

New Agreement ARV-19-072 (To be completed by CGL Office)

600 Fuels and Transportation Division	Micah Wofford	6	916-653-8685
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FreeWire Technologies, Inc.	48-4847451
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FreeWire Rapid Access Charging for E-Mobility (California RACE) Project

09 / 11 / 2019	05 / 30 / 2022	\$ 1,986,000
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ARFVTP agreements \$75K and under delegated to Executive Director.

Proposed Business Meeting Date	09 / 11 / 2019	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
Business Meeting Presenter	Micah Wofford	Time Needed:	5 minutes

Please select one list serve. Altfuels (AB118- ARFVTP)

Agenda Item Subject and Description

FreeWire Technologies, Inc. Proposed resolution approving agreement ARV-19-072 with FreeWire Technologies, Inc. for a \$1,986,000 grant to design, purchase equipment, and build in-state manufacturing for innovative electric vehicle chargers that integrate energy storage, and adopting staff's determination that this action is exempt from CEQA. This manufacturing project will increase the production capacity of FreeWire Technologies products in California. (Clean Transportation Program Funding) Contact: Larry Rillera. (Staff presentation: 5 minutes)

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

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

a) Agreement **IS** exempt. (Attach draft NOE)
 Statutory Exemption. List PRC and/or CCR section number:
 Categorical Exemption. List CCR Cal. Code Regs., tit. 14, § 15301 section number:
 Common Sense Exemption. 14 CCR 15061 (b) (3)

Explain reason why Agreement is exempt under the above section:
 California Code of Regulations, title 14, section 15301 provides that projects which consist of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, and which involve negligible or no expansion of use beyond that existing at the time of the lead agency's determination, are categorically exempt from the provisions of the California Environmental Quality Act. The physical aspects of this project consist of installing new electric vehicle charger production equipment entirely within the shell of an existing 20,000 square foot manufacturing facility located in San Leandro, CA. New equipment includes: system frame and battery cooling fabrication elements; integration kanbans; battery, plate, and panel installation machinery; and final functional testing components. The overall footprint of the newly installed manufacturing equipment within the existing building will be approximately 10,000 square feet. Minor utility modifications will be done including increasing utility line energy capacity and extending existing power lines to the new engineering and production areas to power the equipment and test the newly produced units. These modifications will not result in any expansion of capacity. For these reasons, the proposed work will not have any significant effect on the environment and falls under section 15301.

b) Agreement **IS NOT** exempt. (Consult with the legal office to determine next steps.)
 Check all that apply

<input type="checkbox"/> Initial Study	<input type="checkbox"/> Environmental Impact Report
<input type="checkbox"/> Negative Declaration	<input type="checkbox"/> Statement of Overriding Considerations
<input type="checkbox"/> Mitigated Negative Declaration	

GRANT REQUEST FORM (GRF)



List all subcontractors (major and minor) and equipment vendors: (attach additional sheets as necessary)	
Legal Company Name:	Budget
See attached	\$
	\$
	\$

Legal Company Name:

Funding Source	Funding Year of Appropriation	Budget List No.	Amount
ARFVTP	2018 - 2019	601.118K (18/19)	\$1,986,000
Funding Source			\$
R&D Program Area: N/A			\$1,986,000
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

Name:	Ethan Hanohano	Name:	Martin Lynch
Address:	810 K Street, Suite 2700	Address:	1933 Davis St., Suite 301A
City, State, Zip:	Sacramento, CA 95814	City, State, Zip:	San Leandro, CA 94577
Phone:	916-201-1705	Fax:	- -
E-Mail:	ethan@buildmomentum.io	E-Mail:	milynych@freewiretech.com

<input checked="" type="checkbox"/> Competitive Solicitation	Solicitation #: GFO-18-605
<input type="checkbox"/> First Come First Served Solicitation	

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

Agreement Manager _____ Date _____ Office Manager _____ Date _____ Deputy Director _____ Date _____

List all subcontractors (major and minor) and equipment vendors

Legal Company Name:	Budget - CEC share	Match share
TBD - Product Design		\$200,000
TBD - Factory Layout and Training		\$200,000
TBD - Training and Upgrades	\$12,000	\$3,000
The Grant Farm dba Momentum		\$98,000

