

DOCKETED

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Docketed Date:	3/9/2022



**California Energy Commission
Business Meeting
March 9, 2022
10:00 a.m.**



Pledge of Allegiance



**I pledge allegiance to the Flag
of the United States of America,
and to the Republic for which it stands,
one Nation under God, indivisible,
with liberty and justice for all.**

California Energy Commission's



SAVE THE **DATE**

December 8, 2022

Nominations due by:

JULY 1, 2022





Consent Calendar: a. – c.

- a. Association of Women in Water, Energy and Environment (AWWEE). Contact: Tiffany Solorio
- b. AWWEE. Contact: Tiffany Solorio
- c. Approval of Disadvantaged Communities Advisory Group (DACAG) Member Reappointments. Contact: Noemí Gallardo.



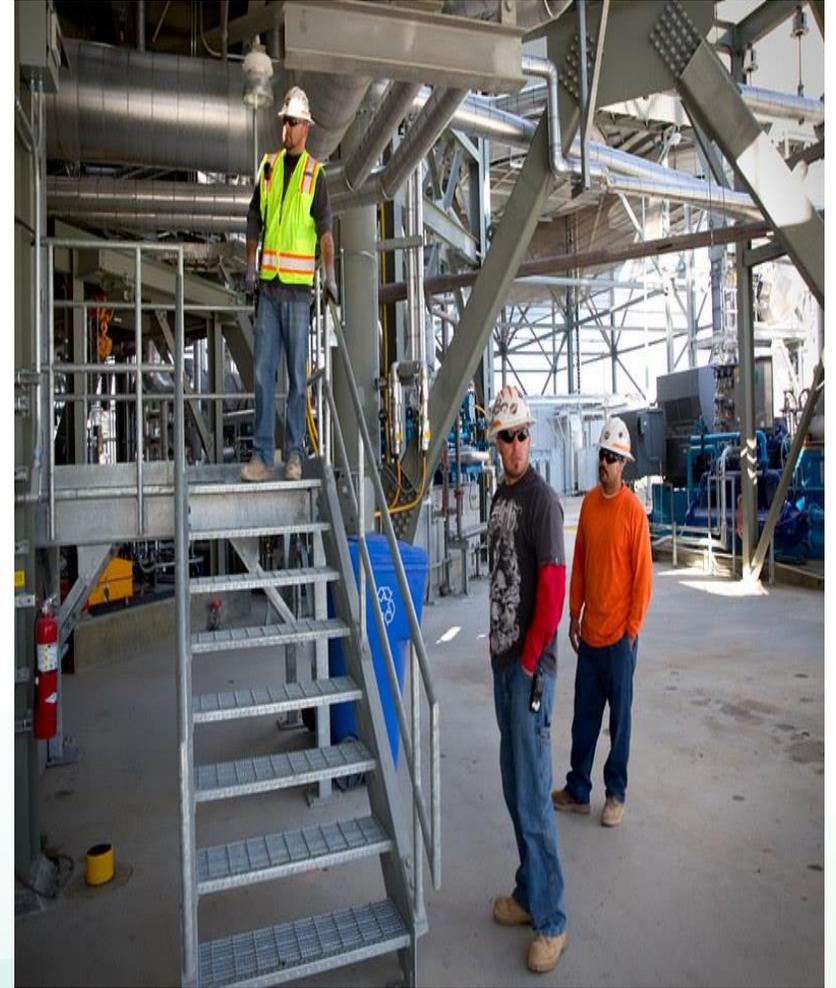
Item 2: Moss Landing Power Plant (99-AFC-04)

March 9, 2022, Business Meeting

Presented by Shawn Pittard, Deputy Director
Siting, Transmission and Environmental Protection Division
Kirk Oliver, Lead Attorney, Chief Counsel's Office



Benefits for Californians





Moss Landing Power Plant



- 1,060-megawatt natural gas-fired, combined cycle facility.
- Near Moss Landing Harbor, Monterey County.
- Certified on 10/25/2000.
- Commercial Operation on 7/11/2002.



