

GRANT REQUEST FORM (GRF)

CEC-270 (Revised 10/2015)

CALIFORNIA ENERGY COMMISSION

New Agreement ARV-18-018 (To be completed by CGL Office)

Division	Agreement Manager:	MS-	Phone
600 Fuels and Transportation Division	Micah Wofford	6	916-653-8685

Recipient's Legal Name	Federal ID Number
Oberon Fuels, Inc.	27-3934627

Title of Project
Renewable DME: Pathway to Zero Emission Vehicles

Term and Amount	Start Date	End Date	Amount
	5 / 22 / 2019	3 / 30 / 2021	\$ 2,876,139

Business Meeting Information

<input type="checkbox"/> ARFVTP agreements \$75K and under delegated to Executive Director.			
Proposed Business Meeting Date	05 / 15 / 2019	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
Business Meeting Presenter	Micah Wofford	Time Needed:	5 minutes
Please select one list serve. Altfuels (AB118- ARFVTP)			

Agenda Item Subject and Description

OBERON FUELS, INC. Proposed resolution adopting California Environmental Quality Act findings for Oberon Fuel's "Renewable DME: Pathway to Zero-Emission Vehicles" Project, and approving Agreement ARV-18-018 with Oberon Fuels, Inc. for a \$2,876,139 grant to scale up and modify the existing Oberon Fuels dimethyl-ether pilot production plant in Brawley, California.

a. CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS. Findings that, based on Imperial County Planning and Development Services Department's (the lead agency) Initial Study and Mitigated Negative Declaration, additional information about project modifications, and the lead agency's environmental review of the additional project information, the work under the proposed grant project presents no new significant or substantially more severe environmental impacts beyond those already considered and mitigated.

b. OBERON FUELS, INC.'S RENEWABLE DME: PATHWAY TO ZERO-EMISSION VEHICLES PROJECT. Agreement ARV-18-018 with Oberon Fuels, Inc. for a \$2,876,139 grant to scale up and modify the existing Oberon Fuels dimethyl-ether (DME) pilot production plant in Brawley, California. The plant will have a target DME production capacity of approximately 1.56 million gallons of DME per year (equivalent to 830,000 gallons of diesel per year), with an expected carbon intensity of 21.6 grams carbon dioxide equivalent per megajoule.

California Environmental Quality Act (CEQA) Compliance

- Is Agreement considered a "Project" under CEQA?

☒ Yes (skip to question 2)
 ☐ No (complete the following (PRC 21065 and 14 CCR 15378)):

Explain why Agreement is not considered a "Project":
 Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because _____.
- If Agreement is considered a "Project" under CEQA:

☐ a) Agreement **IS** exempt. (Attach draft NOE)

☐ Statutory Exemption. List PRC and/or CCR section number: _____
 ☐ Categorical Exemption. List CCR section number: _____
 ☐ Common Sense Exemption. 14 CCR 15061 (b) (3)

Explain reason why Agreement is exempt under the above section: _____

☒ b) Agreement **IS NOT** exempt. (Consult with the legal office to determine next steps.)

Check all that apply

☒ Initial Study
 ☐ Environmental Impact Report

☐ Negative Declaration
 ☐ Statement of Overriding Considerations

☒ Mitigated Negative Declaration

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

Legal Company Name:	Budget
PMCCA, Inc.	\$ 466,810
Dynaletric Company	\$ 173,525
Roddey Engineering Services, Inc.	\$ 279,040

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

Legal Company Name:

Alberta Pacific Forest Industries, Inc.

EFR Environmental Services, Inc.

Budget Information

Funding Source	Funding Year of Appropriation	Budget List No.	Amount
ARFVTP	2017-2018		\$2,876,139
Funding Source			\$
Funding Source			\$
Funding Source			\$
Funding Source			\$
R&D Program Area: N/A		TOTAL:	\$2,876,139
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

Recipient's Administrator/ Officer

Name: Mr. Elliot Hicks

Address: 2159 India Street

City, State, Zip: San Diego, CA 92101

Phone: 619-756-6461 Fax: 619-756-6470

E-Mail: elliot@oberonfuels.com

Recipient's Project Manager

Name: Ms. Alycia Gilde

Address: 48 S Chester Ave

City, State, Zip: Pasadena, CA 91106

Phone: 626-744-5613 Fax: 619-756-6470

E-Mail: agilde@calstart.org

Selection Process Used☒ Competitive Solicitation☐ First Come First Served Solicitation

Solicitation #: GFO-18-602

The following items should be attached to this GRF

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

Agreement Manager

Date

Office Manager

Date

Deputy Director

Date

List all subcontractors (major and minor) and equipment vendors: <i>Additional Sheet</i>	
Legal Company Name:	Budget
CALSTART, Inc.	\$ 150,000
Parafour Innovations, LLC	\$ 0 (match)
Prins Autogassystemen B.V.	\$ 0 (match)
North American Institute of Technology	\$ 25,000

List all key partners: <i>Additional Sheet</i>
Legal Company Name:
EXT LLC (Subsidiary of El Toro Exports)
Martin Transport

Exhibit A SCOPE OF WORK

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2	X	Scale Up DME Plant from Pilot to Demonstration
3		Test DME Production Using Renewable Methanol Feedstock
4	X	DME Fuel Stations Installation, Operation and Training
5	X	Build DME Trucks
6		DME Truck Field Testing
7		Data Collection and Analysis

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Oberon Fuels, Inc.		
2	Oberon Fuels, Inc.		
3	Oberon Fuels, Inc.		Alberta Pacific Forest Industries, Inc.
4	Oberon Fuels, Inc.		
5	Oberon Fuels, Inc.		Prins Autogassystemen B.V.