EXHIBIT A Scope of Work

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2		Production Line Design, Procurement, Installation, and Testing
2.1		Production Line Design and Engineering
2.2		Procurement of Manufacturing Line Equipment
2.3	X	Equipment Testing, Manufacturing Line Installation and Testing
2.4		Supply Chain Planning
2.5	X	Gold Unit Production and Verification
2.6	X	Initiate Manufacturing Operations and Worker Training
3	X	Data Collection and Analysis

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Arcady Sosinov Shawn Garvey Ethan Hanohano	The Grant Farm dba Momentum	
2	Martin Lynch Alison Armstrong Jeff Rosen Sunny Wai		
3	Mark Hanna Scott Smedley		

GLOSSARY

Specific terms and acronyms used throughout this scope of work are defined as follows:

Term/ Acronym	Definition
ARFVTP	Alternative and Renewable Fuel and Vehicle Technology Program
CAM	Commission Agreement Manager
CPR	Critical Project Review
DC	Direct current
EV	Electric vehicle
FTD	Fuels and Transportation Division

EXHIBIT A Scope of Work

Term/ Acronym	Definition
PPAP	Production Part Approval Process
Recipient	FreeWire Technologies, Inc.
UL	Underwriters Laboratory

BACKGROUND

Assembly Bill (AB) 118 (Núñez, Chapter 750, Statutes of 2007), created the Clean Transportation Program (formerly known as the Alternative and Renewable Fuel and Vehicle Technology Program). The statute authorizes the California Energy Commission (Energy Commission) to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state's climate change policies. AB 8 (Perea, Chapter 401, Statutes of 2013) re-authorizes the Clean Transportation Program through January 1, 2024, and specifies that the Energy Commission allocate up to \$20 million per year (or up to 20 percent of each fiscal year's funds) in funding for hydrogen station development until at least 100 stations are operational.

The Clean Transportation Program has an annual budget of approximately \$100 million and provides financial support for projects that:

- Reduce California's use and dependence on petroleum transportation fuels and increase the use of alternative and renewable fuels and advanced vehicle technologies.
- Produce sustainable alternative and renewable low-carbon fuels in California.
- Expand alternative fueling infrastructure and fueling stations.
- Improve the efficiency, performance and market viability of alternative light-, medium-, and heavy-duty vehicle technologies.
- Retrofit medium- and heavy-duty on-road and non-road vehicle fleets to alternative technologies or fuel use.
- Expand the alternative fueling infrastructure available to existing fleets, public transit, and transportation corridors.
- Establish workforce training programs and conduct public outreach on the benefits of alternative transportation fuels and vehicle technologies.

On December 19, 2018, the California Energy Commission (Energy Commission) released Grant Funding Opportunity GFO-18-605 entitled "Zero-Emission Vehicle and Zero-Emission Vehicle Infrastructure Manufacturing." This competitive grant solicitation was to fund projects that will increase the in-state manufacturing of zero-emission vehicles and zero-emission vehicle infrastructure. In response to GFO-18-605, the Recipient submitted application #9 which was proposed for funding in the Energy Commission's Notice of Proposed Awards on April 11, 2019. GFO-18-605 and Recipient's application are hereby incorporated by reference into this Agreement in their entirety.

In the event of any conflict or inconsistency between the terms of the Solicitation and the terms of the Recipient's Application, the Solicitation shall control. In the event of any conflict or inconsistency between the Recipient's Application and the terms of Commission's Award, the Commission's Award shall control. Similarly, in the event of any conflict or inconsistency

EXHIBIT A

Scope of Work

between the terms of this Agreement and the Recipient's Application, the terms of this Agreement shall control.

