

CALIFORNIA ENERGY COMMISSION

A)New Agreement # EPC-21-018 (to be completed by CGL office)

B) Division	Agreement Manager:	MS-	Phone
ERDD	Loon Yee	43	916-776-0695

C) Recipient's Legal Name

RockeTruck, Inc.

Federal ID Number 85-3583509

D) Title of Project

Development and Demonstration of a Mobile Fuel Cell Generator (MFCG)

E) Term and Amount

Start Date	End Date	Amount
02/16/2022	3/31/2026	\$ 3,000,000

F) Business Meeting Information

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

Proposed Business Meeting Date 2/16/2022
Consent
Discussion

Business Meeting Presenter Quenby Lum Time Needed: 5 minutes

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

Agenda Item Subject and Description:

Proposed resolution approving Agreement EPC-21-018 with RockeTruck, Inc. for a \$3,000,000 grant to fund development, testing, and evaluation of a new generator product RockeTruck will assemble in California and market commercially to meet growing needs for flexible backup power solutions, and adopting staff's determination that this action is exempt from CEQA. The generator will produce up to 120 kilowatts (kW) of power, combining 60 kW from hydrogen fuel cells and 60 kW from lithium-ion batteries. (EPIC Funding) Contact: Quenby Lum (Staff Presentation: 5 minutes)

G) California Environmental Quality Act (CEQA) Compliance

- 1. Is Agreement considered a "Project" under CEQA?
 - \boxtimes 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 ; Cal. Code Regs., tit. 14, § 15306

Explain reason why Agreement is exempt under the above section: This project involves the development, testing, and demonstration two Mobile Renewable Backup Generators (MFC-120). Each MCF-120 will generate up to 120 kilowatts (kW) of power, combining 60 kW from hydrogen fuel cells and 60 kW from lithium-ion batteries. Design, assembly and initial testing will occur at existing laboratory of RockeTruck in Escondido California. The system will be mounted on a flatbed



CALIFORNIA ENERGY COMMISSION

trailer and will be driven to demonstration test sites in Southern and Central California to provide backup power. The MFC-120 is for temporary use at a site, such as during emergencies, and will not be permanent. This project is therefore categorically exempt from environmental review pursuant to section 15301 of the CEQA Guidelines because it consists of the operation, maintenance or minor alteration of existing public and private structures, facilities, mechanical equipment involving negligible or no expansion of existing or former use at the sites.

The project is also categorically exempt pursuant to section 15303 of the CEQA Guidelines because it consists of the installation of small new equipment in small structures with only minor modifications to the structures.

The project is also categorically exempt pursuant to section 15306 of the CEQA Guidelines because it consists of basic data collection, research and resource evaluation activities which will not result in a major disturbance to an environmental resource. The project does not involve any unusual circumstances, will not result in damage to any scenic resources within a highway officially designated as a state scenic highway, none of the sites are included on any list compiled pursuant to Government Code section 65962.5, and the project will not cause a substantial adverse change in the significance of a historical resource. The project, when considered as a whole, will not result in a cumulative impact that is significant on the environment. Therefore, none of the exceptions to exemptions listed in CEQA Guidelines section 15300.2 apply to this project and this project will not have a significant effect on the environment.



- b) Agreement **IS NOT** exempt. (consult with the legal office to determine next steps)
 - Check all that apply
 - Initial Study
 - Negative Declaration
 - Mitigated Negative Declaration
 - Environmental Impact Report
 - Statement of Overriding Considerations

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

Legal Company Name:	Budget
California State University, Los Angeles.	\$ 72,000

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

Legal Company Name:	
Southern California Edison (SCE), San Diego Gas & Electric (SDG&E)	

J) Budget Information

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
EPIC	20-21	301.001H	\$3,000,000

R&D Program Area: ESRO: ETSI

TOTAL: \$3,000,000

Explanation for "Other" selection

Reimbursement Contract #: Federal Agreement #:

K) Recipient's Contact Information

- 1. Recipient's Administrator/Officer
 - Name: Michael Simon

Address: 1465 Paint Mountain Rd City, State, Zip: Escondido, CA 92029-5926

Phone: 760-504-3278

E-Mail: mike@rocketruck.com

2. Recipient's Project Manager

Name: Shawn Johnson Address: 1465 Paint Mountain Rd City, State, Zip: Escondido, CA 92029-5926 Phone: 619-261-4114 E-Mail: shawn@rocketruck.com

L) Selection Process Used

- Competitive Solicitation Solicitation #: GFO-20-310
- 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
- 2. Exhibit B, Budget Detail
- 3. CEC 105, Questionnaire for Identifying Conflicts
- 4. Recipient Resolution
- 5. CEQA Documentation
- N/A
- □ N/A

Agreement Manager

Date

Office Manager

Date

Deputy Director

Date

CALIFORNIA ENERGY COMMISSION

- X Attached
- Attached
- Attached
- Attached
- X Attached

1

2 I. TASK ACRONYM/TERM LISTS

A. Task List

3 4

Task #	CPR ¹	Task Name
1		General Project Tasks
2	Х	MFC-120™ Design
3	Х	Prototype Assembly and Test Stand Evaluation
4		Field Testing and Evaluation
5	Х	Evaluation of Project Benefits
6		Technology/Knowledge Transfer Activities

