

ATTACHMENT 1

GRANT AGREEMENT

CEC-146 (Revised 6/12)

CALIFORNIA ENERGY COMMISSION



RECIPIENT Mendota Bioenergy, LLC	AGREEMENT NUMBER ARV-12-033
ADDRESS 2911 E. Barstow Ave. OF 144 Fresno, CA 93740	AGREEMENT TERM (See CEC Signature date below) to 6/30/2015 The effective date of this Agreement is either the start date or the approval date by the California Energy Commission, whichever is later. The California Energy Commission shall be the last party to sign. No work is authorized, nor shall any work begin, until on or after the effective date.

PROJECT DESCRIPTION

The parties agree to comply with the terms and conditions of the following Exhibits which are by this reference made a part of the agreement.

Exhibit A – Scope of Work	Page(s): 24
Exhibit A1 – Attachments	Page(s): 2
Exhibit B – Budget	Page(s): 18
Exhibit B – Attachments	Page(s): n/a
Exhibit C – General Terms and Conditions	Page(s): 23
Exhibit C – Attachments	Page(s): n/a
Exhibit D – Special Terms and Conditions	Page(s): 5
Exhibit E - Contacts	Page(s): 1
Exhibit F - Definitions	Page(s): 4

REIMBURSABLE AMOUNT \$ 4,998,399.00
MATCH SHARE \$ 6,537,973.00
TOTAL \$ 11,536,372.00

The undersigned parties have read the attachments to this agreement and will comply with the standards and requirements contained therein.

CALIFORNIA ENERGY COMMISSION		RECIPIENT	
AUTHORIZED SIGNATURE 	DATE 3/25/13	AUTHORIZED SIGNATURE 	DATE 3-15-13
NAME Rachel L. Grant Kiley		NAME William C. Pucheu	
TITLE Contracts, Grants and Loans Office Manager		TITLE General Manager	
CALIFORNIA ENERGY COMMISSION ADDRESS 1516 9th Street, MS 1, Sacramento, CA 95814	2911 E. Barstow, Ave. OF 144 Fresno CA 93740		

Exhibit A
Scope of Work
Advanced Biorefinery Center—Mendota Integrated Demonstration Plant

TECHNICAL TASK LIST

Task #	CPR	Task Name
1	N/A	Agreement Management
2		Energy Beet Production
3		Design Phase
4		Pre-Construction
4.1		Final Agreements
4.2		Construction and Equipment List
4.3		Approval to Proceed to Construction
5	X	Construction
6		Plant Operations
6.1		Demonstrate Advanced Ethanol Production Plant
6.2		Demonstrate Anaerobic Digestion Plant
6.3		Demonstrate the Pilot Biodiesel Production Plant
6.4		Test Plan Preparation
7		Biofuels Development Analysis
7.1		Perform Lifecycle Analysis
7.2		Quantify Lifecycle Economic and Environmental Benefits
8		Coordination
8.1		Integration of Material and Information Flows
8.2		Optimize and Demonstrate Integrated Biorefinery Model
9		Data Collection and Analysis

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Ellen Suryadi--MBLLC, Jim Tischer—MBLLC, Bill Pucheu – MBLLC, Jeff Manternach, IR1	MBLLC*, IR1	
2	John Diener--RRR, Steve Kaffka--UCD, Jim Tischer--MBLLC, Cliff Ohmart--SureHarvest, Steve Libsack—Betaseed/KWS	DeITesta Harvesting; Cartel Transport, LLC; Energy-beet contracted farmers; MAABC; UCD; Fresno State; Betaseed; SureHarvest	
3	Jeff Manternach—IR1, Jim Moore—IR1, Joe Winkler—IR1	IR1	

4	Jeff Manternach—IR1, Jim Moore—IR1, , Joe Winkler—IR1	IR1	
4.1	Jeff Manternach—IR1, Jim Moore—IR1, , Joe Winkler—IR1	IR1	
4.2	Jeff Manternach—IR1, Jim Moore—IR1, , Joe Winkler—IR1	IR1	
4.3	Jeff Manternach—IR1, Jim Moore—IR1, , Joe Winkler—IR1	IR1	
5	Jeff Manternach—IR1, Jim Moore—IR1, Terry Kulesa—IR1, Joe Winkler—IR1	IR1	
6	Jeff Manternach—IR1, Jim Moore—IR1, Terry Kulesa—IR1, Joe Winkler—IR1	UCD, CSUF	
6.1	Jeff Manternach—IR1, Jim Moore—IR1, Terry Kulesa—IR1, Joe Winkler—IR1	IR1, RRR	
6.2	Ruihong Zhang--UCD	Cartel Transport, LLC, UCD	
6.3	John Diener--RRR, Russ Teall--BIODICO, Gary Bañuelos--USDA-ARS	RRR, BIODICO, USDA-ARS	
6.4	Jeff Manternach—IR1	IR1	
7	Jim Tischer--MBLLC, Jeff Manternach—IR1		
7.1	Alissa Kendall--UCD, Steve Kaffka--UCD	UCD	
7.2	Mark Jenner--UCD, Mickey Paggi--CSUF	UCD, CSUF	
8	John Diener--RRR, Jim Tischer--CSUF, Jeff Manternach—IR1, Ruihong Zhang--UCD, Steve Kaffka--UCD, Russ Teall--BIODICO		
8.1	John Diener--RRR, Jim Tischer--CSUF, Jeff Manternach—IR1, Ruihong Zhang--UCD, Steve Kaffka--UCD, Russ Teall--BIODICO	MBLLC*, MABBC, IR1, UCD, RRR, BIODICO	

8.2	Jeff Manternach—IR1	IR1, UCD, MBLLC*	
9	Jim Tischer—MBLLC, Ruihong Zhang—UCD, Jeff Manternach—IR1	IR1, MABBC, UCD	

* Applicant

GLOSSARY

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

Acronym	Definition
AB-CB	Advanced Biofuel and Cellulosic Biofuel
ABC-M	Advanced Biorefinery Center—Mendota
ARB	Air Resources Board
ARFVT	Alternative and Renewable Fuel and Vehicle Technology
BMP	Best Management Practices
CA-BCAM	California Biomass Crop Adoption Model
CA-GREET	California Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation Model
CARB	California Air Resources Board
CCM	Commission Contract Manager
CGE	Computable General Equilibrium
CI	Carbon Intensity
CNG	Compressed Natural Gas
CPR	Critical Project Review
CSUF	California State University, Fresno
EMFAC	Emissions Factors
GHG	Greenhouse Gas
GPM	Gallons per Minute
HP	Horsepower
HDT	Heavy Duty Truck
IDP	Integrated Demonstration Project
ILUC	Indirect Land Use Changes
IMPLAN®	Impact Analysis for Planning. For any given industry, the software model enables quantification of outputs (value of production), labor income, direct and indirect jobs and value added, both before and after taking into account the multiplier effects on the entire economy.
IR1	The IR1 Group
LCA	Lifecycle Analysis
LCFS	Low Carbon Fuel Standard
MABBC	Mendota Advanced Bioenergy Beet Cooperative
MBLLC	Mendota Bioenergy LLC
MGD	Million Gallons per Day
MJ	Mega joule
MPU	Modular Production Unit
MW	Megawatt

Acronym	Definition
PE	Partial Equilibrium
RIN	Renewable Identification Number
RRR	Red Rock Ranch
SCF	Standard Cubic Feet
TPY	Tons per year
UCD	University of California, Davis
USDA-ARS	United States Department of Agriculture—Agricultural Research Service
WWT	Waste Water Treatment

Background:

Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007), created the Alternative and Renewable Fuel and Vehicle Technology Program (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-11-601 to provide funding opportunities under the ARFVT Program for projects which either create new, low carbon fuel production facilities, or lower the carbon intensity of fuels produced at existing facilities. To be supported, a project must demonstrate both economically competitive yields and lower GHG potential than the Low Carbon Fuel Standard (LCFS) for corn ethanol or soy biodiesel pathways. In response to PON-11-601, Mendota Bioenergy LLC submitted application #38, which was recommended for funding under the round two Notice of Proposed Awards issued on October 5, 2012. Mendota Bioenergy LLC's Application is incorporated by reference to this Agreement in its entirety.

Problem Statement:

The primary problem that the project team is attempting to solve is the lack of a commercial-scale domestic source of cost-competitive, low-carbon-intensity transportation fuels. The principal barriers that hinder the development of such fuels and their widespread deployment in California are:

- **Insufficient Field Demonstrations**

The design and construction of a biorefinery at the scope of the future \$170-million, commercial-scale Advanced Biorefinery Center—Mendota (ABC-M) requires the integration of numerous biofuel production technologies. This project will provide a working pilot-demonstration of a commercial-scale ABC-M biorefinery, allowing design refinements based on field testing, and greatly lowering the investment risks for such a larger plant.

- **Biotechnological Challenges**

The process of cost-effectively releasing sugars and oils from biomass can be quite challenging and costly at the scales required for commercial production. Therefore, this project will allow for the thorough testing and refinement of the final commercial-scale design.

Goals of the Agreement

The goals of the proposed demonstration project are to: 1) demonstrate technologies and processes necessary for commercial-scale California-based production of cost-competitive, low-carbon-intensity transportation fuels; 2) develop high-value biobased products; and 3) demonstrate that the proposed sources of renewable biomass for conversion into biofuels and biobased products are economically, environmentally, and socially sustainable and suitable for commercial scale-up on ABC-M. Mendota Bioenergy LLC ultimately seeks to create a production chain that produces renewable transportation fuels with a carbon intensity lower than any other gasoline substitute biofuels produced in the U.S.

Objectives of the Agreement:

At the end of the project, the project team will gather all data collected and compare all performance metrics targets below to actual results. The objectives of this project are to:

- **Develop Feedstocks**

- Implement an innovative first-in-the-world "All Beets, All the Time" harvest plan, in which 10,000 tons of carbon-optimized energy beets are planted, grown, harvested, and transported (using a demonstrated paperless tracking system and infrared sampling system) from a total of 250 acres divided among nine growers local to the Integrated Demonstration Project (IDP). This Plan will demonstrate that year-round energy beet harvesting can be done cost-effectively.

Performance Metrics:

- Acres of Beets Planted (target = 250)
- Tons of Beets Harvested (target = 10,000)
- Energy Beet Crop Yield (target = 40 tons/acre)
- Dry Matter Content (target = 22.5%)
- Convertible Biomass Content (target = 90% dry matter)
- Number of Months in Which Harvesting Occurred (target = 12)

• **Develop Biofuels and Biobased Products**

- Design, construct, and operate a pilot-scale plant that converts approximately 10,000 tons per year of carbon-optimized energy beets into 285,000 gallons of 200-proof ethanol. Includes integration of advanced enzyme process and microbial conversion technologies, never before used in the US, that will significantly increase ethanol yield per ton, and reduce capital costs and energy use on the commercial ABC-M.

Performance Metrics:

- Completion of Design Documents
 - Construction of Facility on Time & Budget
 - Tons of Beets Processed (target = 10,000)
 - Gallons of 200-proof AB-CB Ethanol Produced (target = 285,000)
 - AB-CB Ethanol Yield (target = 28 gal/ton)
- Produce fertilizer through the anaerobic digestion of energy beet stillage and glycerin at the University of California, Davis (UCD) Biogas Pilot Plant.

Performance Metrics:

- Tons of Energy Beet Stillage and gallons of glycerin delivered to UCD Digester
- Demonstrate use of locally sourced, low carbon, high-yield, salinity-tolerant varieties of canola and/or safflower used as feedstock in an existing, small-scale oil seed crushing and biodiesel production unit (BIODICO) at Red Rock Ranch to produce biodiesel (B20 blend) for project's energy beet cultivation, harvest, and transport equipment. Glycerin produced as a by-product will be tested as an accelerant for the co-digestion of multiple substrates at the UCD pilot digester.

Performance Metrics:

- Acres of Canola Planted (target = 40)
- Canola Crop Yield (target = 0.89 tons/acre)
- Canola Oil Content (target = 35%)
- Biodiesel Yield (target = 0.9 gal/gal canola oil)
- Gallons of Biodiesel Produced (target = 3,038)
- Percentage of project equipment using project-produced biodiesel

- Gallons of glycerin produced and delivered to UCD Digester
- **Analyze Biofuels Development**
 The following objectives are not easily measured quantitatively. Thus, the success of these objectives will be judged on a qualitative basis. Progress on and completion of the task activities—regardless of their results and implications for commercial-scale ABC-M—will be evaluated by the Commission Agreement Manager on a regular basis, with timely feedback to the Recipient to ensure satisfactory completion.
 - Calibrate California Biomass Crop Adoption Model (CA-BCAM) model for farms and production conditions and develop computer-based life cycle assessment (LCA) model tailored to the proposed biofuel production pathway.
 - Measure and analyze the lifecycle environmental flows for beet production and calculate fuel carbon intensity from crop production data.
 - Estimate the full supply chain burdens of chemical, water, and energy inputs; and waste, pollution, and product and co-product outputs.
 - Use data from farmer interviews, CA-BCAM simulation, and the LCA model to calibrate Best Management Practice (BMP) assessment tools.

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 required (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

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. CPRs generally take place at key, predetermined points in the Agreement, as determined by the Commission Project Manager and as shown in the Technical Task List above. However, the Commission Project Manager may schedule additional CPRs as necessary, and any additional costs will be borne by the Recipient.

Participants include the Commission Project Manager and the Recipient and may include the Commission Grants Officer, the Fuels and Transportation Division (FTD) team 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 the Terms and Conditions, Section 8). 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 on 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.

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)
 - "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 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.

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 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.
- 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 will request reimbursement.

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 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.
- 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 for Recipients to identify any subcontracts required to carry out the tasks under this Agreement and to procure them 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:

- Prepare a letter documenting the subcontracts 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 subcontracts required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that subcontracts will be required during the course of the Agreement, provide in the letter:
 - A list of the subcontracts that describes the anticipated maximum budget and general scope of work for each,
 - A description of the procurement process to be used, and
 - The schedule the Recipient will follow in applying for and obtaining these subcontracts
- Submit a draft of the subcontract that will include a budget with the information required in the budget details to the Commission Project Manager for review.
- Submit a final copy of the executed subcontract.

Products:

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

TECHNICAL TASKS

TASK 2 ENERGY BEET PRODUCTION

The goals of this task are to plant, grow, harvest, and transport 10,000 tons of carbon optimized energy beets for the ABC-M IDP and demonstrate the viability of year-round energy beet harvesting.

The Recipient shall:

- Perform energy beet agronomic work for energy beets in the western San Joaquin Valley.
 - Monitor test plantings of beets and evaluate a range of fertilizer application rates for yield and quality.

- Quantify optimum nitrogen use for winter-harvested energy beets.
- Produce best management practice guidelines for pilot-plant contracted energy beet growers.
- Develop and implement a Best Management Practices (BMP) Self-Assessment Workbook Framework for energy beet growers. Use this framework as the basis for implementing a low-carbon pricing system in the future.
- Create an energy beet grower payment system based in part on the carbon intensity of the harvested beets.
- Employ a new ticketless tracking system and an on-board infrared sugar-content testing system to better manage energy beet harvest operations to reduce carbon and resource inputs.
- Secure contracts with local energy beet farmers who will use the BMPs to plant, grow, cultivate, and irrigate designated energy beet parcels, and supply approximately 10,000-tons of energy beets to ABC-M IDP during the period November 2013 to October 2014. Contracted farmers will measure cultural/harvest operation carbon inputs for their respective parcels and report same to Mendota Advanced Bioenergy Beet Cooperative monthly.
- Harvest and deliver energy beets to ABC-M IDP as directed.

