

GRANT REQUEST FORM (GRF)

CEC-270 (Revised 02/13)

CALIFORNIA ENERGY COMMISSION

New Agreement ARV-12-050 (To be completed by CGL Office)

Division	Agreement Manager:	MS-	Phone
600 Fuels and Transportation Division	Sarah Williams	27	916-651-9866

Recipient's Legal Name	Federal ID Number
Waste Management Collection and Recycling, Inc.	95-2621587

Title of Project
Moreno Valley CNG Fueling Station Upgrades

Term and Amount	Start Date	End Date	Amount
	5 / 8 / 13	10 / 31 / 15	\$ 300,000

Business Meeting Information
 ARFVTP agreements under \$75K delegated to Executive Director.

Proposed Business Meeting Date	5 / 8 / 13	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
Business Meeting Presenter	Sarah Williams	Time Needed:	5 minutes

Please select one list serve. **Altfuels (AB118- ARFVTP)****Agenda Item Subject and Description**

Possible approval of Agreement ARV-12-050 with Waste Management Collection and Recycling, Inc. (WM) for \$300,000 grant to upgrade an existing compressed natural gas (CNG) fueling station to support WM's existing and rapidly expanding fleet of CNG powered solid waste collection vehicles in the City of Moreno Valley, as well as numerous other fleets in the Inland Empire. This upgrade will allow WM to convert the rest of the Moreno Valley fleet to natural gas and serve numerous additional natural gas fleets. The agreement will include \$398,564 in match funding. (ARFVTP funding) Contact: Sarah Williams. (5 minutes)

California Environmental Quality Act (CEQA) Compliance

1. Is Agreement considered a "Project" under CEQA?
 Yes (skip to question 2) No (complete the following (PRC 21065 and 14 CCR 15378)):
 Explain why Agreement is not considered a "Project":
 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 15301 section number:
 Common Sense Exemption. 14 CCR 15061 (b) (3)
 Explain reason why Agreement is exempt under the above section:
 The current station has 3 IMW 150-hp compressor with a total flow rate of 1,200 scfm with 1 twin hose retail dispenser with 2 light-duty nozzles, it will be upgraded to 4 IMW 250-hp Compressors with a total flow rate of 2,700 scfm 2 twin-hose retail dispensers with 3 light duty nozzles, and one transit nozzle. This is an increase in capacity which already exists.
- b) Agreement **IS NOT** exempt. (Consult with the legal office to determine next steps.)
 Check all that apply
 Initial Study Environmental Impact Report
 Negative Declaration Statement of Overriding Considerations
 Mitigated Negative Declaration

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

Legal Company Name:	Budget
ET Environmental	\$ 300,000
	\$ 0
	\$ 0

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

Legal Company Name:

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Budget Information			
Funding Source	Funding Year of Appropriation	Budget List No.	Amount
ARFVTF			\$300,000
Funding Source			\$
R&D Program Area:	Select Program Area	TOTAL:	\$300,000
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

Recipient's Administrator/ Officer		Recipient's Project Manager	
Name:	Chip Wertz	Name:	same
Address:	2400 West Union Avenue	Address:	
City, State, Zip:	Eaglewood, CO 80110	City, State, Zip:	
Phone:	303-914-1438	Phone:	- -
Fax:	- -	Fax:	- -
E-Mail:	cbwerz@wm.com	E-Mail:	

Selection Process Used	
<input checked="" type="checkbox"/> Competitive Solicitation	Solicitation #: PON-12-605
<input type="checkbox"/> First Come First Served Solicitation	

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

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

Exhibit A SCOPE OF WORK

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2		Site Preparation
3	X	Equipment Installation
4		Commission and Operate Natural Gas Fueling Infrastructure
5		Data Collection and Analysis

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)
1	Chip Wertz – WM	
2	Chip Wertz – WM	Jeff Lamoureux – ET Environmental
3	Chip Wertz – WM	Jeff Lamoureux – ET Environmental
4	Chip Wertz – WM	Jeff Lamoureux – ET Environmental
5	Chip Wertz – WM	

GLOSSARY

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

Term/ Acronym	Definition
ARFVTP	Alternative and Renewable Vehicle and Technology Program
CAM	Commission Agreement Manager
CNG	Compressed Natural Gas
CPR	Critical Project Review
Energy Commission	California Energy Commission
FTD	Fuels and Transportation Division
Recipient	Waste Management (WM)