6

5

B. Acronym/Term List

7	

Acronym/Term	Meaning
BOM	Bill of Material
CAD	Computer-Aided Design
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CEC	California Energy Commission
COTS	Commercial Off-The-Shelf
CPR	Critical Project Review
CSULA	California State University, Los Angeles
EV	Electric Vehicle
FMVSS	Federal Motor Vehicle Safety Standards
kW	Kilowatts
kWh	Kilowatt-hours
M&V	Measurement & Verification
MFCG	Mobile Fuel Cell Generator
SCE	Southern California Edison

8 9 10

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

11 12

A. Purpose of Agreement

13 14

15 The purpose of this Agreement is to fund development, testing, and evaluation of the "MFC-16 120TM," a new generator product the Recipient will assemble in California and market 17 commercially to meet growing needs for flexible backup power solutions. The MFC-120™ is so named because it will generate up to 120 kilowatts (kW) of power, combining 60 kW from 18 19 hydrogen fuel cells and 60 kW from lithium-ion batteries.

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.

B. Problem/ Solution Statement

4 **Problem**

5 Today's mobile generators use fossil fuels to generate electricity. These generate pollution and 6 greenhouse gases and can be very noisy. Recent increases in the frequency of grid power 7 outages, caused by wildfires and other factors, are causing a corresponding increase in the use 8 of mobile generators, thereby increasing the negative environmental impacts of depending on 9 fossil fuels for these units.

10

1 2

3

11 Solution

12 The Recipient has developed a novel mobile generator concept combining hydrogen fuel cells 13 with a large lithium-ion battery pack to produce electricity with zero emissions and reduced noise. 14 The MFC-120TM product to be demonstrated on this project is sized to meet a requirement to 15 generate 35 kW continuously for 48 hours, but the two 30 kW fuel cells in the system will be 16 capable of generating 60 kW for up to 14 hours, and the fuel cell augmented by the batteries will 17 enable a peak power level of 120 kW to be sustained for up to 54 minutes. The MFC-120[™] will 18 be inherently scalable; adding hydrogen tank capacity will extend fuel cell operating duration and 19 adding battery capacity will increase both the peak power limit and the duration that higher power 20 levels can be sustained.

20

22 Replacing fossil fuel mobile generators with zero-emission generators such as the MFC-120™ 23 will help overcome the barriers to achieving the statutory energy goals of reducing fossil fuel use 24 and greenhouse gas emissions that are being presented by the increasing number of mobile 25 denerators required to deal with grid power outages and other applications. The MFC-120[™] will 26 cost more to build than diesel generators, but the Mobile Fuel Cell Generator (MFCG) project will 27 demonstrate that the incremental cost of leasing the product is small in comparison with its 28 benefits. This will require identifying ways of reducing the recurring costs of manufacturing MFC-120[™] units and demonstrating that the MFC-120[™] is as easy to transport and use as fossil fuel 29 30 generators, with equivalent or better safety and reliability. Over time, if hydrogen costs decrease 31 significantly as many experts predict, the total cost of ownership (TCO) of the MFC-120TM could 32 become competitive with the TCO of owning or leasing diesel generators or other competing 33 technologies such as battery-based systems.

34 35

36

C. Goals and Objectives of the Agreement

37 Agreement Goals

The principal goal of the MFCG project is to demonstrate that a mobile fuel cell-based power plant with an integrated battery is the most effective way to replace the use of mobile fossil fuel backup generators during grid outages with a zero-emission alternative, based on:

- 41
- Power output, measured by maximum power level and total energy capacity
- 43 Ease of transportation, refueling, and replacement
- Safety and reliability
- Total cost of ownership (TCO)
- 46

A key secondary goal is to validate the attributes of the MFC-120[™] product by securing firm
 commercial orders for such systems. The Recipient's strategy for achieving these goals, as

1 described in greater detail under Agreement Objectives below and in Section III of this SOW, 2 Tasks 2-6, is to use the extensive fuel cell systems experience of its personnel to develop an 3 MFC-120TM design integrating proven, high-guality fuel cells and related components procured 4 from major global manufacturers; build two prototypes of the resulting MFC-120[™] system; and 5 then test both prototypes in accordance with a comprehensive 5-Step Measurement & Verification 6 Plan, which will include sequential validation of components and key subsystems on a test stand, 7 followed by lab testing of each prototype, and then finally field testing of the MFC-120[™] at different 8 times of year and in different climate zones. Business planning and commercialization activities 9 will be conducted in accordance with plans developed as part of a Technology/Knowledge 10 Transfer task. 11 Ratepayer Benefits:² This Agreement will result in the ratepayer benefit of greater electricity

12 13 reliability by overcoming environmental barriers to use of mobile power systems. Mobile power 14 systems provide urgently needed power for residences and businesses when power from the grid 15 is interrupted, as has been occurring with increasing frequency in recent years due to wildfires. 16 Use of the proposed fuel cell-based generator technology will also lessen the environmental 17 burden on ratepayers that would otherwise rely on fossil fuel generators. This will help bring 18 environmental justice to low-income and disadvantaged communities, where residents are less 19 likely to have the money to install their own residential back-up power systems to deal with grid 20 power outages. If companies such as the Recipient are given access to carbon credits or other 21 incentives to manufacture or lease zero-emission generators, these savings could be passed 22 along to utilities and other entities that buy or lease such systems, resulting in lower costs to 23 ratepayers as well. In any event, ratepayers should indirectly enjoy lower costs, along with health 24 and safety benefits, due to the improved health outcomes from replacing diesel generators with 25 zero-emission alternatives.