GLOSSARY

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

Term/ Acronym	Definition
ARFVTP	Alternative and Renewable Fuel and Vehicle Technology Program
BOM	Bill of Materials
CAM	Commission Agreement Manager
CPR	Critical Project Review
DME	Dimethyl Ether
FTD	Fuels and Transportation Division
HAZOP	Hazard and Operability Study
rDME	Renewable Dimethyl Ether
Recipient	Oberon Fuels, Inc.

Background

Assembly Bill (AB) 118 (Núñez, Chapter 750, Statutes of 2007), created the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP). The statute authorizes the California Energy Commission (Energy Commission) to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state's climate change, clean air, and alternative energy policies. AB 8 (Perea, Chapter 401, Statutes of 2013) re-authorizes the ARFVTP through January 1, 2024. The ARFVTP has an annual budget of approximately \$100 million and provides financial support for projects that:

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

The Energy Commission issued solicitation GFO-18-602 for demonstration-scale advanced biofuels production facilities. To be eligible for funding under solicitation GFO-18-602 (the "Solicitation"), projects must also be consistent with the Energy Commission's ARFVTP Investment Plan, updated annually. In response to GFO-18-602, Oberon Fuels, Inc. (Recipient) submitted application 5, which was proposed for funding in the Energy Commission's Notice of Proposed Awards on January 18, 2019. The Solicitation documents and Recipient's aforementioned applications are hereby incorporated by reference into this Agreement in their entirety.

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

Problem Statement:

Oberon's methanol-to-dimethyl ether (DME) pilot plant was completed in 2013 and provided DME fuel for market development projects as well as valuable operational data. Utilizing a catalytic distillation column, the methanol-to-DME plant was the first of its kind. Based on the pilot operation, the project team identified modifications that would significantly increase the throughput rate of the process.

Funds from this grant application will be used to implement the process modifications, resulting in improved economics for small-scale DME production from a variety of feedstocks, including renewable methanol from pulp and paper mills, and biogas from dairy manure. This will enable to roll-out of multiple plants based on this design, producing renewable DME (rDME) to displace diesel and supply the hydrogen transportation fuel market.

Goals of the Agreement:

The goals of this Agreement are to:

1. Demonstrate the technical, economic, and market viability of rDME as a California-produced, low-carbon, diesel replacement and a pathway for renewable hydrogen, by building and testing a DME supply chain: fuel production, distribution, fueling infrastructure, and fleet utilization.

2. Scale-up the Oberon Fuels pilot DME production plant to operate at a capacity and an efficiency level suitable for ongoing commercial operation.
3. Demonstrate the cost-effectiveness, performance, and ease of operation of DME vehicles and fueling infrastructure.

Objectives of the Agreement:

The objectives of this Agreement are to:

1. Increase the stable production capacity of the Oberon process by 100% (from about 2,250 gallons/day to 4,500 gallons/day).
2. Determine the technical feasibility of converting renewable methanol from the Kraft pulping process to DME.
3. Calculate the capital and operating costs of converting this renewable methanol stream to rDME via the Oberon catalytic distillation process.
4. Build 2 DME fueling stations in the Imperial Valley region to support DME vehicle trials.
5. Convert 5 diesel-powered trucks to run on 100% DME with the Prins/Westport DME conversion system.
6. Evaluate capital and operating costs of Prins/Westport 100% DME conversion system.
7. Evaluate the performance of these vehicles based on qualitative and quantitative performance variables (power, noise, fuel efficiency, emissions), fueling logistics, maintenance requirements, and driver feedback.

TASK 1 ADMINISTRATION

Task 1.1 Attend Kick-off Meeting

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

The Recipient shall:

- Attend a “Kick-Off” meeting with the Commission Agreement 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 Agreement Manager to this meeting.
- Discuss the following administrative and technical aspects of this Agreement:
 - Agreement Terms and Conditions
 - Critical Project Review (Task 1.2)
 - Match fund documentation (Task 1.6) No reimbursable work may be done until this documentation is in place.
 - Permit documentation (Task 1.7)
 - Subcontracts needed to carry out project (Task 1.8)
 - The CAM’s expectations for accomplishing tasks described in the Scope of Work
 - An updated Schedule of Products and Due Dates
 - Monthly Progress Reports (Task 1.4)
 - Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
 - Final Report (Task 1.5)

Recipient Products:

- Updated Schedule of Products

- Updated List of Match Funds
- Updated List of Permits

Commission Agreement Manager Product:

- Kick-Off Meeting Agenda

Task 1.2 Critical Project Review (CPR) Meetings

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

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

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

The CAM shall:

- Determine the location, date, and time of each CPR meeting with the Recipient. These meetings generally take place at the Energy Commission, but they may take place at another location.
- Send the Recipient the agenda and a list of expected participants in advance of each CPR. If applicable, the agenda shall include a discussion on both match funding and permits.
- Conduct and make a record of each CPR meeting. Prepare a schedule for providing the written determination described below.
- Determine whether to continue the project, and if continuing, whether or not modifications are needed to the tasks, schedule, products, and/or budget for the remainder of the Agreement. Modifications to the Agreement may require a formal amendment (please see section 8 of the Terms and Conditions). If the CAM concludes that satisfactory progress is not being made, this conclusion will be referred to the Lead Commissioner for Transportation for his or her concurrence.
- Provide the Recipient with a written determination in accordance with the schedule. The written response may include a requirement for the Recipient to revise one or more product(s) that were included in the CPR.

The Recipient shall:

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

CAM Products:

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

Recipient Product:

- CPR Report(s)

Task 1.3 Final Meeting

The goal of this task is to closeout this Agreement.

