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Docket Number:	20-EPIC-01
Project Title:	Development of the California Energy Commission Electric Program Investment Charge Investment Plans 2021-2025
TN #:	239188
Document Title:	Omni BioEnergy, LLC Comments - Add Biomass Bioenergy eligibility to multiple initiatives
Description:	N/A
Filer:	System
Organization:	Omni BioEnergy, LLC, Consultants for Scotts Valley Band of Pomo Indians in Northern California
Submitter Role:	Applicant Consultant
Submission Date:	8/4/2021 5:11:35 PM
Docketed Date:	8/5/2021

Comment Received From: Omni BioEnergy, LLC
Submitted On: 8/4/2021
Docket Number: 20-EPIC-01

Add Biomass Bioenergy eligibility to multiple initiatives

We are consultants to the Scotts Valley Band of Pomo Indians in northern California for their efforts to develop bioenergy projects as a means to economic development. For us bioenergy is the gasification of a wide range of dry (20% moisture content) biomass feed stocks into electricity and biochar. Gasification takes place in the absence of oxygen so there is no combustion or emissions and the gas is higher in hydrogen than alternative syngas processes.

The process is deemed carbon negative, regardless of feed stock, when the biochar is sequestered. The systems are designed to operate economically in an automated, distributed energy resource footprint to enable rapid deployment and interconnection. Electricity generation is a base case deliverable however alternative fuels production such as renewable diesel, sustainable aviation fuel and high-purity hydrogen are also possible outputs.

We would like to see bioenergy added as an eligible application to these EPIC 4 Investment Plan Initiatives: 7, 8, 9, 14, 15, 19, 21, 25, 35, 36, 37 and 43. The following is a non-exhaustive list of the reasons why we make our recommendation.

Bioenergy systems support jobs and economic development in disadvantaged and tribal communities.

Bioenergy systems use stored energy and CO₂ in organic biomass

Bioenergy systems complement intermittent renewable and bioenergy is much less expensive than most battery storage solutions

Bioenergy systems can be operated as baseload power systems with up to 90% availability annually

Bioenergy systems complement organic waste diversion from landfills and create an economic value for challenges such as how to incentivize forest fuel reduction of small diameter / waste forest materials

Bioenergy systems complement microgrid deployment and support intended islanding for grid resiliency

Bioenergy systems can be economical at distributed scale and should be deployed by the hundreds and thousands in sizes under 1 MW to aid in the time and cost of grid-interconnections

Distributed scale bioenergy systems can be deployed closer to biomass waste sources minimizing transportation costs and emissions

Distributed scale bioenergy systems can be deployed close or onsite where power or fuels are consumed

Bioenergy systems need the state funding support to help drive down the capital cost and operating cost of systems to allow for mass deployment

Bioenergy projects create clean manufacturing, construction, operating and maintenance jobs here in the USA

Bioenergy when properly designed does not generate particulate emissions out of a combustion genset