Products:

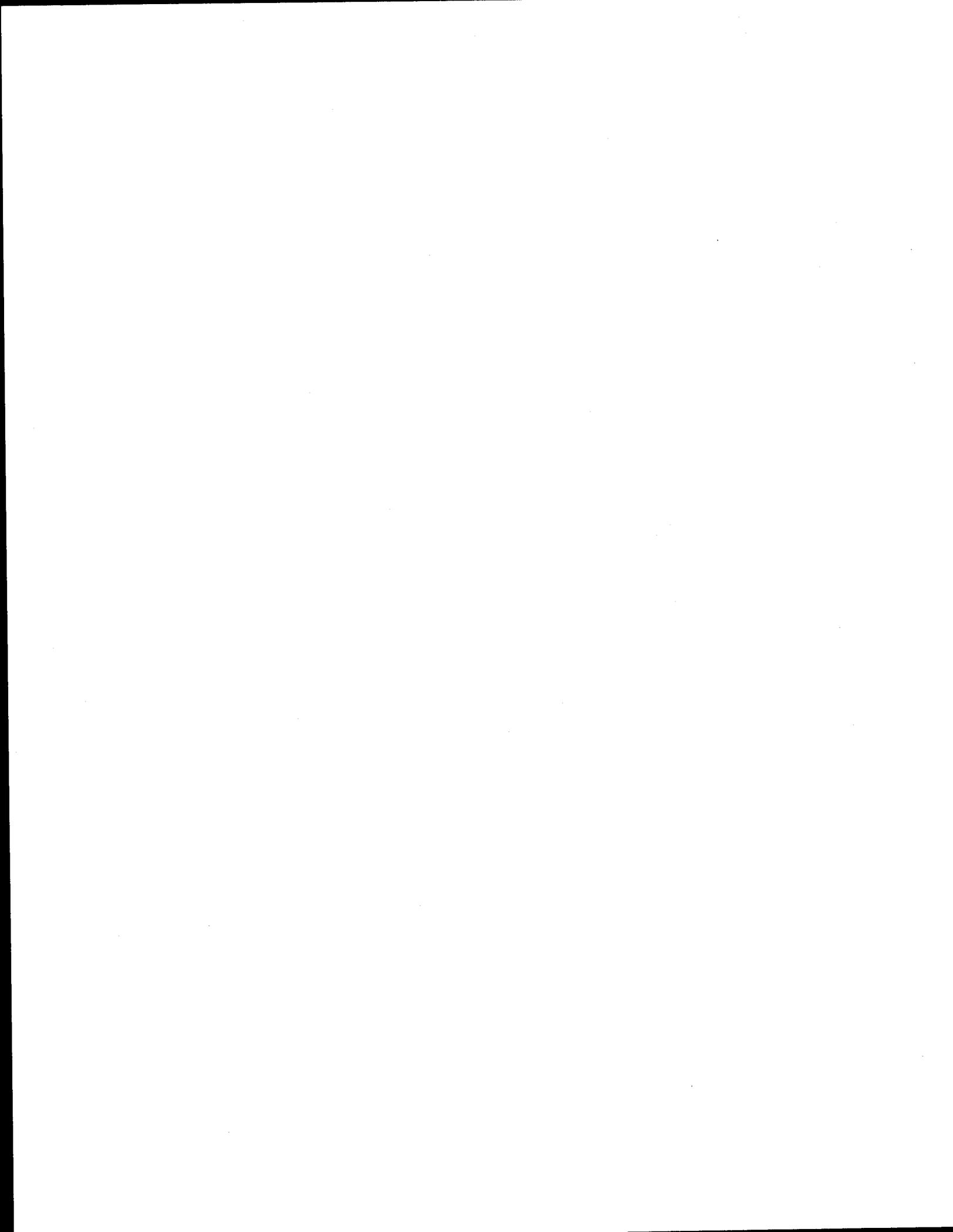
- Best Management Practices Self-Assessment Workbook Framework
- Contracts with local energy beet farmers

TASK 3 DESIGN PHASE – Integrated Demonstration Plant (IDP)

The goal of this task is to design and engineer all components of the proposed Integrated Demonstration Plant.

The Recipient shall:

- Design and engineer a 1 Million gallon per year (“1 MGPY”) pilot scale Advanced Ethanol plant. This plant will be operated to produce approximately 285,000 gallons of 200-proof ethanol over the project period. Produce Design Package for Advanced Ethanol Plant that includes:
 - Piping & Instrumentation Diagrams (P&IDs)
 - General Arrangement Drawings
 - Equipment List
 - Electrical One Line Drawings
- Design and engineer modifications to the existing anaerobic digester located at the University of California, Davis Wastewater Treatment Plant. Produce modified Design Package for UCD Anaerobic Digester that includes:
 - Piping & Instrumentation Diagrams (P&ID) revisions
 - Equipment List
 - Installation details as necessary



Products:

- Design Package for Advanced Ethanol plant
- Modified Design Package for UCD anaerobic digester

TASK 4 PRE-CONSTRUCTION

Task 4.1 Final Agreements

The goal of this task is to obtain all final agreements necessary to begin construction.

The Recipient shall:

- Prepare an Agreements Letter documenting the agreements necessary to construct the project. At a minimum, this letter will include:
 - Land agreement for control of project site
 - Supply agreement with feedstock providers
 - Purchase Order with fuel purchasers
- Secure the agreements as detailed in Agreements Letter

Products:

- Agreements Letter
- Records of necessary agreements

Task 4.2 Construction and Equipment List, Procurement Schedule, & Construction Estimate

The goal of this task is to finalize the project design and construction costs prior to incurring major construction expenses.

The Recipient shall:

- Prepare an Equipment List documenting the necessary equipment for the completion of the project. The Equipment List will include all items to be purchased, constructed, or installed on the project. For each item, the list shall provide:
 - The name of the item
 - The make, model, size, capacity or other information as appropriate to the item
 - The estimated cost to purchase each item
- Prepare a Procurement Schedule for the equipment identified on the Equipment List. The Procurement Schedule will identify the purchase orders needed to acquire the items on the equipment list and shall provide:
 - The name of the entity that will be carrying out the purchase and/or installation of the item
 - A description of the equipment, by item number, contained in each purchase order

- The schedule for obtaining a binding bid from the supplying or installing entity
- The schedule for placing each purchase order
- The delivery schedule for each equipment item, by purchase order
- Prepare a Construction Estimate for the completion of the Integrated Demonstration Plant including the estimated costs for the:
 - Site work
 - Foundations & structures
 - Equipment
 - Equipment installation
 - Piping and electrical materials installation

Products:

- Equipment List
- Procurement Schedule
- Construction Estimate

TASK 4.3 Approval to Proceed with Construction

The goal of this task is to document preparedness to build the project and to secure Commission Agreement Manager written approval to begin incurring major construction costs.

The Recipient shall:

- Prepare a Written Notification of Readiness to Construct stating the project has obtained all permits, third party agreements, binding construction and equipment bids, and all other items necessary to begin construction.
- Develop proposed Construction Schedule identifying the necessary tasks and their durations from the projected start of construction until the commercial operations date of the project.

Products:

- Written Notification of Readiness to Construct
- Construction Schedule

TASK 5 CONSTRUCTION

The goal of this task is to construct the IDP and prepare it for operation.

The Recipient shall:

- Execute construction of the project as outlined in the Construction Schedule, Construction Estimate, Procurement Schedule, and Equipment List. The construction of the Integrated Demonstration Plant shall include the following major components:
 - Feedstock receiving and transfer system

- Feedstock pre-processing system
- Advanced Ethanol plant
- Modifications to UCD anaerobic digester
- Fuel distribution system
- Commissioning and start-up of the facility
- Prepare a Written Notification of Demonstration Operation and submit it to the Commission Agreement Manager within ten working days of commencement of operations of the project for the intended demonstration usage. The Written Notification shall contain the following elements:
 - The date the project achieved commercial operation(s)
 - A narrative on the current status of the project and initial operations
 - Any changes made from the project schedule as originally proposed and reasons for those changes.
- Conduct Critical Project Review process as per Task 1.2. Prepare Critical Project Review Report.

Products:

- Written Notification of Demonstration Operation
- Critical Project Review
- Critical Project Review Report

TASK 6 PLANT OPERATIONS

The goal of this task is to operate the Advanced Ethanol Production Plant and Pilot Biodiesel Plant as planned and to begin to collect data to document the project's fulfillment of its objectives.

TASK 6.1 Demonstrate Advanced Ethanol Production Plant

The goal of this task is to demonstrate the Advanced Ethanol Production Plant that will produce approximately 285,000 gallons of 200-proof AB-CB Ethanol over the project period.

The Recipient shall:

- Demonstrate two innovative technologies: whole beet inventory storage and liquefied beet inventory storage.
- Operate the Advanced Ethanol plant for approximately 100 days over a 12-month period, complying with all applicable regulatory standards and producing approximately 285,000 gallons of 200-proof AB-CB Ethanol. As part of this process, consortium will integrate whole beet and liquefied inventory storage technologies described above.
- Distribute the 200-proof ethanol to local ethanol plant(s) and the spent stillage to the UCD Biogas Energy Pilot Plant and growers.
- Prepare Report on Operations in the Monthly Progress Reports. This reporting shall include, but is not limited to, the following information:

- A narrative on operational highlights from the previous month, including any stoppages in production and a statement as to the project's compliance with regulatory requirements. (Note: Advanced Ethanol plant is designed for approximately 100 days of operations in a twelve-month period. Project proponents plan on operating it on a campaign basis for approximately 1-2 weeks per month.)
- The total amount of feedstock received and processed on a monthly basis
- The total amount of fuel produced on a monthly basis
- Conversion ratio for feedstock to fuel production
- The direct operational costs of the project, total and per volume of fuel.

Products:

- Report on Operations in the Monthly Progress Reports

TASK 6.2 Demonstrate UCD Biogas Energy Pilot Plant

The goal of this task is to demonstrate the project's UCD Biogas Energy Pilot Plant located at the UC Davis Wastewater Treatment Plant.

The Recipient Shall:

- accept delivery of all feedstock, including stillage from beets and glycerin from the biodiesel facility.
- Conduct a 3-wet-ton-per-day, 4-month anaerobic digestion plant demonstration and collect data to support subsequent technical and economic scale-up efforts.
- Produce liquid organic fertilizer
 - Prepare Monthly Operations Reports. The Operations Reports shall include, but are not be limited to, the following information:
 - A narrative on operational highlights from the previous month, including any stoppages in production and a statement as to the project's compliance with regulatory requirements.
 - The total amount of feedstock received and processed on a monthly basis
 - The total amount of finished products produced on a monthly basis
 - Conversion ratio for feedstock to fuel/finished products production
 - The direct operational costs of the project
- Prepare Feedstock Procurement Plan and Feedstock Characterization Report.
- Modify and/or upgrade pilot digester plan and test plan.
 - Create final report describing demonstration test results and recommendation for anaerobic digester system design and technical operations parameters for scale-up operations.

Products:

- Report on Operations in the Monthly Progress Reports
- Feedstock Procurement Plan
- Feedstock Characterization Report

- Final Report

TASK 6.3 Demonstrate the Pilot Biodiesel Production Plant

The goal of this task is to demonstrate and analyze the integration of Project-produced biodiesel into the feedstock production chain of AB-CB Ethanol.

The Recipient shall:

- Select varieties of high-yield, salinity-tolerant canola and safflower for use as feedstock for the biodiesel production unit.
- Use an estimated 36 tons of seed harvested from 40 acres of planted high-yield, salinity-tolerant varieties of canola to produce ~3,038 gallons of specification-grade B-100 biodiesel and then splash-blend it into B-20 biodiesel.
- Verify biodiesel quality at the Naval Base Ventura County, where BIODICO operates a facility.
- Arrange for delivery of the biodiesel for use in the energy beet tractors, cultivators, harvesters, beet delivery trucks, and IDP loaders, and of the glycerin for use as an accelerant at the UC Davis Biogas Pilot Plant.
- Determine the:
 - Benefits of using biodiesel over petroleum diesel and other fossil energy sources, and update data and assumptions currently used in economic and environmental models.
 - Cost of replacing petroleum diesel with biodiesel, including changes in equipment performance, maintenance, and storage.
 - Analyze the results with GREET 1.8b analysis tool.
- Include data from this task in Report on Operations in the Monthly Progress Reports described above in Tasks 6.1, 6.2 and submit as specified there.

Products:

- Report on Operations in the Monthly Progress Reports

TASK 6.4 Test Plan Preparation

The goal of this task is to prepare the test plan to be used during data collection and analysis.

The Recipient shall:

- Finalize the type of monitoring to be conducted.
- Determine the manner in which the team will validate, analyze, and report data. Such determination will be made at one or several of the Project's Quarterly Project Meetings. The data collected in Tasks 2, 6 & 7 will be shared among Project participants for use in accomplishing the analysis & reporting activities in Tasks 1, 7, 8 & 9.

Products:

- Test Plan

TASK 7 BIOFUELS DEVELOPMENT ANALYSIS

The goal of this task is to evaluate the potential of this project to develop an environmentally sustainable domestic source of renewable biomass for conversion to biofuels, bioenergy, and biobased products. To achieve this goal, several models and assessment tools will be integrated in an innovative manner to create accurate estimates of lifecycle effects of energy beet production and transformation to advanced fuels.

TASK 7.1 Perform Lifecycle Analysis (LCA)

The goal of this task is to perform a lifecycle analysis.

The Recipient shall:

- Calibrate the California Biomass Crop Adoption Model (CA-BCAM) model for farms and production conditions within the project's nine major farming regions.
- Develop data for direct integration into LCA model.
- Develop a computer-based LCA model tailored to the proposed biofuel production pathway. This LCA model will be made available to research partners to assist in decision-making over the entire supply chain. The model will calculate net environmental flows (inputs and emissions) over the entire life cycle (beet production, transport, and conversion facility), considering agronomic practices, soil quality, water quality and water use, the generation or reduction of hazardous or toxic substances, greenhouse gas and criteria air emissions. The model will use outputs from economic modeling, biogeochemical models, and life cycle databases available at UC Davis.
- Document the LCA modeling and results in an LCA Report.
- Measure and analyze the lifecycle environmental flows for beet production.
- Consider the allocation of emissions from crop rotation and the multiple co-products produced from the IDP and, ultimately, from ABC-M.
- Calculate fuel carbon intensity from crop production data.

Products:

- Lifecycle Analysis Report

TASK 7.2 Quantify Lifecycle Economic, Social and Environmental Benefits

The goal of this task is to quantify the project's lifecycle economic and environmental benefits.

The Recipient Shall:

- Quantify whole farm management effects resulting from energy beet crop adoption on farms throughout feedstock production region.

- Link field-level record keeping data to CA-BCAM and LCA models.
- Develop an LCA model that includes beet production, transport, and ABC-M facility construction and operation.
- Quantify the net environmental flows attributable to beet production, including direct estimates of changes to water use, fertilizer, and the generation of air emissions and related toxics from the operation of equipment, transport of product, and production of fertilizers and pesticides.
- Estimate the full supply chain burdens of chemical, water, and energy inputs; and waste, pollution, and product and co-product outputs.
- Quantify the economic, social and environmental benefits of using IDP-produced biodiesel in the energy beet production supply chain.
- Use data from farmer interviews, CA-BCAM simulation, and the LCA model to calibrate Best Management Practice (BMP) assessment tools and help monitor subsequent improvements in cropping system resource use efficiency.
- Utilize IMPLAN (Impact Analysis for Planning) software and accompanying 2009 dataset to determine multiplier effects created by the operation of ABC-M.
- Develop Lifecycle Benefits Report that documents the benefits of integrating environmental, economic, and social modeling efforts, and will provide producers with BMP for decision-making that integrates across environmental, economic, and social impacts.

Products:

- Lifecycle Benefits Report

TASK 8 COORDINATION

TASK 8.1 Integration of Material And Information Flows

The goal of this task is to integrate the material and information flows among Tasks 2, 6, and 7.

The Recipient shall:

- Manage the material and information flows among project participants and technical areas.
- Manage delivery of:
 - IDP-produced biodiesel to energy beet growers and truckers for use in their diesel engines.
 - Canola to Oilseed Crusher and BIODICO unit.
 - Biodiesel to Energy Beet growers
 - Energy beets to Ethanol Plant
 - 200-proof AB-CB Ethanol to local customers
 - Spent stillage from ethanol plant to UCD AD facility
 - Spent stillage from ethanol plant to energy beet growers for fertilizer
 - Fertilizer from UCD AD facility to energy beet growers for fertilizer
 - Glycerin from biodiesel plant to UCD AD facility

Products:

- None. Information will be included in the Final Report.