Reporting Requirements



- Complaints, notices of violation, official warnings and citations are required to be reported in monthly and annual compliance reports.
- Copies of the complaints, notices of violation, official warnings, and citations are to be provided within 10 days of receipt.



Alleged Violation

- 8/15/2018 Injury Incident
- 8/6/2019 – Notified of 2/1/2019 Cal/ OSHA citation
- 4/6/2020 CPUC Audit





Proposed Settlement Agreement



- Legal requirements at issue.
- Staff's allegations.
- Payment of \$75,000.00 to CEC.
- Change in reporting requirements.



Staff Recommendation

- Approve order specific to the settlement agreement



Item 3: Campbell Power Plant (93-AFC-03C)

March 9, 2022 Business Meeting

Presented by Elizabeth Huber, CME Office Manager
Mary Dyas, lead Compliance Project Manager
Lisa DeCarlo, lead Counsel
Siting, Transmission and Environmental Protection Division



Overview

Date	Action
11/20/1994	CEC Approved License
10/30/1997	Units Came Online
07/13/2016	CEC Approves Use of Recycled Water in Cooling Towers
07/15/2021	Ownership and Name Change Petition Filed
09/08/2021	CEC Approves Ownership and Name Change



Benefits for Californians





Staff Recommendation

- Approve petition allowing increase in cooling tower volatile organic compounds emission rate to enable project to resume operations using recycled water.



Item 4: Los Medanos Energy Center (98-AFC-01C)

March 9, 2022 Business Meeting

Presenting: Elizabeth Huber, Compliance Monitoring and Enforcement Office Manager
Siting, Transmission and Environmental Protection Division
John Heiser, Compliance Project Manager
Jennifer Baldwin, Lead Counsel