Problem Statement:

Recipient is currently the only known company in the U.S. that is close to commercializing portable battery and fixed-install fast charge technology for electric vehicles (EVs). The company is currently experiencing a strong increase in demand for its systems, which promise to reduce or alleviate entirely the need for costly infrastructure and power service upgrades at potential EV charging sites. This feature is especially critical as a growing number of users seek to deploy DC fast charging, which can require up to 350 kilowatts of power—an amount that is rarely available at existing refueling stations or typical EV charging locations. Recipient's production rates are currently limited to between 50 and 100 units per year; as a result, the company does not anticipate being able to keep up with existing demand or near-term growth without significant investment in new manufacturing lines for its Mobi and Boost systems.

Goals of the Agreement:

The goal of this Agreement is to develop new modular manufacturing lines to enable the production of 300 units per year. These modular manufacturing lines will be located within FreeWire's existing San Leandro facility. Each of these lines will be capable of producing either FreeWire's Boost Charger or Mobi products, affording flexibility based on market demand for FreeWire products. FreeWire will reserve an additional manufacturing line ("gold line") for overflow production, testing, and new technology development.

Objectives of the Agreement:

The objectives of this Agreement are to:

- 1) Complete manufacturing line design, procurement, and installation of the manufacturing lines and the gold line;
- 2) Demonstrate a production capacity rate of 25 units per month based on achieved assembly, test, and packaging rates, through a time and motion study of each completed manufacturing line; and
- 3) Document successful operation and initial commercial production ramp-up of the manufacturing lines during a six-month data collection and reporting period.

TASK 1 ADMINISTRATION

Task 1.1 Attend Kick-off Meeting

The goal of this task is to establish the lines of communication and procedures for implementing this Agreement. The Commission Agreement Manager (CAM) shall designate the date and location of this meeting and provide an agenda to the Recipient prior to the meeting.

The Recipient shall:

- Attend a "Kick-Off" meeting with the CAM, the Commission Agreement Officer (CAO), and a representative of the Energy Commission Accounting Office. The Recipient shall bring their Project Manager, Agreement Administrator, Accounting Officer, and any others determined necessary by the Recipient or specifically requested by the CAM to this meeting.
- Discuss the following administrative and technical aspects of this Agreement:
 - Agreement Terms and Conditions

EXHIBIT A

Scope of Work

- Critical Project Review (Task 1.2)
- Match fund documentation (Task 1.6) No reimbursable work may be done until this documentation is in place.
- Permit documentation (Task 1.7)
- Subcontracts needed to carry out project (Task 1.8)
- The CAM's expectations for accomplishing tasks described in the Scope of Work
- An updated Schedule of Products and Due Dates
- Monthly Progress Reports (Task 1.4)
- Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
- Final Report (Task 1.5)

Recipient Products:

- Updated Schedule of Products
- Updated List of Match Funds
- Updated List of Permits

Commission Agreement Manager Product:

- Kick-Off Meeting Agenda

Task 1.2 Critical Project Review (CPR) Meetings

CPRs provide the opportunity for frank discussions between the Energy Commission and the Recipient. The goal of this task is to determine if the project should continue to receive Energy Commission funding to complete this Agreement and to identify any needed modifications to the tasks, products, schedule, or budget.

The CAM may schedule CPR meetings as necessary, and meeting costs will be borne by the Recipient.

Meeting participants include the CAM and the Recipient and may include the Commission Agreement Officer, the Fuels and Transportation Division (FTD) program lead, other Energy Commission staff and Management as well as other individuals selected by the CAM to provide support to the Energy Commission.

The CAM shall:

- Determine the location, date, and time of each CPR meeting with the Recipient. These meetings generally take place at the Energy Commission, but they may take place at another location.
- Send the Recipient the agenda and a list of expected participants in advance of each CPR. If applicable, the agenda shall include a discussion on both match funding and permits.
- Conduct and make a record of each CPR meeting. Prepare a schedule for providing the written determination described below.

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Scope of Work

- Determine whether to continue the project, and if continuing, whether or not modifications are needed to the tasks, schedule, products, and/or budget for the remainder of the Agreement. Modifications to the Agreement may require a formal amendment (please see section 8 of the Terms and Conditions). If the CAM concludes that satisfactory progress is not being made, this conclusion will be referred to the Lead Commissioner for Transportation for his or her concurrence.
- Provide the Recipient with a written determination in accordance with the schedule. The written response may include a requirement for the Recipient to revise one or more product(s) that were included in the CPR.