TASK 8.2 Optimize and Demonstrate Integrated Biorefinery Model

The goal of this task is to optimize and demonstrate an integrated biorefinery model.

The Recipient Shall:

- Modify existing IR1 Group financial models for IDP AB-CB Ethanol and digester operations, producing an Integrated Production and Financial Model for use in activities in support of commercial-scale ABC-M.
- Combine the modified financial models with data generated from IDP operations to create integrated financial model for the ultimate commercial scale ABC-M.
- Support data collection and analysis activities for the biorefinery components mentioned above through onsite visits by UCD personnel, who will collect and compile data about raw feedstock, intermediate process streams, and final product streams, as well as operations and economic information necessary to support technical, economic or LCA assessment.

Products:

- Integrated Production and Financial Model

TASK 9 DATA COLLECTION AND ANALYSIS

The goal of this task is to collect and analyze operational data to determine the economic viability and environmental impact of the project. Final analysis of all project data must be included in the Final Report.

The Recipient Shall:

- Collect, unless a lesser amount is approved in writing by the Commission Agreement Manager, 4 months anaerobic digester and 12 months Advanced Ethanol operational data from fuel production system to include:
 - Time operating (up and down time),
 - Efficiency of conversion of feedstock,
 - Biofuel production rate,
 - Quality and quantity of fuel produced,
- Estimate gasoline and/or petroleum-based diesel fuel that will be displaced annually.
- Explain how the project will reduce criteria air pollutants and air toxics and reduce or avoid multimedia environmental impact, and lead to a decrease, on a life cycle basis, in emissions of water pollutants or any other substances known to damage human health or the environment.
- Explain how the project incorporated and achieved the sustainability goals.
- Provide a quantified estimate of the project's carbon intensity values for life-cycle scale greenhouse gas emissions.

- Quantify any water efficiency and water use reduction measures used in the project including, but not limited to, the use of recycled or reclaimed water and the reduction or elimination of point and nonpoint source wastewater discharge.
- Describe any potential use of renewable energy or cogeneration in the project.
- Describe any potential energy efficiency measures used in the project that would exceed Title 24 standards in Part 6 of the California Code of Regulations.
- Provide data on expected job creation, economic development, and increased state revenue.
- Compare any project performance and expectations provided in the proposal to Energy Commission with actual project performance and accomplishments.
- Describe how the project supports new technology advancement for vehicles, vessels, engines, and other equipment, and promote the deployment of such technologies in the marketplace. To the extent possible describe how the project, provided a measurable transition from the nearly exclusive use of petroleum fuels to a diverse portfolio of viable alternative fuels that meets California's petroleum reduction and alternative fuel use goals.
- Describe how the project demonstrated the cost-effectiveness of the proposed technology in achieving greenhouse gas emissions reduction.
- Provide additional data that may be requested by the Energy Commission during the term of this Agreement, as is reasonably available.

Products:

- Information will be included in the Final Report.

Attachment A-1

Schedule of Products and Due Dates

Task Number	Task Name	Product(s)	Due Date
1.1	Attend Kick-off Meeting	Updated Schedule of Products	2 days prior to the Kickoff meeting
		Updated List of Match Funds	2 days prior to the Kickoff meeting
		Updated List of Permits	2 days prior to the Kickoff meeting
		Kick-Off Meeting Agenda (CEC)	Commission
1.2	Critical Project Review Meetings CPR Meeting	CPR Report - Task 5: Construction Completion	1/21/2014
		Written determination (CEC)	Commission
1.3	Final Meeting	Written documentation of meeting agreements	6/29/2015
		Schedule for completing closeout activities	6/29/2015
1.4	Monthly Progress Reports	Monthly Progress Reports	The 10th calendar day after each month during the approved term of this Agreement
1.5	Final Report	Draft Outline of the Final Report	9/30/2014
		Final Outline of the Final Report	12/1/2014
		Draft Final Report	2/2/2015
		Final Report (no less than 60 days before the end term of the agreement)	4/30/2015
1.6	Identify and Obtain Match Funds	A letter regarding match funds or stating that no match funds are provided	2 days prior to the Kickoff meeting
		Copy(ies) of each match fund commitment letter(s) (if applicable)	2 days prior to the Kickoff meeting
		Letter(s) for new match funds (if applicable)	Within 10 days of identifying new match funds
		Letter that match funds were reduced (if applicable)	Within 10 days of identifying reduced match funds
1.7	Identify and Obtain Required Permits	Letter documenting the permits or stating that no permits are required	2 days prior to the Kickoff meeting

Attachment A-1

1.7 (cont)	A copy of each approved permit (if applicable)	Within 10 days of receiving each permit	
	Updated list of permits as they change during the term of the Agreement (if applicable)	Within 10 days of change in list of permits	
	Updated schedule for acquiring permits as changes occur during the term of the Agreement (if applicable)	Within 10 days of change in schedule for obtaining permits	
1.8	Obtain and Execute Subcontracts		
	Letter describing the subcontracts needed, or stating that no subcontracts are required	2 days prior to the Kickoff meeting	
	Draft subcontracts	15 days before the scheduled date of execution	
	Final subcontracts	Within 10 days of execution	
2	Energy Beet Production		
	BMP Self-Assessment Workbook Framework	11/29/2013	
	Contracts with local energy beet farmers	4/3/2013	
3	Design Phase		
	Initial Design Package for Advanced Ethanol plant	3/31/2013	
	Modified Design Package for UCD Anaerobic Digester	9/4/2013	
4	Pre-Construction		
	4.1	Agreements Letter	3/31/2013
		Records of necessary agreements	3/31/2013
	4.2	Equipment List	3/31/2013
		Procurement Schedule	3/31/2013
		Construction Estimate	3/31/2013
	4.3	Written Notification of Readiness to Construct	3/31/2013
		Construction Schedule	3/31/2013
5	Construction		
	Written Notification of Demonstration Operation	2/4/2014	
	Critical Project Review	see Task 1.2	
	Critical Project Review Report	1/4/2014	
6	Plant Operations		
	6.1	Report on Operations in Monthly Progress Reports	1/10/2014
	6.2, 6.3	Report on Operations in Monthly Progress Reports	5/10/2014
	6.4	Test Plan	10/4/2013
7	Biofuels Development Analysis		
	7.1	Lifecycle Analysis Report	12/30/2014
	7.2	Lifecycle Benefits Report	12/30/2014
8	Coordination, Integration & Management		
	8.2	Integrated Production & Financial Model	3/4/2015
9 (Final)	Data Collection and Analysis		
	None - Data from this task included in Final Rpt.	N/A	

EXHIBIT B
Exh B-1a Task Summary

Summary Task Budget		Prime Recipient Reimbursable Costs	Major Subcontractor #1 Reimbursable Costs	Major Subcontractor #2 Reimbursable Costs	Major Subcontractor #3 Reimbursable Costs	Major Subcontractor #4 Reimbursable Costs	Commission Reimbursable Costs	Match Funding	Totals
		Mendota Bioenergy, LLC	IR1 Group LLC	University of California, Davis	California State University, Fresno	Red Rock Ranch, Inc.			
0.0	Administration	\$ 52,635	\$ 1,225	\$ 16,004	\$ 6,715	\$ 4,366	\$ 80,945	\$ 141,061	\$ 222,006
0.0	Energy Beet Production	\$ 906,991	\$ -	\$ 25,000	\$ 138,402	\$ -	\$ 1,070,393	\$ 460,717	\$ 1,531,110
0.0	Design Phase	\$ -	\$ 108,625	\$ -	\$ -	\$ 7,081	\$ 115,706	\$ 1,096,035	\$ 1,211,741
0.0	Pre-Construction	\$ 35,000	\$ 10,000	\$ -	\$ -	\$ 6,131	\$ 51,131	\$ 67,577	\$ 118,708
0.0	Construction	\$ -	\$ 2,217,525	\$ 24,000	\$ -	\$ 13,212	\$ 2,254,737	\$ 3,070,992	\$ 5,325,729
0.0	Plant Operations	\$ 140,004	\$ 494,738	\$ 267,401	\$ -	\$ 108,934	\$ 1,011,077	\$ 1,197,022	\$ 2,208,099
0.0	Biofuels Development Analysis	\$ -	\$ -	\$ 197,734	\$ 62,153	\$ -	\$ 259,887	\$ 71,595	\$ 331,482
0.0	Coordination & Management	\$ 79,540	\$ 8,900	\$ -	\$ 7,000	\$ 20,393	\$ 115,833	\$ 337,014	\$ 452,847
0.0	Data Collection & Analysis	\$ -	\$ -	\$ 26,344	\$ 6,215	\$ 6,131	\$ 38,690	\$ 95,960	\$ 134,650
Grand Totals		\$ 1,214,170	\$ 2,841,013	\$ 556,483	\$ 220,485	\$ 166,248	\$ 4,998,399	\$ 6,537,973	\$ 11,536,372

In these boxes, be sure to include all costs: labor (unloaded rates) and non-labor costs (fringe, overhead, general & administrative, and other direct operating costs).
The totals are total costs to perform each task.

EXHIBIT B
Exh B-1b Category Summary

Summary Category Budget	Prime Recipient Reimbursable Costs	Major Subcontractor #1 Reimbursable Costs	Major Subcontractor #2 Reimbursable Costs	Major Subcontractor #3 Reimbursable Costs	Major Subcontractor #4 Reimbursable Costs	Totals
	Mendota Bioenergy, LLC	IR1 Group LLC	University of California, Davis	California State University, Fresno	Red Rock Ranch, Inc.	
Direct Labor	\$ -	\$ -	\$ 178,642.00	\$ 63,760.00	\$ 42,651.00	\$ 285,053.00
Fringe Benefits	\$ -	\$ -	\$ 34,862.00	\$ 27,028.00	\$ 10,663.00	\$ 72,553.00
Travel	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Equipment	\$ 150,000.00	\$ 2,218,000.00	\$ -	\$ -	\$ 60,000.00	\$ 2,428,000.00
Materials/ Misc.	\$ 496,388.00	\$ 399,741.00	\$ 203,800.00	\$ 96,180.00	\$ 35,937.00	\$ 1,232,046.00
Minor Subcontractors*	\$ 538,532.00	\$ 135,173.00	\$ 51,405.00	\$ -	\$ -	\$ 725,110.00
Total Direct	\$ 1,184,920.00	\$ 2,752,914.00	\$ 468,709.00	\$ 186,968.00	\$ 149,251.00	\$ 4,742,762.00
Indirect Overhead	\$ -	\$ -	\$ 87,774.00	\$ 33,518.00	\$ 7,997.00	\$ 129,289.00
General & Administrative	\$ 29,250.00	\$ 88,100.00	\$ -	\$ -	\$ 9,000.00	\$ 126,350.00
Total Indirect	\$ 29,250.00	\$ 88,100.00	\$ 87,774.00	\$ 33,518.00	\$ 16,997.00	\$ 255,639.00
Grand Total	\$ 1,214,170.00	\$ 2,841,014.00	\$ 556,483.00	\$ 220,486.00	\$ 166,248.00	\$ 4,998,401.00

Direct Labor = unloaded rates X number of hours (Att B-3)

* A Minor Subcontractor is any subcontractor receiving less than \$100,000 or 25% (whichever is less) of the Commission Funds.

EXHIBIT B
Exh B-2a Sub #1 Labor Rates

IR1 Group LLC

Time intervals from the start of the Grant through the Grant Term End Date. (Use your organization's Fiscal Year start / end dates.)		Projected Hourly Rates (\$)						Total Hours Worked
		From: 1/1/13	To: 12/31/13	From: 1/1/14	To: 12/31/14	From: 1/1/15	To: 12/31/15	
Name	Job Classification/Title	(\$) Unloaded Maximum Rate						
Jeff Manternach	Co-PI/PD	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	1320	
Jimmy Moore	Director of Engineering	\$ 75.00	\$ 75.00	\$ 75.00	\$ 75.00	\$ 75.00	1300	
Joseph Winckler	Director of Operations	\$ 88.00	\$ 88.00	\$ 88.00	\$ 88.00	\$ 88.00	1000	
Thomas Aumer	Operations Manager	\$ 63.00	\$ 63.00	\$ 63.00	\$ 63.00	\$ 63.00	600	
Joshua Pendergrass	Engineering Manager	\$ 63.00	\$ 63.00	\$ 63.00	\$ 63.00	\$ 63.00	1500	
Sue Primsky	Admin/Clerical	\$ 25.00	\$ 25.00	\$ 25.00	\$ 25.00	\$ 25.00	400	
Terry Kulesa	Senior Project Advisor	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	200	

* Actual billable rates cannot exceed the rates specified in this exhibit.

* Rates listed must be unloaded rates (that is, before fringe benefits, overhead, or G&A). These rates must reflect the highest salary or wage rate that is actually paid to the employee.

EXHIBIT B
Exh B-2b Sub #2 Labor Rates

University of California, Davis

Time intervals from the start of the Grant through the Grant Term End Date. (Use your organization's Fiscal Year start / end dates.)		Projected Hourly Rates (\$)						Total Hours Worked
		From: 1/1/13		From: 1/1/14		From: 1/1/15		
		To: 12/31/13	To: 12/31/14	To: 12/31/15				
Name	Job Classification/Title	(\$) Unloaded Maximum Rate	(\$) Unloaded Maximum Rate	(\$) Unloaded Maximum Rate				
Dr. Ruihong Zhang	Co-PI/PD	\$ 70.00	\$ 72.00	\$ 72.00			480	
Dr. Alissa Kendall	CO-PI	\$ 61.00	\$ 61.00	\$ 61.00			240	
Dr. Stephen Kaffka	CO-PI	\$ 58.00	\$ 58.00	\$ 58.00			300	
Dr. Santiago Bucaram	Economic Analyst	\$ 42.00	\$ 42.00	\$ 42.00			1200	
Jinmin Zhang	Beet Agronomy Asst.	\$ 24.00	\$ 26.00	\$ 26.00			1000	
Steve Zicari	Plant Data Analyst	\$ 20.00	\$ 20.00	\$ 20.00			1500	
TBD (GSR II)	LCA Asst.	\$ 18.00	\$ 19.00	\$ 19.00			2000	

* Actual billable rates cannot exceed the rates specified in this exhibit.
 * Rates listed must be unloaded rates (that is, before fringe benefits, overhead, or G&A). These rates must reflect the highest salary or wage rate that is actually paid to the employee.

EXHIBIT B

Exh B-3 Recip Non-Labor Rates

Mendota Bioenergy, LLC				Percentage Rate		
Time intervals from the start of the Grant through the Grant Term End Date. (Use your organization's Fiscal Year start / end dates.)				Fringe Benefits (FB)	Indirect Overhead (IOH)	General & Administrative (G&A)
From:	1/1/13	To:	12/31/13	25.0000%	15.0000%	10.0000%
From:	1/1/14	To:	12/31/14	25.0000%	15.0000%	10.0000%
From:	1/1/15	To:	12/31/15	25.0000%	15.0000%	10.0000%

Note: Use the categories that you typically use in your standard business practice.

Non-Labor Rate	List the budget expense items to which the indirect costs or fees are
Fringe Benefits	DL
Indirect Overhead	DL, FB
General & Administrative	M, E, T, S

List items you include in each category (e.g., vacation, retirement plan, telephone, secretarial,		
Fringe Benefits	Indirect Overhead	General & Administrative
Vacation	Payroll Administration	Contract Administration
Retirement	Work Comp Ins.	Accounting
Health Insurance	Payroll Taxes	Insurance
		Lease
		Secretarial
		Procurement
		Computer
		Telephone
		Postage & Delivery
		Printing & Reproduction

* Actual billable rates cannot exceed the rates specified in this exhibit.