26

27 Technological Advancement and Breakthroughs:³ This Agreement will lead to technological 28 advancement and breakthroughs to overcome barriers to the achievement of the State of California's statutory energy goals by improving the performance, reliability, and cost-29 30 effectiveness of fuel cell-based mobile power generators. Adoption of fuel cells for both stationary 31 and transportation applications has been hindered over the past two decades by the high costs of fuel cells and related specialized equipment, the complexity of integrating fuel cell-based power 32 33 systems, high maintenance costs, and shorter operating life as compared with fossil fuel systems. 34 The MFCG project will deliver the breakthroughs necessary to overcome these obstacles by using 35 fuel cells and other components that are already in high-rate production and that have gone 36 through extensive testing and validation by world-class manufacturers such as Plug Power to 37 assure high quality and long operating life. The project will also employ systems engineering and 38 measurement and verification (M&V) efforts perfected by project personnel on many similar fuel 39 cell-related projects over the past 20 years, which will help assure that the integrated MFC-120TM 40 systems built during this project are intelligently engineered and capable of taking maximum 41 advantage of the high quality of the components used in its integration.

42

43 Agreement Objectives

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).

- 1 The objectives of this Agreement are to:
- Design and build a mobile, zero-emission generator that can meet and exceed the Energy Commission goals of supplying a minimum of 35 kilowatts (kW) of power for 48 hours continuously.
- Achieve the above objective by integrating proven fuel cell, battery, hydrogen storage, and
 power conversion products in a well-engineered integrated new system called the MFC-120TM.
- 8 Show that the MFC-120[™] can be quickly and reliably deployed to a variety of locations and refueled, replaced, and expanded.
- Demonstrate reliable use of the MFC-120[™], based on measured power quality and failure rates.
- Validate MFC-120[™] cost-effectiveness by comparing its total cost of ownership (TCO) with
 fossil fuel backup generators.
- Accelerate commercial adoption of the MFC-120TM by marketing it commercially and securing
 commercial orders for MFC-120TM purchases or leases by the end of the project term.
- 16
- 17
- 18
- 19

III. TASK 1 GENERAL PROJECT TASKS

4 **PRODUCTS**

1 2

3

18

20 21

22

23

24

25

26

27

28

29

30

31

32 33

34

35

36 37

38

39

41 42

5 6 Subtask 1.1 Products

7 The goal of this subtask is to establish the requirements for submitting project products (e.g., 8 reports, summaries, plans, and presentation materials). Unless otherwise specified by the 9 Commission Agreement Manager (CAM), the Recipient must deliver products as required below 10 by the dates listed in the **Project Schedule (Part V).** All products submitted which will be viewed 11 by the public, must comply with the accessibility requirements of Section 508 of the federal 12 Rehabilitation Act of 1973, as amended (29 U.S.C. Sec. 794d), and regulations implementing that 13 act as set forth in Part 1194 of Title 36 of the Federal Code of Regulations. All technical tasks 14 should include product(s). Products that require a draft version are indicated by marking "(draft 15 and final)" after the product name in the "Products" section of the task/subtask. If "(draft and 16 final)" does not appear after the product name, only a final version of the product is required. With 17 respect to due dates within this Scope of Work, "days" means working days.

19 **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:
- 40 Instructions for Submitting Electronic Files and Developing Software:
 - Electronic File Format

RockeTruck, Inc.
 Submit all data and documents required as products under this Agreement in
an electronic file format that is fully editable and compatible with the California
Energy Commission's (CEC) software and Microsoft (MS)-operating
computing platforms, or with any other format approved by the CAM. Deliver
an electronic copy of the full text of any Agreement data and documents in a
format specified by the CAM, such as memory stick.
The following describes the accepted formats for electronic data and documents
provided to the CEC as products under this Agreement, and establishes the
software versions that will be required to review and approve all software products:
 Data sets will be in MS Access or MS Excel file format (version 2007 or later),
or any other format approved by the CAM.
 Text documents will be in MS Word file format, version 2007 or later.
 Project management documents will be in Microsoft Project file format, version
2007 or later.
 Software Application Development
Use the following standard Application Architecture components in compatible
versions for any software application development required by this Agreement
(e.g., databases, models, modeling tools), unless the CAM approves other
software applications such as open source programs:
 Microsoft ASP.NET framework (version 3.5 and up). Recommend 4.0. Microsoft Internet Information Services (IIS) (version 6 and up)
 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 Programming (III) Pusipage Object and Data
 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 Desiries takely
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

47 Manager and any other individuals designated by the CAM to this meeting. The 48 administrative and technical aspects of the Agreement will be discussed at the meeting.