BACKGROUND

Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007), created the Alternative and Renewable Fuel and Vehicle Technology (ARFVT) Program. The statute, subsequently amended by AB 109 (Núñez Chapter 313, Statutes of 2008), authorizes the Energy Commission to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state’s climate change policies. The Energy Commission has an annual program budget of approximately \$100 million and provides financial support for projects that:

- Develop and improve alternative and renewable low-carbon fuels;
- Optimize alternative and renewable fuels for existing and developing engine technologies;
- Produce alternative and renewable low-carbon fuels in California;
- Decrease, on a full fuel cycle basis, the overall impact and carbon footprint of alternative and renewable fuels and increase sustainability;

- Expand fuel infrastructure, fueling stations, and equipment;
- Improve light-, medium-, and heavy-duty vehicle technologies;
- Retrofit medium- and heavy-duty on-road and non-road vehicle fleets;
- Expand infrastructure connected with existing fleets, public transit, and transportation corridors; and
- Establish workforce training programs, conduct public education and promotion, and create technology centers.

The California Energy Commission issued solicitation PON-12-605 to provide funding opportunities under the ARFVT Program for projects to support installation of new natural gas fueling infrastructure and upgrades to existing natural gas fueling infrastructure. In response to PON-12-605, the Recipient submitted application #31 which was proposed for funding in the Energy Commission's Notice of Proposed Awards released March 18, 2013, and is incorporated by reference to this Agreement in its 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 the Energy Commission's Award, the Commission's Award shall control. Similarly, in the event of any conflict or inconsistency between the terms of this Agreement and the Recipient's Application, the terms of this Agreement shall control.

Problem Statement:

The primary barrier to natural gas vehicle deployment is the lack of supporting infrastructure. There is limited access to natural gas infrastructure in Moreno Valley near the heavily traveled intersection between Interstate 215 and State Route 60. This enormous barrier deters the adoption or expansion of natural gas advanced technologies by the many goods movement fleets that haul cargo through Riverside County. Additionally, the high costs of upgrading and constructing natural gas infrastructure is a significant prohibitive factor preventing many fleets from deploying such necessary infrastructure.

Waste Management Collection and Recycling, Inc. (Recipient) will upgrade the company's public access compressed natural gas (CNG) fueling station at its Moreno Valley location. The Recipient will upgrade the station in order to support its existing and rapidly expanding fleet of CNG powered solid waste collection vehicles in the City of Moreno Valley, as well as the numerous local and regional goods movement fleets in the Inland Empire of California. With support from the Energy Commission, the Recipient will upgrade the existing CNG station at which it supports and maintains a large fleet of 140 diesel and natural gas trash-hauling trucks serving the Inland Empire, of which 108 (77%) are natural gas. By the end of 2020, the Recipient seeks to replace 100% of the remaining diesel trucks at its Moreno Valley location with CNG. In order to transition the entire fleet of collection vehicles to clean-burning, low-carbon alternative fuel, as well as to continue serving the numerous additional natural gas fleets increasingly using the station, the company is in need of upgraded, reliable, and redundant fueling.

Goals of the Agreement:

The goals of this Agreement are to:

- Provide for the total cumulative station throughput and corresponding displacement of 9,455,400 gallons of diesel fuel with domestically produced, low-carbon natural gas by 2020.
- Provide for the total cumulative reduction of more than 33,961 metric tons of greenhouse gas emissions by 2020.
- Complete these goals at a total cost-effectiveness as low as \$0.0317 per gallon of diesel fuel displaced and \$8.83 per metric ton of greenhouse gases reduced over the project life through 2020.
- Promote regional growth in CNG vehicle deployments and the replacement of heavy-duty diesel trucks by filling a critical gap in the Southern California infrastructure network.
- Serve as a model for other large-scale refuse collection and station operators for how to successfully implement advanced technology infrastructure programs in collaboration with state agencies.

Objectives of the Agreement:

The objective of this Agreement is to successfully upgrade the existing public access Moreno Valley CNG facility located at 17700 Indian Street in Moreno Valley, California in order to provide a clean, reliable, cost-effective, and domestically produced source of fuel for the Recipient and other regional fleets. The Recipient seeks to transition 100% of its Moreno Valley fleet to CNG, as well as to increase fueling capacity for Inland Empire fleets.

