

GRANTS/CONTINGENT AWARD REQUEST



To: Grants and Loans Office

Date: 2/27/2013

Project Manager: David Effross

Phone Number: 916-327-1314

Office: Energy Generation Research Office

Division: Energy Research and Development

MS- 43

Project Title: Renewable Natural Gas Production with Value-Added Fertilizer Co-Product

Type of Request: (check one)

New Agreement: (include items A-F from below) Agreement Number: PIR-12-007
Program: PIER NG / Transportation
Solicitation Name and/or Number: PON-12-506-15 (Renewable Natural Gas Transportation Fuel Production)
Legal Name of Recipient: Systems with Value Added Co-Products/-Benefits
Recipient's Full Mailing Address: CleanWorld, 2330 GOLD MEADOW WAY, GOLD RIVER, CA 95670-4471
Recipient's Project Officer: Josh Rapport Phone Number: 800.325.3472
Agreement Start Date: 6/28/2013 Agreement End Date: 12/30/2014

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 15303 NOE filed:
Environmental Document prepared: NOD filed:
Other:
CEC has made CEQA finding described in CEC-280, attached

Funding Information:

\*Source #1: NG Amount: \$ 820,000.00 Statute: 11- FY: 12-13 Budget List #: 501.001F
\*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: David Effross Time Needed: 5 minutes

Agenda Notice Statement: (state purpose in layperson terms)

Possible approval of a Grant / Contingent Award to...
CLEANWORLD. Possible approval of agreement PIR-12-007 for \$820,000 with CleanWorld to fund the design, construction, and operation of a novel fertilizer production system to produce value-added co-products from digester effluent. The agreement will include \$690,830 in match funding. (PIER Natural Gas funding) Contact: David Effross. (5 minutes)

Project Manager Date Office Manager Date Deputy Director Date

## Exhibit A Scope of Work

### TECHNICAL TASK LIST

Task #	CPR	Task Name
1	N/A	Administration
2		Prepare a Fertilizer Marketing, Procurement, and Economic Feasibility Report
3	X	Prepare Engineering Design and Site Layout
4	X	Construct, Install, and Commission Fertilizer Production System
5		Collect, Analyze, and Report on Data
6		Conduct Technology Transfer Activities
7		Prepare Production Readiness Plan

### KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Joshua Rapport, CleanWorld Partners	None	None
2		None	None
3		<ul style="list-style-type: none"> <li>• Otto Construction</li> <li>• TSS Consulting</li> <li>• F.M. Booth</li> <li>• Peabody Engineering</li> </ul>	None
4		Otto Construction, F.M. Booth	None
5		None	None
6		None	None
7		None	None

### GLOSSARY

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

Term/ Acronym	Definition
AD	Anaerobic Digestion
CNG	Compressed Natural Gas
CPR	Critical Project Review
ERDD	Energy Research and Development Division
FPS	Fertilizer Production System
P&ID	Piping and Instrumentation Diagram
SBR1	Sacramento Biorefinery Number One

**Problem Statement:**

The State of California needs a process that will make the production of biomethane for use as a transportation fuel more economical. The use of biomethane will reduce greenhouse gas (GHG) emissions and petroleum fuel demand, stimulate economic development, and reduce environmental impacts associated with the state's major waste sources. The production of fertilizer products from anaerobic digester (AD) effluent has been considered for awhile, but bacterial instabilities in effluent and the need for dynamic products to avoid saturating the market have been prohibitive barriers for most projects. Cost has been a barrier to the increased use of digesters for compressed natural gas (CNG) production. The new Fertilizer Production System (FPS) system developed under this agreement will address the cost issue.

**Goals of the Agreement:**

The goal of this Agreement is to improve the economic feasibility of AD systems that create biomethane for transportation fuel by developing, demonstrating, and deploying an innovative approach to producing fertilizer products from AD effluent.