EXHIBIT B

Exh B-3a Sub#1 Non-Labor Rates

IR1 Group LLC				Percentage Rate		
Time intervals from the start of the Grant through the Grant Term End Date. (Use your organization's Fiscal Year start / end dates.)				Fringe Benefits (FB)	Indirect Overhead (IOH)	General & Administrative (G&A)
From:	1/1/13	To:	12/31/13	25.0000%	15.0000%	10.0000%
From:	1/1/14	To:	12/31/14	25.0000%	15.0000%	10.0000%
From:	1/1/15	To:	12/31/15	25.0000%	15.0000%	10.0000%

Note: Use the categories that you typically use in your standard business practice.

Non-Labor Rate	List the budget expense items to which the indirect costs or fees are
Fringe Benefits	DL
Indirect Overhead	DL, FB
General & Administrative	M, E, T, S

List items you include in each category (e.g., vacation, retirement plan, telephone, secretarial,		
Fringe Benefits	Indirect Overhead	General & Administrative
Vacation	Payroll Administration	Contract Administration
Retirement	Work Comp Ins.	Accounting
Health Insurance	Payroll Taxes	Insurance
		Lease
		Secretarial
		Procurement
		Computer
		Telephone
		Postage & Delivery
		Printing & Reproduction

* Actual billable rates cannot exceed the rates specified in this exhibit.

EXHIBIT B

Exh B-3b Sub#2 Non-Labor Rates

University of California, Davis

Percentage Rate

Intervals from the start of the Grant through the Grant Term End Date. (Use your organization's Fiscal Year start / end dates.)				Percentage Rate							
		Fringe Benefits (FB) - R. Zhang	Fringe Benefits (FB) - Kendall	Fringe Benefits (FB) - Kaffka	Fringe Benefits (FB) - Jenner	Fringe Benefits (FB) - J. Zhang	Fringe Benefits (FB) - Zicari	Indirect Overhead (IOH)	General & Administrative (G&A)		
n:	1/1/13	To: 12/31/13	30.3000%	30.3000%	30.3000%	44.2000%	20.1000%	1.3000%	%	%	
n:	1/1/14	To: 12/31/14	31.8000%	31.8000%	31.8000%	46.1000%	20.4000%	1.3000%	%	%	
n:	1/1/15	To: 12/31/15	33.9000%	33.9000%	33.9000%	48.7750%	20.8250%	1.3000%	%	%	

Use the categories that you typically use in your standard business practice.

Non-Labor Rate	List the budget expense items to which the indirect costs or fees are applied. Use the following abbreviations:
Direct Benefits	DL
Indirect Overhead	
General & Administrative	

Items you include in each category (e.g., vacation, retirement plan, telephone, secretarial, rent/lease, insurance, etc.).

Fringe Benefits	Indirect Overhead	Fringe Benefits (FB) - Kendall	Fringe Benefits (FB) - Kaffka	Fringe Benefits (FB) - Jenner	Fringe Benefits (FB) - J. Zhang	Fringe Benefits (FB) - Zicari	General & Administrative
PI's & Staff (Analysts)							
Medical							
Rental							
Insurance							
Retirement							
Post Doc							
Medical							
Rental							
Insurance							
Grad Student							
Medical							

Actual billable rates cannot exceed the rates specified in this exhibit.

EXHIBIT B

Exh B-3c Sub#3 Non-Labor Rates

California State University, Fresno				Percentage Rate						
Time intervals from the start of the Grant through the Grant Term End Date. (Use your organization's Fiscal Year start / end dates.)				Fringe Benefits (FB) - Zoldoske	Fringe Benefits (FB) - Srinivasan	Fringe Benefits (FB) - Paggi	Fringe Benefits (FB) - Sabasto	Fringe Benefits (FB) - Suryadi	Indirect Overhead (IOH)	General & Administrative (G&A)
From:	1/1/13	To:	12/31/13	41.6900%	35.0000%	42.2000%	37.8000%	60.3400%	25.0000%	%
From:	1/1/14	To:	12/31/14	41.6900%	35.0000%	42.2000%	37.8000%	60.3400%	25.0000%	%
From:	1/1/15	To:	12/31/15	41.6900%	35.0000%	42.2000%	37.8000%	60.3400%	25.0000%	%

Note: Use the categories that you typically use in your standard business practice.

Non-Labor Rate	List the budget expense items to which the indirect costs or fees are applied. Use the following abbreviations:
Fringe Benefits	DL
Indirect Overhead	DL, FB, M, T
General & Administrative	

List items you include in each category (e.g., vacation, retirement plan, telephone, secretarial, rent/lease, insurance, etc.).						
Fringe Benefits	Indirect Overhead					General & Administrative
For PI's and Staff (Analysts)						
medical						
dental						
vision						
retirement						
For Post Doc						
medical						
dental						
vision						
For Grad Student						
Medical						

* Actual billable rates cannot exceed the rates specified in this exhibit.

EXHIBIT B
Exh B-3d Sub#4 Non-Labor Rates

Red Rock Ranch, Inc.				Percentage Rate		
Time intervals from the start of the Grant through the Grant Term End Date. (Use your organization's Fiscal Year start / end dates.)				Fringe Benefits (FB)	Indirect Overhead (IOH)	General & Administrative (G&A)
From:	1/1/13	To:	12/31/13	25.0000%	15.0000%	10.0000%
From:	1/1/14	To:	12/31/14	25.0000%	15.0000%	10.0000%
From:	1/1/15	To:	12/31/15	25.0000%	15.0000%	10.0000%

Note: Use the categories that you typically use in your standard business practice.

Non-Labor Rate	List the budget expense items to which the indirect costs or fees are applied.
Fringe Benefits	DL
Indirect Overhead	DL, FB
General & Administrative	M, E, T, S

List items you include in each category (e.g., vacation, retirement plan, telephone, secretarial,		
Fringe Benefits	Indirect Overhead	General & Administrative
Vacation	Payroll Administration	Contract Administration
Retirement	Work Comp Ins.	Accounting
Health Insurance	Payroll Taxes	Insurance
		Lease
		Secretarial
		Procurement
		Computer
		Telephone
		Postage & Delivery
		Printing & Reproduction

* Actual billable rates cannot exceed the rates specified in this exhibit.

EXHIBIT B

Exh B-4 Direct Operating Expenses

Pre-approved Travel List *						New Amount	
Task No.	cost incurred by	Trip #	Who	Departure and Destination	Trip Purpose	Commission Funds	Match Funds
1,2	Recipient		William Pucheu	Local Travel in Project Area	To Growers, Plant Site, Project Meetings (48x \$50/)	\$0	\$2,400
1,3	Recipient		Jim Tischer	Davis, CA to Fresno, CA Area	To Growers, Plant Site, Project Meetings (48x \$500/)	\$0	\$24,000
1,4	Recipient		Ellen Suryadi	Local Travel in Project Area	To Growers, Plant Site, Project Meetings (48x \$50/)	\$0	\$1,200
8	Recipient		William Pucheu	Fresno, CA to Germany	Annual Project Partner meetings w/ Sud-Chem, KWS, ROPA (2x \$5000/)	\$0	\$10,000
8	Recipient		Jim Tischer	Fresno, CA to Germany	Annual Project Partner meetings w/ Sud-Chem, KWS, ROPA (2x \$5000/)	\$0	\$10,000
1	Recipient		William Pucheu	Fresno, CA to Sacramento, CA	To CEC Kick-off, CPR and Final Meetings (3 x \$175/)	\$0	\$525
1	Recipient		Jim Tischer	Davis, CA to Sacramento, CA	To CEC Kick-off, CPR and Final Meetings (3 x \$25/)	\$0	\$75
1	Recipient		Ellen Suryadi	Fresno, CA to Sacramento, CA	To CEC Kick-off, CPR and Final Meetings (3 x \$175/)	\$0	\$525
1	Recipient		Asst. Project Mgr.	Fresno, CA to Sacramento, CA	To CEC Kick-off, CPR and Final Meetings (3 x \$175/)	\$0	\$525
1	Sub1 - IR1		Jeff Mantermach	Portland, OR to Fresno, CA	Quarterly Project Meetings (8 x \$500/)	\$0	\$4,000
1	Sub1 - IR1		Asst. Project Mgr.	Portland, OR to Fresno, CA	Quarterly Project Meetings (8 x \$500/)	\$0	\$4,000
6	Sub1 - IR1		Tom Aumer	Minneapolis, MN to Fresno, CA	Ethanol Plant Startup & Mgmt (12 x \$1500/ - ~7-10days/)	\$0	\$18,000
3,5,6	Sub1 - IR1		Joe Winckler	Kansas City, MO to Fresno, CA	Ethanol Plant Design & Construction Advisory, Startup & Mgmt (15 x \$1500/ ~7-10da	\$0	\$22,500
3,5	Sub1 - IR1		Josh Pendergrass	Nashville, TN to Fresno, CA & other	site layout, engineering, oversight, equip. procure., construction mgmt (15 x \$1500/)	\$0	\$22,500
3,5	Sub1 - IR1		Jim Moore	Denver, CO to Fresno, CA & other	site layout, engineering, oversight, equip. procure., construction mgmt (13x \$1500/)	\$0	\$19,500
8	Sub1 - IR1		Jeff Mantermach	Portland, OR to Germany	Annual Project Partner meetings w/ Sud-Chem, KWS, ROPA (2x \$5000/)	\$0	\$10,000
3	Sub1 - IR1		Josh Pendergrass	Nashville, TN to Germany	Annual Project Partner meetings, design review at existing plants (2x \$5000/)	\$0	\$10,000
3	Sub1 - IR1		Jim Moore	Denver, CO to Germany	Annual Project Partner meetings, design review at existing plants (2x \$5000/)	\$0	\$10,000
1	Sub1 - IR1		Jeff Mantermach	Portland, OR to Sacramento, CA	To CEC Kick-off, CPR and Final Meetings (3 x \$400/)	\$0	\$1,200
1	Sub1 - IR1		Asst. Project Mgr.	Portland, OR to Sacramento, CA	To CEC Kick-off, CPR and Final Meetings (3 x \$400/)	\$0	\$1,200
1	Sub1 - IR1		Josh Pendergrass	Nashville, TN to Sacramento, CA	To CEC Kick-off, CPR and Final Meetings (3 x \$600/)	\$0	\$1,800
1	Sub1 - IR1		Jim Moore	Denver, CO to Sacramento, CA	To CEC Kick-off, CPR and Final Meetings (3 x \$500/)	\$0	\$1,500
6	Sub2 - UCD		Steve Zicari & GSRll	Davis, CA to Five Points, CA and SJV	Project Site, and Growers for Data Collection (\$112.50/day/person x 108 person day	\$0	\$12,150
6,8	Sub2 - UCD		Zhang, Kaffka, Kendall, Zicari &/or GSRll	Davis, CA to Fresno, CA & Conferences (unknown loc.)	Travel to Conferences (total 5) and Quarterly Project Meetings	\$0	\$6,650
2	Sub3 - CSUF		Teresa Sabasto	Fresno, CA to San Joaquin Valley	Community Outreach to Grower Areas (20 x \$125/)	\$0	\$2,500
2,8	Sub3 - CSUF		Michel Paggi	Fresno, CA to San Joaquin Valley	Other travel in project area and/or project meetings (20 x \$125/)	\$0	\$2,500
1	Sub4 - RRR		John Diener	Fresno, CA to Sacramento, CA	To CEC Kick-off, CPR and Final Meetings (3 x \$200/)	\$0	\$600
8	Sub4 - RRR		John Diener	Fresno, CA to Germany	Annual Project Partner meetings w/ Sud-Chem, KWS, ROPA (2x \$5000/)	\$0	\$10,000
8	Sub4 - RRR		John Diener	Fresno, CA to SJV	Other travel in project area and/or project meetings (40 x \$50/)	\$0	\$2,000
1	Sub4 - RRR		Russ Teal	Santa Barbara, CA to Fresno, CA	Travel to Quarterly Project Meetings & Project Site (16x \$400/)	\$0	\$6,400
6	Minor Sub1		USDA	Five Points, CA to SJV	Local travel in Project Area Site	\$0	\$2,000
Total:						\$0	\$213,750

* Travel is reimbursed at state rates.

EXHIBIT B

Exh B-4 Direct Operating Expenses

Equipment**							
Task No.	cost incurred by	Description	Purpose	# Units	Unit Cost	Amount	
						Commission Funds	Match Funds
2	Recipient	Infrared Sugar Sampler	Harvester Mounted Data Collection	1	\$ 15,000.00	\$ 15,000.00	
2	Recipient	Data Transponders/receivers	Paperless Harvest Mgmt - Hardware/Software	1	\$ 60,000.00	\$ 60,000.00	
2	Recipient	Energy Beet Harvesters	Harvest Energy Beets - use during project - reduced rate	1	\$ 38,900.00	\$ -	\$38,900
2	Recipient	Cross RHINO beet washer	wash beets in field	1	\$ 150,000.00	\$ 75,000.00	\$75,000
5	Sub1 - IR1	Tank & Related Equip	Liquid Inventory Storage (concentrated liquefaction)	1	\$ 24,000.00	\$ 24,000.00	
5	Sub1 - IR1	Line w/ Rollers, Air Spray, Brushes	Energy Beet Dry Cleaning at plant	1	\$ 60,000.00	\$ 60,000.00	
	Sub1 - IR1	Ethanol Plant - Full Equip List	See next tab , ExhB-4a Ethanol Plant Equip (inserted)	0	\$ -	\$ -	
5	Sub1 - IR1	Ethanol Plant - Tanks	Cook, Ferment, Stillage, Etoh, Etc. Tanks	17	\$ 25,000.00	\$ 425,000.00	
5	Sub1 - IR1	Ethanol Plant - Front End Equip Pkg.	Beet Receiving, Storage, Mascalate, Grind	1	\$ 125,000.00	\$ 125,000.00	
5	Sub1 - IR1	Ethanol Plant - Bal Plant Equip Pkg	Heat Exch, Evaps, Centrifuge, Distill, pumps	1	\$ 500,000.00	\$ 500,000.00	
5	Sub1 - IR1	Ethanol Plant - Electrical & Controls Pkg	Electrical, Controls, Instrumentation	1	\$ 200,000.00	\$ 200,000.00	
5	Sub1 - IR1	Ethanol Plant - Piping Pkg	Piping	1	\$ 120,000.00	\$ 120,000.00	
5	Sub1 - IR1	Ethanol Plant - Sitework & Concrete Pkg	Sitework, concrete foundations	1	\$ 100,000.00	\$ 100,000.00	
3	Sub1 - IR1	Ethanol Plant - Engineering Modifications	Modify design for energy feedstock, procured equip	1	\$ 100,000.00	\$ 100,000.00	
5	Sub1 - IR1	Ethanol Plant - Utility connections	Connection of water, power, heat supplies	1	\$ 84,000.00	\$ 84,000.00	
5	Sub1 - IR1	Ethanol Plant - Labor	Labor on Plant construction	1	\$ 350,000.00	\$ 350,000.00	
5	Sub1 - IR1	Ethanol Plant - Misc Other	see updated plant equipment list	1	\$ -	\$ 30,000.00	
5	Sub1 - IR1	Ethanol Plant - Molecular Sieve and related	upgrade ethanol from 190 to 200 proof	1	\$ 100,000.00	\$ 100,000.00	
6	Sub2-UCD	Pilot Biogas Plant	6months usage of Pilot Biogas Plant	1	\$ 262,500.00	\$ -	\$262,500
2	Sub3-CSUF	Drip Irrigation	Drip Irrigation for 20 acres energy beets	1	\$ 35,000.00	\$ -	\$35,000
6	Sub4- RRR	Insta-Pro Seed Crusher Plant	Use of Plant for Project	1	\$ 150,000.00	\$ -	\$150,000
6	Sub4- RRR	BIODICO Biodiesel Plant	Use of Plant for Project	1	\$ 150,000.00	\$ -	\$150,000
6	Sub4- RRR	Biodiesel Tanks	Oil, B100, Glycerin storage tanks	3	\$ 10,000.00	\$ 30,000.00	
6	Sub4- RRR	Biodiesel Transfer Pumps & Related	Transfer products among tanks	3	\$ 10,000.00	\$ 30,000.00	
Total:						\$ 2,428,000.00	\$711,400