The Recipient shall:

- Prepare a CPR Report for each CPR that discusses the progress of the Agreement toward achieving its goals and objectives. This report shall include recommendations and conclusions regarding continued work of the projects. This report shall be submitted along with any other products identified in this scope of work. The Recipient shall submit these documents to the CAM and any other designated reviewers at least 15 working days in advance of each CPR meeting.
- Present the required information at each CPR meeting and participate in a discussion about the Agreement.

CAM Products:

- Agenda and a list of expected participants
- Schedule for written determination
- Written determination

Recipient Product:

- CPR Report(s)

Task 1.3 Final Meeting

The goal of this task is to closeout this Agreement.

The Recipient shall:

- Meet with Energy Commission staff to present the findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement.

This meeting will be attended by, at a minimum, the Recipient, the Commission Grants Office Officer, and the Commission Agreement Manager. The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be two separate meetings at the discretion of the Commission Agreement Manager.

The technical portion of the meeting shall present an assessment of the degree to which project and task goals and objectives were achieved, findings, conclusions, recommended next steps (if any) for the Agreement, and recommendations for improvements. The Commission Agreement Manager will determine the appropriate meeting participants.

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The administrative portion of the meeting shall be a discussion with the Commission Agreement Manager and the Grants Officer about the following Agreement closeout items:

- What to do with any equipment purchased with Energy Commission funds (Options)
- Energy Commission's request for specific "generated" data (not already provided in Agreement products)
- Need to document Recipient's disclosure of "subject inventions" developed under the Agreement
- "Surviving" Agreement provisions
- Final invoicing and release of retention
- Prepare a schedule for completing the closeout activities for this Agreement.

Products:

- Written documentation of meeting agreements
- Schedule for completing closeout activities

Task 1.4 Monthly Progress Reports

The goal of this task is to periodically verify that satisfactory and continued progress is made towards achieving the objectives of this Agreement on time and within budget.

The objectives of this task are to summarize activities performed during the reporting period, to identify activities planned for the next reporting period, to identify issues that may affect performance and expenditures, and to form the basis for determining whether invoices are consistent with work performed.

The Recipient shall:

- Prepare a Monthly Progress Report which summarizes all Agreement activities conducted by the Recipient for the reporting period, including an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Each progress report is due to the Commission Agreement Manager within 10 days of the end of the reporting period. The recommended specifications for each progress report are contained in Section 6 of the Terms and Conditions of this Agreement.
- In the first Monthly Progress Report and first invoice, document and verify match expenditures and provide a synopsis of project progress, if match funds have been expended or if work funded with match share has occurred after the notice of proposed award but before execution of the grant agreement. If no match funds have been expended or if no work funded with match share has occurred before execution, then state this in the report. All pre-execution match expenditures must conform to the requirements in the Terms and Conditions of this Agreement.

Product:

- Monthly Progress Reports

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Task 1.5 Final Report

The goal of the Final Report is to assess the project's success in achieving the Agreement's goals and objectives, advancing science and technology, and providing energy-related and other benefits to California.

The objectives of the Final Report are to clearly and completely describe the project's purpose, approach, activities performed, results, and advancements in science and technology; to present a public assessment of the success of the project as measured by the degree to which goals and objectives were achieved; to make insightful observations based on results obtained; to draw conclusions; and to make recommendations for further projects and improvements to the FTD project management processes.

The Final Report shall be a public document. If the Recipient has obtained confidential status from the Energy Commission and will be preparing a confidential version of the Final Report as well, the Recipient shall perform the following activities for both the public and confidential versions of the Final Report.

The Recipient shall:

- Prepare an Outline of the Final Report, if requested by the CAM.
- Prepare a Final Report following the latest version of the Final Report guidelines which will be provided by the CAM. The CAM shall provide written comments on the Draft Final Report within fifteen (15) working days of receipt. The Final Report must be completed at least 60 days before the end of the Agreement Term.
- Submit one bound copy of the Final Report with the final invoice.

