Memorandum

To: Chair Robert B. Weisenmiller Date: September 07, 2018

Commission Karen Douglas Commissioner David Hochschild Commissioner Andrew McAllister Commissioner Janea A. Scott

From: Joshua Croft Telephone: (916) 445-5309

Subject: CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) ANALYSIS FOR PROPOSED SUBAWARDS UNDER THE CALIFORNIA SUSTAINABLE ENERGY ENTREPRENEUR DEVELOPMENT (CALSEED) INITIATIVE, AGREEMENT NO. 300-15-007

The California Clean Energy Fund (CalCEF) is the administrator of the Energy Commission's CalSEED Initiative under Agreement No. 300-15-007. The CalSEED Initiative awards small grants and provides access to business and technical services to entrepreneurs seeking to develop a technical feasibility case for their technologies. The Center for Sustainable Energy is a subcontractor and provides policy support and partner recommendations to awardees.

CalSEED held its second open application period, Solicitation 18-01 in February 2018 and received 211 qualified applications, 100 of which were randomly selected to submit a full application with 25 applications per Regional Energy Innovation Cluster area. The remaining 111 will be invited to submit a full application in the future and will be scored using the same criteria. Eighteen projects are being proposed for funding at the September 21, 2018 Energy Commission Business Meeting.

I am an Energy Commission Specialist 1 in the Energy Research and Development Division of the California Energy Commission. I have reviewed the CEQA compliance forms submitted by each applicant, which are attached to this memo. Below is my CEQA analysis for each proposed project:

1. Project Title: Perigo Hybrid Low Pressure Water Filtration System

Applicant: Perigo Welding Works **Principal Investigator:** Steve Perigo

Project Summary: The goal of this project is to design and demonstrate a unique filtration system hardware component that has the potential to reduce energy consumption for agricultural micro/drip irrigation systems by 25-50%. By utilizing multiple filtering functions in one complete unit, this technology can operate and self-clean at about 75% less pressure than most current common systems. During the CalSEED agreement, the team will finish the patent process and test and conduct side by side comparisons to an existing filter system on a campus farm at Fresno State.

CEQA Exemption Status: 14 CCR 15301 "Existing Facilities", 14 CCR 15302 "Replacement of Existing Structures"

Reason Why Project is Exempt: This project is exempt under CEQA because it involves the minor alteration of existing structures and facilities and the replacement of existing facilities on the same site with substantially the same purpose. The project will introduce the hybrid filter system into existing micro irrigation systems with the goal of significantly reducing the energy consumption and conserving water. The project will have no impact to the environment in which it operates because the irrigation systems to be tested already exists and this project is switching only the filter component and the project involves negligible or no expansion of the existing use.

2. PROJECT TITLE: DTE ENGINEERED CELLULOSE INSULATION

Applicant: DTE Materials Incorporated **Principal Investigator:** Jose Urizar

Project Summary: The goal of this project is to continue prototyping and product development for a building insulation material with improved performance, fire-resistance, and cost. The material is made with natural fiber additives instead of fiberglass but addresses the cost and settling issues common with natural fiber-based insulation. The CalSEED grant will be used to begin product optimization, simulate production at intermediate capacity, generate technical data, and obtain the necessary building material certifications. The team will be insulating two test sheds to generate data for our insulation versus fiberglass, and then install it within a pilot home.

CEQA Exemption Status: CCR 15303 "New Construction or Conversion of Small Structures", 14 CCR 15306 "Information Collection"

Reason Why Project is Exempt: This project is exempt under CEQA because it consists of construction and location of limited numbers of new, small facilities including one pilot single family residence and two test sheds which are similar to accessory structures like garages and carports. The material used for the test sheds and pilot home will be nontoxic, produce no hazardous waste, and will only be installed once the team passes the legal requirements mandated by the California Bureau of Thermal Insulation – which are ASTM C518 (R-Value Test) and ASTM E84 (Fire Surface Burning Test). The test shed is located on private land that is secluded from large watersheds, agriculture land, produces no hazardous waste, data monitoring will not increase traffic at the location, and the shed itself is not a permanent structure. The pilot home construction will follow traditional permitting methods, and the insulation/installation will not infringe on these existing procedures.

.3. PROJECT TITLE: DUCTED PHASE CHANGE MATERIAL COOLING PROOF OF CONCEPT

Applicant: Stasis Group, Inc.

Principal Investigator: Rob Morton

Project Summary: The goal of this project is to build a prototype of a ducted thermal energy battery integrated into a HVAC system, using phase change materials with instrumentation and variable heat and air flow inputs, to optimize the battery for energy savings. This

technology aims to reduce the amount of energy required to condition the spaces we live and work in by eliminating up to 25% of the peak heating and cooling load of space conditioning systems. During the CalSEED agreement, the team will design a 10% scale ducted heating and cooling system in a lab to run experiments that will focus on increasing the activation of the PCMs. The prototype system will include all elements of the system necessary to scale to field trial, including PCM media plenum and fans, fire resistive assembly, ducting, economizer and associated automated controls.

CEQA Exemption Status: 14 CCR 15306 "Basic Data Collection"

Reason Why Project is Exempt: This project is exempt from CEQA because the work consists of basic data collection and research activities which do not result in a serious or major disturbance to an environmental resource. The project will be entirely confined to an indoor laboratory space, with no disruption to the outside environment. No harmful waste materials will be produced in the course of this project. The project also includes basic data collection and research activities which do not result in a serious or major disturbance to an environmental resource.

<u>4. Project Title: LED Lighting Film for Low-Cost Retrofits of Fluorescent</u> Lights

Applicant: Empow Lighting

Principal Investigator: Nick Masalitin

Project Summary: The goal of this project is to design and create a prototype for thin and flexible LED lighting sheets that can snap into existing fluorescent light fixtures. This technology solution is cheaper and more efficient than competing LED retrofit technologies such as TLEDs (tubular LEDs). Retrofitting linear light fixtures that still use fluorescent tubes with the proposed LED-based technology will result in more than a 50% energy savings. During the CalSEED agreement, the team will develop a proof-of-concept prototype of LED lighting film inlay adapted for retrofitting fluorescent troffers and generate initial test results and a feasibility analysis.

CEQA Exemption Status: 14 CCR 15306 "Basic Data Collection"

Reason Why Project is Exempt:

This project is exempt under CEQA because it consists of basic data collection and research activities which do not result in a serious or major disturbance to an environmental resource. The project is a conventional lab-based research and development project. The activities will be limited to design work and indoor assembly and testing of experimental light panels using conventional electrical and optical components.

5. PROJECT TITLE: ENHANCING RENEWABLE FUEL PRODUCTION WITH CO2 MICROBUBBLES

Applicant: University of California, Riverside

Principal Investigator: Arun Raju

Project Summary: The goal of this project is to demonstrate a low-cost way to double the rate of methane production during anaerobic digestion by using CO2 microbubbles. This technology can improve the financial viability of anaerobic digestion and enable cheaper fuel sources for power generation. The CalSEED award will be used to test the CO2 microbubble enhancement technology in a digester at the City of Riverside wastewater treatment facility. During CalSEED, the subawardee will demonstrate CO2 microbubble enhancement of renewable methane production in a 1 million gallon operating anaerobic digester operated by the City of Riverside. This will be achieved by injecting CO2 microbubbles into the digestor through a small side arm vessel that will be integrated into the existing digester.

CEQA Exemption Status: 14 CCR 15301 "Existing Facilities"; 14 CCR 15306 "Basic Data Collection"

Reason Why Project is Exempt: This project is exempt under CEQA because the work consists of operation, repair or minor alteration of existing structures or facilities involving negligible or no expansion of the existing use. The existing digester process is not being inherently altered. No additional waste products or emissions will be produced due to the proposed project. The team will comply with all the City of Riverside's rules and procedures for the wastewater treatment facility. The project also includes basic data collection and research activities which do not result in a serious or major disturbance to an environmental resource.

.6. PROJECT TITLE: GRAPHITE-COATED HIGH ENERGY DENSITY POWDER

Applicant: University of California, Riverside **Principal Investigator:** Lorenzo Mangolini

Project Summary: The goal of this project is to increase the total energy capacity of commercial lithium-ion batteries by developing a silicon-carbon composite which will be used in place of graphite as an anode material. The team will also demonstrate a novel manufacturing process that addresses prior weaknesses associated with silicon-carbon composite for energy storage with a cost effective, scalable-by-design fabrication routine. The CalSEED award will be used to perform lab work to identify the process parameters that grant the best electrochemical performance of the composite.

CEQA Exemption Status: 14 CCR 15306 "Basic Data Collection"

Reason Why Project is Exempt:

This project is exempt under CEQA because it consists of basic data collection and research activities which do not result in a serious or major disturbance to an environmental resource. The proposed research activity will take place in the laboratories of University of California, Riverside which are fully equipped for the safe handling, processing and disposal of the chemicals and materials utilized during the proposed R&D activity.

.7. PROJECT TITLE: LOW-COST, EASY-TO-INTEGRATE, RELIABLE GRID ENERGY STORAGE WITH 2ND LIFE BATTERIES

Applicant: Smartville Energy LLC **Principal Investigator:** Antonio Tong

Project Summary: The goal of this project is to develop a prototype plug-and-play inverter matrix that is able to independently control and monitor the health of a non-uniform set of aggregated second life batteries. The technology allows for batteries with different chemistries, form factors, and aging statuses. This will result in a low-cost grid energy storage solution that is easier to upkeep and maintain over the long term. CalSEED funds will be used to conduct design simulations, develop a prototype for concept validation, and develop a business plan for rapid scaling-up and market adoption.

CEQA Exemption Status: 14 CCR 15306 "Basic Data Collection"

Reason Why Project is Exempt: This project is exempt under CEQA because it consists of basic data collection and research activities which do not result in a serious or major disturbance to an environmental resource. The project activities will not generate harmful exhausts, liquids or solid waste and has no direct impact on the environment. The R&D activities will be carried out in the university lab at UC San Diego, and the team will adhere to UC San Diego's regulatory compliance practices where applicable.

8. PROJECT TITLE: HYDROKINETIC POWER BUOY FOR LOCAL AND GRID-SCALE GENERATION AND STORAGE

Applicant: Ocean Motion Technologies
Principal Investigator: Jack Pan

Project Summary: The goal of this project is to develop a prototype mechanical buoy system that can harness oceanic wave energy to create compressed air. The compressed air can be used on demand to produce electricity through a turbine generator. This technology can support power resiliency in coastal California and at industry locations such as ports. The CalSEED grant will be used to complete the development of a fully functional miniature scale prototype and to test the prototype in the wave tank at the Hydraulics Laboratory at Scripps Institution of Oceanography as well as at an ocean research pier.

CEQA Exemption Status: 14 CCR 15306 "Basic Data Collection"

Reason Why Project is Exempt:

This project is exempt under CEQA because it consists of basic data collection and research activities which do not result in a serious or major disturbance to an environmental resource. The project is still at its research & development phase and the primary goal is to produce a miniature functioning prototype indoors. The production and testing of this prototype are conducted indoors with no hazardous materials/waste and these activities do not involve any significant direct effect on the environment.

9. PROJECT TITLE: AUTOMATED THERMAL FLYWHEELING FOR THE COLD CHAIN

Applicant: Crossno & Kave

Principal Investigator: Jesse Crossno

Project Summary: The goal of this project is to further develop a software-based refrigeration control that safely overcools a temperature-controlled space based on the needs of the customer and peak hours. This will reduce the need for other forms of energy storage

in industry as California moves to a renewable energy future. During the CalSEED agreement, the team will collect performance data to verify their refrigeration control algorithm and will analyze what barriers the technology will need to overcome before becoming viable for market adoption.

CEQA Exemption Status: 14 CCR 15301 "Existing Facilities", 14 CCR 15061(b)(3) "Common Sense Exemption"

Reason Why Project is Exempt:

This project is exempt under CEQA because it consists of the operation of existing structures or facilities with no expansion of an existing use. The activities associated with this effort will take place in an off-site office and will deal primarily with market research, data collection through remote computers, and data analysis. Because the activities associated with this effort are confined to a paper study and there will be no physical alteration of any physical space, it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment.

10. PROJECT TITLE: INVISIBLE FRONT CONTACTS FOR SOLAR CELLS

Applicant: ETC Solar, LLC

Principal Investigator: Thomas Russel

Project Summary: The goal of this project is to develop a prototype front contact for solar cells that mitigates shading losses while increasing power output. This technique increases the power output of solar cells by 5% and therefore, can lower the dollar-per-watt performance of solar modules by 5%. During the CalSEED project, the team will combine their technology with a record setting concentrator photovoltaics technology to create the world's most efficient solar cell with a target efficiency of almost 50%.

CEQA Exemption Status: 14 CCR 15306 "Basic Data Collection"

Reason Why Project is Exempt:

This project is exempt under CEQA because it consists of basic data collection and research activities which do not result in a serious or major disturbance to an environmental resource. The research will be conducted at the existing R&D facilities at California Institute of Technology and no rare or hazardous materials will be used to conduct the proposed R&D work.

11. PROJECT TITLE: LOW-COST PORTABLE SMART WI-FI PROGRAMMABLE LEARNING BIO-MIMICKING SOLAR SHRUB

Applicant: Cal State University Fullerton **Principal Investigator:** Sagil James

Project Summary: The goal of this project is to design 'solar shrubs' that use thin film PV in bio-mimicking leaf designs. The technology will be created and prototyped using advanced multi-material 3D printing. The team hopes to later commercialize this technology as an easy-to-install and easy-to-move sustainable solar product for California homes. During the CalSEED agreement, an initial prototype will be created and tested.

CEQA Exemption Status: 14 CCR 15306 "Basic Data Collection"

Reason Why Project is Exempt:

This project is exempt under CEQA because it consists of basic data collection and research activities which do not result in a serious or major disturbance to an environmental resource. The primary activities of the project include product design through Computer-Aided Design technique followed by product analysis using Computer-Aided Engineering Analysis technique. Other project activities include prototype development, embedding intelligent features into the product and performance characterization. Additionally, an intelligent learning algorithm will be developed to train the prototype product. These activities will be done inside a computer laboratory and hence the project activities does not cause any direct environmental impact.

12. PROJECT TITLE: PRONOIA ENERGY STORAGE DEVICE

Applicant: Pronoia, Inc.

Principal Investigator: Daniel Lie

Project Summary: The goal of this project is to develop a novel energy storage prototype that uses quantum dipole technology to attempt to achieve exponential increases in energy capacity compared to lithium-ion batteries. Unlike conventional batteries, this technology has no electrolyte and separator and may introduce a new class of energy storage that has minimal capacity loss and decreased manufacturing costs in the long term. During the CalSEED award, the team will continue lab-scale testing and prototyping while considering what is required to achieve large-scale production and commercial viability.

CEQA Exemption Status: 14 CCR 15306 "Basic Data Collection"

Reason Why Project is Exempt:

This project is exempt under CEQA because it consists of basic data collection and research activities which do not result in a serious or major disturbance to an environmental resource. The sample build will be a simple and non-obtrusive prototype-building exercise, with virtually no electrochemical reactions involved, as we are exploring the physical architecture of energy storage. Furthermore, the material needed in the prototype build will be common material that has no significant direct effect on the environment.

13. PROJECT TITLE: SOLARBLOCK

Applicant: Pick My Solar

Principal Investigator: Gordon Algermissen

Project Summary: The goal of this project is to continue development on a blockchain-based transaction platform for community solar projects. This technology will lower transaction costs while increasing reliability, speed, and accuracy for the community members buying and selling electricity. Pick My Solar intends to use the CalSEED award to finance the development of the SolarBlock protocol, the user interface for the SolarBlock

application, and deploy a test network with a community solar developer, a Californian IOU, and small selection of energy consumers.