**Objectives of the Agreement:**

The objective of this Agreement is to design and construct a dynamic semi-automated FPS to produce value-added fertilizer products from digester effluent. The FPS will be engineered as a tank and skid system with automated raw material loading and process controls to reduce on-site management requirements. The FPS will be designed to create multiple pre-designed fertilizer products or custom products, depending on the local market demand. This will enhance the economic feasibility of the AD systems.

FPS Technical Goals include:

- Process up to 30,000 gallons per day of liquid digester effluent
- Reduce the volume of liquid effluent to 7,500 gallons per day using vapor compression evaporation for fertilizer production with nutrient condensed effluent
- Create up to 10,000 gallons per day of liquid fertilizer product
- Create up to 8,000 pounds per day of solid fertilizer product

FPS Demonstration Goals include:

- Demonstrate commercial-scale effluent processing at a biodigester and CNG production facility
- Improve process-related effluent processing economics
- Reduce GHG emissions by up to 2,270 tCO<sub>2</sub> equivalents per year by offsetting nitrogen-based fertilizers with natural and organic fertilizers
- Reduce petroleum dependence by improving economics for a renewable natural gas project and fueling station for public use
- Stimulate economic development in California by developing a replicable plan for fertilizer production at AD projects
- Provide natural fertilizer products at competitive market costs to local growers

## TASK 1 ADMINISTRATION

### Instructions for Submitting Electronic Files and Developing Software

#### **Electronic File Format**

The Recipient will deliver an electronic copy (CD ROM or memory stick or as otherwise specified by the Commission Project Manager (CPM) of the full text of any Agreement products in a compatible version of Microsoft Word (.doc).

The following describes the accepted formats of electronic data and documents provided to the Energy Commission as products and establishes the computer platforms, operating systems, and software versions that will be required to review and approve all software deliverables.

- Data sets will be in Microsoft (MS) Access or MS Excel file format.
- PC-based text documents will be in MS Word file format.
- Documents intended for public distribution will be in PDF file format, with the native file format provided as well.
- Project management documents will be in MS Project file format.

#### **Software Application Development**

If this Scope of Work includes any software application development, including but not limited to databases, websites, models, or modeling tools, the Recipient will use the following standard Application Architecture components in compatible versions:

- Microsoft ASP.NET framework (version 3.5 and up) Recommend 4.0.
- Microsoft Internet Information Services (IIS), (version 6 and up) Recommend 7.5.
- Visual Studio.NET (version 2008 and up) Recommend 2010.
- C# Programming Language with Presentation (UI), Business Object and Data Layers.
- SQL (Structured Query Language).
- Microsoft SQL Server 2008, Stored Procedures Recommend 2008 R2.
- Microsoft SQL Reporting Services Recommend 2008 R2
- XML (external interfaces).

Any exceptions to the Electronic File Format requirements above must be approved in writing by the Energy Commission's Information Technology Services Branch.

## **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 CPM, 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 CPM to this meeting. The administrative and technical aspects of this Agreement will be discussed at the meeting. Prior to the kick-off meeting, the CPM 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 performed 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 CPM’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 CPM shall designate the date and location of this meeting.

- Submit an updated Schedule of Products, List of Match Funds, and List of Permits to the CPM.

### **Recipient Products:**

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

### **Commission Project Manager Product:**

- Kick-Off Meeting Agenda

## **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 CPM and the Recipient. The CPM may schedule CPRs as necessary, and CPR costs will be borne by the Recipient.

Participants include the CPM and the Recipient, and may include the Commission Grants Officer, the Energy Research and Development Division technical lead, other Energy Commission staff and Management, and any other individuals selected by the CPM 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 or may be conducted via electronic conferencing (e.g., WebEx), as determined by the Commission Project Manager.
- Send the Recipient the agenda and a list of expected participants in advance of each CPR. If applicable, the agenda shall include a discussion of 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 so whether modifications are needed to the tasks, schedule, products, and/or budget for the remainder of the Agreement. If the CPM concludes that satisfactory progress is not being made, this conclusion will be referred to the Deputy Director of the Energy Research and Development Division.
- Provide the Recipient with a written determination in accordance with the schedule. The written response may include a requirement for the Recipient to revise one or more products 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 on the project. This report shall be submitted along with any other products identified in this Scope of Work. The Recipient shall submit these documents to the CPM 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.