1 Prior to the meeting, the CAM will provide an agenda to all potential meeting participants. 2 The meeting may take place in person or by electronic conferencing (e.g., WebEx), with 3 approval of the CAM. 4 5 The administrative portion of the meeting will include discussion of the following: 6 • Terms and conditions of the Agreement; 7 Invoicing and auditing procedures; 8 Administrative products (subtask 1.1); 9 • CPR meetings (subtask 1.3); 10 • Match fund documentation (subtask 1.7); 11 Permit documentation (subtask 1.8); 12 Subcontracts (subtask 1.9); and 13 Any other relevant topics. 14 15 The technical portion of the meeting will include discussion of the following: 16 • The CAM's expectations for accomplishing tasks described in the Scope of Work; 17 • An updated Project Schedule; 18 • Technical products (subtask 1.1); 19 • Progress reports (subtask 1.5); 20 • Final Report (subtask 1.6); Technical Advisory Committee meetings (subtasks 1.10 and 1.11); and 21 22 • Any other relevant topics. 23 24 Provide Kick-off Meeting Presentation to include but not limited to: 25 0 Project overview (i.e. project description, goals and objectives, technical tasks, 26 expected benefits, etc.) 27 Project schedule that identifies milestones 28 List of potential risk factors and hurdles, and mitigation strategy 0 29 30 Provide an Updated Project Schedule, Match Funds Status Letter, and Permit Status • 31 Letter, as needed to reflect any changes in the documents. 32 33 The CAM shall: 34 Designate the date and location of the meeting. 35 Send the Recipient a Kick-off Meeting Agenda. 36 37 **Recipient Products:** 38 **Kick-off Meeting Presentation** • 39 Updated Project Schedule (if applicable) • 40 • Match Funds Status Letter (subtask 1.7) (*if applicable*) 41 • Permit Status Letter (subtask 1.8) (*if applicable*) 42 43 **CAM Product:** 44 **Kick-off Meeting Agenda** • 45 46 Subtask 1.3 Critical Project Review (CPR) Meetings 47 The goal of this subtask is to determine if the project should continue to receive CEC funding, and 48 if so whether any modifications must be made to the tasks, products, schedule, or budget. CPR

1 meetings provide the opportunity for frank discussions between the CEC and the Recipient. As 2 determined by the CAM, discussions may include project status, challenges, successes, advisory 3 group findings and recommendations, final report preparation, and progress on technical transfer 4 and production readiness activities (if applicable). Participants will include the CAM and the 5 Recipient and may include the CAO and any other individuals selected by the CAM to provide 6 support to the CEC. 7

8 CPR meetings generally take place at key, predetermined points in the Agreement, as determined 9 by the CAM and as shown in the Task List on page 1 of this Exhibit. However, the CAM may 10 schedule additional CPR meetings as necessary. The budget will be reallocated to cover the 11 additional costs borne by the Recipient, but the overall Agreement amount will not increase. CPR 12 meetings generally take place at the CEC, but they may take place at another location, or may be 13 conducted via electronic conferencing (e.g., WebEx) as determined by the CAM.

15 The Recipient shall:

- Prepare and submit a CPR Report for each CPR meeting that: (1) discusses the progress of the Agreement toward achieving its goals and objectives; and (2) includes recommendations and conclusions regarding continued work on the project.
- Attend the CPR meeting.
- Present the CPR Report and any other required information at each CPR meeting.

The CAM shall:

- Determine the location, date, and time of each CPR meeting with the Recipient's input.
- Send the Recipient a CPR Agenda with a list of expected CPR participants in advance of • the CPR meeting. If applicable, the agenda will include a discussion of match funding and permits.
 - Conduct and make a record of each CPR meeting. Provide the Recipient with a schedule for providing a Progress Determination on continuation of the project.
- Determine whether to continue the project, and if so whether modifications are needed to • the tasks, schedule, products, or budget for the remainder of the Agreement. If the CAM concludes that satisfactory progress is not being made, this conclusion will be referred to the Deputy Director of the Energy Research and Development Division.
 - Provide the Recipient with a *Progress Determination* on continuation of the project, in • accordance with the schedule. The Progress Determination may include a requirement that the Recipient revise one or more products.

37 **Recipient Products:**

CPR Report(s) •

38 39

14

16

17

18

19

20

21 22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

- 40 **CAM Products:** 41
 - CPR Agenda
 - **Progress Determination**
- 42 43

44 Subtask 1.4 Final Meeting

45 The goal of this subtask is to complete the closeout of this Agreement.

- 46
- 47
- 48 The Recipient shall:

• Meet with CEC staff to present project findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement. This meeting will be attended by the Recipient and CAM, at a minimum. The meeting may occur in person or by electronic conferencing (e.g., WebEx), with approval of the CAM.

The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be divided into two separate meetings at the CAM's discretion.

- The technical portion of the meeting will involve the presentation of findings, conclusions, and recommended next steps (if any) for the Agreement. The CAM will determine the appropriate meeting participants.
- The administrative portion of the meeting will involve a discussion with the CAM and the CAO of the following Agreement closeout items:
 - Disposition of any procured equipment.
 - The CEC's request for specific "generated" data (not already provided in Agreement products).
 - Need to document the Recipient's disclosure of "subject inventions" developed under the Agreement.
 - "Surviving" Agreement provisions such as repayment provisions and confidential products.
 - Final invoicing and release of retention.
- Prepare a *Final Meeting Agreement Summary* that documents any agreement made between the Recipient and Commission staff during the meeting.
- Prepare a Schedule for Completing Agreement Closeout Activities.
- Provide copies of *All Final Products* on a USB memory stick, organized by the tasks in the Agreement.