Benefits to Californians

LMEC Pipe



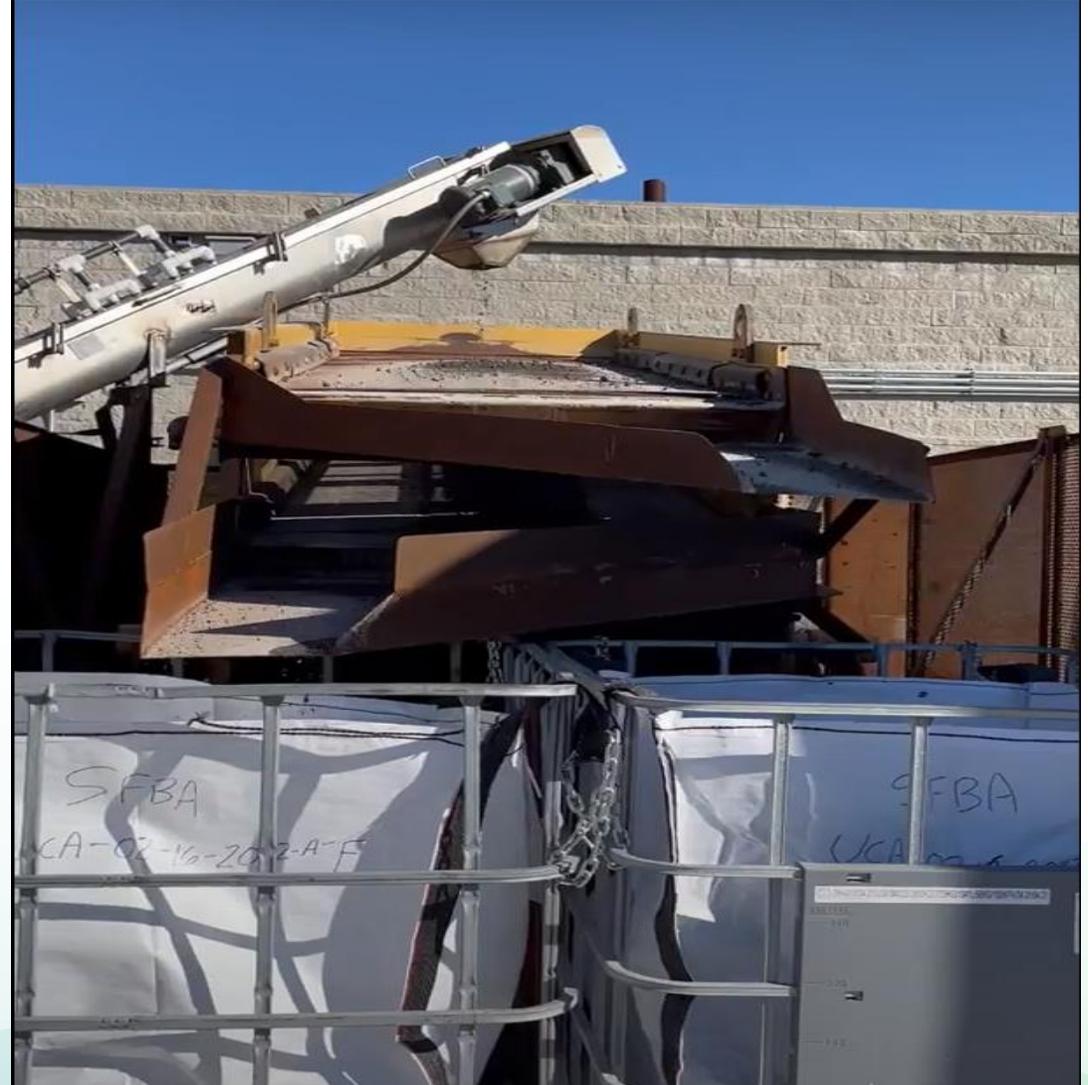


Overview

Date	Action
August 1999	CEC Approved License
July 2001	Facility Came Online
May 2011	CEC Approved Efficiency Improvements
March 2021	Petition Filed to Install Pipe and Divert Stack Gas



Carbon Capture Pilot





Staff Recommendation

Approve petition allowing installation of flue gas pipe for delivery from Los Medanos Energy Center to San Francisco Bay Aggregates for carbon sequestration project.



Item 5: 2021 Integrated Energy Policy Report

March 9, 2022 Business Meeting

Heather Raitt, IEPR

Melissa Jones, Energy Assessments Division



Benefits to Californians

- Conserves resources
- Protects the environment
- Ensures energy reliability
- Enhances the state's economy
- Protects public health and safety





Structure of 2021 IEPR

Topic	Lead Commissioner
Volume I: Building Decarbonization	Commissioner McAllister
Volume II: Reliability	Vice Chair Gunda
<i>Volume III: Gas – for consideration today</i>	<i>Vice Chair Gunda</i>
Volume IV: Forecast	Vice Chair Gunda
Appendix: Clean Transportation Program	Commissioner M





Report Development

- Held 21 IEPR workshops
 - 5 addressed gas
- January 2022:
 - Posted Draft Volume III
 - 20 sets of comments
- February 2022
 - Posted Final Volume III





2021 IEPR

Volume III: Decarbonizing the State's Gas System

Melissa Jones, Principal for Gas Transition
Energy Assessments Division



Introduction

- GHG reductions depend on transitioning away from fossil gas
- Gas is 28% of CA's total energy use
- Building electrification will reduce long-term gas demand
- Difficult to electrify gas uses need options





Overview of 2021 IEPR Volume III

- Provides situational awareness on:
 - Gas demand and prices, production and supply, infrastructure, and GHG emissions
- Addresses emerging issues:
 - Building electrification impacts
 - Gas and electricity interdependencies
 - Potential role of renewable gas and renewable hydrogen
 - Pathways for gas system decarbonization



Policy Issues for Gas Transition Planning

- Ensure safe and reliable gas system while reducing GHGs
- Prioritize infrastructure investments to minimize gas system costs
- Advance equity and affordability as demand declines
- Include workforce development and education



Gas Planning Collaboration

- Roadmap for gas transition planning in 2022
- Framework and improved analytics
- Plan for gas-electric interdependencies
 - Address long-standing pipeline constraints
 - Develop plan to retire Aliso Canyon





Gas Planning Analytics

CEC should develop framework and improved analytics to support long-term gas planning

- Gas demand forecast & long-term scenarios
- Gas price, rate, and revenue forecasts
- Infrastructure assessments including hydraulic modeling of gas systems