CEQA Exemption Status: 14 CCR 15061(b)(3) "Common Sense Exemption"

Reason Why Project is Exempt:

This project is exempt under CEQA because SolarBlock is a software platform where the only physical effects occur in the processors of the devices deploying the software. There will be no possible significant effect on environmental quality. No new physical construction is required for the development and of the SolarBlock platform.

-14. PROJECT TITLE: IN-PRV (PRESSURE RECOVERY VALVE) RENEWABLE ENERGY GENERATION SYSTEM

Applicant: InPipe Energy

Principal Investigator: Gregg Semler

Project Summary: The goal of this project is to demonstrate a technology that captures lost energy associated with pressure reduction valves in industrial water systems. The system fits onto existing pipeline infrastructure and will also increase the ability to dynamically and accurately control water pressure. During the CalSEED award, the team will continue hardware design and controls development. The team will also begin business development activities with California water agencies and utilities.

CEQA Exemption Status: 14 CCR 15061(b)(3) "Common Sense Exemption"

Reason Why Project is Exempt:

This project is exempt under CEQA because it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment. The key activities for the project include project design and control development, development of In-PRV sites assessment tools and business development with California water agencies and utilities. These activities shall by performed by professional staff in an office setting, which shall not result in any demonstrable environmental impacts.

15. PROJECT TITLE: COOLING MOBILE DATA CENTERS WITH THE SKY

Applicant: SkyCool Systems, Inc. **Principal Investigator:** Eli Goldstein

Project Summary: The goal of this project is to develop a passive modular data center cooling system that uses radiative cooling. The panels cool without evaporating water and only require enough electricity to run a small circulating pump. This innovation will reduce data center energy and water use while reducing maintenance requirements. During the CalSEED agreement, thermal modeling will be conducted to determine the optimum surface area and orientation of the panels and other subsystems within the proposed cooling system. Additionally, the team will assess the electricity savings the system provides over a year of operation in different regions of California.

CEQA Exemption Status: 14 CCR 15306 "Basic Data Collection", 14 CCR 15311 "Minor Structures Accessory to Existing Facilities"

Reason Why Project is Exempt:

This project is exempt under CEQA because it consists of basic data collection and research activities which do not result in a serious or major disturbance to an environmental resource. The projects primary deliverable is a paper study. The modeling will be completed using computers and thermal software. The physical demonstration will consist of one to two of our panels connected to a heater, positioned outside and exposed to the sky. The heat load on the panel will be representative of a data center system. Each panel is 3 ft x 6 ft and the panels will be used to cool water, which is pumped through the panels, in a closed loop. For this test, the panels will be setup as a temporary display, and only outside for at most one week at a time. The panels could also be considered minor structures accessory to existing commercial or industrial facilities like temporary use lifeguard towers, mobile food units or portable restrooms which are also exempt from CEQA.

.16. PROJECT TITLE: ADAPTIVE CURRENT-COLLECTORS FOR HIGH-EFFICIENCY ELECTRIC VEHICLES

Applicant: Palo Alto Research Center **Principal Investigator:** Sean Dorris

Project Summary: The goal of this project is to develop and demonstrate a new class of printed electronics that can be coated onto battery current-collectors to limit the current and heating that occur during internal short-circuits, which could dramatically decrease the amount of crash protection EV batteries require and enable an increase in EV efficiency and range. This innovation will enable EV manufacturers to eliminate hundreds of kilograms in crash protection which will lower transportation related electricity consumption and strain on the electric grid. During the CalSEED award, the team will develop and test the printed electronics and demonstrate the technology with proof-of-concept Li-ion coin cells.

CEQA Exemption Status: 14 CCR 15306 "Basic Data Collection"

Reason Why Project is Exempt:

The project is exempt under CEQA because it consists of basic data collection and research activities which do not result in a serious or major disturbance to an environmental resource. The projectwill use existing laboratory space and equipment with no significant modifications. The physical activities of the project, including testing of electronic materials, preparation of prototype devices, and electrical testing of prototype devices are not expected to have any significant environmental impact. The very small quantity of hazardous waste that we expect to generate will be properly disposed of according to the regulatory procedures of the lab.

17. PROJECT TITLE: THE MOBILE ENVELOPE DAM ELECTRIFICATION SYSTEM (MEDES)

Applicant: GenH

Principal Investigator: Ron Freda

Project Summary: The goal of this project is to develop and test a prototype device that can retrofit irrigation canals and non-powered dams to produce electricity. The technology is designed to be rapidly deployable, taking 2-4 weeks instead of the 24+ months other hydropower installations take. During the CalSEED agreement, the team will construct a toscale prototype that is able to test the MEDES under real-world conditions.

CEQA Exemption Status: 14 CCR 15303 "New Construction or Conversion of Small Structures", 14 CCR 15306 "Basic Data Collection"

Reason Why Project is Exempt:

This project is exempt under CEQA because it consists of construction and location of limited numbers of new, small facilities such as a single family residence or accessory structures like garages and carports. The testbed will be comprised of 3 20' shipping containers. The testbed is a temporary structure in an industrial area/lot that is only transferring water in a closed loop between two heights. The water will be supplied by hydrant or other manmade water supply and no chemicals will be used in the system. The project would not fall under any CA environmental regulations or code or have any effect on the surrounding environment. Additionally, the project consists of basic data collection and research activities which do not result in a serious or major disturbance to an environmental resource and is exempt from CEQA.

18. PROJECT TITLE: NEAR-ISOTHERMAL LIQUID PISTON AIR COMPRESSOR/EXPANDER WITH MAGNETICALLY STABILIZED FERROFLUID

Applicant: FerroPower Technologies **Principal Investigator:** Mohsen Saadat

Project Summary: The goal of this project is to prototype a near-isothermal air compressor/expander system that would enable Compressed Air Energy Storage technologies to achieve higher efficiency, higher power density, and meet a cost target of \$150/kWh. Instead of a solid piston, this technology uses a magnetically stabilized ferrofluid-based liquid column. This method reduces the energy required to compress air and causes the system to operate at a higher round-trip efficiency. During the CalSEED agreement, the team will finalize the design of the inverted liquid piston air compressor / expander system and fabricate a 5kW prototype with the targeted efficiency and power density.

CEQA Exemption Status: 14 CCR 15306 "Basic Data Collection"

Reason Why Project is Exempt:

This project is exempt under CEQA because it consists of basic data collection and research activities which do not result in a serious or major disturbance to an environmental resource. The core of this project is designing and fabricating mechanical components, and all work will be done in the mechanical engineering department of UC Berkeley, without direct exposure to the natural environment.

PERIGO WELDING WORKS

Perigo Hybrid Low Pressure Water Filter System

CEQA Compliance Form

September 2018

All applicants must <u>complete</u> this form, regardless of whether the proposed activity is considered a "project" as defined below. Answer all questions as completely as possible. The Energy Commission may request additional information in order to clarify the responses provided on this form.

The California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000 et seq.) requires public agencies to identify the significant environmental impacts of their actions and to avoid or mitigate them, if feasible.¹ Under CEQA, an activity that may cause either a direct or reasonably foreseeable indirect physical change in the environment is called a "project."² An activity funded by a contract, grant, or loan is considered a "project" under CEQA if it will cause a direct or reasonably foreseeable indirect physical change in the environment. Agencies must comply with CEQA before they approve a "project." This may require the preparation of one or more of the following CEQA documents:

- A <u>Notice of Exemption</u> (if the project is exempt from CEQA under an exemption identified in the CEQA statutes or regulations);³
- An <u>Initial Study</u> (if the project may have a significant effect on the environment);⁴
- A <u>Negative Declaration</u> (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);⁵ or
- An Environmental Impact Report (if there is substantial evidence that the project will have significant effects).⁶

The **Lead Agency** is the public agency that has the greatest responsibility for carrying out, supervising, or approving a project, and for preparing environmental review documents under CEQA (e.g., initial study, environmental impact report). Where the award recipient is a *public agency*, the Lead Agency is typically the recipient. Where the award recipient is a *private entity*, the Lead Agency is the public agency that has the greatest responsibility for supervising or approving the project as a whole.⁷

When issuing contracts, grants, or loans, the Energy Commission is typically a "Responsible Agency" under CEQA, which means that it must make CEQA findings based on review of the funded activities and any environmental documents created by the Lead Agency. If the Energy Commission is the only public agency with responsibility for approving the funded activities and the project is not exempt under CEQA, the Energy Commission must act as the Lead Agency and prepare its own environmental documents before approving the project. This form will help the Energy Commission determine what type of CEQA review is necessary before it can approve the award, and which agency will perform any required environmental review as Lead Agency. It may also help the applicant determine the CEQA process necessary for the proposed activities.

¹ For a brief description of CEQA, visit http://www.resources.ca.gov/cega/more/fag.html.

² California Public Resources Code § 21065.

³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

1.	What are the physical aspects of the proposed activities? (Check all that apply and
	provide a brief description of work, including the size or dimensions of the project).

Type of Project	Yes	No	Project Description
Construction (including grading, paving, etc.)		х	,
Trenching		Х	
New or replaced pipelines		Х	
Modification or conversion of a facility		х	
New or modified operation of a facility or equipment	x		Our prototype irrigation filter system will be installed to run in conjunction with existing filter or in its place. Its size is relative to existing systems.
On-road demonstration		Х	
Paper study (including analyses on economics, feedstock availability, workforce availability, etc.)		x	
Laboratory research	х		We will be conducting testing of our filter system in our facility.
Temporary or mobile structures (skid-mounted)	х		Our filter system has an integrated framework but will be setup temporarily at test sites. Most likely on existing concrete or gravel base.
Design/Planning	Х		We are in final design and planning stages.
Other (describe and attach sheets as necessary)			

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

Street Address	City/ County	Type of Work to Be Completed at Site
22235 Ave 196	Strathmore/Tul are	Testing and final design of irrigation filter system.
5370 N Chestnut	Fresno/Fresno	Setup of irrigation filter system for testing.

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site environmentally sensitive?		х	x	We will only be testing with water at current existing sites.
Is the site located on agricultural land?	х			Fresno State farm.
Are the activities part of a larger project?		х		
Is there public controversy about the proposed activities or		x		

ATTACHMENT 8

California Environmental Quality Act (CEQA) Compliance Form					
Question		Yes	No	Unsure	Explanation
larger project?					
Will historic res historic building by the activities		х			
identified by the Substances Consecretary of the Protection as	posed site beer the Dept. of Toxion Control and the the Environmentan being affected by the stes or cleanup	c e u	x		
Will the act noise or odo permitted level		х			
Will the ac traffic at the samount?	t 🗆	х			
Will the proposed below?	osed activities r	equire d	iscre	tionary pern	mits or determinations, as listed
Permit Type		Modified (M) or New (N)		Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality		$M \square N \square$		
Water Quality		M 🗌 N 🗌		
Conditional				
Use or		$M \square N \square$		
Variance				
Building Expansion		M 🗌 N 🗌		
Hazardous Waste		M 🗌 N 🗌		
Rezoning		M \square N \square		
Authority to Construct		M 🗌 N 🗌		
Other (List types):		M \square N \square		

5.	Has any	agency	listed i	in #4	indicated	that	it will	be	the	lead	CEQA	agency	for	the
	project?													

xNo.
Yes. Provide the name of and contact information for the lead agency (contact person,
phone number, and email address):

6. Has any agency listed in #4 prepared or indicated that it will prepare environmental

documents (e.g., Notice of Exemption, Initial Study/ Negative Declaration/ Mitigated Negative Declaration, Environmental Impact Report) under CEQA for the proposed project?					
	ne chart below for each a pared environmental doc	0 ,	•		
Name of Agency: Contact person, phon	ie number email:				
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)	
Not a project Email Letter Resolution Other:		N/A		N/A	
Exempt Notice of Exemption Resolution Agenda item approving exemption		N/A			
Initial Study Negative Declaration					
Mitigated Negative Declaration					
Notice of Preparation Environmental Impact Report					
Master Environmental Impact Report					
Notice of Determination NEPA Document ⁸					
(Environmental Assessment, Finding					

of No Significant

⁸ For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

Name of Agency:					
Contact person, phor					
CEQA	Title of Document	State	Completion	Planned	
Determination/Type	(Attach the document	Clearinghouse	Date	Completion	
of Document	to this form)	Number		Date (must	
				be prior to	
				Energy	
				Commission	
				encumbranc	
				e deadline)	
Impact, and/or					
Environmental Impact					
Statement)					

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine):

DTE Materials Incorporated

DTE Engineered Cellulose Insulation

CEQA Compliance Form

September 2018

All applicants must complete this form, regardless of whether the proposed activity is considered a "project" as defined below. Answer all questions as completely as possible. The Energy Commission may request additional information in order to clarify the responses provided on this form.

The California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000 et seq.) requires public agencies to identify the significant environmental impacts of their actions and to avoid or mitigate them, if feasible.1 Under CEQA, an activity that may cause either a direct or reasonably foreseeable indirect physical change in the environment is called a "project." An activity funded by a contract, grant, or loan is considered a "project" under CEQA if it will cause a direct or reasonably foreseeable indirect physical change in the environment. Agencies must comply with CEQA before they approve a "project." This may require the preparation of one or more of the following CEQA documents:

- A Notice of Exemption (if the project is exempt from CEQA under an exemption identified in the CEQA statutes or regulations);³
- An Initial Study (if the project may have a significant effect on the environment);⁴
- A Negative Declaration (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);⁵ or
- An Environmental Impact Report (if there is substantial evidence that the project will have significant effects).6

The Lead Agency is the public agency that has the greatest responsibility for carrying out, supervising, or approving a project, and for preparing environmental review documents under CEQA (e.g., initial study, environmental impact report). Where the award recipient is a public agency, the Lead Agency is typically the recipient. Where the award recipient is a private entity, the Lead Agency is the public agency that has the greatest responsibility for supervising or approving the project as a whole.⁷

When issuing contracts, grants, or loans, the Energy Commission is typically a "Responsible Agency" under CEQA, which means that it must make CEQA findings based on review of the funded activities and any environmental documents created by the Lead Agency. If the Energy Commission is the only public agency with responsibility for approving the funded activities and the project is not exempt under CEQA, the Energy Commission must act as the Lead Agency and prepare its own environmental documents before approving the project. This form will help the Energy Commission determine what type of CEQA review is necessary before it can approve the award, and which agency will perform any required environmental review as Lead Agency. It may also help the applicant determine the CEQA process necessary for the proposed activities.

1. What are the physical aspects of the proposed activities? (Check all that apply and provide a brief description of work, including the size or dimensions of the project).

¹ For a brief description of CEQA, visit http://www.resources.ca.gov/cega/more/fag.html.

² California Public Resources Code § 21065.

³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

Type of Project	Yes	No	Project Description
Construction (including grading, paving, etc.)			Simple construction of 2 test sheds. Each shed should have a floor size of 6' x 6' with a ceiling height of 8'. The sheds can be built off-site, and then transported to the test location to reduce impact.
Trenching			
New or replaced pipelines			
Modification or conversion of a facility		\boxtimes	
New or modified operation of a facility or equipment			
On-road demonstration		\boxtimes	
Paper study (including analyses on economics, feedstock availability, workforce availability, etc.)			
Laboratory research	\boxtimes		Our insulation material will be tested at a third party lab – Radco Laboratories in Long Beach, CA (ASTM C518). It will later be tested at R & D Services in Cookeville, TN (ASTM C739 E84).
Temporary or mobile structures (skid-mounted)			The test shed will be mounted on a wooden pallet skid for easy transportation and takedown.
Design/Planning			Designs will be made to simulate a real building with a window and door. This will simulate thermal bridges. Heat transfer data monitoring will be conducted over the duration of this project.
Other (describe and attach sheets as necessary)			

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

Street Address	City/ County	Type of Work to Be Completed at Site
TBD	Fresno	Test demonstration in temporary structure
TBD	Los Angeles	Full installation in demonstration home

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site environmentally sensitive?				The proposed activity site is located on a small plot within a larger 800 acres of private land. The specific plot we are planning to use it not located on agricultural land or near a large body of water.
Is the site located on agricultural land?				The greater 800 acres contains agricultural land, but the specific subplot of land we are using is not.
Are the activities part of a larger project?				
Is there public controversy about the proposed activities or larger project?		\boxtimes		
Will historic resources or historic buildings be impacted by the activities?		\boxtimes		
Has the proposed site been identified by the Dept. of Toxic Substances Control and the Secretary of the Environmental Protection as being affected by hazardous wastes or cleanup problems?				
Will the activities generate noise or odors in excess of permitted levels?				
Will the activities increase traffic at the site, and by what amount?		\boxtimes		

4. Will the proposed activities require discretionary permits or determinations, as listed below?

None of the proposed activities require the permits or determinations listed below.