Products:

- Outline of the Final Report, if requested
- Draft Final Report
- Final Report

Task 1.6 Identify and Obtain Matching Funds

The goal of this task is to ensure that the match funds planned for this Agreement are obtained for and applied to this Agreement during the term of this Agreement.

The costs to obtain and document match fund commitments are not reimbursable through this Agreement. Although the Energy Commission budget for this task will be zero dollars, the Recipient may utilize match funds for this task. Match funds shall be spent concurrently or in advance of Energy Commission funds for each task during the term of this Agreement. Match funds must be identified in writing and the associated commitments obtained before the Recipient can incur any costs for which the Recipient will request reimbursement.

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The Recipient shall:

- Prepare a letter documenting the match funding committed to this Agreement and submit it to the Commission Agreement Manager at least 2 working days prior to the kick-off meeting. 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 such 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 each cash match fund, its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied.
 - Amount of each in-kind contribution, a description, documented market or book value, and its 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 shall identify its owner and provide a contact name, address and telephone number, and the address where the property is located.
- Provide a copy of the letter of commitment from an authorized representative of each source of cash match funding or in-kind contributions that these funds or contributions have been secured. For match funds provided by a grant a copy of the executed grant shall be submitted in place of a letter of commitment.
- Discuss match funds and the implications to the Agreement if they are reduced or not obtained as committed, at the kick-off meeting. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.
- Provide the appropriate information to the Commission Agreement Manager if during the course of the Agreement additional match funds are received.
- Notify the Commission Agreement Manager within 10 days if during the course of the Agreement existing match funds are reduced. Reduction in match funds must be approved through a formal amendment to the Agreement and may trigger an additional CPR meeting.

Products:

- A letter regarding match funds or stating that no match funds are provided
- Copy(ies) of each match fund commitment letter(s) (if applicable)
- Letter(s) for new match funds (if applicable)
- Letter that match funds were reduced (if applicable)

Task 1.7 Identify and Obtain Required Permits

The goal of this task 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.

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Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement. Although the Energy Commission budget for this task will be zero dollars, the Recipient shall budget match funds for any expected expenditures associated with obtaining permits. Permits must be identified in writing and obtained before the Recipient can make any expenditure for which a permit is required.

The Recipient shall:

- Prepare a letter documenting the permits required to conduct this Agreement and submit it to the Commission Agreement Manager at least 2 working days prior to the kick-off meeting. If there are no permits required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that permits will be required during the course of the Agreement, provide in the letter:
 - A list of the permits that identifies the:
 - Type of permit
 - Name, address and telephone number of the permitting jurisdictions or lead agencies
 - The schedule the Recipient will follow in applying for and obtaining these permits.
- Discuss the list of permits and the schedule for obtaining them at the kick-off meeting and develop a timetable for submitting the updated list, schedule and the copies of the permits. The implications to the Agreement 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 the Progress Reports and will be a topic at CPR meetings.
- If during the course of the Agreement additional permits become necessary, provide the appropriate information on each permit and an updated schedule to the Commission Agreement Manager.
- As permits are obtained, send a copy of each approved permit to the Commission Agreement Manager.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the Commission Agreement Manager within 5 working days. Either of these events may trigger an additional CPR.

Products:

- Letter documenting the permits or stating that no permits are required
- A copy of each approved permit (if applicable)
- Updated list of permits as they change during the term of the Agreement (if applicable)
- Updated schedule for acquiring permits as changes occur during the term of the Agreement (if applicable)
- A copy of each final approved permit (if applicable)

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Task 1.8 Obtain and Execute Subcontracts

The goal of this task is to ensure quality products and to procure subcontractors required to carry out the tasks under this Agreement consistent with the Agreement Terms and Conditions and the Recipient's own procurement policies and procedures. It will also provide the Energy Commission an opportunity to review the subcontracts to ensure that the tasks are consistent with this Agreement, and that the budgeted expenditures are reasonable and consistent with applicable cost principles.

The Recipient shall:

- Manage and coordinate subcontractor activities.
- Submit a draft of each subcontract required to conduct the work under this Agreement to the Commission Agreement Manager for review.
- Submit a final copy of the executed subcontract.
- If Recipient decides to add new subcontractors, then the Recipient shall notify the CAM.