The Recipient shall:

- Meet with Energy Commission staff to present the findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement.
This meeting will be attended by, at a minimum, the Recipient, the Commission Grants Office Officer, and the Commission Agreement Manager. The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be two separate meetings at the discretion of the Commission Agreement Manager.
The technical portion of the meeting shall present an assessment of the degree to which project and task goals and objectives were achieved, findings, conclusions, recommended next steps (if any) for the Agreement, and recommendations for improvements. The Commission Agreement Manager will determine the appropriate meeting participants.
The administrative portion of the meeting shall be a discussion with the Commission Agreement Manager and the Grants Officer about the following Agreement closeout items:
 - What to do with any equipment purchased with Energy Commission funds (Options)
 - Energy Commission's request for specific "generated" data (not already provided in Agreement products)
 - Need to document Recipient's disclosure of "subject inventions" developed under the Agreement
 - "Surviving" Agreement provisions
 - Final invoicing and release of retention
- Prepare a schedule for completing the closeout activities for this Agreement.

Products:

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

Task 1.4 Monthly Progress Reports

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

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

The Recipient shall:

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

Product:

- Monthly Progress Reports

Task 1.5 Final Report

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

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

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

The Recipient shall:

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

Products:

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

- Final Report

Task 1.6 Identify and Obtain Matching Funds

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

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

The Recipient shall:

- Prepare a letter documenting the match funding committed to this Agreement and submit it to the Commission Agreement Manager at least 2 working days prior to the kick-off meeting. If no match funds were part of the proposal that led to the Energy Commission awarding this Agreement and none have been identified at the time this Agreement starts, then state such in the letter. If match funds were a part of the proposal that led to the Energy Commission awarding this Agreement, then provide in the letter a list of the match funds that identifies the:
 - Amount of each cash match fund, its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied.
 - Amount of each in-kind contribution, a description, documented market or book value, and its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Recipient shall identify its owner and provide a contact name, address and telephone number, and the address where the property is located.
- Provide a copy of the letter of commitment from an authorized representative of each source of cash match funding or in-kind contributions that these funds or contributions have been secured. For match funds provided by a grant a copy of the executed grant shall be submitted in place of a letter of commitment.
- Discuss match funds and the implications to the Agreement if they are reduced or not obtained as committed, at the kick-off meeting. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.
- Provide the appropriate information to the Commission Agreement Manager if during the course of the Agreement additional match funds are received.
- Notify the Commission Agreement Manager within 10 days if during the course of the Agreement existing match funds are reduced. Reduction in match funds must be approved through a formal amendment to the Agreement and may trigger an additional CPR meeting.

Products:

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

- Letter(s) for new match funds (if applicable)
- Letter that match funds were reduced (if applicable)

Task 1.7 Identify and Obtain Required Permits

The goal of this task is to obtain all permits required for work completed under this Agreement in advance of the date they are needed to keep the Agreement schedule on track.

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

The Recipient shall:

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

Products:

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

Task 1.8 Obtain and Execute Subcontracts

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

The Recipient shall:

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

Products:

- Draft subcontracts
- Final subcontracts

TECHNICAL TASKS

TASK 2 SCALE UP DME PLANT FROM PILOT TO DEMONSTRATION

The goal of this task is to implement design modifications based on the pilot operation of the plant that will increase the sustainable DME production rate, improve operational stability, and accommodate renewable methanol feedstocks.

Regarding modifying the existing DME plant, adding fuel dispensers, and undertaking the field trial (i.e., the entire grant project), Recipient promises to the Energy Commission (and promises independently of any obligations to Imperial County) to abide by all of the terms and conditions of the "Agreement for Conditional Use Permit #12-0014, Oberon Fuels (APN 037-070-013-000) (Approved by Planning Commission on January 09, 2013)," between Imperial County Planning & Development Services Department and Oberon Fuels, Inc. ("hereafter CUP agreement"). Further, Recipient agrees to promptly send to the Energy Commission copies of all correspondence and reports between (i.e., both directions) Oberon Fuels, Inc. and the Imperial County Planning & Development Services Department related to the CUP agreement and the associated Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program. These correspondence and reports shall include without limitation, reporting under CUP agreement sections G-12 (Reports/Information), G-16 (Non-compliance), G-18 (Permits of other agencies incorporated [into the CUP agreement]), and S-13 (Reporting). Recipient shall send such copies of correspondence and reports to the Commission Agreement Manager in a manner indicated by the CAM, to be decided in the CAM's sole discretion.

The Recipient shall:

- Engineer a design package that addresses the requirements identified in the goal and provides instruction for the construction contractors to implement the changes. The design package will include:
 - Reconfiguration of the internal structure and piping feed for the catalytic distillation column.

- Automated pressure control loop.
- Pretreatment system for removing sulfur species from the renewable methanol feedstock.
- Inline sampling and measurement system for feedstock and product purity and critical contaminants.
- Material handling equipment to allow for the delivery of methanol feedstock by rail car or ISO container.
- A bill of materials (BOM) needed to implement the changes.
- Conduct a hazard and operability study (HAZOP) review of the design to ensure the implemented process is safe to operate.
- Update permitting authorities based on final design specifications.
- Procure pressure vessels, catalyst, instrumentation, and other outsourced components necessary for construction as specified in the design package BOM.
- Install the modifications and commission the modified plant.
- Establish baseline operating performance utilizing commodity grade methanol.
- Measure maximum sustainable throughput rate and required operator overrides to the autonomous control loop.
- Complete a Scale-up Operational Performance Report.

Products:

- Design Package
- HAZOP report
- Scale-up Operational Performance Report

[CPR WILL OCCUR DURING THIS TASK. See Task 1.2 for details.]

TASK 3 TEST DME PRODUCTION USING RENEWABLE METHANOL FEEDSTOCK

The goal of this task is to operate the DME plant with renewable methanol sourced from the Kraft pulp and paper process and assess the cost and performance impacts relative to commodity grade methanol.

