

# GRANTS/CONTINGENT AWARD REQUEST

CEC-270 (Revised 02/10)



To: Grants and Loans Office

Date: 2/25/2013

Project Manager: Mike Kane Phone Number: 916-327-1530  
 Office: Energy Generation Research Office Division: Energy Research and Development MS- 43  
 Project Title: Calnetix Technologies Community Renewable Power Plant Demonstration

### Type of Request: (check one)

**New Agreement:** (include items A-F from below) Agreement Number: PIR-12-008

Program: PIER E / Renewables  
 Solicitation Name and/or Number: PON-12-502-39 (Community Scale Renewable Energy Development,  
 Legal Name of Recipient: Calnetix Technologies, LLC.  
 Recipient's Full Mailing Address: 16323 Shoemaker Avenue  
Cerritos, CA 90703  
 Recipient's Project Officer: Adam Tapias Phone Number: 562 293-1677  
 Agreement Start Date: 6/1/2013 Agreement End Date: 3/31/2015

**Amendment :** (Check all that apply) Agreement Number: \_\_\_\_\_

Term Extension – New End Date: \_\_\_\_\_  
 Work Statement Revision (include Item A from below)  
 Budget Revision (include Item B from below)  
 Change of Scope (include Items A – F as applicable from below)  
 Other: \_\_\_\_\_

### ITEMS TO ATTACH WITH REQUEST:

- A. Work Statement
- B. Budget
- C. Recipient Resolution, if applicable. (Resolution may be requested in Special Conditions if not currently available.)
- D. Special Conditions, if applicable.
- E. CEQA Compliance Form
- F. Other Documents as applicable
  - Copy of Score Sheets
  - Copy of Pre-Award Correspondence
  - Copy of All Other Relevant Documents

### California Environmental Quality Act (CEQA)

CEC finds, based on recipient's documentation in compliance with CEQA:  
 Project exempt: 14 CCR sections 15303, 15311 NOE filed: \_\_\_\_\_  
 Environmental Document prepared: \_\_\_\_\_ NOD filed: \_\_\_\_\_  
 Other: \_\_\_\_\_

CEC has made CEQA finding described in CEC-280, attached

### Funding Information:

\*Source #1: PIER-E Amount: \$ 1,645,856.00 Statute: 11- FY: 12-13 Budget List #: 501.027J  
 \*Source #2: \_\_\_\_\_ Amount: \$ \_\_\_\_\_ Statute: \_\_\_\_\_ FY: \_\_\_\_\_ Budget List #: \_\_\_\_\_  
 \*Source #3: \_\_\_\_\_ Amount: \$ \_\_\_\_\_ Statute: \_\_\_\_\_ FY: \_\_\_\_\_ Budget List #: \_\_\_\_\_

If federally funded, specify federal agreement number: \_\_\_\_\_  
 \* Source Examples include ERPA, PIER-E, PIER-NG, FED, GRDA, ARFVT, OTHER.

### Business Meeting Approval: (refer to Business Meeting Schedule)

Proposed Business Meeting Date: 5/8/2013  Consent  Discussion  
 Business Meeting Participant: Mike Kane Time Needed: 5 minutes

### Agenda Notice Statement: (state purpose in layperson terms)

Possible approval of a  Grant /  Contingent Award to...  
 CALNETIX TECHNOLOGIES. Possible approval of Agreement PIR-12-008 with Calnetix Technologies, LLC for a \$1,645,856 grant to demonstrate a concentrating solar photovoltaic system that integrates a hot water heat storage system and an Organic Rankine Cycle turbine to effectively match solar PV generation to a community's load profile. The agreement will include \$876,226 in match funding. (PIER electricity funding) Contact: Mike Kane. (5 minutes)

# GRANTS/CONTINGENT AWARD REQUEST



\_\_\_\_\_  
Project Manager                      Date                      Office Manager                      Date                      Deputy Director                      Date

## Exhibit A Scope of Work

### TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2	X	Site Readiness and Material Procurement for Solar Array and Organic Rankine Cycle
3		Deployment and Installation
4		System Commissioning
5		Data Collection and Analysis
6		Demonstration, Testing, and System Optimization
7		Development of Go-to-Market Tools

### KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	-Adam Tapias, Calnetix Technologies, LLC -Mani Thothadri, Cogenra Solar	-Cogenra Solar -Access Energy	
2	-Adam Tapias -Ratson Morad, Cogenra Solar -Parsa Mirmobin, Access Energy		
3	Same as above		
4	-Adam Tapias -Mani Thothadri -Parsa Mirmobin		
5	Same as above		
6			
7	-Adam Tapias -Mani Thothadri -Ratson Morad -Parsa Mirmobin		