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality		$M \square N \square$		
Water Quality		M \square N \square		
Conditional Use or Variance		М 🗆 N 🗆		
Building Expansion		M 🗌 N 🗌		

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Hazardous Waste		M 🗌 N 🗌		
Rezoning		$M \square N \square$		
Authority to Construct		M 🗌 N 🗌		
Other (List types):		M 🗆 N 🗆		
Has any agen	cy listed in #	4 indicated th	at it will be the	lead CEQA agency for the

	Other (List types):		M							
5.	Has any agenc project?	y listed in #	#4 indicated the	at it will be the I	ead CEQA ag	ency for the				
	 No. ☐ Yes. Provide the name of <u>and</u> contact information for the lead agency (contact person, phone number, and email address): 									
3.	Has any agency listed in #4 prepared or indicated that it will prepare environmental documents (e.g., Notice of Exemption, Initial Study/ Negative Declaration/ Mitigated Negative Declaration, Environmental Impact Report) under CEQA for the proposed project?									
	agency has prepared form.	ared environi		ency. Cut and pas ts. Attach any doc						
	Name of Agency Contact person	•	oer email:							
	CEQA Determination/T	Title o	of Document	State	Completion Date	Planned				
	of Document		s form)	Clearinghouse Number	Date	Completion Date (must be prior to Energy Commission encumbranc				
	Not a project Email Letter Resolution		s form)		Date	Completion Date (must be prior to Energy Commission				
	Not a project Email Letter		s form)	Number	Date	Completion Date (must be prior to Energy Commission encumbranc e deadline)				

Name of Agency:	Name of Agency:								
Contact person, phone number, email:									
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)					
approving exemption									
Initial Study									
Negative Declaration									
Mitigated Negative									
Declaration									
Notice of Preparation									
Environmental Impact Report									
Master Environmental Impact Report									
Notice of Determination									
NEPA Document ⁸ (Environmental Assessment, Finding of No Significant Impact, and/or									
Environmental Impact Statement)									

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (<u>must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine)</u>:

N/A.

⁸ For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

Stasis Group, Inc.

DUCTED PHASE-CHANGE MATERIAL COOLING PROOF OF CONCEPT

CEQA Compliance Form

September 2018

All applicants must complete this form, regardless of whether the proposed activity is considered a "project" as defined below. Answer all questions as completely as possible. The Energy Commission may request additional information in order to clarify the responses provided on this form.

The California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000 et seq.) requires public agencies to identify the significant environmental impacts of their actions and to avoid or mitigate them, if feasible.1 Under CEQA, an activity that may cause either a direct or reasonably foreseeable indirect physical change in the environment is called a "project." An activity funded by a contract, grant, or loan is considered a "project" under CEQA if it will cause a direct or reasonably foreseeable indirect physical change in the environment. Agencies must comply with CEQA before they approve a "project." This may require the preparation of one or more of the following CEQA documents:

- A Notice of Exemption (if the project is exempt from CEQA under an exemption identified in the CEQA statutes or regulations);³
- An Initial Study (if the project may have a significant effect on the environment);⁴
- A Negative Declaration (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);⁵ or
- An Environmental Impact Report (if there is substantial evidence that the project will have significant effects).6

The Lead Agency is the public agency that has the greatest responsibility for carrying out, supervising, or approving a project, and for preparing environmental review documents under CEQA (e.g., initial study, environmental impact report). Where the award recipient is a public agency, the Lead Agency is typically the recipient. Where the award recipient is a private entity, the Lead Agency is the public agency that has the greatest responsibility for supervising or approving the project as a whole.⁷

When issuing contracts, grants, or loans, the Energy Commission is typically a "Responsible Agency" under CEQA, which means that it must make CEQA findings based on review of the funded activities and any environmental documents created by the Lead Agency. If the Energy Commission is the only public agency with responsibility for approving the funded activities and the project is not exempt under CEQA, the Energy Commission must act as the Lead Agency and prepare its own environmental documents before approving the project. This form will help the Energy Commission determine what type of CEQA review is necessary before it can approve the award, and which agency will perform any required environmental review as Lead Agency. It may also help the applicant determine the CEQA process necessary for the proposed activities.

1. What are the physical aspects of the proposed activities? (Check all that apply and provide a brief description of work, including the size or dimensions of the project).

¹ For a brief description of CEQA, visit http://www.resources.ca.gov/cega/more/fag.html.

² California Public Resources Code § 21065.

³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

	Type of Project	Yes	s No	Pro	ject Descr	iption
	Construction (including					
	grading, paving, etc.)					
	Trenching					
	New or replaced pipelines					
	Modification or conversion of a facility					
	New or modified operation of a facility or equipment					
	On-road demonstration		\boxtimes			
	Paper study (including analyses on economics, feedstock availability, workforce availability, etc.)		\boxtimes			
	Laboratory research	\boxtimes		sca a la exp	le ducted ab with a eriments	design a first-of-its-kind ~10% heating and cooling system in PCM media plenum to run focused on increasing the PCMs and energy savings
	Temporary or mobile					
	structures (skid-mounted)					
	Design/Planning					
	Other (describe and attach					
	sheets as necessary)					
2.	additional sheets as neces	ssary		Ту		will they be located? (Attach to Be Completed at Site nts
	Will the proposed activities review? (Check a box and					ntal impacts that trigger CEQA
	Question		Yes	No	Unsure	Explanation
	Is the proposed activity site environmentally sensitive?			\boxtimes		
	Is the site located on agricultural land?			\boxtimes		
	Are the activities part of a la	rger		\boxtimes		

Is there public controversy

larger project?

about the proposed activities or

3.

 \boxtimes

Question	Yes	No	Unsure	Explanation
Will historic resources or historic buildings be impacted by the activities?				
Has the proposed site been identified by the Dept. of Toxic Substances Control and the Secretary of the Environmental Protection as being affected by hazardous wastes or cleanup problems?				
Will the activities generate noise or odors in excess of permitted levels?		\boxtimes		
Will the activities increase traffic at the site, and by what amount?		\boxtimes		

4.

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality	N/A	$M \square N \square$		
Water Quality	N/A	M 🗌 N 🗌		
Conditional Use or Variance	N/A	M 🗆 N 🗆		
Building Expansion	N/A	M 🗌 N 🗌		
Hazardous Waste	N/A	M 🗌 N 🗌		
Rezoning	N/A	$M \square N \square$		
Authority to Construct	N/A	M 🗌 N 🗌		
Other (List types):	N/A	M 🗆 N 🗆		

5.	Has any	agency	listed i	n #4	indicated	that	it will	be	the	lead	CEQA	agency	for	the
	project?													

No.	N/A								
Yes.	Provide the	e name of <u>and</u>	contact	information	for the	lead	agency	(contact	person
phone n	umber, and	email address):						

6.	Has any agency listed in #4 prepared or indicated that it will prepare environmental documents (e.g., Notice of Exemption, Initial Study/ Negative Declaration/ Mitigated Negative Declaration, Environmental Impact Report) under CEQA for the proposed project?									
		chart below for each age environmental documents								
	Name of Agency:									
	Contact person, phon									
	CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)					
	Not a project Email Letter Resolution Other:		N/A		N/A					
	Exempt Notice of Exemption Resolution Agenda item approving exemption		N/A							
	Initial Study									
	Negative Declaration									
	Mitigated Negative Declaration									
	Notice of Preparation									
	Environmental Impact Report									
	Master Environmental Impact									

Report Notice of Determination

Name of Agency:	Name of Agency:								
Contact person, phone number, email:									
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)					
NEPA Document ⁸ (Environmental Assessment, Finding of No Significant Impact, and/or Environmental Impact Statement)									

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (<u>must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine):</u>

July 2017

⁸ For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

Empow Lighting

LED LIGHTING FILM FOR LOW-COST RETROFITS OF FLUORESCENT LIGHTS

CEQA Compliance Form

September 2018

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- An <u>Initial Study</u> (if the project may have a significant effect on the environment);⁴
- A <u>Negative Declaration</u> (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);⁵ or
- An Environmental Impact Report (if there is substantial evidence that the project will have significant effects).⁶

The **Lead Agency** is the public agency that has the greatest responsibility for carrying out, supervising, or approving a project, and for preparing environmental review documents under CEQA (e.g., initial study, environmental impact report). Where the award recipient is a *public agency*, the Lead Agency is typically the recipient. Where the award recipient is a *private entity*, the Lead Agency is the public agency that has the greatest responsibility for supervising or approving the project as a whole.⁷

When issuing contracts, grants, or loans, the Energy Commission is typically a "Responsible Agency" under CEQA, which means that it must make CEQA findings based on review of the funded activities and any environmental documents created by the Lead Agency. If the Energy Commission is the only public agency with responsibility for approving the funded activities and the project is not exempt under CEQA, the Energy Commission must act as the Lead Agency and prepare its own environmental documents before approving the project. This form will help the Energy Commission determine what type of CEQA review is necessary before it can approve the award, and which agency will perform any required environmental review as Lead Agency. It may also help the applicant determine the CEQA process necessary for the proposed activities.

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⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

1.	What are the physical aspects of the proposed activities? (Check all that apply and
	provide a brief description of work, including the size or dimensions of the project).

Type of Project	Yes	No	Project Description
Construction (including		\boxtimes	
grading, paving, etc.)			
Trenching		\bowtie	
New or replaced pipelines		\boxtimes	
Modification or conversion of a facility		\boxtimes	
New or modified operation of a facility or equipment		\boxtimes	
On-road demonstration		\boxtimes	
Paper study (including			Data analysis, optical modeling.
analyses on economics, feedstock availability, workforce availability, etc.)			
Laboratory research	\boxtimes		Research and experimentation with LED lighting sources. Lab-scale prototype fabrication and testing.
Temporary or mobile structures (skid-mounted)		\boxtimes	
Design/Planning	\boxtimes		Design of LED lighting panel prototypes.
Other (describe and attach sheets as necessary)		\boxtimes	

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

Street Address	City/ County	Type of Work to Be Completed at Site
2500 2nd Ave, #3	Sacramento	Data analysis, optical modeling, design of LED lighting panel prototypes.
1832 Tribute R-d, S-te D	Sacramento	Lab-scale prototype fabrication and testing.

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site environmentally sensitive?		\boxtimes		
Is the site located on agricultural land?		\boxtimes		
Are the activities part of a larger project?		\boxtimes		
Is there public controversy about the proposed activities or larger project?		\boxtimes		
Will historic resources or		\boxtimes		

Question	Yes	No	Unsure	Explanation
historic buildings be impacted by the activities?				
Has the proposed site been identified by the Dept. of Toxic Substances Control and the Secretary of the Environmental Protection as being affected by hazardous wastes or cleanup				
problems? Will the activities generate noise or odors in excess of permitted levels?				
Will the activities increase traffic at the site, and by what amount?		\boxtimes		

4. Will the proposed activities require discretionary permits or determinations, as listed below?

The proposed activities do not require permits or determinations.

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality	None	$M \square N \square$		_
Water Quality	None	M 🗌 N 🗌		
Conditional Use or Variance	None	M 🗌 N 🗌		
Building Expansion	None	M 🗌 N 🗌		
Hazardous Waste	None	M 🗌 N 🗌		
Rezoning	None	M N N		
Authority to Construct	None	M \square N \square		
Other (List types):	None	M \square N \square		

5.	Has any	agency	listed i	n #4	indicated	that	it v	will	be	the	lead	CEQA	agency	for	the
	project?														

⊠ No.					
Yes. Provide the name of and contact information	for the	lead	agency	(contact	person
phone number, and email address):					

6.	documents (e.g., N	ted in #4 prepared or i otice of Exemption, In on, Environmental Impa	itial Study/ Neg	ative Declarat	tion/ Mitigated
		ne chart below for each a pared environmental docu			
	Name of Agency: Contact person, phor	oo numbor omail:			
	CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)
	Not a project Email Letter Resolution Other:		N/A		N/A
	Exempt Notice of Exemption Resolution Agenda item approving exemption		N/A		
	Initial Study				
	Negative Declaration				
	Mitigated Negative Declaration				
	Notice of Preparation				
	Environmental Impact Report				
	Master Environmental Impact Report				
	Notice of Determination				
	NEPA Document ⁸ (Environmental				

of No Significant

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Name of Agency: Contact person, phone number, email:									
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)					
Impact, and/or Environmental Impact Statement)									

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine):

N/A.

University of California, Riverside

Enhancing Renewable Fuel Production with CO2
Microbubbles

CEQA Compliance Form

September 2018

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² California Public Resources Code § 21065.

³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

Type of Project	Yes	No	Project Description
Construction (including			Installation of a small dosing tank
grading, paving, etc.)			
Trenching	\boxtimes		Foundation for dosing tank
New or replaced pipelines		\boxtimes	
Modification or conversion			Breaking into existing pipeline and joining to
of a facility			new dosing tank.
New or modified operation of a facility or equipment			Anaerobic digester recirculation system will operate as usual, with the exception that it will go via the dosing tank before returning back into the digester. In addition, the dosing tank will be dosed with CO2 microbubbles intermittently (TBD but no more than once hour).
On-road demonstration		\boxtimes	
Paper study (including			Analysis of data (dry solids, volatile solids, CO2
analyses on economics,			and CH4 production and energetics of entire
feedstock availability,			process) as well as technoeconomic
workforce availability, etc.)			assessment of installation.
Laboratory research			
Temporary or mobile			
structures (skid-mounted)			
Design/Planning	\boxtimes		Design of dosing tank and pipework modifications as well as installation and commissioning planning.
Other (describe and attach		\boxtimes	
sheets as necessary)			
		_	

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

Street Address	City/ County	Type of Work to Be Completed at Site
5950 Acorn street,	Riverside/River	Temporary modification to digester system
Riverside, CA - 92504	side	

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site environmentally sensitive?		\boxtimes		
Is the site located on agricultural land?		\boxtimes		
Are the activities part of a larger project?		\boxtimes		

l	Question	Yes	No	Unsure	Explanation
	Is there public controversy about the proposed activities or larger project?		\boxtimes		
	Will historic resources or historic buildings be impacted by the activities?				
	Has the proposed site been identified by the Dept. of Toxic Substances Control and the Secretary of the Environmental Protection as being affected by hazardous wastes or cleanup problems?				
	Will the activities generate noise or odors in excess of permitted levels?				
	Will the activities increase traffic at the site, and by what amount?				

