required for building the preliminary degradation model.
- Build multi-channel test fixtures for planned battery aging study.
- Perform an accelerated aging cycling experiment on at least two different used automotive-grade battery chemistries.

Exhibit A Scope of Work ReJoule Inc.

- Perform an accelerated aging cycling experiment on at least fifty used battery cells from each battery chemistry being tested.
- Collect the data required for building the preliminary degradation model.
- Prepare a *Draft Accelerated Aging Test and Analysis Report* comprising:
 - An introduction section containing background information and relevancy to this agreement.
 - A methodology section documenting the design of experiments plan, including the inputs/outputs and underlying reasoning.
 - A results section presenting the preliminary data collected from the accelerated aging testing.
 - A conclusion that contains an assessment of the work done in this task and the proper course of action to take next.

Products:

- Draft Accelerated Aging Test and Analysis Report

TASK 4: DEGRADATION MODEL AND DEGRADATION REDUCTION ALGORITHM

The goals of this task are to 1) build a model that will predict degradation and lifetime performance, 2) validate the model against different load profiles and environmental conditions, and 3) develop a degradation reduction algorithm and test against expected results.

The Recipient shall:

- Separate data obtained through laboratory aging-testing into a training set and a testing set.
- Determine a correlation between the inputs of the design of experiments outlined in Task 3 and the battery degradation rate using the training set.
- Develop a degradation-prediction model.
 - Model battery degradation rate based on the various load conditions used in gathering the training set as described in Task 3.
 - Use capacity, AC impedance, and DC internal resistance to predict remaining lifetime performance as measured by total discharge capacity remaining.
- Adapt degradation model to project degradation under dynamic load conditions.
 - Modify model to account for effects of varying power consumption and environmental conditions.
 - Improve accuracy of degradation-model in real-time using machine learning algorithms informed by statistical analysis of field-measurement from the pilot project.
- Develop and test degradation reduction algorithm.
 - Devise thermal and active balance algorithms based on impedance and DC internal resistance measurement.
 - Cycle two small battery packs of equivalent capacity, one with and one without intelligent degradation reduction under the same accelerated aging profile (dynamic loading and temperature).
 - Periodically perform a reference capacity test to compare degradation reduction over time.
- Prepare the *Final Accelerated Aging Test and Analysis Report*, comprising:
 - Comparison of predicted degradation rate to degradation rate observed using test datasets.

Exhibit A Scope of Work ReJoule Inc.

- Error in predicted degradation rate when subject to constant load profiles and environmental conditions.
- Error in predicted degradation rate when subject to load profiles and environmental conditions based on seasonal data of the pilot site.
- Analysis of degradation reduction tests and efficacy of the algorithm in achieving the target 3% reduction rate for the solar + storage installation.

Products:

- Final Accelerated Aging Test and Analysis Report

TASK 5: ESS DESIGN AND PROTOTYPE

The goals of this task are to 1) prototype the various battery energy stationary storage (ESS) string electrical designs in a laboratory setting and 2) develop the BMS to EMS communication strategy.

The Recipient shall:

- Develop a high level *ESS Development and Test Plan* that tests battery strings using battery modules from at least two different manufacturers. Any deviations from the test plan described below are subject to approval from the CAM. This test plan will include, but is not limited to, the following sections:
 - First battery string prototype
 - Build and test 4 battery module sections with a single battery management unit (BMU)
 - Build and test the next 8 sections of the battery module string with multiple BMUs
 - Validate functionality of thermal and balancing algorithms
 - Build and test the full 710V nominal battery string
 - Validate ability of the battery string to deliver rated power
 - Validate the rated capacity of battery string
 - Second battery string prototype using battery modules from a different manufacturer than those used in the first battery string
 - Build and test the battery module(s) with a single BMU
 - Validate functionality of thermal and balancing algorithms
 - Build and test the full 710V nominal battery string
 - Validate the load sharing algorithm of parallel strings using high voltage contactors
 - Validate ability of each battery string to deliver rated power
 - Validate the rated capacity of the battery string
 - MODBUS protocol - Develop and test communication architecture based on MODBUS protocol for BMS to EMS data transfer
- Procure all materials needed to build and test the battery strings described in the ESS Development and Test Plan. These strings are meant as a lab prototype, for testing and certification before site installation.
- Build test fixtures to test batteries on test specifications in accordance with ESS Development and Test Plan.
- Build each of the battery packs and test each sub-assembly in accordance with ESS Development and Test Plan.