Building Decarbonization

- Modify or eliminate gas utility obligation to serve gas and gas line extension
- Align gas rate structure with clean energy goals
- Prioritize equity
- Leverage workforce
- Expand CEC funded R&D





Low-Carbon Fuels

- Renewable gas
 - Continue funding R&D
 - Consider expanding Low Carbon Fuel Standard
- Renewable hydrogen
 - Support R&D and pilots
 - On-site hydrogen production





Staff Recommendation

Adopt:

- *2021 IEPR Volume III: Decarbonizing the State's Gas System*
- With Errata

Thank you!



Item 6: Petition by ACCO Engineered Systems

March 9, 2022 Business Meeting

Peter Strait, Supervisor
Efficiency Division, Building Standards Office



Benefits to Californians

- Ensures clarity and consistency within California Building Standards Code
- Improves compliance, accountability
- Ensures concerned voices are heard





Overview

- ACCO Engineered Systems petitioned CA Building Standards Commission
- Petition forwarded to CEC – 45 days to respond
- 2019 ventilation standards conflict in Part 4 (Mechanical Code) and Part 6 (Energy Code)
- Petitioner requests:
 - Clear language stating which standard applies
 - Energy Code standard to be prioritized



Staff Findings

- Ventilation standards apply statewide to most buildings
- Standards in 2 codes may conflict
- Issue resolved in 2022 CA Building Standards Code





Staff Proposed Action

- Deny petition on basis that issue was addressed in prior rulemaking
- Petitioner agrees issue is resolved



Item 7: Order Instituting Informational Proceeding on Decarbonizing the Gas System

March 9, 2022 Business Meeting

David Erne, Office Manager
Energy Assessments Division



Benefits to Californians

- Implement IEPR recommendations
- Ensure a safe, reliable, and equitable transition from fossil gas
- Accelerate clean energy goals
- Improve planning
- Advance collaborations





Overview

Balance objectives:

- Reduce greenhouse gas emissions
- Ensure reliability
- Reduce gas safety risks
- Ensure greatest value from system
- Minimize costs to ratepayers
- Support equity communities





Scope

Develop analytical framework for gas planning

- Improve gas demand forecast
- Improve price, rate, and revenue forecasts
- Assess infrastructure needs
- Evaluate electric/natural gas nexus
- Assess role of renewable gases





Staff Recommendation

- Adopt Order Instituting Informational Proceeding on Decarbonizing the Gas System



Item 8: Order Instituting Informational Proceeding on Distributed Energy Resources

March 9, 2022 Business Meeting

David Erne, Office Manager
Energy Assessments Division



Benefits to Californians

- Assess strategies:
 - Implement IEPR recommendations
 - Improve customer value
 - Improve grid reliability and resiliency
 - Accelerate clean energy goals
 - Advance collaborations





Overview

- Capture value of distributed energy resources
 - Customers
 - Grid
- Support equity communities
- Include new technologies and strategies
- Expand coordination





Scope

- Investigate trends
- Assess value
- Optimize resources
- Evaluate incentives
- Identify research and development needs





Staff Recommendation

- Adopt Order Instituting Informational Proceeding on Distributed Energy Resources



Item 9: Order Instituting Rulemaking on Power Source Disclosure (PSD)

March 9, 2022

Ariel Lee, EGSSI

Renewable Energy Division, Clean Energy Office



Benefits to Californians

Consumers

Provides accurate, reliable, and simple to understand info about:

- fuel mixes
- GHG emissions associated with electricity portfolios

Retail Suppliers

Supports California retail suppliers in:

- providing consistent reporting
- reducing reporting burdens for public agencies



Scope of Rulemaking

1. Audit Requirements and Alternative for Public Agencies
2. Power Content Label (PCL) Due Dates
3. Clarify GHG Reporting Requirements for New Community Choice Aggregators
4. Clarify unbundled Renewable Energy Credit (REC) Reporting Requirements
5. PCL Template Formatting
6. Power Charge Indifference Adjustment (PCIA) Resource Allocations