** Equipment is defined as having an acquisition unit cost of at least \$5,000. See instructions for more details.

EXHIBIT B

Exh B-4 Direct Operating Expenses

Material(s)/ Miscellaneous Costs							
Task No.	cost incurred by	Description	Purpose	# Units	Unit Cost	Amount Commission Funds	Match Funds
2	Recipient	8800 tons Energy Beets	Feedstock for Advanced Ethanol Plant	8800	\$ 50.00	\$ 480,000.00	\$0
2	Recipient	Energy Beet Seeds	seeds donated by KWS (\$100/acre)	250	\$ 100.00		\$25,000
6	Recipient	71,374 lbs Canola seeds	Feedstock for Pilot Seed Crush & Biodiesel Plants	71374	\$ 0.30	\$ 3,472.00	\$0
2	Recipient	SureHarvest BMP grower license fees	BMP data collection & tracking	1	\$ 25,000.00	\$ -	\$25,000
6	Recipient	USDA-ARS materials & supplies match	USDA-ARS materials & supplies match	1	\$ 69,000.00	\$ -	\$69,000
2	Recipient	Agronomic work on pest control	Reduce infestation on beet crops	1	\$ 30,000.00	\$ 32,916.00	
2	Sub1 - IR1	Design Ethanol Plant Design	Contributed Demo Ethanol Plant Design	1	\$ 1,000,000.00	\$ -	\$2,239,509
6	Sub1 - IR1	Energy Beet Treatment material	Whole Beet Inventory Storage - 500 tons	500	\$ 10.00	\$ 5,000.00	\$0
6	Sub1 - IR1	Energy Beet Treatment material	Liquid Beet Inventory Storage - 500 tons	500	\$ 20.00	\$ 10,000.00	\$0
6	Sub1 - IR1	Nat Gas for IDP - Ethanol Plant	boiler heat	1	\$ 80,998.00	\$ 80,998.00	\$0
6	Sub1 - IR1	Chemicals, Enzymes & Yeast for IDP	pH balance, cleaning, enzymes, fermentation yeast	1	\$ 67,498.00	\$ 67,498.00	\$0
6	Sub1 - IR1	Electricity for IDP - Ethanol Plant	electricity for motors, etc for IDP - Ethanol Plant	1	\$ 84,373.00	\$ 84,373.00	\$0
6	Sub1 - IR1	Repairs & Maintenance on IDP - Ethanol	Repairs & Maintenance on IDP - Ethanol	1	\$ 84,373.00	\$ 84,373.00	\$0
6	Sub1 - IR1	Misc. Other IDP-Ethanol Ops Costs	Misc. Other IDP-Ethanol Ops Costs	1	\$ 67,498.00	\$ 67,498.00	\$0
5	Sub2 - UCD	Mobile Weather Station	Monitor weather conditions at IDP installation	1	\$ 4,000.00	\$ 4,000.00	\$0
5	Sub2 - UCD	Supplies for biogas plant upgrading and repair	Supplies for biogas plant upgrading and repair	1	\$ 20,000.00	\$ 20,000.00	\$0
6	Sub2 - UCD	Chemicals and fuel	Chemical and fuel supply to Digester	1	\$ 12,000.00	\$ 12,000.00	\$0
6	Sub2 - UCD	Lab supplies and fees	Supplies and services for chemical analysis	1	\$ 23,000.00	\$ 58,000.00	\$0
6	Sub2 - UCD	Plant operation permit and software license	Plant operation permit and software license	1	\$ 3,300.00	\$ 3,300.00	\$0
6	Sub2 - UCD	Digester effluent treatment system lease	Digester effluent treatment system lease	1	\$ 15,000.00	\$ 15,000.00	\$0
6	Sub2 - UCD	Digester solids effluent disposal	Digester solids effluent disposal	1	\$ 10,500.00	\$ 10,500.00	\$0
2	Sub2 - UCD	Agronomic Work on beet yield	Increase energy beet crop yield & solids	1	\$ 25,000.00	\$ 25,000.00	
6	Sub2 - UCD	Graduate Fee Remission	Graduate Fee Remission (total ten person quarters)	1	\$ 56,000.00	\$ 56,000.00	\$0
2	Sub3 - CSUF	1200 tons Energy Beets	Feedstock for Advanced Ethanol Plant	1200	\$ 40.98	\$ 49,180.00	\$0
2	Sub3 - CSUF	Agronomic Work on beet yield/irrigation	Irrigation methods for yield increase	1	\$ 40,000.00	\$ 40,000.00	
8	Sub3 - CSUF	Meeting Supplies	Host Quarterly & Other Meetings	10	\$ 300.00	\$ 3,000.00	\$0
8	Sub3 - CSUF	Office Supplies	Misc. Office Supplies	1	\$ 4,000.00	\$ 4,000.00	\$0
6	Sub4 - RRR	Ag Bags or Similar, plus drainage materials	Whole Beet Inventory Storage Supplies (500 tons)	500	\$ 30.00	\$ 15,000.00	\$0
6	Sub4 - RRR	Chemical, R&M, Elec, & Other	Seed Crush & Biodiesel Pilot Plant Operations Costs	1	\$ 10,937.00	\$ 20,937.00	\$0
5	Sub4 - RRR	RRR Site	Site for IDP	1	\$ 75,000.00	\$ -	\$1,425,000
Total:						\$1,232,045	\$3,783,509

EXHIBIT B
Exh B-4 Direct Operating Expenses

Minor Subcontractors					
Task No.	cost incurred by	Subcontractor Legal Name	Purpose	Amount Commission Funds	Match Funds
2	Recipient	Del Testa Harvesting, Inc.	Harvest 10,000 tons energy beets over twelve month period, including field mobilization and demobilization (\$6/ton Harvest, \$3,000/mo mob/demob)	\$ 96,000.00	
2	Recipient	SureHarvest	Develop Phase-II Best Management Practices (BMP) framework for energy beet growers, including data collection and modeling	\$ 95,000.00	
2	Recipient	Cartel Transport, LLC	Transport 10,000 tons energy beets from growers to IDP	\$ 96,000.00	
6	Recipient	TBD	Transport 320 tons spent stillage from IDP to digester (Five Points, CA to Davis, CA)	\$ 5,832.00	
6	Recipient	TBD	Transport -900 tons liquid organic fertilizer from IDP to nine growers (@\$6/ton)	\$ 5,400.00	
6	Recipient	TBD	Transport 3 tons glycerin from IDP to digester (Five Points, CA to Davis, CA)	\$ 300.00	
6	Recipient	USDA - ARS	High yield, salinity-tolerant, low carbon canola demonstration	\$ 50,000.00	\$166,000
1	Recipient	Baker, Manock & Jensen	Legal work associated w/ subcontracts, grower contracts	\$ 25,000.00	
4	Recipient	TSS and/or Merjent	Permitting associated with constructing and operating IDP at RRR	\$ 35,000.00	
8	Recipient	The Grant Farm	Strategic Advisory	\$ 40,000.00	\$25,000
8	Recipient	The Leon Woods Group	Strategic Advisory	\$ 30,000.00	
1	Recipient	Baker, Peterson & Franklin	Accounting/Tax work associated w/ project	\$ 25,000.00	
2	Recipient	Jerry Baird Insurance	Insurance associated w/ project	\$ 35,000.00	
4	Sub1 - IR1	Merjent	Permitting associated with constructing and operating IDP at RRR	\$ 10,000.00	
4	Sub1 - IR1	Merjent & TBD	Permitted associated with federal RIN pathway	\$ 40,800.00	
6	Sub1 - IR1	TBD	Labor on ethanol plant operations	\$ 84,373.00	
6	Sub2 - UCD	TBD	UCD Digester plant operators (2 people)	\$ 51,405.00	
Total:				\$725,110	\$191,000

Total for Travel, Equipment, Materials/Mis & Subs	4,385,155	4,899,659
Total Funding for Direct Labor, Fringe Benefits, Indirect Overhead, and G&A	613,244	1,788,466
GRAND TOTAL	4,998,399	6,688,125

EXHIBIT B
Exh B-5 Match Funding

Task Match Funding Budget		Prime Contractor Match Contribution	Major Subcontractor #1 Match Contribution	Major Subcontractor #2 Match Contribution	Major Subcontractor #3 Match Contribution	Major Subcontractor #4 Match Contribution	Match Funding
		Mendota Bioenergy, LLC	IR1 Group LLC	University of California, Davis	California State University, Fresno	Red Rock Ranch, Inc.	
1.0	Administration	\$ 94,099	\$ 35,058	\$ 3,274	\$ 2,576	\$ 6,054	\$ 141,061
2.0	Energy Beet Production	\$ 405,105	\$ -	\$ -	\$ 55,612	\$ -	\$ 460,717
3.0	Design Phase	\$ -	\$ 1,084,591	\$ -	\$ -	\$ 11,444	\$ 1,096,035
4.0	Pre-Construction	\$ 3,500	\$ 52,728	\$ -	\$ -	\$ 11,349	\$ 67,577
5.0	Construction	\$ -	\$ 1,623,200	\$ -	\$ -	\$ 1,447,793	\$ 3,070,992
6.0	Plant Operations	\$ 243,792	\$ 351,639	\$ 275,594	\$ -	\$ 325,997	\$ 1,197,022
7.0	Biofuels Development Analysis	\$ -	\$ -	\$ 45,830	\$ 25,765	\$ -	\$ 71,595
8.0	Coordination & Management	\$ 209,157	\$ 82,861	\$ -	\$ -	\$ 44,997	\$ 337,014
9.0	Data Collection & Analysis	\$ 44,275	\$ 34,486	\$ 3,274	\$ 2,576	\$ 11,349	\$ 95,960
Grand Totals		\$ 999,927	\$ 3,264,563	\$ 327,972	\$ 86,529	\$ 1,858,983	\$ 6,537,973

Exhibit B
Exh. B-4a Ethanol Plant Equip

Equipment Description	Quantity	Size	Material of Construction
AIR COMPRESSOR & AIR DRYER	1		CS
AGITATORS	9		
BEET RECEIVING & STORAGE	1		CS
BEET CLEANING	1		CS
BEET SIZE SLICING & SLURRYING	1		CS
BOILER (economizer, deaerator, feedwater system, etc.)	1	100 HP	
TRAYED COLUMNS			
Distillation	2		304 SS
COOLING TOWER & FANS	1		
PLATE & FRAME HEAT EXCHANGERS	4		CS/304 SS
SHELL & TUBE HEAT EXCHANGERS	3		316 SS
EVAPORATOR	3		304 SS/304 SS
FLASH EVAPORATOR	1		304 SS/304 SS
FILTERS	2		304 SS/304 SS
PRESSURE VESSELS			CS
Regen Receiver	1		304SS
Condensate Separator	1		304SS
Fusel Oil Separator	1		304SS
Evap Condensate Receiver	1		304SS
Evap Vacuum Receiver	1		304SS
PUMPS			
Centrifugal	20		CD-4MCu
Rotary	3		CD-4MCu
Metering	3		316SS
Cooling Tower	1		DCI
SCRUBBER			
CO ₂	1		304 SS
TANKS			
Slurry	1	500 gal	CS or Poly
Liquefaction	1	1,000 gal (ea)	CS or Poly
Liquid Inv Storage	1	250 gal	CS or Poly
Yeast Prop	1	2,000 gal	CS or Poly
Fermenters	4	15,000 gal (ea)	CS or Poly
Beer Well	1	20,000 gal	CS or Poly
Stillage	2	4,000 gal (ea)	CS or Poly
Denaturant	1	4,000 gal	CS or Poly
Ethanol Day	2	4,000 gal (ea)	CS or Poly
Product Storage	2	12,000 gal (ea)	CS or Poly
Process Condensate	1	4,000 gal	CS or Poly
VACUUM EDUCTOR	2		

Exhibit C

TERMS AND CONDITIONS

AWARD # ARV-12-033



**TERMS AND CONDITIONS
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TERMS AND CONDITIONS

1. **Grant Agreement**

This project is being funded with a grant from the California Energy Commission (Commission). Funding for this project was authorized by the Budget Act of 2011, Chapter 712, Statute of 2011, and consists of funds from Alternative and Renewable Fuel and Vehicle Technology Program Awards.

This Agreement is comprised of the grant funding award, the Terms and Conditions, and all attachments. These Terms and Conditions are standard requirements for grant awards. The Commission may impose additional special conditions in this grant Agreement that address the unique circumstances of this project. Special conditions that conflict with these standard provisions take precedence.

The Recipient's authorized representative shall sign all copies of this Agreement and return all signed packages to the Commission's Grants and Loans Office within 30 days. Failure to meet this requirement may result in the forfeiture of this award. When all required signatures are obtained, an executed copy will be returned to the Recipient.

All work and/or the expenditure of funds must occur within the approved term of this Agreement. The Commission cannot authorize any payments until all parties sign this Agreement.

2. **Attachments and References**

The following are attached and hereby expressly incorporated into this Agreement.

- Payment Request Form.
- Work Statement.
- Budget.
- Resolution of the Recipient or Local Jurisdiction Governing Body (if applicable).
- Resolution of the California Energy Commission (if applicable).
- Special Conditions (if applicable).

The Office of Management and Budget (OMB) Circulars and/or federal regulations identified below are incorporated by reference as part of this Agreement. These Terms and Conditions and any Special Conditions take precedence over the circulars and/or regulations. The OMB Circulars and federal regulations are used to help guide the administration of the award when questions arise during the course of performance of the award. The Commission reserves the right to use as much or as little of each circular or regulation it deems necessary to administer the award in good faith and consistent with prudent fiscal management of public funds.

OMB Circulars may be accessed on the OMB web site at www.whitehouse.gov/omb/circulars/index.html or by calling the Office of Administration, Publications Office, at (202) 395-7332.

- Title 10 Code of Federal Regulations (CFR) Part 600: Department of energy (DOE) Financial Assistance Regulations
- Title 10 Code of Federal Regulations (CFR) Part 420: State Energy Program
- Title 48 Code of Federal Regulations (CFR), Ch. 1, Subpart 31.2: Contracts with Commercial Organizations (Supplemented by 48 CFR, Ch. 9, Subpart 931.2 for Department of Energy grants) (commercial firms and certain non-profit organizations)
- State Energy Program Funding Opportunity Announcement DE-FOA-0000052, CDFA Number 81.041, State Energy Program (<https://www.fedconnect.net/FedConnect/>)
- OMB Circular A-102: Common Rule for Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments
- OMB Circular A-110: Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations (also applicable to private entities)
- OMB Circular A-87: Cost Principles for State, Local and Tribal Governments
- OMB Circular A-21: Cost Principles for Educational Institutions
- OMB Circular A-122: Cost Principles Applicable to Grants, Contracts, and Other Agreements with Non-Profit Organizations (non-profit organizations and individuals, except for those specifically exempted)
- OMB Circular A-133: Audits of States, Local Governments, and Non-Profit Organizations
- Other: _____
- None

3. **Funding Limitations**

Any federal, State, and local laws and regulations applicable to your project not expressly listed in this Agreement are incorporated herein as part of this Agreement.

4. **Due Diligence**

The Recipient is required to take timely actions which, taken collectively, move this project to completion. The Commission Agreement Manager (CAM) will periodically evaluate the Schedule of Products and Due Dates for completion of the Statement of Work tasks. If the CAM determines (1) the Recipient is not being diligent in completing the tasks in the Statement of Work or (2) the time remaining in this Agreement is insufficient to complete all project work tasks by the approved Agreement end term date, the CAM may recommend that this Agreement be terminated, and the Agreement may, without prejudice to any of the Commission's remedies, be terminated.

5. **Products**

Products are defined as any tangible item specified in the Statement of Work. Unless otherwise directed, draft copies of all products identified in the Work Statement shall be submitted to the CAM for review and comment. The Recipient will submit an original and two copies of the final version of all products to the CAM.