Exhibit A Scope of Work ReJoule Inc.

- Prepare a *Battery ESS Specification Sheet for Site #1* documenting high level performance metrics, including but not limited to:
 - Technical Specifications:
 - Mechanical rack mounting specifications
 - Software & interconnect specifications
 - Electrical specifications in terms of voltage (V), power (kW), energy (kWh), life
 - Installation & Maintenance Instructions:
 - Modular battery system installation instructions
 - BMS and EMS installation instructions
 - Monitoring and Calibration schedule
 - Battery and hardware replacement instructions
 - Revised bill of materials (BOM) and long-term budget
 - Safety assessment
- Prepare a *Battery ESS Specification Sheet for Site #2* documenting high level performance metrics, including but not limited to:
 - Technical Specifications:
 - Mechanical rack mounting specifications
 - Software & interconnect specifications
 - Electrical specifications in terms of voltage (V), power (kW), energy (kWh), life
 - Installation & Maintenance Instructions:
 - Modular battery system installation instructions
 - BMS and EMS installation instructions
 - Monitoring and Calibration schedule
 - Battery and hardware replacement instructions
 - Revised BOM and long-term budget
 - Safety assessment

Products:

- ESS Development and Test Plan
- Battery ESS Specification Sheet for Site #1
- Battery ESS Specification Sheet for Site #2

TASK 6: FINALIZE SOLAR + ESS DESIGN

The goal of this task is to make final design decisions on the intended solar + storage installations based on more detailed interval data and site information.

The Recipient shall:

- Take interval data from the site(s) and perform more on-site assessments to optimize and finalize the solar + storage installation sizing.
- Finalize electrical, structural and communication system designs.
- Generate a final BOM for each building site including lead times.
- Prepare *Site Solar + Storage Plan for Site #1* that includes the results of the above assessments
- Prepare *Site Solar + Storage Plan for Site #2* that includes the results of the above assessments.

Exhibit A Scope of Work ReJoule Inc.

- Prepare a *CPR Report #1* and participate in a CPR meeting in accordance with subtask 1.3 (CPR Meetings).

Products:

- Site Solar + Storage Plan for Site #1
- Site Solar + Storage Plan for Site #2
- CPR Report #1

TASK 7: BATTERY GRADING AND PACK ASSEMBLY

The goals of this task are to 1) quickly grade used battery modules in compliance with UL 1974 and 2) assemble battery packs from those graded battery modules.

The Recipient shall:

Upon reception of the batteries, ReJoule will:

- Set-up the module grading test hardware.
- Develop Protocol:
 - Perform visual inspection of used battery.
 - Charge up the module to 80% nominal capacity (for constant state of charge (state of charge) grading).
 - Gather grading data (EIS, HPPC, voltage information, etc.).
 - Verify each module's homogeneity.
- Assess the battery module quality:
 - Analysis on historical BMS data (if available) for rejecting modules with history of extreme or irregular voltage, current, and/or temperature readings.
 - Assess module SOH and predict RUL (using Task 3 model).
 - Quantify the statistical spread into each module.
 - Assign an overall grade to each battery module to be used.
- Perform protocol on each battery module and report the grade of each module in the *Final Battery Grading Protocol and Report*.

Products:

- Final Battery Grading Protocol and Report

TASK 8: UL CERTIFICATION FOR BMS AND ESS

The goal of this task is to certify the proprietary BMS and custom second-life battery installation to UL 991 (Standard for Tests for Safety-Related Controls Employing Solid-State Devices, UL 1998 (Standard for Software in Programmable Components), and UL 1973 (Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail Applications).