27 **Products:**

1

2

3

4

5 6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

28

29

30

31

40

41

42

43

44

45

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

32 **REPORTS AND INVOICES**33

34 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.

- 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:

1 2

3

4

11 12

13 14

15

16

17 18

19

20 21

22

23

24

25 26

27 28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

46

47

- Progress Reports
- Invoices

5 6 Subtask 1.6 Final Report

7 The goal of this subtask is to prepare a comprehensive Final Report that describes the original 8 purpose, approach, results, and conclusions of the work performed under this Agreement. When 9 creating the Final Report Outline and the Final Report, the Recipient must use the CEC Style 10 Manual provided by the CAM.

Subtask 1.6.1 Final Report Outline

The Recipient shall:

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

Recipient Products:

• Final Report Outline (draft and final)

CAM Product:

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

Subtask 1.6.2 Final Report

- 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. 1 2 For each comment received, the recipient will identify in the summary the following: 3
 - Comments the recipient proposes to incorporate.
 - Comments the recipient does propose to incorporate and an explanation for whv.
 - 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.
- 11 Submit the revised *Final Report* electronically with any Written Responses to Comments 12 within 10 days of receipt of CAM's Written Comments on the Draft Final Report, unless the 13 CAM specifies a longer time period or approves a request for additional time.

Products:

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

CAM Product:

Written Comments on the Draft Final Report

MATCH FUNDS, PERMITS, AND SUBCONTRACTS

26 Subtask 1.7 Match Funds

27 The goal of this subtask is to ensure that the Recipient obtains any match funds planned for this 28 Agreement and applies them to the Agreement during the Agreement term.

29

42

43

44

45

46

47

48

4

5

6

7

8

9

10

14 15

16

17

18

19

20 21

22

23 24

25

30 While the costs to obtain and document match funds are not reimbursable under this Agreement, 31 the Recipient may spend match funds for this task. The Recipient may only spend match funds 32 during the Agreement term, either concurrently or prior to the use of CEC funds. Match funds 33 must be identified in writing, and the Recipient must obtain any associated commitments before 34 incurring any costs for which the Recipient will request reimbursement. 35

- 37 Prepare a *Match Funds Status Letter* that documents the match funds committed to this 38 Agreement. If no match funds were part of the proposal that led to the CEC awarding this 39 Agreement and none have been identified at the time this Agreement starts, then state 40 this in the letter. 41
 - 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:

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18 19

20

21

22

23 24

33

34

35

36

37 38

39 40

41

42

43

44

- 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.

- Prepare a *Permit Status Letter* that documents the permits required to conduct this Agreement. If <u>no permits</u> 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.

4 **Products:**

1

2

3

5

6

7

8

9

14 15

16

17

18

19

20

21

22

23

24

25

26

27 28 29

30

31

33

42

43

44

45

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

10 Subtask 1.9 Subcontracts

11 The goals of this subtask are to: (1) procure subcontracts required to carry out the tasks under 12 this Agreement; and (2) ensure that the subcontracts are consistent with the terms and conditions 13 of this Agreement.

The Recipient shall:

- Manage and coordinate subcontractor activities in accordance with the requirements of this Agreement.
 - Incorporate this Agreement by reference into each subcontract.
 - Include any required Energy Commission flow-down provisions in each subcontract, in addition to a statement that the terms of this Agreement will prevail if they conflict with the subcontract terms.
 - If required by the CAM, submit a draft of each *Subcontract* required to conduct the work under this Agreement.
 - Submit a final copy of each executed subcontract.
 - Notify and receive written approval from the CAM prior to adding any new subcontractors (see the discussion of subcontractor additions in the terms and conditions).

Products:

• Subcontracts (draft if required by the CAM)

32 TECHNICAL ADVISORY COMMITTEE

34 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.

- 1 • Evaluate the tangible benefits of the project to the state of California, and provide 2 recommendations as needed to enhance the benefits. 3 Provide recommendations regarding information dissemination, market pathways, or 4 commercialization strategies relevant to the project products. 5 Help set the project team's goals and contribute to the development and evaluation of its 6 statement of proposed objectives as the project evolves. 7 • Provide a credible and objective sounding board on the wide range of technical and 8 financial barriers and opportunities. 9 Help identify key areas where the project has a competitive advantage, value proposition, • 10 or strength upon which to build. Advocate, to the extent the TAC members feel is appropriate, on behalf of the project in 11 • 12 its effort to build partnerships, governmental support and relationships with a national 13 spectrum of influential leaders. 14 Ask probing questions that insure a long-term perspective on decision-making and • 15 progress toward the project's strategic goals. 16 17 The TAC may be composed of qualified professionals spanning the following types of disciplines: 18 Researchers knowledgeable about the project subject matter; • 19 Members of trades that will apply the results of the project (e.g., designers, engineers, • 20 architects, contractors, and trade representatives); 21 Public interest market transformation implementers; • 22 Product developers relevant to the project; • 23 U.S. Department of Energy research managers, or experts from other federal or state • 24 agencies relevant to the project; 25 Public interest environmental groups; • 26 Utility representatives; • 27 Air district staff: and • 28 • Members of relevant technical society committees. 29 30 The Recipient shall: 31 Prepare a List of Potential TAC Members that includes the names, companies, physical • 32 and electronic addresses, and phone numbers of potential members. The list will be 33 discussed at the Kick-off meeting, and a schedule for recruiting members and holding the 34 first TAC meeting will be developed. 35 Recruit TAC members. Ensure that each individual understands member obligations and 36 the TAC meeting schedule developed in subtask 1.11. 37 Prepare a List of TAC Members once all TAC members have committed to serving on the • 38 TAC. 39 • Submit Documentation of TAC Member Commitment (such as Letters of Acceptance) from 40 each TAC member. 41 42 **Products:** 43 List of Potential TAC Members 44 List of TAC Members 45
 - **Documentation of TAC Member Commitment** •

2 Subtask 1.11 TAC Meetings

3 The goal of this subtask is for the TAC to provide strategic guidance for the project by participating 4 in regular meetings, which may be held via teleconference.