4. Will the proposed activities require discretionary permits or determinations, as listed below?

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality	G52011	M 🖾 N 🗆	South Coast Air Quality Management District	Temporary modification to digester system may require modification to existing permit
Water Quality		M 🗆 N 🗆		N/A
Conditional Use or Variance		M \square N \square		N/A
Building Expansion		M 🗌 N 🗌		N/A
Hazardous Waste		M 🗆 N 🗆		N/A
Rezoning		$M \square N \square$		N/A
Authority to Construct		M 🗌 N 🗌		N/A
Other (List types):		M 🗆 N 🗆		N/A

5. Has any agency listed in #4 indicated that it will be the lead CEQA agency for the project?

(e.g., Notice	of Exemption, In	indicated that it		
	vironmentai imp	itial Study/ Nega	tive Declaration	on/ Mitigated
-	mbor omail:			
		State	Completion	Planned
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				encumbranc e deadline)
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	ency: son, phone nur Title on/Type (Atta	plete the chart below for each accrepared environmental document son, phone number, email: Title of Document (Attach the document to this form) n em em em em em em em gative eparation al Impact	plete the chart below for each agency. Cut and pasterepared environmental documents. Attach any documents. Attach any documents. Attach any documents. Title of Document (Attach the document to this form) N/A	plete the chart below for each agency. Cut and paste the chart if repared environmental documents. Attach any document identified ency: son, phone number, email: Title of Document (Attach the document to this form) N/A N/A N/A N/A N/A N/A N/A N/

Determination

Name of Agency:				
Contact person, phon	e number, email:			
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)
NEPA Document ⁸ (Environmental Assessment, Finding of No Significant Impact, and/or Environmental Impact Statement)				

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (<u>must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine):</u>

July 2017

⁸ For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

University of California, Riverside

Graphite-coated high energy density powder

CEQA Compliance Form

September 2018

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The California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000 et seq.) requires public agencies to identify the significant environmental impacts of their actions and to avoid or mitigate them, if feasible.¹ Under CEQA, an activity that may cause either a direct or reasonably foreseeable indirect physical change in the environment is called a "project."² An activity funded by a contract, grant, or loan is considered a "project" under CEQA if it will cause a direct or reasonably foreseeable indirect physical change in the environment. Agencies must comply with CEQA before they approve a "project." This may require the preparation of one or more of the following CEQA documents:

- A <u>Notice of Exemption</u> (if the project is exempt from CEQA under an exemption identified in the CEQA statutes or regulations);³
- An <u>Initial Study</u> (if the project may have a significant effect on the environment);⁴
- A <u>Negative Declaration</u> (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);⁵ or
- An Environmental Impact Report (if there is substantial evidence that the project will have significant effects).⁶

The **Lead Agency** is the public agency that has the greatest responsibility for carrying out, supervising, or approving a project, and for preparing environmental review documents under CEQA (e.g., initial study, environmental impact report). Where the award recipient is a *public agency*, the Lead Agency is typically the recipient. Where the award recipient is a *private entity*, the Lead Agency is the public agency that has the greatest responsibility for supervising or approving the project as a whole.⁷

When issuing contracts, grants, or loans, the Energy Commission is typically a "Responsible Agency" under CEQA, which means that it must make CEQA findings based on review of the funded activities and any environmental documents created by the Lead Agency. If the Energy Commission is the only public agency with responsibility for approving the funded activities and the project is not exempt under CEQA, the Energy Commission must act as the Lead Agency and prepare its own environmental documents before approving the project. This form will help the Energy Commission determine what type of CEQA review is necessary before it can approve the award, and which agency will perform any required environmental review as Lead Agency. It may also help the applicant determine the CEQA process necessary for the proposed activities.

¹ For a brief description of CEQA, visit http://www.resources.ca.gov/cega/more/fag.html.

² California Public Resources Code § 21065.

³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

1.	What are the physical aspects of the proposed activities? (Check all that apply and
	provide a brief description of work, including the size or dimensions of the project).

Type of Project	Yes	No	Project Description
Construction (including grading, paving, etc.)		Х	
Trenching		Χ	
New or replaced pipelines		Χ	
Modification or conversion of a facility		Х	
New or modified operation of a facility or equipment		Х	
On-road demonstration		Χ	
Paper study (including analyses on economics, feedstock availability, workforce availability, etc.)		X	
Laboratory research	Х		R&D laboratory activity
Temporary or mobile structures (skid-mounted)		Х	
Design/Planning	Χ		Planning of R&D laboratory experiments
Other (describe and attach sheets as necessary)			

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

Street Address	City/ County	Type of Work to Be Completed at Site
900 University Ave,	Riverside	R&D laboratory activity
Riverside, CA 92521		
900 University Ave,	Riverside	Planning of R&D laboratory experiments
Riverside, CA 92521		-

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site environmentally sensitive?		X		
Is the site located on agricultural land?		Х		
Are the activities part of a larger project?		X		
Is there public controversy about the proposed activities or		X		

Question			Yes	No		Unsure	Ex	planation			
larger project?									-		
Will historic res historic building by the activities	gs be impacte s?			X							
Has the propidentified by the Substances Conservatory of the Protection as I hazardous was problems?	ne Dept. of To Control and ne Environme peing affected	the ntal by		x							
				Х							
Will the activation traffic at the samount?	tivities increalite, and by w			Х							
TTILL GITO PIOPL	sed activities	٠.٠٠	14110 41	.5516	01	ary perm		J. Gotoiii		.o, ao i	
Permit Type	No.		dified (New (N)	Pul	proving blic encv		Reason for Summary	of Pro	ocess, a	ano
Permit Type	No.)	Pul				of Pro	ocess, a	anc
Permit Type Air Quality Water Quality	No.	or I	New (N)	Pul	blic		Summary	of Pro	ocess, a	anc
Permit Type Air Quality Water	No.	M M	New (N)	Pul	blic		Summary	of Pro	ocess, a	anc
Permit Type Air Quality Water Quality Conditional Use or Variance Building Expansion	No.	M M M	New (N)	Pul	blic		Summary	of Pro	ocess, a	anc
Permit Type Air Quality Water Quality Conditional Use or Variance Building Expansion Hazardous Waste	No.	M [M [M [New (N)	Pul	blic		Summary	of Pro	ocess, a	anc
Permit Type Air Quality Water Quality Conditional Use or Variance Building Expansion Hazardous	No.	M [M [M [M [M [M [M [M [M [M [N)	Pul	blic		Summary	of Pro	ocess, a	ano
Permit Type Air Quality Water Quality Conditional Use or Variance Building Expansion Hazardous Waste	No.	M [M [M [New (N)	Pul	blic		Summary	of Pro	ocess, a	1

6.	Has any agency listed in #4 prepared or indicated that it will prepare environmental documents (e.g., Notice of Exemption, Initial Study/ Negative Declaration/ Mitigated Negative Declaration, Environmental Impact Report) under CEQA for the proposed project?									
	-	ne chart below for each a pared environmental docu		•						
	Name of Agency:									
	Contact person, phon	ne number, email:								
	CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)					
	Not a project Email Letter Resolution Other:		N/A		N/A					
	Exempt Notice of Exemption Resolution Agenda item approving exemption		N/A							
	Initial Study									
	Negative Declaration									
	Mitigated Negative Declaration									
	Notice of Preparation									
	Environmental Impact Report									
	Master Environmental Impact Report									
	Notice of Determination									
	NEPA Document ⁸ (Environmental									

of No Significant

⁸ For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

Name of Agency:									
Contact person, phone number, email:									
CEQA	Title of Document	State	Completion	Planned					
Determination/Type	(Attach the document	Clearinghouse	Date	Completion					
of Document	to this form)	Number		Date (must					
				be prior to					
				Energy					
				Commission					
				encumbranc					
				e deadline)					
Impact, and/or									
Environmental Impact									
Statement)									

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine):

CALSEED SOLICITATION 18-01 COHORT 2

Smartville Energy LLC

Low-cost, Easy-to-integrate, Reliable Grid Energy Storage with 2nd Life Batteries

CEQA Compliance Form

September 2018

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- A <u>Notice of Exemption</u> (if the project is exempt from CEQA under an exemption identified in the CEQA statutes or regulations);³
- An <u>Initial Study</u> (if the project may have a significant effect on the environment);⁴
- A <u>Negative Declaration</u> (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);⁵ or
- An Environmental Impact Report (if there is substantial evidence that the project will have significant effects).⁶

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When issuing contracts, grants, or loans, the Energy Commission is typically a "Responsible Agency" under CEQA, which means that it must make CEQA findings based on review of the funded activities and any environmental documents created by the Lead Agency. If the Energy Commission is the only public agency with responsibility for approving the funded activities and the project is not exempt under CEQA, the Energy Commission must act as the Lead Agency and prepare its own environmental documents before approving the project. This form will help the Energy Commission determine what type of CEQA review is necessary before it can approve the award, and which agency will perform any required environmental review as Lead Agency. It may also help the applicant determine the CEQA process necessary for the proposed activities.

¹ For a brief description of CEQA, visit http://www.resources.ca.gov/ceqa/more/faq.html.

² California Public Resources Code § 21065.

³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

1. What are the physical aspects of the proposed activities? (Check all that apply and provide a brief description of work, including the size or dimensions of the project).

Type of Project	Yes	No	Project Description				
Construction (including grading, paving, etc.)		\boxtimes	The project don't involve construction				
Trenching		\boxtimes	The project don't involve trenching				
New or replaced pipelines		\boxtimes	The project don't involve installing new or replacing pipelines				
Modification or conversion of a facility		\boxtimes	The project don't involve conversion of a facility				
New or modified operation of a facility or equipment		\boxtimes	The project don't involve modified operation of a facility or equipment				
On-road demonstration		\boxtimes	The project don't involve on-road demonstration				
Paper study (including analyses on economics, feedstock availability, workforce availability, etc.)	\boxtimes		The project will conduct techno-economic study and business model development				
Laboratory research			The project will develop new hardware and software in a laboratory environment				
Temporary or mobile structures (skid-mounted)			The project don't involve temporary or mobile structures				
Design/Planning			The project don't involve design/planning of any construction				
Other (describe and attach sheets as necessary)		\boxtimes					

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

Street Address	City/ County	Type of Work to Be Completed at Site
6749 Oleander Way	Carlsbad / San	Energy storage system research and
0749 Oleander Way	Diego	development
9500 Gilman Drive	La Jolla / San	Energy storage system research and
9500 Gillian Drive	Diego	development

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site				
environmentally sensitive?				
Is the site located on				
agricultural land?				
Are the activities part of a larger				
project?				

Question			Yes	No	Unsure	Explanation
Is there public	Is there public controversy					
about the prop	•	s or		\boxtimes		
larger project?						
Will historic resources or						
	historic buildings be impacted by the activities?			\boxtimes		
Has the proposed site been identified by the Dept. of Toxic						
Substances (
Secretary of t				\boxtimes		
Protection as						
hazardous wa						
problems?	20100 01 0100	шар				
Will the ac	tivities gene	rate				
noise or odo				\boxtimes		
permitted leve		, 01				
	tivities incre	226				
traffic at the				\boxtimes		
amount?	one, and by v	viiat	🖳			
•		- m		M)	Approving	Reason for Permit,
		or	New (N)	Public	Summary of Process, an
Air Quality	N/A	M [New (N)		Summary of Process, an
Air Quality Water		M [_ N _)	Public	Summary of Process, an
	N/A N/A	M [•)	Public	Summary of Process, an
Water		M [_ N _)	Public	Summary of Process, an
Water Quality		M [N N)	Public	Summary of Process, an
Water Quality Conditional	N/A	M [_ N _)	Public	Summary of Process, an
Water Quality Conditional Use or Variance	N/A N/A	M [M [N N N)	Public	Summary of Process, an
Water Quality Conditional Use or Variance Building	N/A	M [M [N N)	Public	Summary of Process, an
Water Quality Conditional Use or Variance Building Expansion	N/A N/A N/A	M [M [M [N N N)	Public	Summary of Process, an
Water Quality Conditional Use or Variance Building Expansion Hazardous	N/A N/A	M [M [M [N N N)	Public	Summary of Process, an
Water Quality Conditional Use or Variance Building Expansion Hazardous Waste	N/A N/A N/A	M [M [M [M [N)	Public	Summary of Process, an
Water Quality Conditional Use or Variance Building Expansion Hazardous Waste Rezoning	N/A N/A N/A N/A N/A	M [M [M [M [M [N)	Public	Summary of Process, an
Water Quality Conditional Use or Variance Building Expansion Hazardous Waste Rezoning Authority to	N/A N/A N/A	M [M [M [M [M [N)	Public	Summary of Process, an
Water Quality Conditional Use or Variance Building Expansion Hazardous Waste Rezoning Authority to Construct	N/A N/A N/A N/A N/A	M [M [M [M [M [N)	Public	Summary of Process, an
Water Quality Conditional Use or Variance Building Expansion Hazardous Waste Rezoning Authority to Construct Other (List	N/A N/A N/A N/A N/A	M [M [M [M [M [M [M [M [N)	Public	Summary of Process, an Anticipated Issuance Da
Water Quality Conditional Use or Variance Building Expansion Hazardous Waste Rezoning Authority to Construct	N/A N/A N/A N/A N/A N/A	M [M [M [M [M [M [M [M [N)	Public	Summary of Process, an
Water Quality Conditional Use or Variance Building Expansion Hazardous Waste Rezoning Authority to Construct Other (List types):	N/A N/A N/A N/A N/A N/A N/A N/A	M [M [M [M [M [M [M [M [N		Public Agency	Summary of Process, a

	☐ Yes . Provide the phone number, and e	name of <u>and</u> contact infemail address):	formation for the	lead agency (d	contact person
ô.	documents (e.g., N	ted in #4 prepared or i otice of Exemption, Ini on, Environmental Impa	itial Study/ Neg	ative Declarat	ion/ Mitigated
		ne chart below for each a pared environmental docu			
	Name of Agency:				
	Contact person, phon		_		
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	of Document	to this form)	Number		Date (must be prior to Energy Commission encumbranc e deadline)
	Not a project Email Letter Resolution Other:		N/A		N/A
	Exempt Notice of Exemption Resolution Agenda item approving exemption		N/A		
	Initial Study				
	Negative Declaration Mitigated Negative				
	Declaration				
	Notice of Preparation				
	Environmental Impact Report				
	Master				
	Environmental Impact				
	Report				
	Notice of				
	Determination			1	l

Name of Agency:								
Contact person, phone number, email:								
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)				
NEPA Document ⁸ (Environmental Assessment, Finding of No Significant Impact, and/or Environmental Impact Statement)								

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Ocean Motion Technologies

Hydrokinetic Power Buoy for Local and Grid-Scale Generation and Storage

CEQA Compliance Form

September 2018

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⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

1.	What are the physical aspects of the proposed activities? (Check all that apply and
	provide a brief description of work, including the size or dimensions of the project).

Type of Project	Yes	No	Project Description
Construction (including grading, paving, etc.)			1 Tojout Description
Trenching			
New or replaced pipelines		\boxtimes	
Modification or conversion of a facility		\boxtimes	
New or modified operation of a facility or equipment		\boxtimes	
On-road demonstration		\boxtimes	
Paper study (including analyses on economics, feedstock availability, workforce availability, etc.)			Paper studies on the economic feasibility of ocean wave energy, competitive landscape of the wave energy industry, and technoeconomic as well as feasibility analyses on our prototype.
Laboratory research	\boxtimes		Digital prototyping, numerical simulation, physical prototyping that involves assembling components in a machine shop, bench testing
Temporary or mobile structures (skid-mounted)		\boxtimes	
Design/Planning			
Other (describe and attach sheets as necessary)		\boxtimes	

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

Street Address	City/ County	Type of Work to Be Completed at Site
2075 Las Palmas Dr.	Carlsbad/San Diego	Physical prototyping that involves assembling mechanical components, numerical prototyping and simulation, bench testing

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site environmentally sensitive?		\boxtimes		
Is the site located on agricultural land?		\boxtimes		
Are the activities part of a larger project?		\boxtimes		
Is there public controversy about the proposed activities or				

Question	Yes	No	Unsure	Explanation
larger project?				
Will historic resources or				
historic buildings be impacted				
by the activities?				
Has the proposed site been				
identified by the Dept. of Toxic				
Substances Control and the				
Secretary of the Environmental	🗆			
Protection as being affected by				
hazardous wastes or cleanup				
problems?				
Will the activities generate noise or odors in excess of				
permitted levels?				
1.000				
Will the activities increase traffic at the site, and by what				
amount?				
amount:				

4. Will the proposed activities require discretionary permits or determinations, as listed below?

None of the proposed activities will require permits or determinations.