### GLOSSARY

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

Term/ Acronym	Definition
CPR	Critical Project Review
CPV/T	Concentrating Photovoltaic/Thermal
ORC	Organic Rankine Cycle
PV	Photovoltaic
c-Si	Crystalline silicon
kW	Kilowatt
kW <sub>e</sub>	Kilowatts electrical

## Exhibit A Scope of Work

Term/ Acronym	Definition
kW <sub>th</sub>	Kilowatts thermal

### **Problem Statement:**

Solar photovoltaic (PV) systems are available as complementary power generation options because they only deliver power in a cost-effective manner during daylight hours. This presents a challenge in matching the generated electricity to demand. While much advancement in PV efficiency has been made, solar PV power generation systems are limited as a base load solution. Current solar thermal solutions for power generation have been proven for utility-scale steam cycle generation and can generate electricity beyond available daylight with thermal storage solutions. However, these systems do not present a practical solution for local communities due to the requirement for on-site trained personnel, in addition to the safety considerations inherent in any steam plant.

The proposed solution integrates unique, proven, high-efficiency technologies to adequately address these challenges, and will provide a scalable solution that will be readily deployable to an array of communities in California. The solution has not yet been deployed because of the unavailability of the right technology to address these challenges efficiently. The proposed technologies include an actively cooled (with water) Parabolic Concentrated PV system from Cogenra Solar, along with thermal storage to store the waste heat for on demand electricity generation using a skid-mounted Organic Rankine Cycle system manufactured by Access Energy.

### **Goals of the Agreement:**

The goal of this Agreement is to demonstrate a modular, scalable, concentrating solar photovoltaic system that integrates a hot water heat storage system and an Organic Rankine Cycle turbine to effectively match solar PV generation to a community's load profile.

### **Objectives of the Agreement:**

The objectives of this Agreement are to:

- Demonstrate maximal conversion of incident sunlight into electricity using low-cost single-axis concentrating photovoltaic (CPV) arrays that employ standard c-Si PV cells.
- Deploy approximately 175 kilowatts (35 kW<sub>e</sub> + 140 kW<sub>th</sub>) of solar PV-thermal at a high-tech business park.
- Integrate a low-cost system for storing thermal output from CPV arrays as hot water (up to 100° C) for later use.
- Integrate a low-temperature organic rankine cycle turbine (approximately 35 kW) to convert waste heat stored as hot water into electricity
- Demonstrate the ability to generate electricity on-demand from stored heat via the organic rankine cycle turbine.
- Demonstrate solar insolation to electricity conversion efficiency increases of 30% over the efficiency of PV alone. This is measured as a ratio of the ORC output to PV output.

# Exhibit A

## Scope of Work

### 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 Recipient shall:

- Attend a “Kick-Off” meeting with the Commission Project Manager, 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 Commission Project Manager to this meeting. The administrative and technical aspects of this Agreement will be discussed at the meeting. Prior to the kick-off meeting, the Commission Project Manager will provide an agenda to all potential meeting participants.

The administrative portion of the meeting shall include, but not be limited to, the following:

- Discussion of the terms and conditions of the Agreement
- Discussion of Critical Project Review (Task 1.2)
- Match fund documentation (Task 1.6) No work may be done until this documentation is in place.
- Permit documentation (Task 1.7)
- Discussion of subcontracts needed to carry out project (Task 1.8)

The technical portion of the meeting shall include, but not be limited to, the following:

- The Commission Project Manager’s expectations for accomplishing tasks described in the Scope of Work
- An updated Schedule of Products
- Discussion of Progress Reports (Task 1.4)
- Discussion of Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
- Discussion of the Final Report (Task 1.5)

The Commission Project Manager shall designate the date and location of this meeting.

#### Recipient Products:

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

#### Commission Project Manager Product:

- Kick-Off Meeting Agenda

# Exhibit A

## Scope of Work

### Task 1.2 Critical Project Review (CPR) Meetings

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.

CPRs provide the opportunity for frank discussions between the Energy Commission and the Recipient. The Commission Project Manager may schedule CPRs as necessary, and CPR costs will be borne by the Recipient.

Participants include the Commission Project Manager and the Recipient and may include the Commission Grants Officer, the Energy Research and Development Division (ERDD) technical lead, other Energy Commission staff and Management as well as other individuals selected by the Commission Project Manager to provide support to the Energy Commission.