The Recipient shall:

- Take delivery of renewable methanol and test composition for levels of sulfur species. Produce Methanol Testing Log.
- Process methanol through the pretreatment step and retest composition for levels of sulfur species. Produce Product DME Testing Log.
- Operate DME production process with renewable methanol for a minimum of 500 hours. Complete Operational Test Report including:
 - Impacts on throughput rate
 - Product DME composition relative to ASTM specification
 - Plant uptime
 - Process operating conditions

Products:

- Methanol Testing Log
- Product DME Testing Log
- Operational Test Report

TASK 4 DME FUEL STATION INSTALLATION, OPERATION & TRAINING

The goals of this task are to complete the planning and installation of two fueling terminals and verify proper operations and readiness to support the field-testing. This task also includes providing the training and materials necessary to ensure safe and reliable operation of the fuel terminal and fuel.

The Recipient shall:

- Determine key fuel station requirements (e.g. storage tank size, number of pumps, etc.) and prepare Station Specification Report.
- Perform final site selections to best serve the operational duty cycle and drive schedules in the demonstration.
- Review plans and documents for final design, installation, testing and validation of DME fueling terminals.
- Manufacture, assemble, integrate, and build the DME fueling stations.
- Conduct tests, certifications, and validations to ensure reliable and safe operation of installed fueling stations.
- Commission stations. Prepare Written Summary of Station Commissioning Process.
- Develop training materials, and provide training in safe operation of the fueling terminal to attendants, operators, drivers, and emergency responders (police, fire, paramedics) as determined by the fleet demonstrator.
- Ensure the delivered fuel product is free of contaminants and complies with ASTM D7901 standard.

Products:

- Station Specification Report
- Photographs of Construction Progress and Station Installation
- Written Summary of Station Commissioning Process
- Training Materials

[CPR WILL OCCUR DURING THIS TASK. See Task 1.2 for details.]

TASK 5 BUILD DME TRUCKS

The goal of this task is to convert five class 8 diesel trucks to operate on 100% DME while performing in real world duty cycles with fleet partners in the Imperial Valley.

The Recipient shall:

- Review and plan functional requirements, duty cycle and drive schedules, and identify and prepare a Vehicle Specification for Conversion.
- Develop a DME fuel system conversion kit sized and packaged to fit on the specified diesel truck. The DME fuel system will be comprised of fuel tanks, fuel pump, injectors, hoses, and an engine control unit.
- Reconfigure the trucks by removing the existing diesel fuel system and diesel particulate trap and installing the DME fuel system conversion kit.
- Optimize engine management software for operation on 100% DME fuel.
- Ensure that converted trucks are roadworthy vehicles that meet existing safety and performance benchmarks.
- Validate that the trucks delivered to the fleet partners have the required features

- necessary for successful customer operation.
- Develop a DME Fuel System Conversion Kit Cost Estimate for commercial production and installation of DME fuel system conversion kits.
- Create a DME Fuel System Installation Guide and DME Fuel System Service Manual to train technicians and operators working with the DME fuel system.

Products:

- Vehicle Specification for Conversion
- DME Fuel System Conversion Kit Cost Estimate
- DME Fuel System Installation Guide
- DME Fuel System Service Manual
- Photographs of Five Trucks Converted to Operate on 100% DME

[CPR WILL OCCUR DURING THIS TASK. See Task 1.2 for details.]

TASK 6 DME TRUCK FIELD TESTING

The goal of this task is to operate the DME trucks in regional haul applications with Imperial Valley based trucking fleets, covering routes typically performed by diesel trucks.

The Recipient shall:

- Deploy five DME trucks into regular operations with the fleet partners in Imperial Valley.
- Maintain a minimum 90% up-time for demonstration vehicles
- Coordinate with a local maintenance shop to provide support work on demonstration vehicles. Train service technicians in the handling of DME and the service procedures for the DME fuel system. Provide a DME fuel system service manual with the training.
- Provide data logging mechanisms to capture key operating metrics, including miles driven, fuel consumed, unscheduled truck downtime, and driver feedback. Prepare DME Truck Operations Data Log.
- Develop cost and operational feasibility report based on truck operational data, fleet feedback, and fuel delivery costs. Prepare DME Truck Cost and Operational Feasibility Report.

Products:

- DME Truck Operations Data Log
- DME Truck Cost and Operational Feasibility Report

Task 7 DATA COLLECTION AND ANALYSIS

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

The Recipient shall:

- Develop a data collection plan.
- Troubleshoot any issues identified.
- Collect at least six months of data, including:
 - Throughput, usage, and operations data
 - Normal operating hours, up time, down time, and explanations of variations

- Feedstock supply summary
- Maximum capacity of the new fuel production system in diesel gallon equivalents (DGE) and ordinary units
- Gallons of gasoline and/or diesel fuel displaced (with associated mileage information), along with value converted into DGE
- Record of wastes from production processes (waste water, solid waste, criteria emissions, etc.)
- Expected air emissions reduction, for example:
 - Non-methane hydrocarbons
 - Oxides of nitrogen
 - Non-methane hydrocarbons plus oxides of nitrogen
 - Particulate Matter
 - Formaldehyde
- Duty cycle of the current fleet and the expected duty cycle of future vehicle acquisitions
- Specific jobs and economic development resulting from this project
- Levelized Cost of Fuel and Finished fuel price
- Analysis of total facility costs, operation and maintenance costs, marginal abatement costs
- Comply with the Petroleum Industry Information Reporting Act (PIIRA) and complete CEC Form M810E and CEC Form M13 on a monthly basis for submission to the California Energy Commission's PIIRA Data Collection Unit.
- Provide a written record of registering with the Low Carbon Fuel Standard and Renewable Fuel Standard programs.
- Identify any current and planned use of renewable energy at the facility.
- Describe any energy efficiency measures used in the facility that may exceed Title 24 standards in Part 6 of the California Code Regulations.
- Provide data on potential job creation, economic development, and increased state revenue as a result of expected future expansion.
- Provide a quantified estimate of the project's carbon intensity values or provide an Air Resources Board approved pathway carbon intensity.
- Estimate annual life-cycle greenhouse gas emission reduction.
- Compare any project performance and expectations provided in the proposal to Energy Commission with actual project performance and accomplishments.
- Collect data, information, and analysis described above and include in the Final Report.