6 **The Recipient shall**:

1

5

7

8

9

10

11

12

13

14

15

16

17

18

19

21

22

23

24

25

26

27

28

31

32

33

35

36

37

38

39

- 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.

20 The TAC shall:

- Help set the project team's goals and contribute to the development and evaluation of its statement of proposed objectives as the project evolves.
- Provide a credible and objective sounding board on the wide range of technical and financial barriers and opportunities.
- Help identify key areas where the project has a competitive advantage, value proposition, or strength upon which to build.
- Advocate on behalf of the project in its effort to build partnerships, governmental support and relationships with a national spectrum of influential leaders.
- Ask probing questions that insure a long-term perspective on decision-making and progress toward the project's strategic goals.
 - Review and provide comments to proposed project performance metrics.
 - Review and provide comments to proposed project Draft Technology Transfer Plan.

34 **Products**:

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

40 Subtask 1.12 Project Performance Metrics

- The goal of this subtask is to identify key performance targets for the project. The performance targets should be a combination of scientific, engineering, techno-economic, and/or programmatic metrics that provide the most significant indicator of the research or technology's potential success.
- 45

46 **The Recipient shall:**

47 • Complete and submit the draft *Project Performance Metrics Questionnaire* to the CAM
 48 prior to the Kick-off Meeting.

- Present the draft Project Performance Metrics Questionnaire at the first TAC meeting to solicit input and comments from the TAC members.
- Develop and submit a TAC Performance Metrics Summary that summarizes comments received from the TAC members on the proposed project performance metrics. The TAC Performance Metrics Summary will identify:
 - o TAC comments the recipient proposes to incorporate into the final Project Performance Metrics Questionnaire.
 - TAC comments the recipient does not propose to incorporate with and explanation why.
 - Submit a final Project Performance Metrics Questionnaire with incorporated TAC feedback.
 - Develop and submit a Project Performance Metrics Results document describing the extent to which the recipient met each of the performance metrics in the final Project Performance Metrics Questionnaire.
 - Discuss the final Project Performance Metrics Questionnaire and Project Performance *Metrics Results* at the Final Meeting.

18 **Products:**

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

IV. TECHNICAL TASKS

24 25 26

27

32

33

34

35

36

37

38

39

40

41

42

43 44

45

48

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

19

20

21

22 23

TASK 2 MFC-120[™] DESIGN

28 The goal of this task is to complete the design, analysis, trade studies, and final component 29 selection required to quide the assembly and testing of two prototypes of the MFC-120TM system. 30

31 The Recipient shall:

- Review the MFC-120[™] conceptual design the Recipient has already developed with the Energy Commission and its TAC during the project kickoff meeting to obtain initial comments.
- Perform a trade study, documenting the results in a CPR Report select the best power conversion solution for the MFC-120[™] system, selecting from among the following alternatives:
 - Large, commercial off-the-shelf (COTS) air-cooled inverters
 - Smaller, liquid-cooled COTS inverters adapted from EV applications
 - A custom-designed liquid-cooled inverter drawing from concurrent research the Recipient is performing into advanced inverter and charger designs
- Develop more detailed system layouts and detailed mechanical and electrical designs for the MFC-120[™] system, using:
 - Component CAD drawings and other data supplied by key component suppliers 0
 - Design methods developed and refined on previous fuel cell-related projects 0

Prepare a draft five-phase Measurement & Verification (M&V) Plan addressing tests to be 46 47

- performed during the following product development sequence:
 - Dual fuel cell assembly