#### **The Commission Project Manager 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. One of the outcomes of this meeting will be 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 Commission Project Manager concludes that satisfactory progress is not being made, this conclusion will be referred to the Transportation Committee for its 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 Commission Project Manager 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.

# Exhibit A

## Scope of Work

### Commission Project Manager 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 Project 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 Project 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 Project Manager will determine the appropriate meeting participants.

The administrative portion of the meeting shall be a discussion with the Commission Project 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

# **Exhibit A**

## **Scope of Work**

### **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 research 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 Project 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

### **Task 1.5 Final Report**

The goal of the Final Report is to assess the project's success in achieving its 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.

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.

## **Exhibit A Scope of Work**

### **The Recipient shall:**

- Prepare an Outline of the Final Report.
- Prepare a Final Report following the approved outline and the latest version of the Final Report guidelines which will be provided by the Commission Project Manager. The Commission Project Manager 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:**

- Draft Outline of the Final Report
- Final Outline of the Final Report
- 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

### **The Recipient shall:**

- Prepare a letter documenting the match funding committed to this Agreement and submit it to the Commission Project 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

## **Exhibit A Scope of Work**

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 Project Manager if during the course of the Agreement additional match funds are received.
- Notify the Commission Project 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.

### **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 Commission Project 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.

## **Exhibit A Scope of Work**

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

### **Task 1.8 Obtain and Execute Subcontracts**

The goal of this task is to ensure quality products and to procure subcontracts required to carry out the tasks under this Agreement consistent with the terms and conditions of this Agreement 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, 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, it shall notify the Commission Agreement Manager.

### **Products:**

- Draft subcontracts
- Final subcontracts

## **TECHNICAL TASKS**

### **TASK 2: SITE READINESS AND MATERIAL PROCUREMENT FOR SOLAR ARRAY AND ORGANIC RANKINE CYCLE**

The goal of this task is to establish site readiness for the installation and detailed design of the integrated plant. From the design, the material will be procured for the following stage. The goal

## **Exhibit A Scope of Work**

is to establish the site readiness, design the plant, select critical interface components, and perform simulations of the operation and performance of the selected components.

### **The Recipient shall:**

- Perform detailed analysis of the proposed site for the installation of the solar array for shading in various seasons, structural analysis for foundations, and wind speed specification design analysis including all preparatory work for permitting by various authorities and construction.
- Design the plant to be installed on-site in the production facility. Design documents shall include but not be limited to: (1) site layout; and (2) electrical, mechanical, and mechanical system drawings necessary for construction of the plant.
- Submit copies of the Plant Design, Electrical One Line Diagram, and Construction Drawings to the CPM.
- Simulate system performance at design points representative of typical site conditions to predict the performance of key system components.
- Document results of plant simulations in a Plant Simulations for Expected Performance Document.
- Complete material procurement and provide notification of procurement to the CEC (notification can be made via a Notification Letter or may be included in the Monthly Report, in a section entitled "Procurement Completion").

### **Products:**

- Plant Design
- Electrical One Line Diagram
- Construction Drawings
- Plant Simulations for Expected Performance Document (no draft)
- Notification of Material Procurement (via Notification Letter or Monthly Report)

### **TASK 3: DEPLOYMENT AND INSTALLATION**

The goal of this task is to perform all construction and site preparation activities. Once the site is prepared, the installation and connection of the major systems will occur.

### **The Recipient shall:**

- Conduct timely mobilization of labor and materials to the plant site.
- Perform all construction in accordance with construction drawings.
- Integrate major system components.
- Notify the CPM that the system is installed and ready for commissioning (notification can be made via a Notification Letter or may be included in the Monthly Report, in a section entitled "Procurement Completion").

### **Products:**

- Notification that Integrated System is Ready for Commissioning (via Notification Letter or Monthly Report)

# Exhibit A

## Scope of Work

### TASK 4: SYSTEM COMMISSIONING

The goal of this task is to establish plant operation. This phase will integrate the CPV/T, Thermal Storage, and ORC systems, and will establish system-level controls for demand response.

**The Recipient shall:**

- Integrate and commission the system by: (1) connecting the PV output to the inverter and to a site electrical panel; and (2) connecting the ORC electrical intertie to the site electrical panel.
- Enable and demonstrate full system operation that includes the PV and ORC.
- Develop and complete a Commissioning Report that includes but is not limited to: (1) pictures of the installed system and components; and (2) a description of the procedures applied to bring the combined system to a state of operability in preparation for the full-scale demonstration, testing, optimization, and analyses described in Tasks 5 and 6.