The Recipient shall:

- Engage with Underwriters Laboratories to plan the certification process.
- Book facilities, allocate resources, identify key personnel to serve on a UL certification task force.
- Document the above plans in a *Certifications Schedule Document* that will be used to guide the Recipient throughout the testing and certification.

Exhibit A Scope of Work ReJoule Inc.

- Engage with Underwriters Laboratories to conduct certification testing once ready to begin certification testing.
- Prepare a *Certification and Testing Report* that details the certification test process and the results for the ESS and BMS.

Products:

- Certifications Schedule Document
- Certification and Testing Report

TASK 9: FULL SYSTEM INSTALLATION

The goal of this task is to install the solar PV + storage system on the demonstration sites.

- Prepare *Site Permit Plansets* for submission for each site
- Apply for *Site Interconnection Agreements* with utility for each site.
- Procure solar + storage + EMS equipment for each site.
- Install solar + storage + EMS system for each site using job trainees from underserved communities.
- Submit copy of Permission to Operate received from utility for each site.
- Finalize interconnection, fully commission system into EMS, and begin system operation.

Products:

- Site Permit Planset – Site #1
- Site Permit Planset – Site #2
- Site Interconnection Agreement – Site #1
- Site Interconnection Agreement – Site #2
- Permission to Operate – Site #1
- Permission to Operate – Site #2

TASK 10: FULL SYSTEM CHECKLIST AND MAINTENANCE

The goals of this task are to 1) verify the functional safety design of the solar PV + storage system and 2) ensure the functionality of planned calibration checks.

The Recipient shall:

- Develop a draft *System Checklist* to include functionality and safety checks that will be performed once the solar + storage systems are fully installed.
- Perform functionality and safety checks in accordance with the System Checklist.
- Document performance in a “results” section of the final *System Checklist* document.
- Prepare a *Calibration Schedule and Checklist* for future operation.
- Perform scheduled maintenance in accordance with the *Calibration Schedule and Checklist*.
- Prepare a *CPR Report #2* and participate in a CPR meeting in accordance with subtask 1.3 (CPR Meetings).

Products:

- System Checklist (draft and final)
- Calibration Schedule and Checklist
- CPR Report #2

Exhibit A

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ReJoule Inc.

TASK 11: EVALUATION OF PROJECT BENEFITS

The goal of this task is to report the benefits resulting from this project.

The Recipient shall:

- Complete three Project Benefits Questionnaires that correspond to three main intervals in the Agreement: (1) *Kick-off Meeting Benefits Questionnaire*; (2) *Mid-term Benefits Questionnaire*; and (3) *Final Meeting Benefits Questionnaire*.
- Provide all key assumptions used to estimate projected benefits, including targeted market sector (e.g., population and geographic location), projected market penetration, baseline and projected energy use and cost, operating conditions, and emission reduction calculations. Examples of information that may be requested in the questionnaires include:
 - For Product Development Projects and Project Demonstrations:
 - Published documents, including date, title, and periodical name.
 - Estimated or actual energy and cost savings, and estimated statewide energy savings once market potential has been realized. Identify all assumptions used in the estimates.
 - Greenhouse gas and criteria emissions reductions.
 - Other non-energy benefits such as reliability, public safety, lower operational cost, environmental improvement, indoor environmental quality, and societal benefits.
 - Data on potential job creation, market potential, economic development, and increased state revenue as a result of the project.
 - A discussion of project product downloads from websites, and publications in technical journals.
 - A comparison of project expectations and performance. Discuss whether the goals and objectives of the Agreement have been met and what improvements are needed, if any.
 - Additional Information for Product Development Projects:
 - Outcome of product development efforts, such copyrights and license agreements.
 - Units sold or projected to be sold in California and outside of California.
 - Total annual sales or projected annual sales (in dollars) of products developed under the Agreement.
 - Investment dollars/follow-on private funding as a result of Energy Commission funding.
 - Patent numbers and applications, along with dates and brief descriptions.
 - Additional Information for Product Demonstrations:
 - Outcome of demonstrations and status of technology.
 - Number of similar installations.
 - Jobs created/retained as a result of the Agreement.
 - For Information/Tools and Other Research Studies:
 - Outcome of project.
 - Published documents, including date, title, and periodical name.