Products:

- Letter describing the subcontracts needed, or stating that no subcontracts are required
- Draft subcontracts
- Final subcontracts

TECHNICAL TASKS

TASK 2 PRODUCTION LINE DESIGN, PROCUREMENT, INSTALLATION, AND TESTING

The goal of this task is to complete all engineering and design, procurement, installation, and testing for the project. This task is broken into six subtasks, as follows:

Subtask 2.1 Production Line Design and Engineering

The goal of this subtask is to complete all design and engineering, for each manufacturing line.

The Recipient shall:

- Complete all design and engineering for each modular manufacturing line. Design will consider factory location and space layout.
- Design specifications shall include the ability to flexibly operate the manufacturing lines to produce either the Mobi or the Boost system, at a capacity up to 300 units per year depending on customer orders.
- Assess need for utility (electricity) upgrades and incorporate into project design as warranted.
- Complete preliminary manufacturing capacity and capability design report, which will include product assembly, testing, packaging for freight purposes, capital equipment and tooling, labor, and facility upgrades. Job priority shall be given to employees who are members of disadvantaged communities and underrepresented groups.

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- Complete a bill of materials, which will include all supplier and sub-assembly components, as well as any Recipient custom components.
- Complete build documents, which will include assembly steps and procedures for assuring the product is built to specification and quality requirements.
- Complete an outline of manufacturing line test procedures, which will summarize all test procedures to be completed at each sub-assembly station as appropriate to assure quality control and ease of production re-work.

Products:

- Preliminary manufacturing capacity and capability design report
- Bill of materials
- Build documents
- Outline of manufacturing line test procedures

Subtask 2.2 Procurement of Manufacturing Line Equipment

The goal of this subtask is to complete all procurement of equipment needed to install and operate the manufacturing lines.

The Recipient shall:

- Complete a procurement list, which will include all major items requiring procurement and a procurement schedule.
- Place equipment orders for all proposed equipment as well as supporting materials as needed and as required to meet the Recipient's sales and product shipments.
- Create purchase orders for long-lead items and for all other equipment.
- Receive procured equipment and materials at each installation site.
- Complete a procurement report that documents outcomes of the procurement process.

Products:

- Procurement list
- Procurement report

Subtask 2.3 Equipment Testing, Manufacturing Line Installation and Testing

The goal of this subtask is to install the manufacturing lines at the existing San Leandro facility.

The Recipient shall:

- Prepare an equipment testing plan that will summarize procedures for testing all equipment and all manufacturing line subprocesses.
- Test all equipment upon receipt to ensure proper / adequate function of all manufacturing line components prior to installation.

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- Complete all site preparation, including utility connections and upgrades, IT, assembly and test support systems such as pneumatics, production flow equipment, clean rooms as required, and other facility upgrades to meet production capacity rates at budgeted costs.
- Install and test all equipment for each of the manufacturing lines.
 - Installation will be completed subprocess by subprocess.
 - Upon completion of the initial installation of a production line, the various subprocess assembly and test stations will be tested to ensure adequate functionality.
- Install all equipment for the gold unit production line.
 - Installation will be completed subprocess by subprocess.
 - Upon completion of the initial installation of the gold line, the various subprocess assembly and test stations will be tested to ensure adequate functionality.
- Prepare an installation and testing report, which will summarize the installation process for each manufacturing line and the results of the testing process.

Products:

- Equipment testing plan
- Installation and testing report

Subtask 2.4 Supply Chain Planning

The goal of this subtask is to complete initial planning requirements of the supply chain needed to manufacture the target Mobi and Boost systems.

The Recipient shall:

- Identify suppliers for all raw materials, parts, specialty systems, and other miscellaneous items and equipment needed for manufacture of the Mobi and Boost systems.
- Establish standard procedures, either automated or via planned check-ins, to track supplier status for raw materials, parts, specialty systems, and other items, for each supplier.
- Develop an incoming inspection process quality assurance plan for all raw materials, parts, specialty systems, and other items received; the quality assurance plan will provide for audit procedures, inspection and where appropriate, testing of certain components using statistically relevant samples depending on procurement numbers and statistical modeling.