**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 close out this Agreement.

**The Recipient shall:**

- Meet with Energy Commission staff to present the project 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 CPM. The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be divided into two separate meetings at the discretion of the CPM.

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

The administrative portion of the meeting shall involve a discussion with the CPM and the Grants Officer about the following Agreement closeout items:

- Disposition of any equipment purchased with Energy Commission funds
- 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 written documentation of any agreements made between the Recipient and Commission staff during the meeting.
- 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 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 that 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 CPM within 10 days of the end of the reporting period. The recommended specifications for each progress report are contained in the Terms and Conditions of this Agreement.
- In each Monthly Progress Report and invoice, document and verify:
  - Energy Commission funds received by California-Based Entities (CBEs);
  - Energy Commission funds spent in California; and Match fund expenditures
  - Provide synopsis of project progress.

**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 also prepare a confidential version of the Final Report, 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.
- Prepare a Final Report following the approved outline and the latest version of the Final Report guidelines which will be provided by the CPM. The CPM shall provide written comments on the Draft Final Report within 15 working days of receipt. The Final Report must be completed at least 90 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 Match Funds**

The goal of this task is to ensure that the match funds planned for this Agreement are obtained 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 CPM 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, 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, 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 a letter including the appropriate information to the CPM if during the course of the Agreement additional match funds are received.
- Provide a letter to the CPM 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 CPM 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 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 an updated list of permits (including the appropriate information on each permit) and an updated schedule to the CPM.
- As permits are obtained, send a copy of each approved permit to the CPM.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CPM 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
- 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 approved permit (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. This task 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 the Recipient decides to add new subcontractors, it shall notify the Commission Agreement Manager.

**Products:**

- Draft subcontracts
- Final subcontracts

## TECHNICAL TASKS

### TASK 2 PREPARE A FERTILIZER MARKETING, PROCUREMENT, AND ECONOMIC FEASIBILITY REPORT

The goals of this task are to research and develop fertilizer market share and marketing information and to prepare an FPS ingredient procurement plan.

#### The Recipient shall:

- Prepare raw ingredient source inventory and alternatives within the economic radius of the host facility.
- Identify the gross, technical, and economic potentials of fertilizers.
- Create a target list of the most likely fertilizer distributors and bulk customers.
- Conduct an economic feasibility study of the FPS.
- Develop a strategic fertilizer marketing plan and identify issues and potential solutions.
- Evaluate third party organizations to perform growth trials with fertilizer products.
- Secure raw ingredient supply agreements with suppliers.
- Prepare and submit a report on the availability of comparable synthetic fertilizers, the projected share of the market for FPS fertilizers, and the economic effects of the FPS on the Sacramento Biorefinery Number One (SBR1) project.
- Perform a competitive analysis of similar synthetic fertilizers.
- Create a *Fertilizer Marketing, Procurement, and Economic Feasibility Report* that includes all of the preceding bulleted points.

#### Products:

- Fertilizer Marketing, Procurement, and Economic Feasibility Report (no draft)

### TASK 3 PREPARE ENGINEERING DESIGN AND SITE LAYOUT

The goal of this task is to design the fully specified FPS.

#### The Recipient shall:

- Create a preliminary design and site layout:
  - Create a Piping and Instrumentation Diagram (P&ID) for the FPS
  - Draw the site layout of the FPS in the reserved area at the SBR1 facility
  - Develop an odor mitigation plan
- Select equipment:
  - Develop an equipment list with full specifications from the P&ID
  - Source and cost all equipment needed for FPS
  - Determine electrical needs and stub-up locations
- Design a containment plan for spills and protection for all sewage drains.
- Design the control systems and operations procedures for the FPS.

