DOCKETED	
<b>Docket Number:</b>	16-EPIC-01
<b>Project Title:</b>	EPIC Idea Exchange
TN #:	212472
<b>Document Title:</b>	West Biofuels Comments: Importance of Bioenergy Commercial Demonstration
<b>Description:</b>	N/A
Filer:	System
Organization:	West Biofuels/Matt Hart
Submitter Role:	Public
Submission Date:	7/26/2016 3:52:58 PM
<b>Docketed Date:</b>	7/26/2016

Comment Received From: Matt Hart

Submitted On: 7/26/2016 Docket Number: 16-EPIC-01

## **Importance of Bioenergy Commercial Demonstration**

West Biofuels wants to acknowledge the efforts of the California Energy Commission to use EPIC funds to support research and development, along with commercial demonstration of bioenergy projects. Bioenergy is unique as a renewable energy source compared to alternatives such as wind, solar, hydro, and geothermal. Bioenergy projects address some of the State's most pressing social and environmental challenges that stem from the business-as-usual release of short lived climate pollutants and criteria pollutants such as methane from the agricultural sector and wildfire in the forest sector. Bioenergy solutions can reduce criteria pollutant emissions by more than 90 percent while generating carbon neutral or carbon negative electricity. Criteria pollutants, particularly particulate matter and oxides of nitrogen are some of the State's largest contributors to acute and chronic health challenges (e.g. asthma) while methane and black carbon are the states largest source of greenhouse gas emissions and result in poor air quality, threaten watersheds, and decimate forestland.

Many of the societal and environmental benefits addressed by bioenergy projects are public costs as health care and forestland restoration sit squarely on California tax payers. However, IOU ratepayers—all of which are taxpayers—are directly impacted by wildfire which annually cause tens of millions in damages to IOU infrastructure including transmission and distribution lines, substations, and hydro-electric facilities.

Creating an economy that supports bioenergy technology is important for the health of California's natural resources and critical facility infrastructure. Advancements in technology, in particular, commercial demonstrations are essential to the long-term success of the industry which needs to prove 1) long-term technology performance and 2) an attractive and viable business model. The EPIC program has been an important industry driver that has supported the adoption of bioenergy solutions in California. Food waste anaerobic digesters, dairy digesters, and biomass gasification facilities have begun to emerge in California largely because of the State's progressive regulatory policies and support from EPIC. Funding through the EPIC program is critical to reduce the cost associated with high-risk early-stage technologies without years of proven performance. Across the valley of death from R&D to commercialization lies a clear barrier which is the inability to find private investment to fund early-stage technology.

As the California Public Utilities Commission and the Energy Commission are acutely aware, bioenergy projects are traditionally more expensive than alternative renewable options that do not provide the same social and environmental benefits. It is important in the next triennial investment plan that EPIC funds continue to focus on market development and supporting commercial demonstration facilities. We have all seen the challenges and failures of technologies that move too quickly from lab-scale to full commercial scale with the failure of several major bioenergy projects largely funded through the Department of Energy. California needs to continue its measured pathway towards a sustainable bioenergy economy and support stakeholders through the valley of death to develop products that can commercially standalone, backed by robust commercial demonstrations. Specifically, West Biofuels recommends continued funding for:

- Commercial Demonstration Project to demonstrate long term performance of biomass projects delineated by feedstock source (i.e. wood residue, food waste, manure, etc).
- Market Development to improve the value of the markets for byproducts (i.e. biochar, digestate) which have great potential to reduce the cost of electricity production.

Sincerely, Matt Hart West Biofuels