Products:

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

Memorandum

For: ARV-18-018, Oberon Fuels, Inc.

Date : May 9, 2019

From: Micah Wofford
Energy Analyst
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Subject: California Environmental Quality Act Analysis for Agreement ARV-18-018, Oberon Fuels, Inc.'s "Renewable DME: Pathway to Zero Emission Vehicles" project

I am an Energy Analyst in the Fuels and Transportation Division, California Energy Commission, and the Commission's Agreement Manager (CAM) for proposed grant agreement, Agreement ARV-18-018 (Agreement) with Oberon Fuels, Inc. (Oberon), titled Renewable DME: Pathway to Zero Emission Vehicles.

INTRODUCTION

This memorandum discusses the environmental impact analysis of the proposed grant project, Renewable DME: Pathways to Zero Emission Vehicles (the Project). The Project would scale up Oberon's existing dimethyl ether (DME) pilot production plant in Brawley, CA. The pilot plant was permitted and built to produce 4,500 DME gallons per day (gpd), but the plant was only able to achieve a stable production capacity of approximately 2,250 DME gpd. Using Energy Commission funding in the amount of \$2,876,139, the Project would scale up the existing facility by making internal changes to the distillation column to achieve the original projected production capacity of 4,500 gpd. The Project would also incorporate automation upgrades to the existing system to further stabilize production capacity. The fuel produced by the facility is proposed to have a carbon intensity (CI) of 21.6 grams of carbon dioxide equivalents per megajoule (gCO₂e/MJ). The Project also includes adding DME dispensing pumps and a DME-fueled truck field trial.

PRIOR ENVIRONMENTAL REVIEWS

In 2012, the Imperial County Planning and Development Services Department conducted an Initial Study (IS) as lead agency under the California Environmental Quality Act (CEQA) to determine whether the pilot project would have a significant effect on the environment. After conducting the Initial Study, the County proposed and adopted a Mitigated Negative Declaration (MND). The County determined that the pilot plant would not have any significant environmental impacts after mitigation. Additionally, the County issued a conditional use permit #12-0014 (CUP) that contains mitigations for both construction and operation of the DME pilot plant.

In February 2019, Oberon consulted with the Imperial County Planning and Development Services Department regarding proposed modifications to the pilot plant, including those described above, the addition of DME dispensing facilities, and a truck diesel-to-DME conversion field trial for the DME fuel. Oberon's supporting document for the meeting with the County, entitled "Oberon Fuels: Pre-

Application Meeting,” is a project description of the modifications. This document is on file with the Energy Commission.

The Director of the Imperial County Planning & Development Services prepared a letter, dated May 2, 2019, that provides the County’s review of the Project. (This document is on file with the Energy Commission.) In summary, the County drew these conclusions (paraphrased):

- The upgrade from pilot scale to demonstration scale does not include external structural changes, and no emissions increases or other environmental impacts are anticipated.
- The feedstock will include renewable methanol, along with fossil-based methanol. The renewable methanol contains sulfur compounds. Oberon will install purification equipment on a skid to remove the sulfur compounds. The purification skid is not anticipated to increase emissions or have other environmental impacts.
- The pilot plant receives methanol by truck. The site is adjacent to an unused rail spur. So that delivery by rail may take place, Oberon will install a set down and offloading area for tanks, and equipment to move the tanks (such as heavy forklift or crane). These additions would decrease the truck trips to the site.
- As a temporary change, Oberon plans to install a small propane-style dispenser at the Oberon site to enable five DME-powered (converted) trucks to be fueled. These trucks would fuel up on a daily or less frequent basis. If the demonstration is successful, additional fueling stations would be built off-site. Because the DME trucks are displacing diesel trucks in a regular duty cycle, no net emission increases or other environmental impacts are anticipated.

In its May 2, 2019 letter, the County stated that there are no CEQA level impacts that would be expected from the upgrades proposed in the Project. The pilot plant did not reach the full projected production capacity of 4,500 DME gpd that was previously permitted in the CUP. However, the Project proposed in the Agreement would implement internal upgrades and automation to scale up the previous plant to that amount. Furthermore, the Project would comply with the mitigations and conditions set forth within the CUP.

DISCUSSION

In approving the agreement, the Energy Commission acts as a responsible agency under CEQA particularly where, as here, prior environmental analyses have been prepared. Pursuant to my work in developing the Agreement, I have reviewed:

- The County’s IS; and
- The County’s MND; and
- The CUP issued by the County; and
- The County’s May 12, 2019 letter regarding the Project; and
- The proposed agreement, including Scope of Work for Agreement ARV-18-018.

The following is a discussion of areas of potential environmental impact:

LESS THAN SIGNIFICANT OR NO IMPACT

Aesthetics:

The Project would not be located near any scenic vistas or highways. According to the County's General Plan, the nearest highway is SR-111 which is located approximately 24 miles northeast of the Project's site. Additionally, the Project location is zoned medium industrial/non-residential and the surrounding areas are zoned heavy agriculture or medium industrial/geothermal overlay. Finally, the Project also will not have significant light or glare that would adversely affect day or nighttime views within the area. Therefore, the Project would not substantially degrade the existing visual character or quality of the site and its surroundings.

Agriculture and Forest Resources:

As the Project is zoned medium industrial/non-residential, it will not convert farmland to a non-agricultural use, nor will it conflict with existing agricultural or forestland zoning. Therefore, the Project would have less than significant or no impact to agriculture and forest resources.