**Products:**

- Commissioning Report (no draft)

### TASK 5: DATA COLLECTION AND ANALYSIS

The goal of this task is to evaluate plant performance of its main systems. The data will serve to further expand value that the integrated system will offer.

**The Recipient shall:**

- Collect solar PV and thermal performance data utilizing Cogenra's remote monitoring systems. Correlate the data with actual weather data from various sources, temperature, flow rates, pressures, and operating conditions of the storage tank and the ORC unit.
- Collect performance data for the cycle performance of ORC turbine relative to condensing conditions.
- Collect overall system-level power performance data.
- Use the collected data to develop performance models for plant optimization and future plant design.
- Document data collection in a Performance Data Report that includes PV and thermal performance of the array, thermal energy stored and retrieved from the tank, ORC operational hours, and total energy delivered.

**Products:**

- Performance Data Report (no draft)

### TASK 6: DEMONSTRATION, TESTING AND SYSTEM OPTIMIZATION

The goal of this task is to optimize plant performance to best match the community's load profile. This will serve to prove the viability of the system as a rapidly deployable solution that can meet the needs of varied communities in California and beyond.

## **Exhibit A Scope of Work**

### **The Recipient shall:**

- Use results from the performance prediction model developed in Task 5 to modify the system performance profile to best utilize the renewable resources to meet the community's energy demands.
- Use weather forecasts to predict expected solar output. Use historical meter measurements or community usage profile prediction, electric rates, and tariff structures to: (1) determine the value of electric energy and power; and (2) determine and optimize mode of storage and the operational profile of the ORC.
- Develop and deploy a system-level control system that enables operation of the ORC system based on storage tank temperature, thermal energy, and basic demand profile inputs from the community.
- Gather results of the system to advance the rate of adoption of this community-scale renewable energy solution.
- Develop an Optimization Report that provides a description of the various parameters used to optimize the ORC operational profile

### **Products:**

- Optimization Report (no draft)

## **TASK 7: DEVELOPMENT OF GO-TO-MARKET TOOLS**

The goal of this task is to develop tools that will be used to commercialize the integrated renewable system. The output will be calculation and promotional tools to support the rapid commercialization of the solar system to communities in California and beyond.

### **The Recipient shall:**

- Create tools to rapidly analyze available solar resources, incorporate weather forecasts, and use customer profiles to determine the optimal ORC operational profile for various customer types. These tools will include but not be limited to:
  - Calculation tools to enable rapid system sizing design
  - Performance models and economic models for the overall combined system
  - Sales tools and collateral that will support further sales efforts
  - Promotional tools to harbor rapid commercialization
  - Go-to-market strategies and market penetration plans
- Develop a marketing strategy to target communities that can perceive the highest economic benefit from the system while meeting the state's balanced portfolio goals.
- Document analysis tools and marketing strategy in a Marketing and Tools Report that includes but is not limited to: (1) generalized descriptions of the performance models, economic models, and sales tools; and (2) copies of any non-confidential marketing materials developed under this task.

### **Products:**

- Marketing and Tools Report (no draft)



Award Number: PIR-12-008

Date: April / 15 / 2013

**Note:** The Energy Commission Project Managers Manual includes detailed instructions on how to complete this section, with examples of grants that are “Projects” and are not “Projects”. When the Project Manager is completing this section, if questions arise as to the appropriate answers to the questions below, please consult with the Energy Commission attorney assigned to review grants or loans for your division.

1. Is grant/loan considered a “Project” under CEQA?  Yes (skip to question #2)  No (continue with question #1)

Please complete the following: [Public Resources Code (PRC) 21065 and 14 California Code of Regulations (CCR) 15378]:

Explain why the grant/loan is **not** considered a “Project”? The grant/loan will not cause a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because grant/loan involves:

2. If grant/loan is considered a “Project” under CEQA: (choose either **IS** or **IS NOT**)

Grant/loan **IS** exempt:

Statutory Exemption: (List PRC and/or CCR section numbers) \_\_\_\_\_

Categorical Exemption: (List CCR section number) 14 CCR 15303, 15311

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

Explain reason why the grant/loan is exempt under the above section:

The project involves the installation and demonstration of a small-scale solar photovoltaic/thermal system at a business park.

Please attach draft Notice of Exemption (NOE). Consult with the Energy Commission attorney assigned to your division for instructions on how to complete the NOE.

Grant/loan **IS NOT** exempt. The Project Manager needs to consult with the Energy Commission attorney assigned to your division and the Siting Office regarding a possible initial study.