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 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 (CAM), the Grants Officer, and a representative of the Accounting Office. The Recipient shall bring its Project Manager, Agreement Administrator, Accounting Officer, and others designated by the CAM to this meeting.
- Discuss the following administrative and technical aspects of this Agreement:
 - Agreement Terms and Conditions
 - 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

CAM 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 Energy Commission Grants Officer, the Fuels and Transportation Division (FTD) natural gas fuel 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.
- 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 Energy Commission Grants Office Officer, and the CAM. 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 CAM.

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 CAM will determine the appropriate meeting participants.

The administrative portion of the meeting shall be a discussion with the CAM 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 CAM 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

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.

The Recipient shall:

- Prepare a letter documenting the match funding committed to this Agreement and submit it to the CAM 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 CAM if during the course of the Agreement additional match funds are received.
- Notify the CAM 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.

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 CAM 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 CAM.
- As permits are obtained, send a copy of each approved permit to the CAM.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CAM 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)

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 CAM 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:

- Draft subcontracts
- Final subcontracts

TECHNICAL TASKS

TASK 2 SITE PREPARATIONS

The goal of this task is to prepare the project for installation of equipment for the dispensing at the natural gas fueling facility.

The Recipient shall:

- Complete design work for proposed facility.
- Complete necessary facility modifications and construction.
- Carry out fueling equipment testing and start-up activities.
- Prepare and submit a Site Preparation Report documenting the readiness of the site for equipment installation.

Products:

- Site Preparation Report

TASK 3 EQUIPMENT INSTALLATION

The goal of this task is to purchase and install equipment necessary for the dispensing of natural gas for usage in vehicles.

The Recipient shall:

- Procure and install natural gas fueling infrastructure equipment.
- Prepare and submit an Equipment Installation Report that summarizes summarizing work performed, any problems encountered and how they were solved, and includes photographs of the upgraded natural gas fueling infrastructure.

Products:

- Equipment Installation Report

[CPR shall occur during this task. See task 1.2 for details.]

TASK 4 COMMISSION AND OPERATE NATURAL GAS FUELING INFRASTRUCTURE

The goal of this task is to operate and provide fueling to natural gas vehicles, with the new or upgraded equipment, at the natural gas fueling facility.

The Recipient shall:

- Run appropriate tests on installed equipment to ensure proper operation.
- Troubleshoot any issues that arise during testing.
- Obtain any appropriate local agency inspections and approvals for the natural gas fueling facility.
- Begin operating fueling facility for natural gas vehicles.
- Prepare and submit a Commissioning Report that summarizes the results of tests performed on equipment, actions taken to troubleshoot any issues that arose

during testing, documentation of agency approvals, if any, and confirmation that the natural gas fueling facility has commenced operating with new equipment.

Products:

- Commissioning Report

Task 5 DATA COLLECTION AND ANALYSIS

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

The Recipient shall:

- Develop data collection test plan.
- Collect a minimum of 6 months of throughput, usage, and operations data (unless a different amount is approved in writing by the CAM) from the project including, but not limited to:
 - Number of vehicles fueled per day per station
 - Comparison of public vs. fleet transactions per day
 - Comparison of public vs. fleet consumption per day in GGE
 - Number of days or hours per month or year that each station was inoperative
 - Maximum capacity of the new fueling system
 - Electricity required to power CNG compression equipment on a daily basis
 - Gallons of gasoline and/or diesel fuel displaced by using natural gas (with associated mileage information)
 - Expected air emissions reduction, for example:
 - Non-methane hydrocarbons
 - Oxides of nitrogen
 - Non-methane hydrocarbons plus oxides of nitrogen
 - Particulate Matter
 - Formaldehyde
 - Duty cycle of the current fleet and the expected duty cycle of future vehicle acquisitions
 - Specific jobs and economic development resulting from this project
- Identify any current and planned use of renewable energy at the facility.
- Identify the source of the alternative fuel.
- Describe any energy efficiency measures used in the facility that may exceed Title 24 standards in Part 6 of the California Code Regulations.
- Provide data on potential job creation, economic development, and increased state revenue as a result of expected future expansion.
- Provide a quantified estimate of the project's carbon intensity values for life-cycle greenhouse gas emissions.
- Compare any project performance and expectations provided in the proposal to Energy Commission with actual project performance and accomplishments.

Products:

- Data collection information and analysis will be included in the Final Report per Task 1.5.