- Prepare a *FPS Engineering Design and Site Layout Report* for a Critical Project Review. The report will include a Piping and Instrumentation Diagram, drawing of the site layout of the FPS in the reserved area at the SBR1 facility, odor mitigation plan, an equipment list with full specifications from the P&ID, sourcing and cost information for all needed equipment, explication of electrical needs and stub-up locations, containment plan for spilla and protection for all sewage drains.

**Products:**

- FPS Engineering Design and Site Layout Report (no draft)

**TASK 4 CONSTRUCT, INSTALL, AND COMMISSION FERTILIZER PRODUCTION SYSTEM**

The goals of this task are to construct and test the FPS, recommend change requests, and commission the final system.

**The Recipient shall:**

- Prepare the site for installation, adding any utility service, structural support, and infrastructure changes determined from the site layout.
- Procure all construction materials and equipment, based on the P&ID and equipment lists.
- Program the controls system and integrate with existing data collection and controls as needed.
- Assemble skids at the workshop and factory test equipment prior to field installation.
- Install tanks and field equipment.
- Integrate skids with field equipment and conduct final interconnections.
- Install logic controls and test instrumentation.
- Field-test tanks for leak prevention and run a manufacturing sequence with inert materials (e.g., water and sand).
- Execute a change order and re-test altered sub-processes.
- Run the final test and provide the CPM with a *System Sign-off Notification Letter*.
- Prepare a *System Construction and Commissioning Report* for a Critical Project Review. The report will describe system construction and commissioning activities.

**Products:**

- System Sign-off Notification Letter (no draft)
- System Construction and Commissioning Report (no draft)

**TASK 5 COLLECT, ANALYZE, AND REPORT ON DATA**

The goals of this task are to collect operational data, analyze it for economic and environmental impacts, and include the data and analysis in the Final Report.

**The Recipient shall:**

- Develop a data collection test plan based on input from the CPM. The plan will include but not limited to a discussion of the following:
  - Energy savings and estimated cost savings
  - GHG reductions
  - Other non-energy benefits
- Provide data on potential job creation, market potential, economic development, and increased state revenue as a result of expected future expansion.
- Provide an estimate of the project's energy savings and other benefits and potential statewide energy savings once market potential has been realized.
- Compare project performance and expectations provided in the proposal with actual project performance and accomplishments.
- Prepare a Data Analysis Report.

**Products:**

- Draft Data Analysis Report
- Final Data Analysis Report

**TASK 6 CONDUCT TECHNOLOGY TRANSFER ACTIVITIES**

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

**The Recipient shall:**

- Prepare a Technology Transfer Plan that explains how the knowledge gained in this project will be made available to the public. The level of detail expected is least for research-related projects and highest for demonstration projects. Key elements from this report will be included in the Final Report.
- Conduct technology transfer activities in accordance with the Technology Transfer Plan. These activities will be reported in the Monthly Progress Reports.
- Indicate the intended use(s) for and users of the project results.

**Products:**

- Draft Technology Transfer Plan
- Final Technology Transfer Plan

**TASK 7 PREPARE PRODUCTION READINESS PLAN**

The goal of the plan is to determine the steps that will lead to the manufacturing of the technologies developed in this project or to the commercialization of the project's results.

**The Recipient shall:**

- Prepare a Production Readiness Plan. The degree of detail in the plan should be proportional to the complexity of producing or commercializing the proposed product and its state of development. As appropriate, the plan will include but not be limited to a discussion of the following:
  - Critical production processes, equipment, facilities, personnel resources, and support systems needed to produce a commercially viable product
  - Internal manufacturing facilities, supplier technologies, capacity constraints imposed by the design under consideration, design-critical elements, and the use of hazardous or non-recyclable materials. The product manufacturing effort may include “proof of production processes”
  - A projected “should cost” for the product when in production
  - The expected investment threshold to launch the commercial product
  - An implementation plan to ramp up to full production

**Products:**

- Draft Production Readiness Plan
- Final Production Readiness Plan

Award Number: PON-12-506-15Date: 3 / 14 / 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

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

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

The project involves installation of a small-scale fertilizer production system at an existing facility.

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.