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality		$M \square N \square$		
Water Quality		M 🗌 N 🗌		
Conditional Use or Variance		M \square N \square		
Building Expansion		M 🗌 N 🗌		
Hazardous Waste		М 🗆 N 🗆		
Rezoning		$M \square N \square$		
Authority to Construct		M 🗌 N 🗌		
Other (List types):		М П И		

5.	Has any	agency	listed	in #4	indicated	that	it ١	will	be	the	lead	CEQA	agency	for	the
	project?														

⊠ No.

	Yes. Provide the phone number, and e	name of <u>and</u> contact info email address):	ormation for the	lead agency (d	contact person,
6.	documents (e.g., N	ted in #4 prepared or i otice of Exemption, Ini on, Environmental Impa	tial Study/ Neg	ative Declarat	ion/ Mitigated
		ne chart below for each a pared environmental docu			
	Name of Agency:				
	Contact person, phon		1		T = .
	CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to
	M		N/A		Energy Commission encumbranc e deadline)
	Not a project Email Letter Resolution Other:		N/A		N/A
	Exempt Notice of Exemption Resolution Agenda item approving exemption		N/A		
	Initial Study				
	Negative Declaration				
	Mitigated Negative Declaration				
	Notice of Preparation				
	Environmental Impact Report				
	Master Environmental Impact Report				
	Notice of		ĺ		1

Determination

Name of Agency:										
	Contact person, phone number, email:									
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)						
NEPA Document ⁸ (Environmental Assessment, Finding of No Significant Impact, and/or Environmental Impact Statement)										

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Crossno & Kaye, LLC

Automated Thermal Flywheeling for the Cold Chain

CEQA Compliance Form

September 2018

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- A <u>Notice of Exemption</u> (if the project is exempt from CEQA under an exemption identified in the CEOA statutes or regulations):3
- An Initial Study (if the project may have a significant effect on the environment);⁴
- A Negative Declaration (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);5 or
- An Environmental Impact Report (if there is substantial evidence that the project will have significant effects).6

The Lead Agency is the public agency that has the greatest responsibility for carrying out, supervising, or approving a project, and for preparing environmental review documents under CEQA (e.g., initial study, environmental impact report). Where the award recipient is a public agency, the Lead Agency is typically the recipient. Where the award recipient is a private entity, the Lead Agency is the public agency that has the greatest responsibility for supervising or approving the project as a whole.⁷

¹ For a brief description of CEQA, visit http://www.resources.ca.gov/cega/more/fag.html.

² California Public Resources Code § 21065.

^{3 14} California Code of Regulations (CCR) §§ 15061 and 15062.

^{4 14} CCR § 15063.

^{5 14} CCR §§ 15070 et seq.

^{6 14} CCR §§ 15080 et seg.

^{7 14} CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

When issuing contracts, grants, or loans, the Energy Commission is typically a "Responsible Agency" under CEQA, which means that it must make CEQA findings based on review of the funded activities and any environmental documents created by the Lead Agency. If the Energy Commission is the only public agency with responsibility for approving the funded activities and the project is not exempt under CEQA, the Energy Commission must act as the Lead Agency and prepare its own environmental documents before approving the project. This form will help the Energy Commission determine what type of CEQA review is necessary before it can approve the award, and which agency will perform any required environmental review as Lead Agency. It may also help the applicant determine the CEQA process necessary for the proposed activities.

1. What are the physical aspects of the proposed activities? (Check all that apply and provide a brief description of work, including the size or dimensions of the project).

Type of Project	Yes	No	Project Description
Construction (including			
grading, paving, etc.)			
Trenching			
New or replaced pipelines			
Modification or conversion			
of a facility			
New or modified operation			
of a facility or equipment			
On-road demonstration			
Paper study (including			Analyze the existing barriers that the thermal flywheeling
analyses on economics,			technology will need to overcome before becoming viable for market adoption and then document these findings in a
feedstock availability,			paper study that will detail a strategy for scaling this
workforce availability, etc.)			energy-efficiency technology.
Laboratory research			
Temporary or mobile			
structures (skid-mounted)			
Design/Planning			
Other (describe and attach			
sheets as necessary)			

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

Street Address	City/ County Ty	pe of Work to Be Completed at Site
3251 De Forest Cir.	Mira Loma/ Riverside	Paper study

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site environmentally sensitive?		✓		
Is the site located on		~		

Question	Yes	No	Unsure	Explanation
agricultural land?				
Are the activities part of a				
larger project?				
Is there public controversy				
about the proposed activities or				
larger project?				
Will historic resources or				
historic buildings be impacted				
by the activities?				
Has the proposed site been				
identified by the Dept. of Toxic Substances Control and the				
Secretary of the Environmental				
Protection as being affected by				
hazardous wastes or cleanup				
problems?				
Will the activities generate				
noise or odors in excess of		✓		
permitted levels?				
Will the activities increase				
traffic at the site, and by what				
amount?				

4. Will the proposed activities require discretionary permits or determinations, as listed below? None of the proposed activities require permits.

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality		M N		
Water		MNN		
Quality				
Conditional				
Use or		M N		
Variance				
Building		MNN		
Expansion		IVI IVI		
Hazardous		MNN		
Waste				
Rezoning		M N L		
Authority to		MNN		
Construct		141 [] 14 []		
Other (List		NA D NI D		
types):		M N		

5. Has any agency listed in #4 indicated that it will be the lead CEQA agency for the project?

	Yes. Provide the phone number, and e	name of <u>and</u> contact infemail address):	formation for the	lead agency (d	contact person,
6.	documents (e.g., N	ted in #4 prepared or i otice of Exemption, Ini on, Environmental Impa	itial Study/ Neg	ative Declarat	ion/ Mitigated
		ne chart below for each a pared environmental docu			
	Name of Agency:				
	Contact person, phon	ne number, email: Title of Document	Ctata	Completion	Dlannad
	CEQA Determination/Type of Document	(Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc
	Not a project		N/A		<u>e deadline</u>) N/A
	Email		,,		,, .
	Letter				
	Resolution				
	Other:				
	Exempt		N/A		
	Notice of				
	Exemption				
	Resolution Agenda item				
	approving exemption				
	Initial Study				
	Negative Declaration				
	Mitigated Negative				
	Declaration Notice of Preparation				
	Environmental Impact				
	Report				
	Master Environmental Impact				

Name of Agency:									
Contact person, phone number, email:									
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)					
Report									
Notice of									
Determination									
NEPA Document ⁸ (Environmental Assessment, Finding of No Significant									
Impact, and/or Environmental Impact Statement)									

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine):

n/a

8 For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

ETC Solar, LLC

Invisible front contacts for solar cells

CEQA Compliance Form

September 2018

All applicants must complete this form, regardless of whether the proposed activity is considered a "project" as defined below. Answer all questions as completely as possible. The Energy Commission may request additional information in order to clarify the responses provided on this form.

The California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000 et seq.) requires public agencies to identify the significant environmental impacts of their actions and to avoid or mitigate them, if feasible.1 Under CEQA, an activity that may cause either a direct or reasonably foreseeable indirect physical change in the environment is called a "project." An activity funded by a contract, grant, or loan is considered a "project" under CEQA if it will cause a direct or reasonably foreseeable indirect physical change in the environment. Agencies must comply with CEQA before they approve a "project." This may require the preparation of one or more of the following CEQA documents:

- A Notice of Exemption (if the project is exempt from CEQA under an exemption identified in the CEQA statutes or regulations);³
- An Initial Study (if the project may have a significant effect on the environment);⁴
- A Negative Declaration (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);⁵ or
- An Environmental Impact Report (if there is substantial evidence that the project will have significant effects).6

The Lead Agency is the public agency that has the greatest responsibility for carrying out, supervising, or approving a project, and for preparing environmental review documents under CEQA (e.g., initial study, environmental impact report). Where the award recipient is a public agency, the Lead Agency is typically the recipient. Where the award recipient is a private entity, the Lead Agency is the public agency that has the greatest responsibility for supervising or approving the project as a whole.⁷

When issuing contracts, grants, or loans, the Energy Commission is typically a "Responsible Agency" under CEQA, which means that it must make CEQA findings based on review of the funded activities and any environmental documents created by the Lead Agency. If the Energy Commission is the only public agency with responsibility for approving the funded activities and the project is not exempt under CEQA, the Energy Commission must act as the Lead Agency and prepare its own environmental documents before approving the project. This form will help the Energy Commission determine what type of CEQA review is necessary before it can approve the award, and which agency will perform any required environmental review as Lead Agency. It may also help the applicant determine the CEQA process necessary for the proposed activities.

1. What are the physical aspects of the proposed activities? (Check all that apply and provide a brief description of work, including the size or dimensions of the project).

¹ For a brief description of CEQA, visit http://www.resources.ca.gov/cega/more/fag.html.

² California Public Resources Code § 21065.

³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

Type of Project	Yes	No	Project Description
Construction (including		Х	
grading, paving, etc.)			
Trenching		X	
New or replaced pipelines		X	
Modification or conversion of a facility		Х	
New or modified operation		X	
of a facility or equipment			
On-road demonstration		X	
Paper study (including			
analyses on economics,		X	
feedstock availability,		^	
workforce availability, etc.)			
Laboratory research	x		For the proposed project, ETC Solar LLC will use the existing R&D (laboratory) facilities at California Institute of Technology. The proposed R&D work does not involve any rare or hazardous materials and existing equipment and facilities will be used.
Temporary or mobile structures (skid-mounted)		X	
Design/Planning		Х	
Other (describe and attach sheets as necessary)		Х	

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

Street Address			City/ County	Type of Work to Be Completed at Site							
1200	East	California	Pasadena	Laboratory research and use of existing							
Blvd				equipment to conduct the proposed R&D work.							

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site environmentally sensitive?		Х		
Is the site located on agricultural land?		Х		
Are the activities part of a larger project?		Х		
Is there public controversy about the proposed activities or larger project?		Х		

Question	Yes	No	Unsure	Explanation
Will historic resources or historic buildings be impacted by the activities?		Х		
Has the proposed site been identified by the Dept. of Toxic Substances Control and the Secretary of the Environmental Protection as being affected by hazardous wastes or cleanup problems?		х		
Will the activities generate noise or odors in excess of permitted levels?		X		
Will the activities increase traffic at the site, and by what amount?		Х		

4. Will the proposed activities require discretionary permits or determinations, as listed below?

The proposed activities will not require any of the permits or determinations listed below.

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality		$M \square N \square$		Not required
Water Quality		M 🗌 N 🗌		Not required
Conditional Use or Variance		M 🗆 N 🗆		Not required
Building Expansion		M 🗌 N 🗌		Not required
Hazardous Waste		M 🗌 N 🗌		Not required
Rezoning		M \square N \square		Not required
Authority to Construct		M 🗌 N 🗌		Not required
Other (List types):		M \square N \square		Not required

5.	Has any	agency	listed	in #4	indicated	that	it	will	be	the	lead	CEQA	agency	for	the
	project?														

⊠ No.							
Yes.	Provide the name of and co	ontact information	for the	lead	agency	(contact p	person
phone no	umber, and email address):						

6.	Has any agency listed in #4 prepared or indicated that it will prepare environmental documents (e.g., Notice of Exemption, Initial Study/ Negative Declaration/ Mitigated Negative Declaration, Environmental Impact Report) under CEQA for the proposed project?								
		chart below for each age environmental documents							
	Name of Agency:								
	Contact person, phon		1						
	CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)				
	Not a project Email Letter Resolution Other:		N/A		N/A				
	Exempt Notice of Exemption Resolution Agenda item approving exemption		N/A						
	Initial Study								
	Negative Declaration Mitigated Negative Declaration								
	Notice of Preparation								
	Environmental Impact Report								
	Mactor			1	1				

Environmental Impact

Report
Notice of
Determination

Name of Agency:								
Contact person, phone number, email:								
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)				
NEPA Document ⁸ (Environmental Assessment, Finding of No Significant Impact, and/or Environmental Impact Statement)								

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (<u>must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine):</u>

N/A.

⁸ For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

California State University Fullerton

LOW-COST PORTABLE SMART WI-FI PROGRAMMABLE LEARNING BIO-MIMICKING SOLAR SHRUB

CEQA Compliance Form

September 2018

All applicants must <u>complete</u> this form, regardless of whether the proposed activity is considered a "project" as defined below. Answer all questions as completely as possible. The Energy Commission may request additional information in order to clarify the responses provided on this form.

The California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000 et seq.) requires public agencies to identify the significant environmental impacts of their actions and to avoid or mitigate them, if feasible. Under CEQA, an activity that may cause either a direct or reasonably foreseeable indirect physical change in the environment is called a "project." An activity funded by a contract, grant, or loan is considered a "project" under CEQA if it will cause a direct or reasonably foreseeable indirect physical change in the environment. Agencies must comply with CEQA before they approve a "project." This may require the preparation of one or more of the following CEQA documents:

- A <u>Notice of Exemption</u> (if the project is exempt from CEQA under an exemption identified in the CEQA statutes or regulations);³
- An <u>Initial Study</u> (if the project may have a significant effect on the environment);⁴
- A <u>Negative Declaration</u> (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);⁵ or
- An Environmental Impact Report (if there is substantial evidence that the project will have significant effects).⁶

The **Lead Agency** is the public agency that has the greatest responsibility for carrying out, supervising, or approving a project, and for preparing environmental review documents under CEQA (e.g., initial study, environmental impact report). Where the award recipient is a *public agency*, the Lead Agency is typically the recipient. Where the award recipient is a *private entity*, the Lead Agency is the public agency that has the greatest responsibility for supervising or approving the project as a whole.⁷

When issuing contracts, grants, or loans, the Energy Commission is typically a "Responsible Agency" under CEQA, which means that it must make CEQA findings based on review of the funded activities and any environmental documents created by the Lead Agency. If the Energy Commission is the only public agency with responsibility for approving the funded activities and the project is not exempt under CEQA, the Energy Commission must act as the Lead Agency and prepare its own environmental documents before approving the project. This form will help the Energy Commission determine what type of CEQA review is necessary before it can approve the award, and which agency will perform any required environmental review as Lead Agency. It may also help the applicant determine the CEQA process necessary for the proposed activities.

¹ For a brief description of CEQA, visit http://www.resources.ca.gov/cega/more/fag.html.

² California Public Resources Code § 21065.

³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

1. What are the physical aspects of the proposed activities? (Check all that apply and provide a brief description of work, including the size or dimensions of the project).

Type of Project	Yes	No	Project Description
Construction (including grading, paving, etc.)		✓	
Trenching		\checkmark	
New or replaced pipelines		\checkmark	
Modification or conversion of a facility		✓	
New or modified operation of a facility or equipment	√		The project will use a 3D printing machine for fabricating the proposed device.
On-road demonstration		\checkmark	
Paper study (including analyses on economics, feedstock availability, workforce availability, etc.)	✓		The project will include detailed study of relevant literature on 3D printing functional devices, embedding intelligence and advanced product testing procedures.
Laboratory research	✓		The project will include laboratory level research on prototype development, embedding circuits and performance characterization.
Temporary or mobile structures (skid-mounted)		✓	
Design/Planning	✓		The project will include designing of prototype and project planning activities to integrate the smart technologies.
Other (describe and attach sheets as necessary)	√		Perform process simulation to investigate optimal performance.