Staff Recommendation

Approve Order Instituting Rulemaking proceeding to consider modifications to the Power Source Disclosure regulations



Item 10: Humboldt Bay Harbor, Recreation, and Conservation District (HBHRCD)

March 9, 2022 Business Meeting

Rhett deMesa, Electric Generation System Program Specialist
Siting, Transmission, and Environmental Protection Division,
Energy Resource and Land Use Planning Office



Benefits to California

- Opens opportunities for offshore wind development
- Increased economic output in local community
- In-state manufacturing and supply chain development opportunities
- Creates local jobs



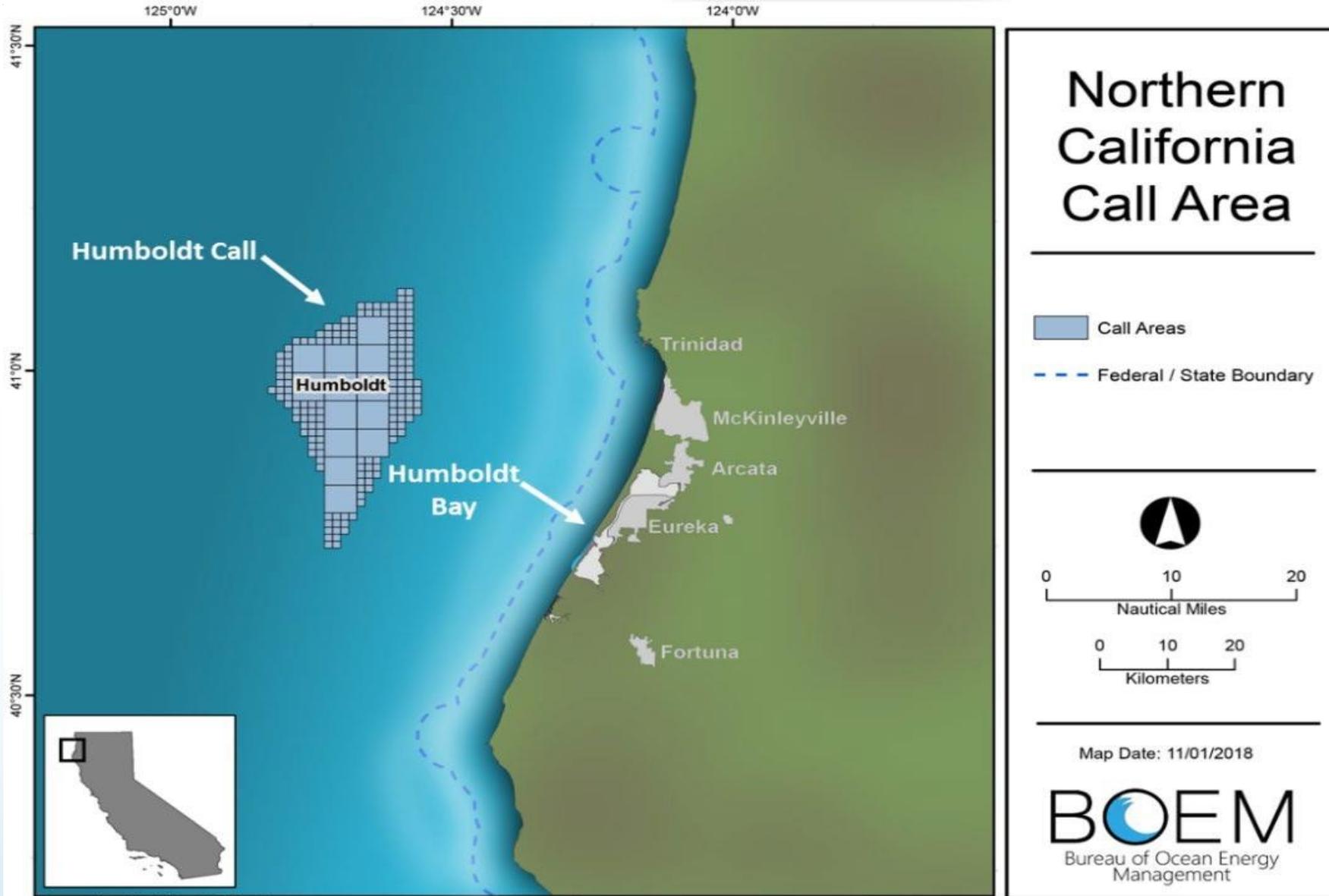
Offshore Wind in California



- Increase renewable generation
- Diversify CA's energy portfolio
- Improve grid reliability
- Create Jobs
- Stimulate state and local economic development