6. **Reports**

a. Progress Reports

The Recipient shall submit progress reports to the CAM as indicated in the Special Conditions or Work Statement. At a minimum, each progress report shall include the following:

Work Statement: This section should include a brief restatement of the approved tasks in the Work Statement and a report on the status of each, including a discussion of any products due and whether or not the project is progressing according to schedule. This section also should include a discussion of any problems encountered, proposed changes to the tasks in the Work Statement, and anticipated accomplishments in the upcoming quarter.

Financial Status: This section should include a narrative report comparing costs incurred to date with the approved Budget. The report should state whether or not the project is progressing within the approved Budget and discuss any proposed changes.

Additional Information: Additional information may be required in the progress reports as specified in the Work Statement or Special Conditions.

b. Final Reports

A draft final report shall be submitted to the CAM no later than 60 days prior to the end of the Agreement term. At a minimum, the report shall include:

- Table of Contents.
- Abstract.
- A brief summary of the objectives of the project and how these objectives were accomplished.
- Any findings, conclusions, or recommendations for follow-up or ongoing activities that might result from the successful completion of the project.
- A statement of future intent of the grant Recipient to maintain or further develop the project.
- A Payment Request form for the final payment (including any retention).
- A consolidated list of subcontractors funded in whole or in part by the grant Recipient. Include the name, address, concise statement of work done, period, and value of each.
- Additional information specified in the Work Statement or Special Conditions.

The CAM will review the draft report. The Recipient will incorporate applicable comments and submit the final report (the original and two copies) to the CAM.

Upon receipt of the final report, the CAM shall ensure that all work has been satisfactorily completed.

c. Rights in Reports

The Commission reserves the right to use and reproduce all reports and data produced and delivered pursuant to this Agreement, and reserves the right to authorize others to use or reproduce such materials. Each report becomes the property of the Commission.

d. **Failure to Comply with Reporting Requirements**

Failure to comply with the reporting requirements contained in this Agreement will be considered a material noncompliance with the terms of this Agreement. Noncompliance may result in withholding of future payments, suspension or termination of the current award, and withholding of future awards. A willful failure to perform, a history of failure to perform, or unsatisfactory performance of this and/or other financial assistance awards, may also result in a debarment action to preclude future awards.

7. Publications - Legal Statement on Reports and Products

You are encouraged to publish or otherwise make publicly available the results of the work conducted under the award.

No product or report produced as a result of work funded by this program shall be represented to be endorsed by the Commission, and all such products or reports shall include the following statement:

LEGAL NOTICE

This document was prepared as a result of work sponsored by the California Energy Commission. It does not necessarily represent the views of the Energy Commission, its employees, or the State of California. The Commission, the State of California, its employees, contractors, and subcontractors make no warranty, express or implied, and assume no legal liability for the information in this document; nor does any party represent that the use of this information will not infringe upon privately owned rights.

8. Changes to the Agreement

a. **Significant Changes**

Significant changes to this Agreement must be approved by the Commission through a formal amendment. Significant changes include, but are not limited to:

- Change of Recipient's legal name,
- Change of Recipient,
- Changes in order to disencumber funds,
- Changes to the Work Statement that reasonably modify the purpose of the Agreement,
- Changes to the Schedule of Products that extend the due dates beyond the term of the Agreement,
- Changes to the Budget that increase the amount of the Agreement,
- Changes to the Budget that increase rates or fees.

The Recipient shall submit a request in writing to the CAM with a copy to the Commission Grants and Loans Officer for any significant change. The CAM will notify the Recipient Project Manager of the appropriate Commission action within ten (10) working days.

b. Nonsignificant Changes

Changes that are not significant to the Agreement do not need to be approved at a Commission business meeting through a formal amendment. These changes shall be documented in a Letter of Agreement, signed by both parties.

c. Schedule of Products and Due Dates

If the Schedule of Products and Due Dates needs to be revised after the execution of the Agreement, the revised dates cannot extend beyond the term end date of the Agreement without a formal amendment. Recipient shall work with the CAM to agree on the new product due dates. The CAM will issue the revised Schedule of Products and Due Dates to the Recipient and the Grants and Loans Office.

d. Budget Reallocations

(1) The Commission, through its CAM and Grants and Loans Officer, and the Recipient can agree upon and make certain budget reallocations without a formal amendment to this Agreement as long as ALL of the following conditions are met:

(a) The total of all budget reallocations cannot exceed ten percent (10%) with a cap amount of \$75,000 of the Agreement Amount. For purposes of this provision, "Agreement Amount" means the total amount of Commission funds being paid to the Recipient under this Agreement. It does not include any match funds provided by the Recipient.

For example, if under an agreement the Commission agrees to pay a recipient \$100,000 and the recipient is supplying \$500,000 in match funding, the ten percent (10%) limitation applies to the \$100,000. Only up to \$10,000 of Commission funds could be reallocated without a formal amendment. If under an agreement the Commission agrees to pay a recipient \$800,000, ten percent would be \$80,000, but the cap is \$75,000, so the most that could be reallocated without a formal amendment is \$75,000.

(b) The budget reallocation cannot substantially change the scope of work. Examples of budget reallocations that do not

substantially change the scope of work include, but are not limited to, the following:

- Increasing or decreasing the overall travel budget. This does not mean an increase to the allowed per diem rates under this Agreement.
 - Increasing or decreasing the equipment budget.
 - Increasing or decreasing the number of personnel assigned to complete tasks. This does not include increasing the hourly rates of the personnel and classifications listed in the budget. Increasing hourly rates requires a formal amendment. The addition of personnel also requires a formal amendment unless there is already an identified classification of rates in the budget that the new personnel will be filling.
- (c) The budget reallocation only involves moving funds between tasks. The total Agreement Amount must remain unchanged. Increasing the total amount of the Agreement requires a formal amendment.
- (d) The budget reallocation does not increase the percentage rate of Indirect Overhead, Fringe Benefits, General and Administrative Costs, or any other rates listed in the budget. For example, if an agreement budget lists the Indirect Overhead percentage rate as 25% of Direct Labor, the 25% cannot be changed without a formal amendment.
- (2) To effectuate a budget reallocation under this section, the Recipient must make a request in writing to both the CAM and the Grants and Loans Officer. Both the CAM and the Grants and Loans Officer will then approve or disapprove the request in writing; the approval or disapproval is not effective or binding unless signed by both the CAM and the Grants and Loans Officer. Oral communications cannot be used or relied upon. If the request is approved, the CAM shall revise the Budget Attachments to reflect the changes and send them to the Grants and Loans Officer and the Recipient.
- (3) Any desired budget reallocations that do not meet the four criteria in this section must be made through a formal amendment.
- (4) Attempted budget reallocations that do not meet the requirements of this section are not legally binding upon the parties.

e. Amendments

This Agreement may be amended to make changes, including without limitation, additional funds, additional time, additional or modified tasks, and additional or modified terms.

9. *Contracting and Procurement Procedures*

This section provides general requirements for an agreement between the Recipient and a third party ("subcontractor").

All subcontracts must be submitted to the CAM for review prior to execution, pursuant to the administrative task. For subcontracts that are listed as "to be determined" in the budget, the Recipient must submit the subcontractor's budget information to the CAM, using the budget forms provided, and have an executed subcontract, before the subcontractor can incur any costs for which the Recipient will seek reimbursement.

The Recipient is required, where feasible, to employ contracting and procurement practices that promote open competition for all goods and services needed to complete this project. Recipient shall obtain price quotes from an adequate number of sources for all subcontracts.

Subcontracting criteria are specified in the applicable OMB Circulars and/or federal regulations incorporated by reference in this Agreement. The Commission will defer to the Recipient's own regulations and procedures as long as they reflect applicable state and local laws and regulations and are not in conflict with the minimum standards specified in this Agreement and any OMB Circulars and/or federal regulations incorporated by reference in this Agreement.

Upon request, the Recipient must submit to the CAM a copy of all solicitations for services or products required to carry out the terms of this Agreement and copies of the proposals or bids received. If a specific subcontractor was identified in the original grant application and the grant was evaluated based in part on this subcontractor's qualifications, then prior written approval from the CAM is required before substituting a new subcontractor.

The Recipient is responsible for handling all contractual and administrative issues arising out of or related to any subcontracts it enters into under this Agreement.

All subcontracts must incorporate all of the following:

- A clear and accurate description of the material, products, or services to be procured as well as a detailed budget and timeline.
- Provisions that allow for administrative, contractual, or legal remedies in instances where subcontractors violate or breach contract terms, and provide for such sanctions and penalties as may be appropriate.
- Provisions for termination by the Recipient, including termination procedures and the basis for settlement.

- Language conforming to the "Nondiscrimination" provision in this Agreement.
- Any additional requirements specified in the OMB Circulars incorporated by reference in this Agreement.
- The Standard of Performance provisions specified in this Agreement.
- Retention of Records provisions specified in this Agreement.
- Audits provisions specified in this Agreement.
- Language conforming to the "Indemnification" provision in this Agreement.

Recipients who are subcontracting with University of California (UC) may use the terms and conditions negotiated by the Energy Commission with UC for their subcontracts. Recipients who are subcontracting with the Department of Energy (DOE) national laboratories may use the terms and conditions negotiated with DOE.

Failure to comply with the above requirements may result in the termination of this Agreement.

10. *Bonding and Insurance*

The Recipient will follow its own bonding and insurance requirements relating to bid guarantees, performance bonds, and payment bonds without regard to the dollar value of the subcontract(s) as long as they reflect applicable state and local laws and regulations and are not in conflict with the minimum standards specified in the OMB Circulars and/or federal regulations incorporated by reference in this Agreement.

11. *Permits and Clearances*

The Recipient is responsible for ensuring all necessary permits and environmental documents are prepared and clearances are obtained from the appropriate agencies.

12. Equipment

Title to equipment acquired by the Recipient with grant funds shall vest in the Recipient. The Recipient shall use the equipment in the project or program for which it was acquired as long as needed, whether or not the project or program continues to be supported by grant funds, and the Recipient shall not encumber the property without CAM approval. When no longer needed for the original project or program, the Recipient shall contact the CAM for disposition instructions.

Recipient should refer to the applicable OMB circulars and/or federal regulations incorporated by reference in this Agreement for additional equipment requirements.

13. Termination

This project may be terminated for any reason set forth below.

a. With Cause

In the event of any breach by the Recipient of the conditions set forth in this Agreement, this Agreement may be terminated for cause upon five (5) days written notice to the Recipient, without prejudice to any of the Commission's legal remedies.

b. Without Cause

This Agreement may, at the Commission's option, be terminated without cause in whole or in part, upon giving thirty (30) days advance notice in writing to the Recipient by certified mail, return receipt requested. In such event, the Recipient agrees to use all reasonable efforts to mitigate the Recipient's expenses and obligations hereunder. Also in such event, the Commission shall pay the Recipient for all satisfactory work performed and expenses incurred within 30 days after such notice of termination which could not by reasonable efforts of the Recipient have been avoided, but not in excess of the maximum payable under this Agreement.

14. Stop Work

The Commission Grants Officer may, at any time, by written notice to Recipient, require Recipient to stop all or any part of the work tasks in this Agreement. Stop work orders may be issued for reasons such as a project exceeding budget, standard of performance, out of scope work, delay in Project schedule, misrepresentations and the like.

- a. **Compliance.** Upon receipt of such stop work order, Recipient shall immediately take all necessary steps to comply therewith and to minimize the incurrence of costs allocable to work stopped.

- b. Equitable Adjustment. An equitable adjustment shall be made by Energy Commission based upon a written request by Recipient. Such adjustment request must be made by Recipient within thirty (30) days from the date of the stop work order.
- c. Canceling a Stop Work Order. Recipient shall resume the work only upon receipt of written instructions from the Commission Grants Officer.

15. Travel and Per Diem

- a. The Recipient shall be reimbursed for travel and per diem expenses using the same rates provided to non-represented State employees. The Recipient must pay for travel in excess of these rates. The Recipient may obtain current rates from the Energy Commissions Web Site at: http://www.energy.ca.gov/contracts/TRAVEL_PER_DIEM.PDF.
- b. For purposes of payment, Recipient's headquarters shall be considered the location of the Recipient's office where the employees' assigned responsibilities for this award are permanently assigned. Travel expenditures not listed in this section cannot be reimbursed.
- c. Travel identified in the Budget section of this Agreement is approved and does not require further authorization.
- d. Travel that is not included in the Budget section of this Agreement shall require written authorization from the CAM and Grants and Loans Officer prior to travel departure. The Energy Commission will reimburse travel expenses from the Recipient's office location.
- e. The Recipient must retain documentation of travel expenses in its financial records. The documentation must be listed by trip and include dates and times of departure and return, departure and destination cities. Travel receipts, including for travel meals and incidentals, shall be submitted with invoices requesting reimbursement from the Energy Commission.

16. Standard of Performance

Recipient, its subcontractors and their employees, in the performance of Recipient's work under this Agreement shall be responsible for exercising the degree of skill and care required by customarily accepted good professional practices and procedures used in the Recipient's field.

Any costs for failure to meet the foregoing standard or to correct otherwise defective work that requires re-performance of the work, as directed by CAM, shall be borne in total by Recipient and not the Commission. The failure of a project to achieve the performance goals and objectives stated in the Work Statement is not

a basis for requesting re-performance unless the work conducted by Recipient and/or its subcontractors is deemed by the Commission to have failed the foregoing standard of performance.

In the event Recipient/subcontractor fails to perform in accordance with the above standard:

- Recipient/subcontractor will re-perform, at its own expense, any task which was not performed to the reasonable satisfaction of the CAM. Any work re-performed pursuant to this paragraph shall be completed within the time limitations originally set forth for the specific task involved. Recipient/subcontractor shall work any overtime required to meet the deadline for the task at no additional cost to the Commission;
- The Commission shall provide a new schedule for the re-performance of any task pursuant to this paragraph in the event that re-performance of a task within the original time limitations is not feasible; and
- The Commission shall have the option to direct Recipient/subcontractor not to re-perform any task which was not performed to the reasonable satisfaction of the CAM pursuant to application of (1) and (2) above. In the event the Commission directs Recipient/subcontractor not to re-perform a task, the Commission and Recipient shall negotiate a reasonable settlement for satisfactory work performed. No previous payment shall be considered a waiver of the Commission's right to reimbursement.

Nothing contained in this section is intended to limit any of the rights or remedies which the Commission may have under law.

17. Payment of Funds

The Energy Commission agrees to reimburse the Recipient for actual allowable expenditures incurred in accordance with the Budget. The rates in the Budget are rate caps, or the maximum amount allowed to be billed. The Recipient can only bill for actual expenses incurred at the Recipient's actual direct labor rate(s), fringe benefit rate(s), and indirect rate(s), not to exceed the rates specified in the Budget.

a. Payment Requests

The Recipient may request payment from the Commission at any time during the term of this Agreement although it is preferred that payment requests be submitted with the progress reports. The final payment request must be received by the Energy Commission along with the draft Final Report 60 days prior to the end of the Agreement term.

Payments will generally be made on a reimbursement basis for Recipient expenditures, i.e., after the Recipient has incurred the cost for a service, product, supplies, or other approved budget item. No reimbursement for food or beverages shall be made other than allowable per diem charges.

Funds in this Agreement have a limited period in which they must be expended. All Recipient expenditures must occur within the approved term of this Agreement.

b. Documentation

All payment requests must be submitted using a completed Payment Request form (Exhibit C, Attachment 1). This form must be accompanied by an itemized list of all charges and copies of all receipts or invoices necessary to document these charges for both Commission and match share, including backup documentation for actual expenditures, such as time cards, vendor invoices, and proof of payment. Any payment request that is submitted without the itemization will not be authorized. If the itemization or documentation is incomplete, inadequate, or inaccurate, the CAM will inform the Recipient and hold the invoice until all required information is received or corrected. Any penalties imposed on the Recipient by a subcontractor because of delays in payment will be paid by the Recipient.