Exhibit A Scope of Work ReJoule Inc.

- A discussion of policy development. State if the project has been cited in government policy publications or technical journals, or has been used to inform regulatory bodies.
 - The number of website downloads.
 - An estimate of how the project information has affected energy use and cost, or have resulted in other non-energy benefits.
 - An estimate of energy and non-energy benefits.
 - Data on potential job creation, market potential, economic development, and increased state revenue as a result of the project.
 - A discussion of project product downloads from websites, and publications in technical journals.
 - A comparison of project expectations and performance. Discuss whether the goals and objectives of the Agreement have been met and what improvements are needed, if any.
- Respond to CAM questions regarding responses to the questionnaires.

The Energy Commission may send the Recipient similar questionnaires after the Agreement term ends. Responses to these questionnaires will be voluntary.

Products:

- Kick-off Meeting Benefits Questionnaire
- Mid-term Benefits Questionnaire
- Final Meeting Benefits Questionnaire

TASK 12: TECHNOLOGY/KNOWLEDGE TRANSFER ACTIVITIES

The goal of this task is to develop a plan to make the knowledge gained, experimental results, and lessons learned available to the public and key decision makers.

The Recipient shall:

- Prepare an *Initial Fact Sheet* at start of the project that describes the project. Use the format provided by the CAM.
- Prepare a *Final Project Fact Sheet* at the project's conclusion that discusses results. Use the format provided by the CAM.
- Prepare a *Technology/Knowledge Transfer Plan* that includes:
 - An explanation of how the knowledge gained from the project will be made available to the public, including the targeted market sector and potential outreach to end users, utilities, regulatory agencies, and others.
 - A description of the intended use(s) for and users of the project results.
 - Published documents, including date, title, and periodical name.
 - Copies of documents, fact sheets, journal articles, press releases, and other documents prepared for public dissemination. These documents must include the Legal Notice required in the terms and conditions. Indicate where and when the documents were disseminated.
 - A discussion of policy development. State if the project has been or will be cited in government policy publications, or used to inform regulatory bodies.
 - The number of website downloads or public requests for project results.
 - Additional areas as determined by the CAM.
- Conduct technology transfer activities in accordance with the Technology/Knowledge

**Exhibit A
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ReJoule Inc.**

Transfer Plan. These activities will be reported in the Progress Reports.

- When directed by the CAM, develop *Presentation Materials* for an Energy Commission-sponsored conference/workshop(s) on the project.
- When directed by the CAM, participate in annual EPIC symposium(s) sponsored by the California Energy Commission.
- 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.

- Prepare a *Technology/Knowledge Transfer Report* on technology transfer activities conducted during the project.

Products:

- Initial Fact Sheet (draft and final)
- Final Project Fact Sheet (draft and final)
- Presentation Materials (draft and final)
- High Quality Digital Photographs
- Technology/Knowledge Transfer Plan (draft and final)
- Technology/Knowledge Transfer Report (draft and final)

V. PROJECT SCHEDULE

Please see the attached Excel spreadsheet.

STATE OF CALIFORNIA

**STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION**

RESOLUTION - RE: REJOULE INCORPORATED

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-19-055 with ReJoule Incorporated for a \$2,970,774 grant to develop novel battery grading tools to more quickly and accurately assess the health of repurposed EV batteries for stationary storage. This project will also validate the ability of second-life EV batteries to integrate solar and provide resiliency benefits at two pilot sites: a homeless shelter and a commercial building that supports multiple small businesses; and

FURTHER BE IT RESOLVED, that the Executive Director or his/her 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 July 8, 2020.

AYE:

NAY:

ABSENT:

ABSTAIN:

Cody Goldthrite
Secretariat