Product:

- Incoming inspection process quality assurance plan

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Subtask 2.5 Gold Unit Production and Verification

The goal of this task is to complete production of two Gold Units—one Mobi system and one Boost system. These units will serve as the production standard and will also allow for testing and updates for the gold unit production line.

The Recipient shall:

- Complete procurement of all items needed to manufacture each Gold Unit, relying on the supply chains developed under Task 2.4.
- Test all procured items according to the incoming inspection process plan developed under Task 2.4.
- Manufacture the Mobi Gold Unit.
- Verify operability and performance of the Mobi Gold Unit against the Recipient's standards (such as UL 2202).
- Manufacture the Boost Gold Unit.
- Verify operability and performance of the Boost Gold Unit against the Recipient's standards (such as UL 2202).
- Complete a notification of manufacture and operability of Mobi and Boost Gold Units.

Product:

- Notification of manufacture and operability of Mobi and Boost Gold Units

Subtask 2.6 Initiate Manufacturing Operations and Worker Training

The goal of this task is to start and ramp up to full scale manufacturing operations for the proposed Mobi and Boost manufacturing lines and the gold unit production line. Production output will be in alignment with the Recipient's sales forecast purchase orders; the Recipient will order material and support build plans based on a build-to-forecast model.

The Recipient shall:

- Complete full production part approval process audit and validation.
- Initiate manufacturing operations at the gold unit production line, starting with a trial run and 1st mass production.
- Initiate manufacturing operations at each of the manufacturing lines, starting with a trial run and 1st mass production.
- Complete procurement of all items needed to manufacture each Gold Unit, relying on the supply chains developed under Task 2.4.
- Complete a notification of initiation of manufacturing operations.
- Continue to operate manufacturing lines to support data collection requirements under Task 3. Manufacturing lines will continue operation after the Agreement term is over and data collection process has been completed.
- Complete worker training, including training on assembly, testing, validation, maintenance, safety, and troubleshooting.

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Product:

- Notification of initiation of manufacturing operations

Task 3 DATA COLLECTION AND ANALYSIS

The goal of this task is to collect project and operational data from the project, to analyze that data for economic and environmental effects, and to include the data and analysis in the Final Report.

The Recipient shall:

- Develop a data collection outline and plan
- Identify key project issues encountered and resolution of the issues
- Collect a minimum of 6 months of project and operations data
- Identify the number and description of units produced from product beta testing and validation through commercial production. The Recipient shall also characterize the use of these products after the project
- Provide data on specific jobs and economic impact as a direct result of the project. Additionally, provide estimates of future jobs, economic impact, and revenues to the state and local governments
- Describe the market(s) for the manufactured products, and compare the market status from the time of the original project proposal to the time of the project's completion
- Provide a projection of the number of units to be manufactured per year, for the products identified in the original application, 5 years after the completion of the project. The Recipient shall also provide assumptions for projected growth
- Compare project performance and expectations provided in the original project proposal with actual project performance, results, and accomplishments
- Collect data, information, and analysis described above and include in the Final Report

Product:

- Data collection information and analysis will be included in the Final Report

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: FREEWIRE TECHNOLOGIES, INC.

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

RESOLVED, that the Energy Commission approves Agreement ARV-19-072 with FreeWire Technologies, Inc. for a \$1,986,000 grant to design, purchase equipment, and build in-state manufacturing for innovative electric vehicle chargers that integrate energy storage, and adopting staff's determination that this action is exempt from CEQA. This manufacturing project will increase the production capacity of FreeWire Technologies products in California; and

FURTHER BE IT RESOLVED, that the Executive Director or his/her designee shall execute the same on behalf of the Energy Commission.

CERTIFICATION

The undersigned Secretariat to the Commission 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 California Energy Commission held on September 11, 2019.

AYE: [List of Commissioners]

NAY: [List of Commissioners]

ABSENT: [List of Commissioners]

ABSTAIN: [List of Commissioners]

Cody Goldthrite
Secretariat