Any documentation in foreign currency must be converted to dollars, and the conversion rate must be included in your itemization.

c. Certification

The following certification shall be included on each Payment Request form and signed by the Recipient's authorized officer:

I certify to the best of my knowledge and belief that this report is correct and complete and all outlays and obligations are for the purposes set forth in the funding Agreement and that the reimbursement of these costs has not and will not be received under other sources including, but not limited to, a Government Entity contract, subcontract or other procurement method.

d. Government Entity

Government Entity is defined as a governmental agency from California or any state or a state college or state university from California or any state; a local government entity or agency, including those created as a Joint Powers Authority; an auxiliary organization of the California State University or a California community college; the Federal Government; a foundation

organized to support the Board of Governors of the California Community Colleges or an auxiliary organization of the Student Aid Commission established under Education Code 69522.

e. Release of Funds

The CAM will not process any payment request during the Agreement term until the following conditions have been met:

- All required reports have been submitted and are satisfactory to the CAM.
- All applicable special conditions have been met.
- All appropriate permits or permit waivers from governmental agencies have been issued to the Recipient and copies have been received by the CAM.
- All products due have been submitted and are satisfactory to the CAM.
- Other prepayment conditions as may be required by the CAM have been met. Such conditions will be specified in writing ahead of time, if possible.

f. Fringe Benefits, Indirect Overhead, and General and Administrative (G&A),

Indirect cost rates must be developed in accordance with generally accepted accounting principles and the applicable OMB circulars or federal acquisition regulations. If the Recipient has an approved fringe benefits or indirect cost rate (indirect overhead or G&A) from their cognizant Federal Agency, the Recipient may bill at the federal rate up to the Budget rate caps if the following conditions are met:

- The Recipient may bill at the federal provisional rate but must adjust annually to reflect their actual final rates for the year in accordance with the Labor, Fringe, and Indirect Invoicing Instructions which can be accessed in this agreement.
- The cost pools used to develop the federal rates must be allocable to the Commission Agreement, and the rates must be representative of the portion of costs benefiting the Commission Agreement. For example, if the federal rate is for manufacturing overhead at the Recipient's manufacturing facility and the Commission Agreement is for research and development at their research facility, the federal indirect overhead rate would not be applicable to the Commission Agreement.

- The federal rate must be adjusted to exclude any costs that are specifically prohibited in the Commission Agreement.
- The Recipient may only bill up to the Agreement Budget rate caps unless and until an amendment to the Agreement Budget is approved.

g. Retention

It is the Commission's policy to retain 10 percent of any payment request or 10 percent of the total Commission award at the end of the project. After the project is complete the Recipient must submit a completed payment request form requesting release of the retention. The CAM will review the project file and, when satisfied that the terms of the funding Agreement have been fulfilled, will authorize release of the retention.

h. State Controller's Office

Payments are made by the State Controller's Office.

18. Fiscal Accounting Requirements

The Recipient shall review and comply with the administrative requirements outlined in the applicable sections of the OMB circulars and/or federal regulations incorporated as part of the funding Agreement. The OMB circulars and/or federal regulations are supplemented with the following requirements:

a. Accounting and Financial Methods

The Recipient shall establish a separate ledger account or fund for receipt and disbursement of Commission funds for each project funded by the Commission. Expenditure details must be maintained in accordance with the approved budget details using appropriate accounting practices.

b. Retention of Records

The Recipient shall retain all project records (including financial records, progress reports, and payment requests) for a minimum of three (3) years after the final payment has been received or three years after the federal grant term, whichever is later, unless otherwise specified in the funding Agreement.

Records for nonexpendable personal property acquired with grant funds shall be retained for three years after its final disposition or three years after the federal grant term, whichever is later.

c. Audits

Upon written request from the Commission, the Recipient shall provide detailed documentation of all expenses at any time throughout the project. In addition, the Recipient agrees to allow the Commission or any other agency of the State, or their designated representative, upon written request, to have reasonable access to and the right of inspection of all records that pertain to the project during the term of this Agreement and for a period of three (3) years thereafter or three years after the federal grant term, whichever is later, unless the Commission notifies the Recipient, prior to the expiration of such three-year period, that a longer period of record retention is necessary. Further, the Recipient agrees to incorporate an audit of this project within any scheduled audits, when specifically requested by the State. Recipient agrees to include a similar right to audit in any subcontract.

Recipients are strongly encouraged to conduct annual audits in accordance with the single audit concept. The Recipient should provide two copies of the independent audit report and any resulting comments and correspondence to the CAM within 30 days of the completion of such audits.

d. Cost or Match Share

If the grant Budget includes cost or match share under this Agreement, the Recipient agrees to be liable for the percentage of cost or match share identified in this Agreement of the total allowable project costs incurred even if the project is terminated early or is not funded to its completion.

Total allowable project cost is the sum of the Agreement share and Recipient share of the project costs. *Cost share* percentage is calculated by dividing Recipient cost share amount by the total allowable project cost. *Match share* percentage is calculated by dividing Recipient match share by the Agreement share of the project costs.

Failure to provide the minimum required cost or match share may result in the subsequent recovery of some or all of the funds provided under this Agreement.

The Recipient must maintain accounting records detailing the expenditure of the match (actual cash and in-kind services) and provide complete documentation of expenditures as described under "Payment of Funds."

19. Indemnification

The Recipient agrees to indemnify, defend, and save harmless the State, its officers, agents, and employees from any and all claims and losses accruing or resulting to Recipient and to any and all contractors, subcontractors, materialmen, laborers, and any other person, firm, or corporation furnishing or supplying work, services, materials, or supplies in connection with the performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm, or corporation who may be injured or damaged by the Recipient in the performance of this Agreement.

20. Disputes

In the event of a dispute or grievance between Recipient and the Commission regarding this Agreement, the following two-step procedure shall be followed by both parties. Recipient shall continue with responsibilities under this Agreement during any dispute.

a. Commission Dispute Resolution Level 1

The Recipient shall first discuss the problem informally with the CAM. If the problem cannot be resolved at this stage, the Recipient must direct the grievance together with any evidence, in writing, to the Commission Grants and Loans Officer. The grievance must state the issues in the dispute, the legal authority or other basis for the Recipient's position and the remedy sought. The Commission Grants and Loans Officer and the Program Office Manager must make a determination on the problem within ten (10) working days after receipt of the written communication from the Recipient. The Grants and Loans Officer shall respond in writing to the Recipient, indicating a decision supported by reasons. Should the Recipient disagree with the Grants and Loans Officer decision, the Recipient may appeal to the second level.

b. Commission Dispute Resolution Level 2

The Recipient must prepare a letter indicating why the Grants and Loans Officer's decision is unacceptable, attaching to it the Recipient's original statement of the dispute with supporting documents, along with a copy of the Grants and Loans Officer's response. This letter shall be sent to the Executive Director at the Commission within ten (10) working days from receipt of the Grants and Loans Officer's decision. The Executive Director or designee shall meet with the Recipient to review the issues raised. A written decision signed by the Executive Director or designee shall be returned to the Recipient within twenty (20) working days of receipt of the Recipient's letter. The Executive Director may exercise the option of presenting the decision to the Commission at a business meeting. Should the Recipient disagree with the Executive Director's decision, the Recipient

may appeal to the Commission at a regularly scheduled business meeting. Recipient will be provided with the current procedures for placing the appeal on a Commission Business Meeting Agenda.

21. Workers' Compensation Insurance

- a. Recipient hereby warrants that it carries Worker's Compensation Insurance for all of its employees who will be engaged in the performance of this Agreement, and agrees to furnish to the CAM satisfactory evidence of this insurance at any time the CAM may request.
- b. If Recipient is self-insured for worker's compensation, it hereby warrants such self-insurance is permissible under the laws of the State of California and agrees to furnish to the CAM satisfactory evidence of this insurance at any time the CAM may request.

22. General Provisions

a. Governing Law

It is hereby understood and agreed that this Agreement shall be governed by the laws of the State of California as to interpretation and performance.

b. Independent Capacity

The Recipient, and the agents and employees of the Recipient, in the performance of this Agreement, shall act in an independent capacity and not as officers or employees or agents of the Energy Commission.

c. Assignment

Without the written consent of the Commission in the form of a formal written amendment, this Agreement is not assignable or transferable by Recipient either in whole or in part.

d. Timeliness

Time is of the essence in this Agreement.

e. Unenforceable Provision

In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby.

f. Waiver

No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach. All remedies afforded in this Agreement shall be taken and construed as cumulative, that is, in addition to every other remedy provided therein or by law.

g. Assurances

The Commission reserves the right to seek further written assurances from the Recipient and its team that the work of the project under this Agreement will be performed consistent with the terms of the Agreement.

h. Change in Business

(1) Recipient shall promptly notify the Commission of the occurrence of each of the following:

- (a) A change of address.
- (b) A change in the business name or ownership.
- (c) The existence of any litigation or other legal proceeding affecting the project.
- (d) The occurrence of any casualty or other loss to project personnel, equipment or third parties of a type commonly covered by insurance.
- (e) Receipt of notice of any claim or potential claim against Recipient for patent, copyright, trademark, service mark and/or trade secret infringement that could affect the Commission's rights.

(2) Recipient shall not change or reorganize the type of business entity under which it does business except upon prior written notification to the Commission. A change of business entity or name change requires an amendment assigning or novating the Agreement to the changed entity. In the event the Commission is not satisfied that the new entity can perform as the original Recipient, the Commission may terminate this Agreement as provided in the termination paragraph.

i. Survival of Terms

It is understood and agreed that certain provisions shall survive the completion or termination date of this Agreement for any reason. The provisions include, but are not limited to:

- "Payments of Funds"
- "Equipment"
- "Change in Business"
- "Disputes"
- "Termination"
- "Audit"
- "Indemnification"
- "Fiscal Accounting Requirements"

23. Certifications and Compliance

a. Federal, State and Municipal Requirements

Recipient must obtain any required permits and shall comply with all applicable federal, State, and municipal laws, rules, codes, and regulations for work performed under this Agreement.

b. Nondiscrimination Statement of Compliance

During the performance of this Agreement, Recipient and its subcontractors shall not unlawfully discriminate, harass or allow harassment, against any employee or applicant for employment because of sex, sexual orientation, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, and denial of family care leave. Recipient and its subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free of such discrimination and harassment. Recipient and its subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code Sections 12990 et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are incorporated into this Agreement by reference and made a part of it as if set forth in full. Recipient and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

The Recipient shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under this Agreement.

c. Drug-Free Workplace Certification

By signing this Agreement, the Recipient hereby certifies under penalty of perjury under the laws of the State of California that the Recipient will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by taking the following actions:

- (1) Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations as required by Government Code Section 8355(a)(1).
- (2) Establish a Drug-Free Awareness Program as required by Government Code Section 8355(a)(2) to inform employees about all of the following:
 - The dangers of drug abuse in the workplace;
 - The person's or organization's policy of maintaining a drug-free workplace;
 - Any available counseling, rehabilitation, and employee assistance programs; and
 - Penalties that may be imposed upon employees for drug abuse violations.
- (3) Provide, as required by Government Code Section 8355(a)(3), that every employee who works on the proposed project:
 - Will receive a copy of the company's drug-free policy statement;
 - Will agree to abide by the terms of the company's statement as a condition of employment on the project.

Failure to comply with these requirements may result in suspension of payments under the Agreement or termination of the Agreement or both, and the Recipient may be ineligible for any future State awards if the Commission determines that any of the following has occurred: (1) the

Recipient has made false certification, or (2) violates the certification by failing to carry out the requirements as noted above.

d. Child Support Compliance Act (Applicable to California Employers)

For any Agreement in excess of \$100,000, the Recipient acknowledges that:

- It recognizes the importance of child and family support obligations and shall fully comply with all applicable State and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and
- To the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.

e. Americans with Disabilities Act

By signing this Agreement, Recipient assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990 (42 U.S.C. 12101, et seq.), which prohibits discrimination on the basis of disability, as well as applicable regulations and guidelines issued pursuant to the ADA.

24. Site Visits

The California Energy Commission and/or its designees have the right to make site visits at reasonable times to review project accomplishments and management control systems and to provide technical assistance, if required. Recipient must provide and must require subawardees to provide reasonable facilities and assistance for the safety and convenience of the government representatives in the performance of their duties. All site visits and evaluations must be performed in a manner that does not unduly interfere with or delay the work.

25. Confidentiality

A. Information Considered Confidential

Confidential information is information designated confidential pursuant to the procedures specified in 20 CCR 2505. If applicable, all Recipient information considered confidential at the commencement of this Agreement is designated in the Attachment to this Exhibit.

B. Confidential Deliverables: Labeling and Submitting Confidential Information

Prior to the commencement of this Agreement, if applicable, the parties have identified in the Attachment to this Exhibit, specific Confidential Information to be provided as a deliverable. All such confidential deliverables shall be marked, by the Recipient, as "Confidential" on each page of the document containing the Confidential Information and presented in a sealed package to the Commission Grants Officer. (Non-confidential deliverables are submitted to the Accounting Office.) All Confidential Information will be contained in the "confidential" volume: no Confidential Information will be in the "public" volume.

C. Submittal of Unanticipated Confidential Information as a Deliverable

The Recipient and the Energy Commission agree that during this Agreement, it is possible that the Recipient may develop additional data or information not originally anticipated as a confidential deliverable. In this case, Recipient shall follow the procedures for a request for designation of Confidential Information specified in 20 CCR 2505. The Energy Commission's Executive Director makes the determination of confidentiality. Such subsequent determinations may be added to the list of confidential deliverables in the Attachment to this Exhibit.

D. Disclosure of Confidential Information

Disclosure of Confidential Information by the Energy Commission may only be made pursuant to 20 CCR 2506 and 2507. All confidential data, records or deliverables that are legally disclosed by the Recipient or any other entity become public records and are no longer subject to the above confidentiality designation.

26. Budget Contingency Clause

It is mutually agreed that this Agreement shall be of no further force and effect if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the work identified in Exhibit A. In this event, the Energy Commission shall have no liability to pay any funds whatsoever to the Recipient or to furnish any other consideration under this Agreement, and the Recipient shall not be obligated to perform any provisions of this Agreement.

If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the Energy Commission shall have the option to either: 1) cancel this Agreement with no liability occurring to the Energy Commission; or 2) offer an Agreement Amendment to the Recipient to reflect the reduced amount.

Exhibit D

Special Terms and Conditions

1. Public Work -- Payment of Prevailing Wages Generally Required by Law

Projects that receive an award of public funds from the Energy Commission often involve construction, alteration, demolition, installation, repair or maintenance work over \$1,000.

NOTE: Therefore projects that receive an award of public funds from the Energy Commission are likely to be considered public works under the California Labor Code. See Chapter 1 of Part 7 of Division 2 of the California Labor Code, commencing with Section 1720 and Title 8, California Code of Regulations, Chapter 8, Subchapter 3, commencing with Section 16000.

Accordingly, the Energy Commission assumes that all projects it funds are public works. Projects deemed to be public works require among other things the payment of prevailing wages.

NOTE: Prevailing wage rates can be significantly higher than non-prevailing wage rates.

By accepting this grant, Recipient as a material term of this agreement shall be fully responsible for complying with all California public works requirements including but not limited to payment of prevailing wage. Therefore, as a material term of this grant, Recipient must either:

(a) Proceed on the assumption that the project is a public work and ensure that:

- (i) prevailing wages are paid; and
- (ii) the project budget for labor reflects these prevailing wage requirements; and
- (iii) the project complies with all other requirements of prevailing wage law including but not limited to keeping accurate payroll records, and complying with all working hour requirements and apprenticeship obligations;

or,

(b) Timely obtain a legally binding determination from DIR or a court of competent jurisdiction before work begins on the project that the proposed project is not a public work.

Exhibit D

Special Terms and Conditions

NOTE: Only the California Department of Industrial Relations (DIR) and courts of competent jurisdiction have jurisdiction to issue legally binding determinations that a particular project is or is not a public work.

If the Recipient is unsure whether the project receiving this award is a "public work" as defined in the California Labor Code, it may wish to seek a timely determination from the California Department of Industrial Relations (DIR) or an appropriate court.

NOTE: Such processes can be time consuming and therefore it may not be possible to obtain a timely determination before the date for performance of the award commences.