Air Quality:

Potential sources of operational odors that are generated by the Project includes the disposal of commercial refuse. The Project would comply with all applicable waste management requirements and all refuse would be stored in covered containers that are removed at regular intervals stated in waste regulations. The DME fuel produced by the Project will be dispensed using closed-system dispensers. The only emissions associated with this dispensing equipment would occur during connection or disconnection of a vehicle being fueled, connection or disconnection of a delivery trailer during bulk loading of a storage tank, and fugitive emissions from piping and pump. The volatile organic compound output from the entire plant, including both the pilot phase and the work within the proposed Project, was assessed in an air quality study and found to be 28.2 pounds per day, which is below the County's threshold of 55 pounds per day. The study also showed that construction-source emissions could reach significant levels without mitigation. However, with County-required mitigation measures, construction air pollutant emissions would be less than significant. Therefore, air quality impacts are less than significant.

Biological Resources:

The vicinity of the Project's site was biologically assessed and there were no adverse effects on any nearby riparian or other sensitive natural habitats. The Project site is not located near any identified wetlands or sensitive natural communities. No local biological policies or ordinances will be conflicted by the work proposed in the Project. The County does not have a Habitat Conservation Plan, so the Project will result in any conflicts or impacts regarding one.

Cultural Resources:

A cultural historical research was conducted within the Project area and within a half-mile buffer zone. No historical, archaeological, or unique geological resources or features were found during the survey. If any such resources or features are discovered, work must halt and an archaeologist must be contacted immediately to evaluate the discovery. Further work may be warranted under CEQA if the discovery is significant. However, since the Project only consists of scale-up modifications at a pre-existing site that was already constructed, the impacts to the aforementioned types of cultural resources are less than significant.

Geology and Soils:

The Project does not conflict with the geology and soil of on-site or adjacent properties, and it does not expose people or structures to potentially adverse effects. The nearest mapped earthquake faults are the Imperial and Brawley faults which are located approximately 11.7 and 11.1 miles south of the

Project site, respectively. The Project does not lie within an Earthquake Fault Zone as established within the 1972 Alquist-Priolo Earthquake Fault Zone Act and is not located near a body of water that would produce a seiche or tsunami. Additionally, the region's planar topology reduces the likelihood of a landslide event to occur. Wastewater will be collected and processed on-site, so no geological or soil-related impact will be experienced. Therefore, the aforementioned impacts to geology and soils are less than significant.

Greenhouse Gas Emissions:

A greenhouse gas emissions/climate change technical report was prepared for the pilot plant. The report found that the pilot plant would result in approximately 8,138.07 metric tons of carbon dioxide equivalents (MTCO₂e) per year. These emissions would be associated with construction worker travel to the site and construction material delivery. The resultant value does not exceed the County's threshold of 10,000 MTCO₂e per year for industrial or stationary source projects. Therefore, the greenhouse gas emissions impacts generated by the proposed Project are less than significant.

Hazards and Hazardous Materials:

A traffic analysis was conducted in 2012 which stated that the pilot plant would receive an estimated 5-6 methanol deliveries per week by truck and two outgoing truck trips to offtake DME product. This estimate is based on the previously projected production capacity of 4,500 DME gpd, which was not achieved by the pilot plant. Since the Project would scale up the existing facility to reach this goal, it does not represent a change to the facility that was evaluated in the analysis that was conducted in 2012. Additionally, a hazard study was conducted to assess several hazardous material release scenarios. DME is a colorless gas with a faint odor, and it is stored on-site as a liquefied gas under pressure. Based upon the hazard study, the "worst case scenario" would include the failure of a pressure relief valve on a single tank, low wind speeds, and unstable atmospheric conditions. As the Project site is adjacent to agricultural and industrial zones, no sensitive receptors are located within the maximum predicted hazard distances. The scenarios associated with accidental release of DME do not pose a substantial or adverse change to any existing conditions. Therefore, the impacts related to hazards and hazardous materials associated with the Project are less than significant.

Hydrology and Water Quality:

The pilot plant project was already determined to have no or less than significant impact to the hydrology and water quality of the surrounding vicinity. Since the proposed Project is a scale up of this existing facility, it does not represent a change to the hydrology and water quality analysis conducted by the County. Therefore, the impacts to hydrology and water quality related to the Project are less than significant.

Land Use and Planning:

As the Project does not include any external structural modifications to the existing pilot plant facility, which is located in a zoned industrial area and is adjacent to an agriculturally zoned area, it will not physically divide an established community nor will it conflict with any land use or natural community conservation policies and regulations. Therefore, the Project will have no significant impact to land use and planning.

Mineral Resources:

Because there are no known mineral resources located within the Project area that could potentially be considered of high value to the region and County, there are no significant impacts to mineral resources that would result from the proposed Project.

Noise:

The only potential source of significant amounts of noise is facility construction. Since the proposed Project would scale up the existing pilot plant facility to increase production capacity by incorporating

internal equipment upgrades only, no external structural modifications or outside construction is necessary. Therefore, the noise generated by the Project will have no significant impact.

Population and Housing:

The Project will not result in substantial population growth in the area surrounding the site. Also, since the project is not located within or nearby a residentially zoned area, it will not result in the displacement of existing housing tracts or population centers. Therefore, there is no significant impact to population and housing resulting from the proposed Project.

Public Services:

The Project would scale up the existing pilot plant which is located on an abandoned feed mill that is industrially zoned. It would not result in substantial physical impact associated with the provision of new or altered governmental facilities. Also, the Project would not significantly impact police services, schools, parks, or other public facilities. Therefore, there are no impacts associated with the aforementioned public services. (See discussion below regarding fire services.)

Recreation:

There would be no increase in the use of existing parks and recreational facilities and the Project would not require the construction or expansion of recreational facilities. Therefore, there is no significant impact to recreational resources that would result from the Project.