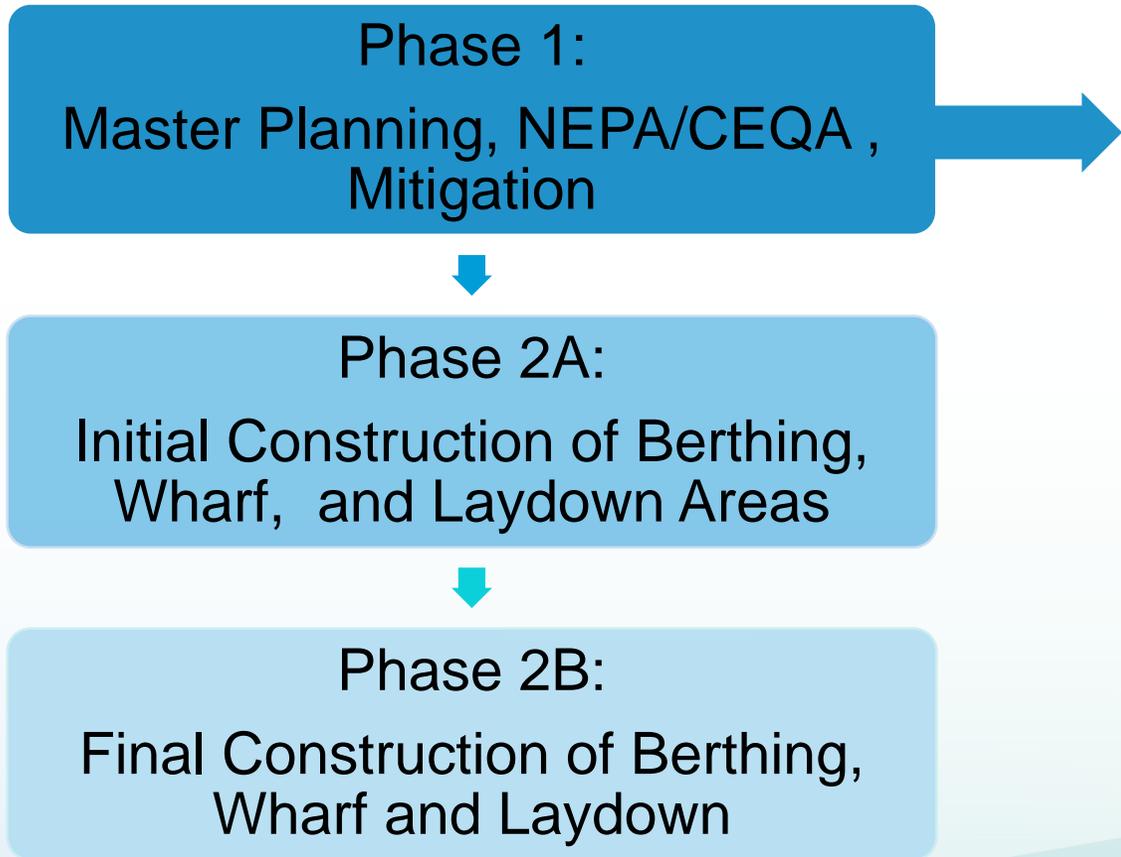
Humboldt Call Area





Project Overview

Humboldt Bay Offshore Wind Heavy Lift Marine Terminal



CEC Grant Funded Activities:

- Complete preliminary engineering and design
- Conduct site Surveys and Special Studies
- Prepare CEQA/NEPA materials
- Implement early construction activities
- Initiate mitigation efforts



Grant Funding Approach

CEC Project Phase	Tasks	Funding Amount
1	Tasks 1-5	\$782,532
2	Tasks 6-10	\$9,667,468*

*Includes Contingency

Note: Task 10 includes construction activities that require CEQA.