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

Street Address		City/ County	Type of Work to Be Completed at Site					
800	Ν	State	College	Fullerton,	Prototype	development,	Testing	and
Blvd	Blvd		Orange County	Characterization				

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site environmentally sensitive?		√		
Is the site located on agricultural land?		✓		
Are the activities part of a larger project?		✓		
Is there public controversy		√		

Question	Yes	No	Unsure	Explanation
about the proposed activities or larger project?				
Will historic resources or historic buildings be impacted by the activities?		✓		
Has the proposed site been identified by the Dept. of Toxic Substances Control and the Secretary of the Environmental Protection as being affected by hazardous wastes or cleanup problems?		√		
Will the activities generate noise or odors in excess of permitted levels?		✓		
Will the activities increase traffic at the site, and by what amount?		✓		

4. Will the proposed activities require discretionary permits or determinations, as listed below?

No. This project does not require any of the discretionary permits listed below.

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality		$M \square N \square$		
Water Quality		$M \square N \square$		
Conditional				
Use or		$M \square N \square$		
Variance				
Building Expansion		$M \; \square \; N \; \square$		
Hazardous Waste		M 🗌 N 🗌		
Rezoning		M \square N \square		
Authority to Construct		М П И П		
Other (List types):		M 🗌 N 🗌		

5. Has any agency listed in #4 indicated that it will be the lead CEQA agency for the project?

✓ No.

Yes. Provide the name of <u>and</u> contact information for the lead agency (contact person, phone number, and email address):

6. Has any agency listed in #4 prepared or indicated that it will prepare environmental documents (e.g., Notice of Exemption, Initial Study/ Negative Declaration/ Mitigated Negative Declaration, Environmental Impact Report) under CEQA for the proposed project?

\checkmark	N	^
•	14	u

Yes. Complete the chart below for each agency. **Cut and paste** the chart if more than one agency has prepared environmental documents. **Attach** any document identified below to this form.

Name of Agency:				
Contact person, phon	e number, email:			
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)
Not a project Email Letter Resolution Other:		N/A		N/A
Exempt Notice of Exemption Resolution Agenda item approving exemption		N/A		
Initial Study				
Negative Declaration Mitigated Negative Declaration				
Notice of Preparation				
Environmental Impact Report				
Master Environmental Impact Report				
Notice of Determination				

Name of Agency:							
Contact person, phon	<u>, </u>		ı				
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)			
NEPA Document ⁸ (Environmental Assessment, Finding of No Significant Impact, and/or Environmental Impact Statement)							

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine):

⁸ For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

Pronoia, Inc.

Pronoia Energy Storage Device

CEQA Compliance Form

September 2018

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The California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000 et seq.) requires public agencies to identify the significant environmental impacts of their actions and to avoid or mitigate them, if feasible.¹ Under CEQA, an activity that may cause either a direct or reasonably foreseeable indirect physical change in the environment is called a "project."² An activity funded by a contract, grant, or loan is considered a "project" under CEQA if it will cause a direct or reasonably foreseeable indirect physical change in the environment. Agencies must comply with CEQA before they approve a "project." This may require the preparation of one or more of the following CEQA documents:

- A <u>Notice of Exemption</u> (if the project is exempt from CEQA under an exemption identified in the CEQA statutes or regulations);³
- An <u>Initial Study</u> (if the project may have a significant effect on the environment);⁴
- A <u>Negative Declaration</u> (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);⁵ or
- An Environmental Impact Report (if there is substantial evidence that the project will have significant effects).⁶

The **Lead Agency** is the public agency that has the greatest responsibility for carrying out, supervising, or approving a project, and for preparing environmental review documents under CEQA (e.g., initial study, environmental impact report). Where the award recipient is a *public agency*, the Lead Agency is typically the recipient. Where the award recipient is a *private entity*, the Lead Agency is the public agency that has the greatest responsibility for supervising or approving the project as a whole.⁷

When issuing contracts, grants, or loans, the Energy Commission is typically a "Responsible Agency" under CEQA, which means that it must make CEQA findings based on review of the funded activities and any environmental documents created by the Lead Agency. If the Energy Commission is the only public agency with responsibility for approving the funded activities and the project is not exempt under CEQA, the Energy Commission must act as the Lead Agency and prepare its own environmental documents before approving the project. This form will help the Energy Commission determine what type of CEQA review is necessary before it can approve the award, and which agency will perform any required environmental review as Lead Agency. It may also help the applicant determine the CEQA process necessary for the proposed activities.

¹ For a brief description of CEQA, visit http://www.resources.ca.gov/cega/more/fag.html.

² California Public Resources Code § 21065.

³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

^{6 14} CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

1.	What are the physical aspects of the proposed activities? (Check all that apply and
	provide a brief description of work, including the size or dimensions of the project).

Type of Project	Yes	No	Project Description
Construction (including			
grading, paving, etc.)			
Trenching		\boxtimes	
New or replaced pipelines		\boxtimes	
Modification or conversion			
of a facility			
New or modified operation			
of a facility or equipment			
On-road demonstration		\boxtimes	
Paper study (including			
analyses on economics,			
feedstock availability,			
workforce availability, etc.)			
Laboratory research	\boxtimes		
Temporary or mobile		\boxtimes	
structures (skid-mounted)			
Design/Planning		\boxtimes	
Other (describe and attach		\boxtimes	
sheets as necessary)			

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

Street Address	City/ County	Type of Work to Be Completed at Site		
525 S Hewitt Street LA/LA		Lab Research		

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site environmentally sensitive?				
Is the site located on agricultural land?				
Are the activities part of a larger project?		\boxtimes		
Is there public controversy about the proposed activities or larger project?				
Will historic resources or historic buildings be impacted by the activities?		\boxtimes		
Has the proposed site been		\boxtimes		

Question	Yes	No	Unsure	Explanation
identified by the Dept. of Toxic				
Substances Control and the				
Secretary of the Environmental				
Protection as being affected by				
hazardous wastes or cleanup				
problems?				
Will the activities generate				
noise or odors in excess of		\boxtimes		
permitted levels?				
Will the activities increase				
traffic at the site, and by what		\boxtimes		
amount?				

	Will the activities general noise or odors in excess permitted levels? Will the activities increat traffic at the site, and by whamount?								
4.	4. Will the proposed activities re below?☒ No				iscr	etio	nary perr	nits	or determinations, as listed
			dified (New (N		Approving Public Agency			Reason for Permit, Summary of Process, and Anticipated Issuance Date	
	Air Quality		М	\square N \square			· · · · · ·		No permit needed
	Water			M					No permit needed
	Conditional Use or Variance		M [1					No permit needed
	Building Expansion		М	N					No permit needed
	Hazardous Waste		Μ[M					No permit needed
	Rezoning		М	\square N \square					No permit needed
	Authority to Construct		М	M 🗌 N 🗌					No permit needed
	Other (List types):		Μ[N					No permit needed
5.	project? - N/A	de the name o	of <u>an</u>	<u>d</u> conta					lead CEQA agency for the

5.	Has any agency listed in #4 indicated that it will be the lead CEQA agency for the project? · N/A
	No. Yes. Provide the name of and contact information for the lead agency (contact person
	ohone number, and email address):

6.	Has any agency listed in #4 prepared or indicated that it will prepare environmental documents (e.g., Notice of Exemption, Initial Study/ Negative Declaration/ Mitigated Negative Declaration, Environmental Impact Report) under CEQA for the proposed project? - N/A										
		ne chart below for each a pared environmental doc									
	Name of Agency:	o number emails									
	Contact person, phon CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)						
	Not a project Email Letter Resolution Other:		N/A		N/A						
	Exempt Notice of Exemption Resolution Agenda item approving exemption Initial Study		N/A								
	Negative Declaration Mitigated Negative Declaration										
	Notice of Preparation Environmental Impact Report										
	Master Environmental Impact Report Notice of										
	Determination NEPA Document ⁸ (Environmental Assessment, Finding of No Significant										

Impact, and/or

⁸ For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

Name of Agency:											
Contact person, phone number, email:											
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)							
Environmental Impact Statement)											

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (<u>must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine):</u>

- N/A

Pick My Solar

SolarBlock

CEQA Compliance Form

September 2018

All applicants must <u>complete</u> this form, regardless of whether the proposed activity is considered a "project" as defined below. Answer all questions as completely as possible. The Energy Commission may request additional information in order to clarify the responses provided on this form.

The California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000 et seq.) requires public agencies to identify the significant environmental impacts of their actions and to avoid or mitigate them, if feasible.¹ Under CEQA, an activity that may cause either a direct or reasonably foreseeable indirect physical change in the environment is called a "project."² An activity funded by a contract, grant, or loan is considered a "project" under CEQA if it will cause a direct or reasonably foreseeable indirect physical change in the environment. Agencies must comply with CEQA before they approve a "project." This may require the preparation of one or more of the following CEQA documents:

- A <u>Notice of Exemption</u> (if the project is exempt from CEQA under an exemption identified in the CEQA statutes or regulations);³
- An Initial Study (if the project may have a significant effect on the environment);⁴
- A <u>Negative Declaration</u> (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);⁵ or
- An <u>Environmental Impact Report</u> (if there is substantial evidence that the project will have significant effects).⁶

The **Lead Agency** is the public agency that has the greatest responsibility for carrying out, supervising, or approving a project, and for preparing environmental review documents under CEQA (e.g., initial study, environmental impact report). Where the award recipient is a *public agency*, the Lead Agency is typically the recipient. Where the award recipient is a *private entity*, the Lead Agency is the public agency that has the greatest responsibility for supervising or approving the project as a whole.⁷

When issuing contracts, grants, or loans, the Energy Commission is typically a "Responsible Agency" under CEQA, which means that it must make CEQA findings based on review of the funded activities and any environmental documents created by the Lead Agency. If the Energy Commission is the only public agency with responsibility for approving the funded activities and the project is not exempt under CEQA, the Energy Commission must act as the Lead Agency and prepare its own environmental documents before approving the project. This form will help the Energy Commission determine what type of CEQA review is necessary before it can approve the award, and which agency will perform any required environmental review as Lead Agency. It may also help the applicant determine the CEQA process necessary for the proposed activities.

¹ For a brief description of CEQA, visit http://www.resources.ca.gov/ceqa/more/faq.html.

² California Public Resources Code § 21065.

³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

1.	What are the physical aspects of the proposed activities? (Check all that apply and
	provide a brief description of work, including the size or dimensions of the project).

Type of Project	Yes	No	Project Description
Construction (including		V	
grading, paving, etc.)		1	
Trenching		V.	
New or replaced pipelines		$\mathbf{\nabla}$.	
Modification or conversion		\square	
of a facility			4.0
New or modified operation		$\mathbf{\nabla}$	
of a facility or equipment			
On-road demonstration		$\mathbf{V}_{\mathbf{v}}$	
Paper study (including		$\overline{\mathbf{V}}$	
analyses on economics,			
feedstock availability,			
workforce availability, etc.)		1	
Laboratory research		abla	
Temporary or mobile		V	
structures (skid-mounted)		1	
Design/Planning		∇	
Other (describe and attach		\square	
sheets as necessary)			de:

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

	City/ County	Type of Work to Be Completed at Site
525 S. Hewith St.	Los Angeles	Software Development
	CA . 90013	

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No,	Unsure	Explanation
Is the proposed activity site environmentally sensitive?		M		
Is the site located on agricultural land?		Ø		
Are the activities part of a larger project?		M		
Is there public controversy about the proposed activities or larger project?		M		
Will historic resources or historic buildings be impacted by the activities?		M .		
Has the proposed site been		Ø		

identified by the Dept. of Toxic Substances Control and the Secretary of the Environmental Protection as being affected by hazardous wastes or cleanup problems?		
Will the activities generate noise or odors in excess of permitted levels?	M	
Will the activities increase traffic at the site, and by what amount?	Ø	

4. below?

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality		MONO	N/A	9 9 9
Water Quality		MONO	N/A	
Conditional Use or Variance		MUNU	N/A	
Building Expansion		MONO	N/A	
Hazardous Waste		MONO	N/A	
Rezoning		M N	N/A	
Authority to Construct		MONO	N/A	
Other (List types):		MONO	N/A	

5.	Has any project?	agency	listed	in #4	indicated	that	it	will	be	the	lead	CEQA	agency	for	the
	□ No												•		

No.Yes. Provide the name of <u>and</u> contact information for the lead agency (contact person, phone number, and email address):

6. Has any agency listed in #4 prepared or indicated that it will prepare environmental documents (e.g., Notice of Exemption, Initial Study/ Negative Declaration/ Mitigated Negative Declaration, Environmental Impact Report) under CEQA for the proposed project?

one agency has prep to this form.				
Name of Agency:				
Contact person, phor CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)
Not a project Email Letter Resolution Other:		N/A		N/A
Exempt Notice of Exemption Resolution Agenda item approving exemption Initial Study		N/A	•	
Negative Declaration Mitigated Negative Declaration Notice of Preparation				
Environmental Impact Report				
Environmental Impact Report Notice of				
Determination NEPA Document ^a (Environmental Assessment, Finding				
of No Significant Impact, and/or Environmental Impact Statement)				

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an

For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

Name of Agency:	Name of Agency:						
Contact person, phor	ne number, email:						
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)			
Statement)							

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine):

InPipe Energy

In-PRV (Pressure Recovery Valve) Renewable Energy System

CEQA Compliance Form

September 2018

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- A <u>Notice of Exemption</u> (if the project is exempt from CEQA under an exemption identified in the CEQA statutes or regulations);³
- An Initial Study (if the project may have a significant effect on the environment);4
- A <u>Negative Declaration</u> (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);⁵ or
- An <u>Environmental Impact Report</u> (if there is substantial evidence that the project will have significant effects).⁶

The **Lead Agency** is the public agency that has the greatest responsibility for carrying out, supervising, or approving a project, and for preparing environmental review documents under CEQA (e.g., initial study, environmental impact report). Where the award recipient is a *public agency*, the Lead Agency is typically the recipient. Where the award recipient is a *private entity*, the Lead Agency is the public agency that has the greatest responsibility for supervising or approving the project as a whole.⁷

When issuing contracts, grants, or loans, the Energy Commission is typically a "Responsible Agency" under CEQA, which means that it must make CEQA findings based on review of the funded activities and any environmental documents created by the Lead Agency. If the Energy Commission is the only public agency with responsibility for approving the funded activities and the project is not exempt under CEQA, the Energy Commission must act as the Lead Agency and prepare its own environmental documents before approving the project. This form will help the Energy Commission determine what type of CEQA review is necessary before it can approve the award, and which agency will perform any required environmental review as Lead Agency. It may also help the applicant determine the CEQA process necessary for the proposed activities.

1. What are the physical aspects of the proposed activities? (Check all that apply and provide a brief description of work, including the size or dimensions of the project).

¹ For a brief description of CEQA, visit http://www.resources.ca.gov/cega/more/fag.html.

² California Public Resources Code § 21065.

³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

^{6 14} CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

Type of Project	Yes	No	Project Description
Construction (including grading, paving, etc.)		×	
Trenching		\boxtimes	
New or replaced pipelines		\boxtimes	
Modification or conversion of a facility		×	
New or modified operation of a facility or equipment		×	
On-road demonstration		\boxtimes	
Paper study (including analyses on economics, feedstock availability, workforce availability, etc.)	×		This shall include market/market sizing analyses
Laboratory research			
Temporary or mobile structures (skid-mounted)			
Design/Planning	\boxtimes		This shall include product design, engineering and software development activities
Other (describe and attach sheets as necessary)	×		Business development, including in-office and travel, telecommunications and the development of marketing materials.
	<u> </u>	<u> </u>	actions and maintains materials.