Transportation and Traffic:

A traffic analysis was prepared for the pilot plant project which found no significant impact to circulation system performance, air traffic patterns, or existing policies and programs regarding public transit or bicycle and pedestrian facilities. Within the analysis, the nearby intersection of Kershaw Road and Rutherford Road was also shown to continue to perform at an acceptable Level of Service after the addition of traffic related to the pilot plant. The trucks for the DME-fueled trucks field trial would generate less than or equal to five trips per day, which is too low to affect the prior traffic analysis. Since the Project is a scale up of the existing pilot plant, it does not represent a change to the evaluation criteria of the traffic analysis report. Therefore, the Project would have no or less than significant impact to transportation and traffic operations within the vicinity.

Utilities and Service Systems:

The Project will collect wastewater and process it using on-site operations. The process used by the facility to create the end-product fuel dehydrates feedstock methanol to produce DME. Water is therefore a byproduct of the pilot plant. The byproduct water is sent to a wastewater tank where it is processed and recycled back into the plant's water supply. No new or expanded wastewater treatment facilities would be required to support Project operations. The net consumption of water by the plant is very low since wastewater is recycled into the main operational water supply. The IS prepared by the County states that the water supplied to the facility comes from a canal on the southern end of the site. Thus, there is already a sufficient water purification system in place to process the necessary amount of water for the facility to operate. The IS takes into consideration a possible increase in required water from 5 gpm to 17 gpm. However, since the Project will scale up the existing pilot plant to meet the originally projected production capacity goal of 4,500 DME gpd, the water processing systems that are in place would be sufficient to support Project operations. Additionally, the Project will generate solid waste. A large percentage of this solid waste will be diverted from landfills by taking measures to reduce the overall amount generated, recycling, and composting. The remaining small amount of solid waste will be disposed at a landfill, but will not be significant. Therefore, any impacts related to utilities and service systems are less than significant.

SIGNIFICANT BUT AVOIDED OR MITIGATED TO LESS THAN SIGNIFICANT

Air Quality:

The Project area is designated as a non-attainment area for ozone, PM10, and PM2.5. An air quality impact analysis conducted in 2012 shows that emissions related to operational Project activities could reach significant levels. However, by implementing the appropriate mitigation measures, these emission levels would cumulatively be less than significant. However, mentioned in the analysis was a survey conducted in 2012 that identified 10 residential uses within 2.1 miles of the Project site, with the closest being approximately 1 mile away from the southern end of the site. Therefore, by implementing mitigation measures such as limiting the hours of operation of heavy-duty equipment, to the extent feasible, the potential impacts of the Project related to air quality can be reduced to less than significant levels.

Biological Resources:

A burrowing owl survey was conducted and there were no owl burrows found within the construction buffer zone of the pilot plant. However, if burrows are discovered during future surveys, the following mitigation measure are to be followed: upon consultation with the California Department of Fish and Wildlife (CDFW), artificial burrows will be installed 50 feet apart according to Imperial Irrigation District Artificial Burrow Installation Manual guidelines; documentation will be made and a report will be sent to CDFW; a foraging habitat must be provided and protected to offset the loss of foregoing habitat.

Public Services:

The Project would pose a potential fire risk due to the nature of the DME transportation fuel that will be produced by the plant and the materials used in the production process. A hazard assessment was conducted for the pilot plant and the study identified four scenarios of possible significance. These were a toxic vapor cloud, a flammable vapor cloud, a vapor cloud explosion, and a jet fire. These scenarios would significantly impact the environment if they were to take place. Therefore, mitigation measures were described in the County's IS to reduce the impact that the Project would have on fire safety services in particular. The proposed plant must have included a description of the types of suppression systems used on-site and a description of the emergency and hazardous materials plan. Also, all roadways were to comply with the 2010 California Fire Code, chapter 5 and appendix B. All buildings on-site must be accessible to fire department apparatus by way of an approved driving surface capable of supporting the load of fire apparatus weighing at least 75,000 pounds. Water supply to support fire suppression must comply with NFPA 1142 Standard on Water Supplies for Suburban and Rural Fire Fighting, State, and local ordinances. Since the work to be done in the proposed Project does not represent a change to the pilot plant analyzed in the County's IS, the Project would not pose any additional significant impact. The Project would achieve the production capacity originally project for the pilot plant and would need to comply with all aforementioned requirements and standards. Therefore, the Project's impact to public services would be mitigated to a less than significant level.

CONCLUSION

The Project would provide social, economic, and environmental benefits to the Imperial Valley and to California. The DME fuel to be produced by the Project is a low-carbon fuel that will provide a substantial decrease to greenhouse gas emissions by displacing diesel use in vehicles. Since DME can be produced from a variety of waste streams such as animal manure, agricultural and food waste, landfill gas, pulping mill waste, and others, it creates a beneficial solution to waste management challenges in the Imperial Valley and surrounding areas. The Project would also provide jobs to the local community and reduce the need to rely on imported fossil fuels.

It is my opinion that the work to be performed under the proposed Agreement falls within the County's documents and analyses, and the Agreement will not result in any new significant environmental impacts other than those already considered by the lead agency. I have not found any new mitigation measures within the Energy Commission's authority that would lessen or further mitigate the Project's already less-than-significant impacts. More specifically, it is my opinion that the mitigation measures adopted by the County and required by the Scope of Work in ARV-18-018 will reduce potentially significant impacts to air quality, biological resources and public resources to a less-than significant level.