If the Recipient does not timely obtain a binding determination from DIR or a court of competent jurisdiction that the project is not a public work, before the grant agreement from the Commission is executed, the Recipient shall assume that the project is a public work and that payment of prevailing wages is required and shall pay prevailing wages unless and until such time as the project is subsequently determined to not be a public work by DIR or a court of competent jurisdiction.

NOTE: California Prevailing Wage law provides for substantial damages and financial penalties for failure to pay prevailing wages when payment of prevailing wages is required.

Subcontractors and Flow-down Requirements. Recipient shall ensure that its subcontractors, if any, also comply with above requirements with respect to public works/prevailing wage. Recipient shall ensure that all agreements with its contractors/subcontractors to perform work related to this Project contain the above terms regarding payment of prevailing wages on public works projects. Recipient shall be responsible for any failure of Recipient's subcontractors to comply with California prevailing wage and public works laws.

Indemnification and breach. Any failure of Recipient or its subcontractors to comply with the above requirements shall constitute a breach of this agreement that excuses the Commission's performance of this grant agreement at the Commission's option, and shall be at Recipient's sole risk. In such a case, Commission may refuse payment to Recipient of any amount under this award and Commission shall be released, at its option, from any further performance of this award or any portion thereof. By accepting this grant award, as a material term of this agreement, Recipient agrees to indemnify the Energy Commission and hold the Energy Commission harmless for any and all financial consequences arising out of or resulting from the failure of Recipient and/or any of Recipient's subcontractors to pay prevailing wages or to otherwise comply with the requirements of prevailing wage law.

Exhibit D

Special Terms and Conditions

Budget. Recipient's budget on public works projects must indicate which job classifications are subject to prevailing wage. For detailed information about prevailing wage and the process to determine if the proposed project is a public work, Recipient may wish to contact the California Department of Industrial Relations (DIR) or a qualified labor attorney of their choice for guidance.

Covered Trades. For public works projects, Recipient may contact DIR for a list of covered trades and the applicable prevailing wage.

Questions. If Recipient has any questions about this contractual requirement or the wage, record keeping, apprenticeship or other significant requirements of California prevailing wage law, it is recommended that Recipient consult DIR and/or a qualified labor attorney of its choice before accepting the award for this grant.

Certification. Recipient shall certify to the Energy Commission on each Payment Request Form, either that (a) prevailing wages were paid to eligible workers who provided labor for work covered by the payment request and that the Recipient and all contractors and subcontractors otherwise complied with all California prevailing wage laws, or (b) that the project is not a public work requiring the payment of prevailing wages. In the latter case, Recipient shall provide competent proof of a DIR or court determination that the project is not a public work requiring the payment of prevailing wages.

Prior to the release of any retained funds under this Agreement, the Recipient shall submit to the Energy Commission the above-described certificate signed by the Recipient and all contractors and subcontractors performing public works activities on the project. Absent such certificate, Recipient shall have no right to any funds under this grant, and Commission shall be relieved of any obligation to pay said funds.

2. Funding Restrictions

- A. **Applicability of Funding Restrictions:** Recipients are required to comply with all regulations applicable to the ARFVT program. The following funding restrictions are based on the Energy Commission's current regulation found at Title 20, California Code of Regulations, section 3103, as of November 2012. Recipients should note that the following item was approved at the November 14, 2012 Business Meeting:

ALTERNATIVE AND RENEWABLE FUEL AND VEHICLE TECHNOLOGY PROGRAM REGULATIONS. Possible approval of proposed rulemaking proceeding to consider possible revision of Section 3103 of the Alternative and Renewable Fuel and Vehicle Technology (ARFVTP) Program regulations. (Title 20, California Code of Regulations, Section 3103.) This includes but is not limited to consideration of possible elimination of

Exhibit D

Special Terms and Conditions

the Low Carbon Fuel Standard credit discount provisions set forth in subsection (b) of the regulation, as well as possible revisions to Subsection (a) of the regulation.

If the rulemaking proceeding results in any changes, revision or elimination of all or any portion of current Regulation 3103, the following funding restrictions shall automatically become inapplicable to the extent they are inconsistent with the new regulation. If Regulation 3103 does not change, then the following funding restrictions shall continue to be fully applicable as provided below.

- B. If Recipient is an obligated party under either the California Low Carbon Fuel Standard (17 CCR 95480-95490) (LCFS) or initiatives under Assembly Bill 32 (17 CCR 95800-96023) (AB 32), Recipient may only receive funding for the portion of the project that exceeds what is required for compliance with the applicable performance requirement. For purposes of this Agreement, an "obligated party" is one that is required to meet a performance standard under the LCFS or AB 32 initiatives.
- C. If Recipient is an obligated party under the LCFS or AB 32 or if Recipient "opts in" to either program before or during the Agreement term, Recipient agrees that if it transfers credits during the term of the Agreement or for a period of three years thereafter, it will do so at a discounted value in proportion to the funding received from the Energy Commission for the project, according to the following formula:

(Fair market value of credits) X (1 – [Commission Share/Total Facility Costs]),

where "Total Facility Costs" includes the Commission share plus all costs incurred for the grant funded project, even if not counted as match share (such as data collection, operation and maintenance costs, feedstock costs, etc.), and any prior investments related to the production of fuel from the project.

This requirement applies only to credits generated by the project during the term of the Agreement.

- D. If, during the term of the Agreement or for a period of three years thereafter, the Recipient transfers credits generated by the project during the term of the agreement, the Recipient shall submit a report to the Energy Commission that demonstrates that the value of the credit was discounted in proportion to the funding received by the Energy Commission. The report shall include:
- The Recipient's name and Grant Agreement number,

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Special Terms and Conditions

- The percentage of Commission funds to Recipient funds expended during the grant agreement,
 - The amount of fuel produced and credits generated during the term of the Agreement,
 - The fair market value of the credits at the time of transfer, including a justification of that fair market value,
 - The negotiated value of the credits at the time of transfer (must be at least reduced from the fair market value by the percentage of Commission funds received),
 - Any additional information as specified in writing in advance by the CAM.
- E. **If Recipient violates this term, the Commission may, without prejudice to any of its legal remedies, require the Recipient to repay the project funds in proportion to the value of the credits transferred in violation of this provision, remove the Recipient from eligibility for Alternative and Renewable Fuel and Vehicle Technology Program funding and/or bring a debarment action to preclude future incentives and awards.**
- F. This term survives the end of the Agreement for any reason.

3. Intellectual Property

- A. The Energy Commission makes no claim to intellectual property developed under this Agreement that is not specified for delivery, except as expressly provided herein.

EXHIBIT E
Contacts

<p>Commission Project Manager:</p> <p>Bill Kinney California Energy Commission 1516 Ninth Street, MS-27 Sacramento, CA 95814 Phone: (916) 654-4774 Fax: (916) 654-4753 e-mail: bill.kinney@energy.ca.gov</p>	<p>Recipient Project Manager:</p> <p>James R Tischer Mendota Bioenergy, LLC 863 Tufts Ct. Woodland, CA 95695 Phone: (559) 260-6148 E-mail: jtischer@mendotabeetenergy.com jtischer@csufresno.edu</p>
<p>Commission Grant's Officer:</p> <p>Cory Irish California Energy Commission 1516 Ninth Street, MS-18 Sacramento, CA 95814 Phone: (916) 654-4739 Fax: (916) 654-4423 e-mail: cory.irish@energy.ca.gov</p>	<p>Recipient Administrator:</p> <p>Ms. Ellen Suryadi Fresno State 6014 N. Cedar Ave. Fresno, CA 93710 Phone: (559) 278-2066 Fax: (559) 278-6033 E-mail: esuryadi@csufresno.edu</p>
<p>Commission Accounting Officer:</p> <p>Kathleen Jones California Energy Commission 1516 Ninth Street, MS-2 Sacramento, CA 95814 Phone: (916) 654-4377 Fax: (916) 653-1435 e-mail: Kathleen.Jones@energy.ca.gov</p>	<p>Recipient Accounting Officer:</p> <p>Ms. Ellen Suryadi Fresno State 6014 N. Cedar Ave. Fresno, CA 93710 Phone: (559) 278-2066 Fax: (559) 278-6033 E-mail: esuryadi@csufresno.edu</p>
<p>Commission Legal Notice:</p> <p>Tatyana Yakshina, Manager Contracts, Grants & Loans Office 1516 9th Street, MS-18 Sacramento, CA 95814 Phone: (916) 654-4204 Fax: (916) 654-4423 e-mail: tatyana.yakshina@energy.ca.gov</p>	<p>Recipient legal:</p> <p>Matt Hoffman, Esq. Baker, Manock & Jensen PC 5260 N. Palm Ave. Suite 421 Fresno, CA 93704 Phone: (559) 432-5400 Fax: (559) 432-5620 E-mail: MHoffman@bakermanock.com</p>

EXHIBIT F Definitions

1. **Affiliate of the Recipient** means any natural person, corporation, partnership, joint venture, sole proprietorship or other business entity directly or indirectly through one or more intermediaries, controlling, controlled by, or under common control with the Recipient. The term "control" (including the terms "controlled by" and "under common control with") means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person, whether through the ownership of voting securities, by agreement, or otherwise. For purposes of this Agreement, it is presumed that ownership or control of the voting power of more than fifty percent (50%) of the voting stock or partnership interests in an entity constitutes control of that entity.
2. **Agreement Period** is the length of this Agreement between the Energy Commission and the Recipient. The Recipient's Project may coincide with or extend outside the Agreement Period.
3. **Confidential Information** is information Recipient has submitted to the Energy Commission and has satisfactorily identified and which the Energy Commission has agreed to designate as confidential pursuant to Title 20 CCR 2501 and following (and amendments).
4. **Economic Benefit** for a Project co-funded using Energy Commission funds means the realization of economic gain or other tangible benefits by the Recipient or Affiliate of the Recipient (except bona fide third party purchasers of Recipient's commercial products) through the use of Project-Related Products and Rights, including but not limited to, operation, sale, distribution or manufacturing; or by any other transaction, including but not limited to, grant, rent, loan, equity, option, transfer, license or other fee; or by Otherwise Disposing of the Project-Related Products and Rights. The Energy Commission may rely upon professional accounting opinion in making a final determination of the dollar value of Gross Revenues, and such determination shall be the basis for calculating the royalty payment due the Energy Commission.
5. **Equipment** is defined as having a useful life of at least one year, having an acquisition unit cost of at least \$5,000, and purchased with Energy Commission funds. Equipment means any products, objects, machinery, apparatus, implements or tools purchased, used or constructed within the Project, including those products, objects, machinery, apparatus, implements or tools from which over thirty percent (30%) of the equipment is composed of Materials purchased for the Project. For purposes of determining depreciated value of equipment used in the Agreement, the Project shall terminate at the end of the normal useful life of the equipment purchased, funded and/or developed with Energy Commission funds. The Energy Commission may determine the normal useful life of such equipment.

6. **Gross Revenues** means the gross Sales Price, rentals and other amounts received by Recipient from or on account of the Sale, lease, or other transfer or use of Project-Related Products and Rights, less sales tax paid. Gross Revenues shall be determined as above and in accordance with appropriate Federal cost principles and any Economic Benefit.
7. **Match Funds** means cash or in-kind (non-cash) contributions provided by Recipient, subcontractors or other parties that will be used in performance of this Agreement.
8. **Materials** means the substances used in constructing a finished object, commodity, device, article or product.
9. **Otherwise Disposing Of** means (1) Project-Related Products and Rights not sold but delivered by the Recipient or Affiliate of the Recipient to others regardless of the basis for compensation, if any; and (2) Project-Related Products and Rights put into use by the Recipient or any third party for any purpose other than testing or evaluation of the Project-Related Products and Rights.
10. **Project** refers to the entire effort undertaken and planned by the Recipient and consisting of the work co-funded by the Energy Commission. The project may coincide with or extend beyond the Agreement Term.
11. **Project-Related Products and Rights** means any and all inventions, discoveries, machines, designs, computer software, products, devices, mechanisms, methods, protocols, processes, algorithms, flowcharts, diagrams, trade secrets, data, copyrights, patents, trademarks, proprietary rights, and the like created or made or discovered or first reduced to practice by the Recipient or other third party as a result, in whole or in part, of the Agreement award(s) and any and all updates, revisions, modification, enhancements, derivations, variations, additions, continuations, renewals, and extensions thereto and all proceeds and products therefrom.
12. **Sale** is sale, license, lease, gift or other transfer of Project-Related Product and Rights.
13. **Sales Price** means Gross Revenues, excluding normal returns and allowances such as sales tax, freight and insurance, if applicable, derived from a Sale.
14. **Subject Invention** means any and all invention or discovery conceived, or first actually reduced to practice in the course of or under the Energy Commission-funded portion of this Agreement (i.e., that portion of this Agreement for which Recipient has invoiced the Energy Commission and received reimbursement) and includes any art, method, process, machine, manufacture design or composition of matter, or any new and useful improvement thereof, whether patented or

unpatented, under the patent laws of the United States of America or any foreign country.

15. **Technology** refers to the general subject area where the product or innovation will be used. For example, solar thermal electric generation is a Technology area; direct steam generation is an innovation in this Technology area.

Terms Relating to Data

16. **Technical Data** or **Data** as used throughout this Agreement means recorded information regardless of form or characteristic, of a scientific or technical nature and used in the performance of this Agreement. It may, for example, document research; document experimental, developmental, demonstration, or engineering work; or be usable or used to define a design or process; or to procure, produce, support, maintain, or operate material. The data may be graphic or pictorial delineations in media such as drawings or photographs, test specifications or related performance or design type documents or computer software (including computer programs, computer software data bases, and computer software documentation). Examples of Technical Data include manufacturing techniques and methods, machinery, devices such as tools, products, or components, research and engineering data, engineering drawings and associated lists, specifications, engineering calculations, standards, process sheets, manuals, technical reports, catalog item identification, and related information. Technical Data as used herein does not include financial reports, cost analyses and other information incidental to administration of this Agreement.
17. **Proprietary Data** is such data as Recipient has identified in a satisfactory manner as being under Recipient's control prior to commencement of performance of this Agreement, and which Recipient has reasonably demonstrated as being of a proprietary nature either by reason of copyright, patent or trade secret doctrines in full force and effect at the time when performance of this Agreement is commenced. Proprietary Data also includes data of a proprietary nature produced during the course of this Agreement that is produced by Recipient or its subcontractors at their own expense.
18. **Generated Data** is that data that the Recipient collects, collates, records, deduces, reads out or postulates for use in the performance of this Agreement. In addition, any electronic data processing program, model or software system developed or substantially modified by the Recipient in the performance of this Agreement at Energy Commission expense, together with complete documentation thereof, shall be treated as Generated Data.
19. **Product Data** is that data which, under the terms of this Agreement, is required to be delivered to the Energy Commission.

20.A **Trade Secret** is any formula, plan, pattern, process, tool, mechanism, compound, procedure, production data, or compilation of information which is not patented and which is generally known only to certain individuals with a commercial concern and are using it to fabricate, produce or compound an article of trade or a service having commercial value and which gives its user an opportunity to obtain a business advantage over competitors who do not know or use it.

RESOLUTION NO: 13-0228-5

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: Mendota Bioenergy, LLC

RESOLVED, that the State Energy Resources Conservation and Development Commission (Energy Commission) approves Grant Agreement ARV-12-033 for \$4,998,399 with Mendota Bioenergy, LLC to design, construct, and operate the Advanced Biorefinery Center-Mendota Integrated Demonstration Plant. The project includes a 12-month harvest plan for 10,000 tons of energy beets and advanced enzyme and microbial conversion of the feedstock to 285,000 gallons of 200-proof advanced biofuel ethanol.

FURTHER BE IT RESOLVED, that this document authorizes the Executive Director to execute the same on behalf of the Energy Commission.

CERTIFICATION

The undersigned Secretary to the Commission does hereby certify that the foregoing is a full, true and correct copy of a Resolution duly and regularly adopted at a meeting of the California Energy Commission held on February 28, 2013.

AYE: Weisenmiller, Douglas, McAllister, Hochschild

NAY: None

ABSENT: None

ABSTAIN: None


HARRIET KALLEMEYN
Secretariat