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

Street Address	City/ County	Type of Work to Be Completed at Site
400 7 th street	Manhattan Beach/Los Angeles County	Design, engineering and business development
	_	

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site environmentally sensitive?		X		
Is the site located on agricultural land?		\boxtimes		
Are the activities part of a larger project?		X		

Question	Yes	No	Unsure	Explanation
Is there public controversy about the proposed activities or larger project?		×		
Will historic resources or historic buildings be impacted by the activities?		×		
Has the proposed site been identified by the Dept. of Toxic Substances Control and the Secretary of the Environmental Protection as being affected by hazardous wastes or cleanup problems?		×		
Will the activities generate noise or odors in excess of permitted levels?		×		
Will the activities increase traffic at the site, and by what amount?		×		

4. Will the proposed activities require discretionary permits or determinations, as listed below?

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality	Not applicable	M 🗆 N 🗆		
Water Quality	Not applicable	M 🗌 N 🗌		
Conditional Use or Variance	Not applicable	M 🗆 N 🗆		
Building Expansion	Not applicable	M 🗌 N 🗌		
Hazardous Waste	Not applicable	M 🗌 N 🗌		
Rezoning	Not applicable	M 🗌 N 🗌		
Authority to Construct	Not applicable	M 🗌 N 🗌		
Other (List types):	Not applicable	M 🗆 N 🗆		

5. Has any agency listed in #4 indicated that it will be the lead CEQA agency for the project?

⊠ No.

	☐ Yes . Provide the name of <u>and</u> contact information for the lead agency (contact person, phone number, and email address):						
6.	documents (e.g., No	ed in #4 prepared or in tice of Exemption, Init n, Environmental Impa	ial Study/ Nega	tive Declaration	on/ Mitigated		
		chart below for each age environmental documents					
	Name of Agency:						
	Contact person, phon CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)		
	Not a project Email Letter Resolution Other:		N/A		N/A		
	Exempt Notice of Exemption Resolution Agenda item approving exemption Initial Study		N/A				
	Negative Declaration Mitigated Negative						
	Declaration Notice of Preparation						
	Environmental Impact Report						
	Master Environmental Impact Report						
	Notice of Determination						

Name of Agency:				
Contact person, phon	e number, email:			
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)
NEPA Document ⁸ (Environmental Assessment, Finding of No Significant Impact, and/or Environmental Impact Statement)	Not Applicable			

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine):

⁸ For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

SkyCool Systems

Cooling Mobile Data Centers with the Sky

CEQA Compliance Form

September 2018

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- A <u>Negative Declaration</u> (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);⁵ or
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² California Public Resources Code § 21065.

³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

1.	What are the physical aspects of the proposed activities? (Check all that apply and
	provide a brief description of work, including the size or dimensions of the project).

Town of Duning	V	l NI a	Duning t Description
Type of Project	Yes	No	Project Description
Construction (including		\boxtimes	
grading, paving, etc.)			
Trenching		\boxtimes	
New or replaced pipelines		\boxtimes	
Modification or conversion			
of a facility			
New or modified operation			
of a facility or equipment	Ш		
On-road demonstration			
Paper study (including			Thermal modeling to asses passive cooling
analyses on economics,			potential for container data centers
feedstock availability,		Ш	
workforce availability, etc.)			
-			Simulation environmental testing to
Laboratory research		Ш	demonstrate passive cooling system
Temporary or mobile			
structures (skid-mounted)			
ou detailee (end medined)			Technoeconomic analysis of the system and
Design/Planning	\boxtimes		market report to demonstrate interest from
			relevant parties
Other (describe and attach			10.0 tarit partio
sheets as necessary)			
oncote as necessary)		1	

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

Street Address	City/ County	Type of Work to Be Completed at Site
2627 Hanover St,	Palo Alto, CA	Thermal modeling, market research,
Palo Alto CA 94304		demonstration of passive cooling

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site environmentally sensitive?		\boxtimes		
,				
Is the site located on agricultural land?		\boxtimes		
Are the activities part of a larger project?		\boxtimes		
Is there public controversy about the proposed activities or larger project?		\boxtimes		

ATTACHMENT 8

Californ	California Environmental Quality Act (CEQA) Compliance Form					
Question		Yes	No	Unsure	Explanation	
Will historic res historic buildin by the activitie	gs be impacted					
identified by the Substances (Secretary of the Protection as	posed site been to be the post of Tox Control and the Environment being affected bastes or cleanural control of the control of	ic le al 🔲				
	tivities generat rs in excess d ls?		\boxtimes			
Will the activities increase traffic at the site, and by what amount?						
Will the proposed activities require discretionary permits or determinations, as listed below?						
Permit Type		Modified (or New (N	i)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date	

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality	Not Applicable	M 🗌 N 🗌		
Water Quality	Not Applicable	M 🗌 N 🗌		
Conditional Use or Variance	Not Applicable	M 🗌 N 🗌		
Building Expansion	Not Applicable	M 🗌 N 🗌		
Hazardous Waste	Not Applicable	M 🗌 N 🗌		
Rezoning	Not Applicable	M 🗌 N 🗌		
Authority to Construct	Not Applicable	M 🗌 N 🗌		
Other (List types):	Not Applicable	МПИП		

Construct	Applicable					
Other (List types):	Not Applicable	M 🗌 N 🗌				
Has any ager project?	ncy listed in	#4 indicated t	hat it will be the	e lead CEQA a	agency fo	r the
No. Yes. Provide phone number			nformation for the	e lead agency (contact pe	rson,
2017		Page	3 of 5	Increasing Adopti		-17-301 g Clean

5.

4.

ô.	documents (e.g., N	ted in #4 prepared or i otice of Exemption, In on, Environmental Imp	itial Study/ Neg	ative Declara	tion/ Mitigated
		ne chart below for each a pared environmental doc			
	Name of Agency: Contact person, phon	ne number email:			
	CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)
	Not a project Email Letter Resolution Other:		N/A		N/A
	Exempt Notice of Exemption Resolution Agenda item approving exemption		N/A		
	Initial Study				
	Negative Declaration Mitigated Negative Declaration				
	Notice of Preparation				
	Environmental Impact Report				
	Master Environmental Impact Report				
	Notice of Determination				
	NEPA Document ⁸ (Environmental				

⁸ For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

Name of Agency:							
Contact person, phon CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)			
of No Significant Impact, and/or Environmental Impact Statement)							

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (<u>must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine</u>):

Page 5 of 5

Palo Alto Research Center, Inc.

Adaptive current-collectors for high-efficiency electric vehicles

CEQA Compliance Form

September 2018

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- An Initial Study (if the project may have a significant effect on the environment);⁴
- A Negative Declaration (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);5 or
- An Environmental Impact Report (if there is substantial evidence that the project will have significant effects).6

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³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

1.	What are the physical aspects of the proposed activities? (Check all that apply and
	provide a brief description of work, including the size or dimensions of the project).

Type of Project	Yes	No	Project Description
Construction (including grading, paving, etc.)			,
Trenching		\boxtimes	
New or replaced pipelines		\boxtimes	
Modification or conversion of a facility		\boxtimes	
New or modified operation of a facility or equipment		\boxtimes	
On-road demonstration		\boxtimes	
Paper study (including analyses on economics, feedstock availability, workforce availability, etc.)		\boxtimes	
Laboratory research			Materials testing, preparation and testing of prototype devices, and preparation and testing of small-scale prototype batteries using existing laboratory space. Laboratory research will use printers, gloveboxes, and electrical measurement equipment located in rooms totaling less than 2,000 square feet. All laboratory research will take place in spaces already designated for laboratory research.
Temporary or mobile structures (skid-mounted)			
Design/Planning			
Other (describe and attach sheets as necessary)		\boxtimes	

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

Street Address	City/ County	Type of Work to Be Completed at Site
3333 Coyote Hill Road	Palo Alto, CA (Santa Clara county)	Laboratory research, described above

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site environmentally sensitive?				
Is the site located on		\boxtimes		

Question	Yes	No	Unsure	Explanation
agricultural land?				
Are the activities part of a larger		\boxtimes		
project?	Ш			
Is there public controversy		_	_	
about the proposed activities or	📙	\boxtimes		
larger project?				
Will historic resources or				
historic buildings be impacted		\boxtimes		
by the activities?				
Has the proposed site been				
identified by the Dept. of Toxic				
Substances Control and the Secretary of the Environmental		\square		
Protection as being affected by	🖳			
hazardous wastes or cleanup				
problems?				
Will the activities generate				
noise or odors in excess of		\boxtimes		
permitted levels?				
Will the activities increase				
traffic at the site, and by what		\square		
amount?				

4. Will the proposed activities require discretionary permits or determinations, as listed below?

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality		M		
Water Quality		M 🗌 N 🗌		
Conditional Use or Variance		M 🗆 N 🗆		
Building Expansion		M 🗌 N 🗌		
Hazardous Waste	FA0204666	M \square N \square	Santa Clara County Department of Environmental Health	Disposal of hazardous waste. Hazardous waste is accumulated in satellite accumulation areas and routinely sent to a vendor for safe disposal. Permit already issued and in use.
Rezoning		M N N		
Authority to Construct		M 🗌 N 🗌		

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Other (List types):		M \square N \square		

	Other (List types):		M 🗆 N 🗆			
5.	Has any agend project?	cy listed	in #4 indicated th	nat it will be the	lead CEQA a	gency for the
	No.☐ Yes. Provide phone number,		ne of <u>and</u> contact ir il address):	nformation for the	lead agency (d	contact person
6.	documents (e.	.g., Notic	in #4 prepared or e of Exemption, li Environmental Imp	nitial Study/ Neg	ative Declarat	ion/ Mitigated
			hart below for each d environmental dod			
	Name of Agency					
	Contact person,	, phone nι				
		, phone nu Tit ype (At	umber, email: le of Document ttach the document this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)
	Contact person, CEQA Determination/T	, phone nu Tit ype (At	le of Document ttach the document	Clearinghouse		Completion Date (must be prior to Energy Commission encumbranc
	Contact person, CEQA Determination/T of Document Not a project Email Letter Resolution Other: Exempt Notice of Exemption Resolution Agenda item approving exem	ype (At	le of Document ttach the document	Clearinghouse Number		Completion Date (must be prior to Energy Commission encumbranc e deadline)
	Contact person, CEQA Determination/T of Document Not a project Email Letter Resolution Other: Exempt Notice of Exemption Resolution Agenda item	ption	le of Document ttach the document	Clearinghouse Number		Completion Date (must be prior to Energy Commission encumbranc e deadline)

Name of Agency:								
Contact person, phone number, email:								
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)				
Notice of Preparation								
Environmental Impact Report								
Master Environmental Impact Report								
Notice of Determination								
NEPA Document ⁸ (Environmental Assessment, Finding of No Significant Impact, and/or Environmental Impact Statement)								

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (<u>must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine</u>): (Not Applicable)

⁸ For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

GenH

The Mobile Envelope Dam Electrification System (MEDES)

CEQA Compliance Form

September 2018

All applicants must complete this form, regardless of whether the proposed activity is considered a "project" as defined below. Answer all questions as completely as possible. The Energy Commission may request additional information in order to clarify the responses provided on this form.

The California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000 et seq.) requires public agencies to identify the significant environmental impacts of their actions and to avoid or mitigate them, if feasible.1 Under CEQA, an activity that may cause either a direct or reasonably foreseeable indirect physical change in the environment is called a "project." An activity funded by a contract, grant, or loan is considered a "project" under CEQA if it will cause a direct or reasonably foreseeable indirect physical change in the environment. Agencies must comply with CEQA before they approve a "project." This may require the preparation of one or more of the following CEQA documents:

- A Notice of Exemption (if the project is exempt from CEQA under an exemption identified in the CEQA statutes or regulations);³
- An Initial Study (if the project may have a significant effect on the environment);⁴
- A Negative Declaration (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);5 or
- An Environmental Impact Report (if there is substantial evidence that the project will have significant effects).6

The **Lead Agency** is the public agency that has the greatest responsibility for carrying out, supervising, or approving a project, and for preparing environmental review documents under CEQA (e.g., initial study, environmental impact report). Where the award recipient is a public agency, the Lead Agency is typically the recipient. Where the award recipient is a private entity. the Lead Agency is the public agency that has the greatest responsibility for supervising or approving the project as a whole.⁷

When issuing contracts, grants, or loans, the Energy Commission is typically a "Responsible Agency" under CEQA, which means that it must make CEQA findings based on review of the funded activities and any environmental documents created by the Lead Agency. If the Energy Commission is the only public agency with responsibility for approving the funded activities and the project is not exempt under CEQA, the Energy Commission must act as the Lead Agency and prepare its own environmental documents before approving the project. This form will help the Energy Commission determine what type of CEQA review is necessary before it can approve the award, and which agency will perform any required environmental review as Lead Agency. It may also help the applicant determine the CEQA process necessary for the proposed activities.

¹ For a brief description of CEQA, visit http://www.resources.ca.gov/cega/more/fag.html.

² California Public Resources Code § 21065.

³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a

1.	What are the physical aspects of the proposed activities? (Check all that apply and
	provide a brief description of work, including the size or dimensions of the project).

Type of Project	Yes	No	Project Description
Construction (including grading, paving, etc.)		х	
Trenching		Х	
New or replaced pipelines		Х	
Modification or conversion of a facility		x	
New or modified operation of a facility or equipment		х	
On-road demonstration		Х	
Paper study (including analyses on economics, feedstock availability, workforce availability, etc.)		x	
Laboratory research		Х	
Temporary or mobile structures (skid-mounted)		x	
Design/Planning		Х	
Other (describe and attach sheets as necessary)	х		Testbed for Hydroelectric system, testing in industrial/shipping lot. (see attachment 8a)

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.) Possible Locations

Street Address	City/ County	Type of Work to Be Completed at Site		
Port of LA	LA	Temporary crate testbed (See 8a)		
Port of San Francisco	San Francisco	Temporary crate testbed (See 8a)		
Port of Oakland	Oakland	Temporary crate testbed (See 8a)		

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site environmentally sensitive?		х		
Is the site located on agricultural land?		х		
Are the activities part of a larger project?		x		
Is there public controversy about the proposed activities or larger project?		х		
Will historic resources or historic buildings be impacted by the activities?		x		

Question	Yes	No	Unsure	Explanation
Has the proposed site been identified by the Dept. of Toxic Substances Control and the Secretary of the Environmental Protection as being affected by hazardous wastes or cleanup problems?		x		
Will the activities generate noise or odors in excess of permitted levels?		x		
Will the activities increase traffic at the site, and by what amount?		x		

4. Will the proposed activities require discretionary permits or determinations, as listed below?

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality	no	$M \square N \square$		
Water Quality	no	M 🗌 N 🗌		
Conditional Use or Variance	no	M 🗌 N 🗌		
Building Expansion	no	M 🗌 N 🗌		
Hazardous Waste	no	M 🗌 N 🗌		
Rezoning	no	$M \square N \square$		
Authority to Construct	no	M 🗌 N 🗌		
Other (List types):	no	M \square N \square		

5. Has any agency listed in #4 indicated that it will be the lead CEQA agency for the project?

Χ	N	0
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Yes. Provide the name of <u>and</u> contact information for the lead agency (contact person, phone number, and email address):

documents (e.g., No	otice of Exemption, In	itial Study/ Neg	ative Declara	tion/ Mitigated
	e chart below for each ared environmental doc	•	•	
Name of Agency: Contact person, phon	e number. email:			
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (<u>must</u> <u>be prior to</u> <u>Energy</u> <u>Commission</u> <u>encumbranc</u> <u>e deadline</u>)
Not a project		N/A		N/A
Email				
Letter				
Resolution Other:				
Exempt		N/A		
☐ Notice of				
Exemption				
Resolution				
☐ Agenda item				
approving exemption				
Initial Study				
Negative Declaration				
Mitigated Negative				
Declaration				
Notice of Preparation				
Environmental Impact				
Report				
Master				
Environmental Impact Report				
Notice of				
Determination				
NEPA Document ⁸				
(Environmental				
Assessment, Finding				
of No Significant				

Impact, and/or

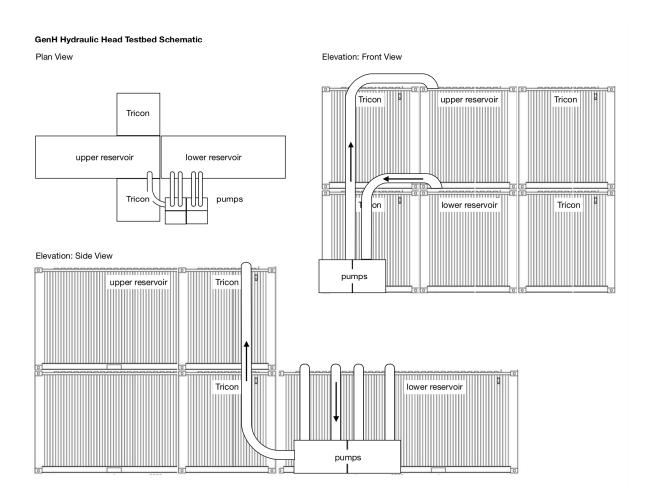
Environmental Impact

⁸ For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

Name of Agency:								
Contact person, phor	ne number, email:							
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)				
Statement)								

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (<u>must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine):</u>

Attachment 8a



FerroPower Technologies

Near-Isothermal Liquid Piston Air Compressor/Expander with Magnetically Stabilized Ferrofluid

CEQA Compliance Form

September 2018

All applicants must <u>complete</u> this form, regardless of whether the proposed activity is considered a "project" as defined below. Answer all questions as completely as possible. The Energy Commission may request additional information in order to clarify the responses provided on this form.