	RockeTruck, Inc.
1	 Battery subsystem integration
2	 Hydrogen storage subsystem integration
3	 Lab testing of the integrated MFC-120[™] system, including testing at SDG&E's
4	Integrated Test Facility
5	• Two years of field testing of the first prototype system, with concurrent testing of
6	the second prototype during the last 18 months of this period
7	• Submit the draft <i>M&V Plan</i> to the CAM for feedback and incorporate changes as requested
8	in the final M&V Plan.
9	 Develop a Bill of Material (BOM) and documented assembly procedures for the prototype
10	MFC-120 [™] systems to be built and tested during the project.
11	 Prepare a CPR Report #1 in accordance with subtask 1.3 (CPR Meetings).
12	 Participate in a CPR meeting.
12	
14	Products:
15	M&V Plan (draft and final)
16	• CPR Report #1
17	
18	
19	TASK 3 PROTOTYPE ASSEMBLY AND TEST STAND EVALUATION
20	The goal of this task is to assemble MFC-120™ units on a test stand, develop and verify software,
21	and conduct structural and electrical validation testing.
22	ũ
23	The Recipient shall:
24	• Procure all major and long-lead components required for the two prototype MFC-120™
25	systems, including:
26	 Fuel cells from a supplier TBD
27	 Battery subsystems from a supplier TBD.
28	 Hydrogen storage subsystems from a supplier TBD
29	 Inverters and related hardware based on the trade study performed under Task 2
30	 Trailers from a supplier TBD
31	• Assemble the two prototype MFC-120 [™] systems, using a concurrent engineering
32	approach with component and subsystem testing performed in parallel
33	 Assembly of first prototype and development of control software to begin 6 months
34	after project start
35	 Validation of basic functionality of first dual fuel cell assembly to be completed 12
36	months after project start
37 38	 Validation of functionality of first integrated fuel cell-battery system to be completed 15 months after project start
38 39	15 months after project start
39 40	 Lab testing of first complete, trailer-mounted MFC-120[™] system with full-size hydrogen storage subsystem to be completed 18 months after project start
40 41	
42	
42 43	 Lab testing of second complete, trailer-mounted MFC-120TM system with full-size hydrogen storage subsystem to be completed 24 months after project start
43 44	 Lab testing as described above shall include electrical and structural tests as required to
44 45	• Lab testing as described above shall include electrical and structural tests as required to validate system safety. In developing test plans, the Recipient shall follow applicable
45 46	standards from documents governing the design of electric vehicles, which if not legally
40 47	applicable to a mobile generator at least provide best practices guidance. These include
48	the relevant provisions of:
.0	

	RockeTruck, Inc.
1	 Global Technical Regulation on the Electric Vehicle Safety, Addendum 20: Global
2	Technical Regulation No. 20, adopted by the United Nations on 14 March 2018
3	 Federal Motor Vehicle Safety Standards (FMVSS)
4	 UL-583, Electric-Battery Powered Industrial Trucks
5	 UL-2580, Batteries for Use in Electric Vehicles
6	• Initial high-power testing of each prototype shall be performed at the SDG&E Integrated
7	Test Facility in Escondido, CA
8	• Update design documentation, BOM, and assembly procedures as the prototype MFC-
9	120 [™] systems are built and lab tested.
10	 Complete modifications to the prototype MFC-120[™] systems as lessons are learned from
11	lab testing of the two units.
12	
12	 Incorporate non-proprietary summary design and testing documentation, BOM, and assembly procedures into a CPR Report and <i>Technology Transfer Summary Report</i>.
13 14	
	 Prepare a CPR Report #2 in accordance with subtask 1.3 (CPR Meetings).
15	Participate in a CPR meeting.
16 17	Draduata
	Products:
18	CPR Report #2
19	
20 21	TACK A FIELD TESTING AND EVALUATION
	TASK 4 FIELD TESTING AND EVALUATION
22	The goal of this task is to transport the MFC-120 [™] units to demonstration sites, followed by field
23 24	commissioning, operation, and monitoring of the units.
24 25	The Recipient shall:
23 26	•
20 27	 Perform two years of field testing of the first prototype MFC-120[™] system Six menths of testing at leasting near DeckeTruck's Decendide facilities, focusing
27	 Six months of testing at locations near RockeTruck's Escondido facilities, focusing an high fire risk and disadvantaged communities, to completely debug the system
28 29	on high fire risk and disadvantaged communities, to completely debug the system
	• 18 months of testing in each of three different climate zones within the SCE service
30	territory – coastal, mountain, and desertMFC-120 [™] system #1 to be based at a
31	location that has easy access for hydrogen refueling.
32	 At least two different tests of at least 48 hours of duration to be conducted in each
33	of the three SCE zones:
34	 A moderate coastal climate zone
35	A desert climate
36	A mountain climate Additional testing of Question #4 to be performed to the extent prestical based on
37	 Additional testing of System #1 to be performed to the extent practical, based on
38	generator performance and financial constraints, focusing on maximizing
39	demonstrations in high fire risk regions and disadvantaged communities
40	• Perform 18 months of testing of the second prototype MFC-120 [™] system in the SDG&E
41	service territory
42	 Initial testing will be at a suitable test facility.
43	• Additional field testing will be performed at a location that provides significant
44	changes in temperature, humidity, and other factors across the four annual
45	seasons
46	• At least two different tests of at least 48 hours of duration will be conducted at the
47	field test location during each of the four seasons, including
48	 at least one winter test

- Perform all field testing in accordance with the Measurement & Verification (M&V) Plan
 - Characterize system performance under different conditions and describe best operating conditions to provide an understanding of load levels and durations that can be supported
 - Determine reductions in fuel use, emissions, and maintenance costs/downtime for typically used fossil fuel systems
 - Describe ongoing maintenance for the systems being pilot tested
 - Assess durability by assessing any system degradation from transport between test sites
- Develop an *M*&*V Report* to document all field testing results, while also summarizing relevant results of previous lab testing
 - Prepare a CPR Report #3 in accordance with subtask 1.3 (CPR Meetings).
 - Participate in a CPR meeting.

15 **Products:**

1 2

3

4

5

6

7

8

9

10

11 12

13

14

16

17

18

22 23

24

25

26

27

28

29

30

31 32

33

34

35

36

37

38 39

- M&V Report
 - CPR Report #3

1920TASK 5 EVALUATION OF PROJECT BENEFITS

21 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.
- 40 Data on potential job creation, market potential, economic development, and 41 increased state revenue as a result of the project.