Notice of Determination**Appendix D****To:**

☒ Office of Planning and Research
 U.S. Mail: _____ Street Address: _____
 P.O. Box 3044 1400 Tenth St., Rm 113
 Sacramento, CA 95812-3044 Sacramento, CA 95814

☐ County Clerk

County of: _____
 Address: _____

From:

Public Agency: California Energy Commission
 Address: 1516 9th Street
 Sacramento, CA 95814
 Contact: Micah Wofford
 Phone: 916-653-8685

Lead Agency (if different from above):
 Imperial County Planning & Development Services
 Address: 801 Main St.
 El Centro, CA 92243
 Contact: Jim Minnick, Director
 Phone: (442) 265-1736

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2012121006

Project Title: "Renewable DME: Pathway to Zero-emission Vehicles" *(within Oberon Fuels CUP#12-0014)

Project Applicant: Oberon Fuels, Inc.

Project Location (include county): 5451 Kershaw Road in Brawley, CA (Imperial County)

Project Description:

Under grant Agreement ARV-18-018 with Oberon Fuels, Inc., the California Energy Commission will provide a \$2,876,139 grant to scale up and modify the existing Oberon Fuels dimethyl-ether (DME) pilot production plant in Brawley, California, to produce approximately 1.56 million gallons of DME/year. The project also includes DME dispensing pumps and a DME-fueled truck field trial. In 2012, Imperial County analyzed the Oberon pilot plant and adopted a Mitigated Negative Declaration. In 2019, Imperial County reviewed the grant project's proposed modifications and stated the modifications would not result in additional environmental impacts.

This is to advise that the California Energy Commission has approved the above
 (☐ Lead Agency or ☒ Responsible Agency)

described project on 06/12/2019 and has made the following determinations regarding the above
 (date)
 described project.

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:

Imperial County Planning & Development Services; 801 Main Street, El Centro, CA 92243

Signature (Public Agency): _____ Title: Energy Analyst

Date: 06/12/2019 Date Received for filing at OPR: _____

California Energy Commission

June 12, 2019 Business Meeting – Agenda Item # 9a

Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP)

Project: “Renewable DME: Pathway to Zero-Emission Vehicles” (ARV-18-018)

The full California Environmental Quality Act (CEQA) supporting documentation for ARV-18-018 can be obtained at:

<https://www.energy.ca.gov/contracts/arv-18-018/>

RESOLUTION NO: 19-0612-9a

STATE OF CALIFORNIA

**STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION**

RESOLUTION - RE: OBERON FUELS, INC.

WHEREAS, the Energy Commission is considering proposed Agreement ARV-18-018, Renewable DME: Pathway to Zero-Emission Vehicles (hereinafter “ARV-18-018”), a grant to scale up and modify the existing Oberon Fuels, Inc. dimethyl-ether (DME) pilot production plant, install DME dispensing pumps, and conduct a DME-fueled truck field trial (the “Project”); and

WHEREAS, the Project is proposed to be located in Brawley, California, and Imperial County Planning & Development Services is the Lead Agency for purposes of the California Environmental Quality Act (“CEQA”) for the Project; and

WHEREAS, Imperial County evaluated Oberon Fuel’s pilot DME production plant, and prepared an Initial Study (IS), approved a Mitigated Negative Declaration (MND), approved Conditional Use Permit #12-0014, and prepared a Mitigation Monitoring and Reporting Program (MMRP) in 2012 and 2013; copies of which are on file with the Energy Commission; and

WHEREAS, Imperial County, on February 12, 2013 filed a Notice of Determination (NOD) with the County Clerk of Imperial County stating that mitigation measures were made a condition of approval of the pilot plant; and finding that the pilot plant will not have a significant effect on the environment; and

WHEREAS, in 2019, Imperial County reviewed additional information about the proposed Project’s modifications to the pilot plant; and wrote a letter dated May 2, 2019 summarizing the Lead Agency’s environmental review of the additional project information; and this letter stated that the Project would not have any additional environmental impacts; a copy of which is on file with the Energy Commission; and

WHEREAS, the Energy Commission conducted its own review and exercised its independent judgment in evaluating the environmental effects of the Project; and

Prior to acting on Agreement ARV-18-018, the Energy Commission desires to make certain findings pursuant to the State CEQA Guidelines, title 14, sections 15091 and 15096;

NOW THEREFORE, BE IT RESOLVED:

1. To the extent relevant to ARV-18-018, the Energy Commission, as a Responsible Agency, has considered the information contained in Imperial County's IS, MND, MMRP, NOD, and May 2, 2019 letter (collectively referred to as the "Lead Agency CEQA Documents") and Conditional Use Permit #12-0014;
2. As a Responsible Agency, the Energy Commission finds that the Lead Agency CEQA Documents are adequate, and that the Project falls within the scope of the Lead Agency CEQA Documents and does not have any additional or more severe environmental impacts;
3. As a Responsible Agency, the Energy Commission finds there have been no proposed substantial Project changes or substantial changes with respect to Project circumstances that would require major revisions to the Lead Agency CEQA Documents due to the involvement of new significant environmental effects or an increase in the severity of previously identified significant effects, and there is no new information of substantial importance that would change the conclusions set forth therein;
4. Any mitigation measures and changes to the Project are within the jurisdiction of Imperial County and the Mitigation Monitoring and Reporting Program that has already been adopted as they relate to the Project; and
5. The Energy Commission finds the Lead Agency CEQA Documents are adequate for its use as the decision-making body for its consideration of ARV-18-018.

BE IT FURTHER RESOLVED, that the Executive Director or his or her designee is authorized to prepare and file, on behalf of the Energy Commission, a Notice of Determination for the Project; and

BE IT FURTHER RESOLVED, that the Energy Commission approves Agreement ARV-18-018 with Oberon Fuels, Inc. for \$2,876,139; and

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

CERTIFICATION

The undersigned Secretariat to the Commission does hereby certify that the foregoing is a full, true, and correct copy of a Resolution duly and regularly adopted at a meeting of the California Energy Commission held on June 12, 2019.

AYE: [List of Commissioners]

NAY: [List of Commissioners]

ABSENT: [List of Commissioners]

ABSTAIN: [List of Commissioners]

Cody Goldthrite,
Secretariat