The California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000 et seq.) requires public agencies to identify the significant environmental impacts of their actions and to avoid or mitigate them, if feasible.¹ Under CEQA, an activity that may cause either a direct or reasonably foreseeable indirect physical change in the environment is called a "project."² An activity funded by a contract, grant, or loan is considered a "project" under CEQA if it will cause a direct or reasonably foreseeable indirect physical change in the environment. Agencies must comply with CEQA before they approve a "project." This may require the preparation of one or more of the following CEQA documents:

- A <u>Notice of Exemption</u> (if the project is exempt from CEQA under an exemption identified in the CEQA statutes or regulations);³
- An <u>Initial Study</u> (if the project may have a significant effect on the environment);⁴
- A <u>Negative Declaration</u> (if the Initial Study shows that the project will not have a significant effect on the environment) or a Mitigated Negative Declaration (if any significant effects identified by the Initial Study can be avoided or mitigated to a level of insignificance);⁵ or
- An Environmental Impact Report (if there is substantial evidence that the project will have significant effects).⁶

The **Lead Agency** is the public agency that has the greatest responsibility for carrying out, supervising, or approving a project, and for preparing environmental review documents under CEQA (e.g., initial study, environmental impact report). Where the award recipient is a *public agency*, the Lead Agency is typically the recipient. Where the award recipient is a *private entity*, the Lead Agency is the public agency that has the greatest responsibility for supervising or approving the project as a whole.⁷

When issuing contracts, grants, or loans, the Energy Commission is typically a "Responsible Agency" under CEQA, which means that it must make CEQA findings based on review of the funded activities and any environmental documents created by the Lead Agency. If the Energy Commission is the only public agency with responsibility for approving the funded activities and the project is not exempt under CEQA, the Energy Commission must act as the Lead Agency and prepare its own environmental documents before approving the project. This form will help the Energy Commission determine what type of CEQA review is necessary before it can approve the award, and which agency will perform any required environmental review as Lead Agency. It may also help the applicant determine the CEQA process necessary for the proposed activities.

¹ For a brief description of CEQA, visit http://www.resources.ca.gov/cega/more/fag.html.

² California Public Resources Code § 21065.

³ 14 California Code of Regulations (CCR) §§ 15061 and 15062.

⁴ 14 CCR § 15063.

⁵ 14 CCR §§ 15070 et seq.

⁶ 14 CCR §§ 15080 et seq.

⁷ 14 CCR §§ 15050 and 15051. The Lead Agency typically has general governmental powers (such as a city or county), rather than a single or limited purpose (such as an air pollution control district).

1. What are the physical aspects of the proposed activities? (Check all that apply and provide a brief description of work, including the size or dimensions of the project).

Type of Project	Yes	No	Project Description
Construction (including grading, paving, etc.)		\boxtimes	
Trenching		\boxtimes	
New or replaced pipelines		\boxtimes	
Modification or conversion of a facility		\boxtimes	
New or modified operation of a facility or equipment			As one of the possible steps in this project, a small air compressor unit (such as scuba diving compressor) might be purchased and modified for some performance analysis and evaluation.
On-road demonstration		\boxtimes	
Paper study (including analyses on economics, feedstock availability, workforce availability, etc.)			
Laboratory research			Most of the mechanical components will be designed, fabricated and tested in the lab before final assembly and performance evaluation.
Temporary or mobile structures (skid-mounted)		\boxtimes	
Design/Planning	\boxtimes		A prototype of a near-isothermal liquid piston air compressor/expander will be designed and fabricated in this project.
Other (describe and attach sheets as necessary)		\boxtimes	

2. Where are the proposed activities located or where will they be located? (Attach additional sheets as necessary.)

All work will take place in the mechanical engineering department of UC Berkeley.

Street Address	City/ County	Type of Work to Be Completed at Site				
Hesse Hall, Hearst		Assembly and final test of the air				
Ave., (room # 135)	Berkeley/ Alameda	compressor/expander prototype as well as				
Ave., (100111# 135)		the energy storage system.				
6141 Etchevery Hall	Berkeley/ Alameda	Fabrication of the air compressor/expander				
6141 Etchevery Hall	Derkeley/ Alameda	components.				

3. Will the proposed activities potentially have environmental impacts that trigger CEQA review? (Check a box and explain for each question).

Question	Yes	No	Unsure	Explanation
Is the proposed activity site		\boxtimes		

Question	Yes	No	Unsure	Explanation
environmentally sensitive?				
Is the site located on agricultural land?		\boxtimes		
Are the activities part of a larger project?		\boxtimes		
Is there public controversy about the proposed activities or larger project?				
Will historic resources or historic buildings be impacted by the activities?				
Has the proposed site been identified by the Dept. of Toxic Substances Control and the Secretary of the Environmental Protection as being affected by hazardous wastes or cleanup problems?				
Will the activities generate noise or odors in excess of permitted levels?				
Will the activities increase traffic at the site, and by what amount?		\boxtimes		

4. Will the proposed activities require discretionary permits or determinations, as listed below?

Answer: no permits are required for this project.

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Air Quality		$M \square N \square$		
Water Quality		M 🗌 N 🗌		
Conditional Use or Variance		M \square N \square		
Building Expansion		M 🗌 N 🗌		
Hazardous Waste		M 🗌 N 🗌		
Rezoning		$M \square N \square$		
Authority to Construct		M 🗆 N 🗆		

Permit Type	No.	Modified (M) or New (N)	Approving Public Agency	Reason for Permit, Summary of Process, and Anticipated Issuance Date
Other (List types):		M \square N \square		

				Agency	Anticipated is	suance Date	
	Other (List types):		M 🗌 N 🗌				
5.	Has any agency listed in #4 indicated that it will be the lead CEQA agency for the project?						
	 No. ☐ Yes. Provide the name of <u>and</u> contact information for the lead agency (contact person phone number, and email address): 						
ô.	Has any agency listed in #4 prepared or indicated that it will prepare environmenta documents (e.g., Notice of Exemption, Initial Study/ Negative Declaration/ Mitigated Negative Declaration, Environmental Impact Report) under CEQA for the proposed project?						
	 No. ☐ Yes. Complete the chart below for each agency. Cut and paste the chart if more that one agency has prepared environmental documents. Attach any document identified below to this form. 						
	Name of Agend Contact persor	-	er email:				
	CEQA		f Document	State	Completion	Planned	
	Determination/ of Document		h the document	Clearinghouse Number	Date	Completion Date (must be prior to Energy Commission encumbranc e deadline)	
	Not a project Email Letter Resolution Other:			N/A		N/A	
	Exempt Notice of Exemption Resolution Agenda item approving exem			N/A			
	Initial Study	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
	Negative Declar	ation					
	Mitigated Negati						
	Declaration						
	Notice of Prepar	ration I		1			

Name of Agency:					
Contact person, phone number, email:					
CEQA Determination/Type of Document	Title of Document (Attach the document to this form)	State Clearinghouse Number	Completion Date	Planned Completion Date (must be prior to Energy Commission encumbranc e deadline)	
Environmental Impact Report					
Master Environmental Impact Report					
Notice of Determination					
NEPA Document ⁸ (Environmental Assessment, Finding of No Significant Impact, and/or Environmental Impact Statement)					

7. If any agency identified in #4 has indicated that it will prepare CEQA documents and has not done so, explain why no document has been prepared and provide an estimated date for approval (must complete the CEQA process within sufficient time for the Energy Commission to meet its encumbrance deadline, as the Energy Commission in its sole and absolute discretion may determine):

July 2017 Page 5 of 5

⁸ For additional information about NEPA (the National Environmental Policy Act, 42 U.S.C. 4321 et seq.), see: http://www.epa.gov/compliance/basics/nepa.html.

RESOLUTION NO: 18-0921-10

STATE OF CALIFORNIA

STATE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: CALCEF

WHEREAS, pursuant to the Public Utilities Code section 25711 *et seq.* the State Energy Resources Conservation and Development Commission ("Energy Commission") is authorized to establish and administer the Electric Program Investment Charge (EPIC); and

WHEREAS, the Energy Commission has recognized that California's electricity ratepayers benefit from energy research, development and demonstration ("RD&D") activities conducted by individuals, small businesses, academics and small non-profit institutions; and

WHEREAS, the Energy Commission has created the California Sustainable Energy Entrepreneur Development (CalSEED) Initiative within the EPIC Program to provide funding for the aforementioned public interest RD&D activities; and

WHEREAS, the California Clean Energy Fund ("CalCEF") is the administrator of the CalSEED Initiative under Agreement Number 300-15-007 and is responsible for soliciting grant applications, recommending grant awards to the Energy Commission, and managing authorized grant projects; and

WHEREAS, CalCEF has completed Solicitation 18-01 and has requested a total of \$2,639,000 for the following eighteen small grant projects:

- 1. \$150,000 is being requested for the "Perigo Hybrid Low Pressure Water Filtration System" project with Perigo Welding Works, a project to design and demonstrate a unique filtration system hardware component that has the potential to reduce energy consumption for agricultural micro/drip irrigation systems by 25-50%.
- 2. \$150,000 is being requested for the "DTE Engineered Cellulose Insulation" project with DTE Materials Incorporated, a project to continue prototyping and product development for a building insulation material with improved performance, fire-resistance, and cost.

- 3. \$150,000 is being requested for the "Ducted Phase Change Material Cooling Proof of Concept" project with Stasis Group, Inc., a project to build a prototype of a ducted thermal energy battery integrated into a HVAC system, using phase change materials with instrumentation and variable heat and air flow inputs, to optimize the battery for energy savings.
- 4. \$150,000 is being requested for the "LED Lighting Film for Low-Cost Retrofits of Fluorescent Lights" project with Empow Lighting, a project to design and create a prototype for thin and flexible LED lighting sheets that can snap into existing fluorescent light fixtures.
- 5. \$150,000 is being requested for the "Enhancing Renewable Fuel Production with CO2 Microbubbles" project with University of California, Riverside, a project to demonstrate a low-cost way to double the rate of methane production during anaerobic digestion by using CO2 microbubbles.
- 6. \$150,000 is being requested for the "Graphite-coated High Energy Density Powder" project with University of California, Riverside, a project to increase the total energy capacity of commercial lithium-ion batteries by developing a silicon-carbon composite which will be used in place of graphite as an anode material.
- 7. \$150,000 is being requested for the "Low-cost, Easy-to-integrate, Reliable Grid Energy Storage with 2nd Life Batteries" project with Smartville Energy LLC, a project to develop a prototype plug-and-play inverter matrix that is able to independently control and monitor the health of a non-uniform set of aggregated second life batteries.
- 8. \$139,000 is being requested for the "Hydrokinetic Power Buoy for Local and Grid-Scale Generation and Storage" project with Ocean Motion Technologies, a project to develop a prototype mechanical buoy system that can harness oceanic wave energy to create compressed air.
- 9. \$150,000 is being requested for the "Automated Thermal Flywheeling for the Cold Chain" project with Crossno & Kaye, LLC, a project to further develop a software-based refrigeration control that safely overcools a temperature-controlled space based on the needs of the customer and peak hours.
- 10. \$150,000 is being requested for the "Invisible Front Contacts for Solar Cells" project with ETC Solar, LLC, a project to develop a prototype front contact for solar cells that mitigates shading losses while increasing power output.
- 11. \$150,000 is being requested for the "Low-Cost Portable Smart Wi-Fi Programmable Learning Bio-Mimicking Solar Shrub" project with Cal State University Fullerton, a project to design 'solar shrubs' that use thin film PV in bio-mimicking leaf designs.
- 12. \$150,000 is being requested for the "Pronoia Energy Storage Device" project with Pronoia, Inc., a project to develop a novel energy storage prototype that

uses quantum dipole technology to attempt to achieve exponential increases in energy capacity compared to lithium-ion batteries.

- 13. \$150,000 is being requested for the "SolarBlock" project with Pick My Solar, a project to continue development on a blockchain-based transaction platform for community solar projects.
- 14. \$150,000 is being requested for the "In-PRV (Pressure Recovery Valve) Renewable Energy Generation System" project with InPipe Energy, a project to demonstrate a technology that captures lost energy associated with pressure reduction valves in industrial water systems.
- 15. \$100,000 is being requested for the "Cooling Mobile Data Centers with the Sky" project with SkyCool Systems, Inc., a project to develop a passive modular data center cooling system that uses radiative cooling.
- 16. \$150,000 is being requested for the "Adaptive Current-Collectors for High-Efficiency Electric Vehicles" project with Palo Alto Research Center, Inc., a project to develop and demonstrate a new class of printed electronics that can be coated onto battery current-collectors to limit the current and heating that occur during internal short-circuits.
- 17. \$150,000 is being requested for the "The Mobile Envelope Dam Electrification System (MEDES)" project with GenH, a project to develop and test a prototype device that can retrofit irrigation canals and non-powered dams to produce electricity.
- 18. \$150,000 is being requested for the "Near-Isothermal Liquid Piston Air Compressor/Expander with Magnetically Stabilized Ferrofluid" project with FerroPower Technologies, a project to prototype a near-isothermal air compressor/expander system that would enable Compressed Air Energy Storage technologies to achieve higher efficiency, higher power density, and meet a cost target of \$150/kWh.
- **WHEREAS**, Energy Commission staff have reviewed the proposed projects and determined that categorical exemptions apply to each project, as described in the Staff CEQA Memorandum dated September 07, 2018, a document that is included in the backup materials to this Agreement;
- **THEREFORE BE IT RESOLVED**, that the Energy Commission adopts staff's CEQA findings contained in the Staff CEQA Memorandum dated September 07, 2018 regarding the CEQA analysis for the eight proposed projects; and
- **FURTHER BE IT RESOLVED,** that the Energy Commission approves the eighteen projects proposed for funding from CalCEF Solicitation 18-01 for a total of \$2,639,000; and
- **FURTHER BE IT RESOLVED,** that the Energy Commission directs CalCEF to execute grant agreements with the approved projects pursuant to Agreement Number 300-15-007; and

FURTHER BE IT RESOLVED, that the Executive Director or his/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 September 21, 2018.

AYE: [List of Commissioners]
NAY: [List of Commissioners]
ABSENT: [List of Commissioners]
ABSTAIN: [List of Commissioners]

Cody Goldthrite, Secretariat