	RockeTruck, Inc.
1	 A discussion of project product downloads from websites, and publications in
2	technical journals.
3	 A comparison of project expectations and performance. Discuss whether the goals
4	and objectives of the Agreement have been met and what improvements are
5	needed, if any.
6	Additional Information for Product Development Projects:
7	 Outcome of product development efforts, such copyrights and license
8	agreements.
9	 Units sold or projected to be sold in California and outside of California.
10	 Total annual sales or projected annual sales (in dollars) of products
11	developed under the Agreement.
12	 Investment dollars/follow-on private funding as a result of Energy
13	Commission funding.
14	 Patent numbers and applications, along with dates and brief descriptions.
15	Additional Information for Product Demonstrations:
16	 Outcome of demonstrations and status of technology.
17	Number of similar installations.
18	 Jobs created/retained as a result of the Agreement.
19	•
20	 For Information/Tools and Other Research Studies:
21	 Outcome of project.
22	 Published documents, including date, title, and periodical name.
23	 A discussion of policy development. State if the project has been cited in
24	government policy publications or technical journals, or has been used to
25	inform regulatory bodies.
26	 The number of website downloads.
27	 An estimate of how the project information has affected energy use and
28	cost, or have resulted in other non-energy benefits.
29	 An estimate of energy and non-energy benefits.
30	 Data on potential job creation, market potential, economic development,
31	and increased state revenue as a result of project.
32	 A discussion of project product downloads from websites, and publications
33	in technical journals.
34	 A comparison of project expectations and performance. Discuss whether
35	the goals and objectives of the Agreement have been met and what
36	improvements are needed, if any.
37	 Respond to CAM questions regarding responses to the questionnaires.
38 39	The CEC may cond the Desiniant similar questionnaires ofter the Agreement term and
39 40	The CEC may send the Recipient similar questionnaires after the Agreement term ends. Responses to these questionnaires will be voluntary.
41	Responses to these questionnalies will be voluntary.
42	Products:
43	Kick-off Meeting Benefits Questionnaire
44	 Mid-term Benefits Questionnaire
45	 Final Meeting Benefits Questionnaire
46	

46 47

48 TASK 6 TECHNOLOGY/KNOWLEDGE TRANSFER ACTIVITIES

	Rocke I ruck, Inc.
1	The goal of this task is to conduct activities that will accelerate the commercial adoption of the
2	technology being supported under this agreement. Eligible activities include, but are not limited
3	to, the following:
4	• Scale-up analysis including manufacturing analysis, independent design verification,
5	and process improvement efforts.
6	 Technology verification testing, or application to a test bed program located in
7	California.
8	Legal services or licensing to secure necessary intellectual property to further
9	develop the technology
10	 Market research, business plan development, and cost-performance modeling.
11	 Entry into an incubator or accelerator program located in California.
12	
13	The Recipient Shall:
14	 Develop and submit a Technology Transfer Plan (Draft/Final) that identifies the
15	proposed activities the recipient will conduct to accelerate the successful commercial
16	adoption of the technology.
17	• Present the <i>Draft Technology Transfer Plan</i> to the TAC for feedback and comments.
18	• Develop and submit a Summary of TAC Comments that summarizes comments
19	received from the TAC members on the <i>Draft Technology Transfer Plan</i> . This
20	document will identify:
20	 TAC comments the recipient proposes to incorporate into the <i>Final Technology</i>
22	Transfer Plan.
23	 TAC comments the recipient does not propose to incorporate with and
24	explanation why.
25	
26	Implement activities identified in <i>Final Technology Transfer Plan.</i>
27	• Develop and submit a <i>Technology Transfer Summary Report (Draft/Final)</i> that
28	includes high level summaries of the activities, results, and lessons learned of tasks
29	performed relating to implementing the Final Technology Transfer Plan. This report
30	should not include any proprietary information.
31	 When directed by the CAM, develop presentation materials for an CEC- sponsored
32	conference/workshop(s) on the project.
33	 When directed by the CAM, participate in annual EPIC symposium(s) sponsored by
34	the CEC.
35	 Provide at least (6) six High Quality Digital Photographs (minimum resolution of
36	1300x500 pixels in landscape ratio) of pre and post technology installation at the
37	project sites or related project photographs.
38	
39	Products:
40	 Technology Transfer Plan (Draft/Final)
41	Summary of TAC Comments
42	 Technology Transfer Summary Report (Draft/Final)
43	 High Quality Digital Photographs
44	- man adding Digital i notographo
- -	

V. PROJECT SCHEDULE

Please see the attached Excel spreadsheet.

1 2 3

STATE OF CALIFORNIA

STATE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: ROCKETRUCK, INC.

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

RESOLVED, that the CEC approves Agreement EPC-21-018 with RockeTruck, Inc. for a \$3,000,000 grant to fund development, testing, and evaluation of a new generator product RockeTruck will assemble in California and market commercially to meet growing needs for flexible backup power solutions. The generator will produce up to 120 kilowatts (kW) of power, combining 60 kW from hydrogen fuel cells and 60 kW from lithium-ion batteries; 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 February 16, 2022.

AYE: NAY: ABSENT: ABSTAIN:

> Liza Lopez Secretariat