Staff Recommendation

- Approve proposed agreement with HBHRCD
- Adopt staff's determination that Tasks 1 through 9 are exempt from CEQA.



Item 11: Porifera, Inc.

March 9, 2022

Michael Ferreira

Energy Deployment and Market Facilitation Office

Energy Research and Development Division



Benefits to Californians

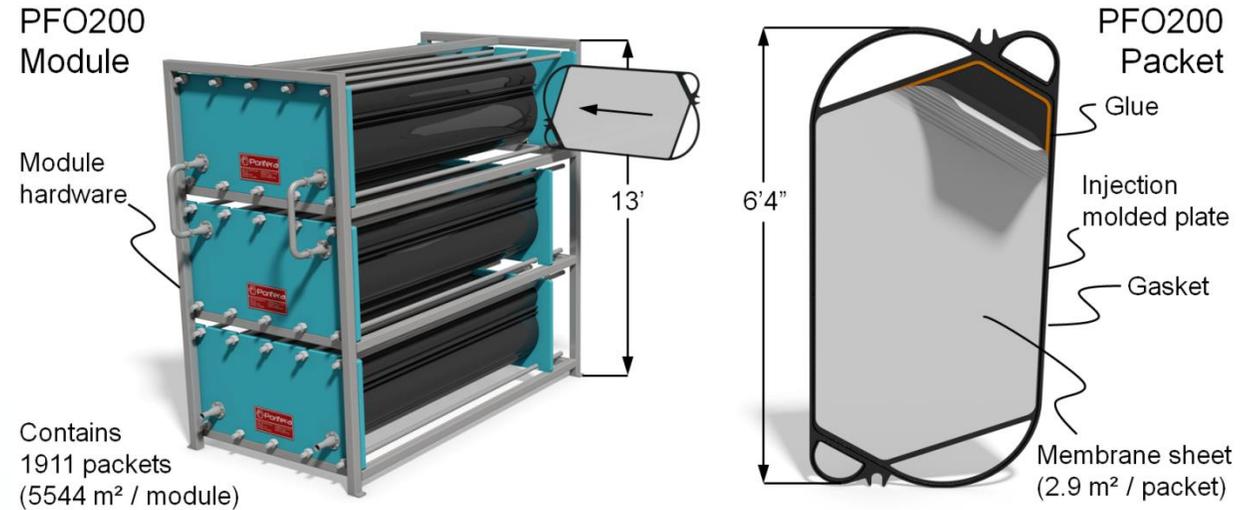
- 1) Reduce water treatment and reuse costs
- 2) Provide unique solutions for water reuse
- 3) Expand water availability during droughts
- 4) Increase safety of water supply



Overview

Manufacturing scale-up of forward osmosis membrane module for wastewater treatment:

- Able to process waste streams with high concentrations of dissolved organics and suspended solids
- Up to 3 times more efficient than competing technology
- Scale-up targets 50% reduction in system cost





Market Potential

- Agricultural and industrial use
 - Cattle farms, food processing facilities, paper and pulp
- Direct potable reuse
 - Municipal facilities, military bases
- Global water reuse and recycle market expected to generate \$32 billion in revenue by end of 2024



Staff Recommendation

- Approve and adopt staff's findings that project is exempt from CEQA



Item 12: SPARKZ

March 9, 2022 Business Meeting

Michael Ferreira

Energy Deployment & Market Facilitation Office

Energy Research & Development Division



Benefits to CA Ratepayers

- Advances clean energy economy
- Reduces battery costs
- Increases domestic manufacturing capability





SPARKZ, Inc.

Ultra-High energy lithium metal battery system based on solid electrolyte and cobalt free cathode

- 2x energy density of current cobalt-free batteries
- 40% reduction in cell manufacturing cost
- Enables domestic manufacturing of next-generation energy storage





Staff Recommendation

- Approve and adopt staff's findings that projects are exempt from CEQA.



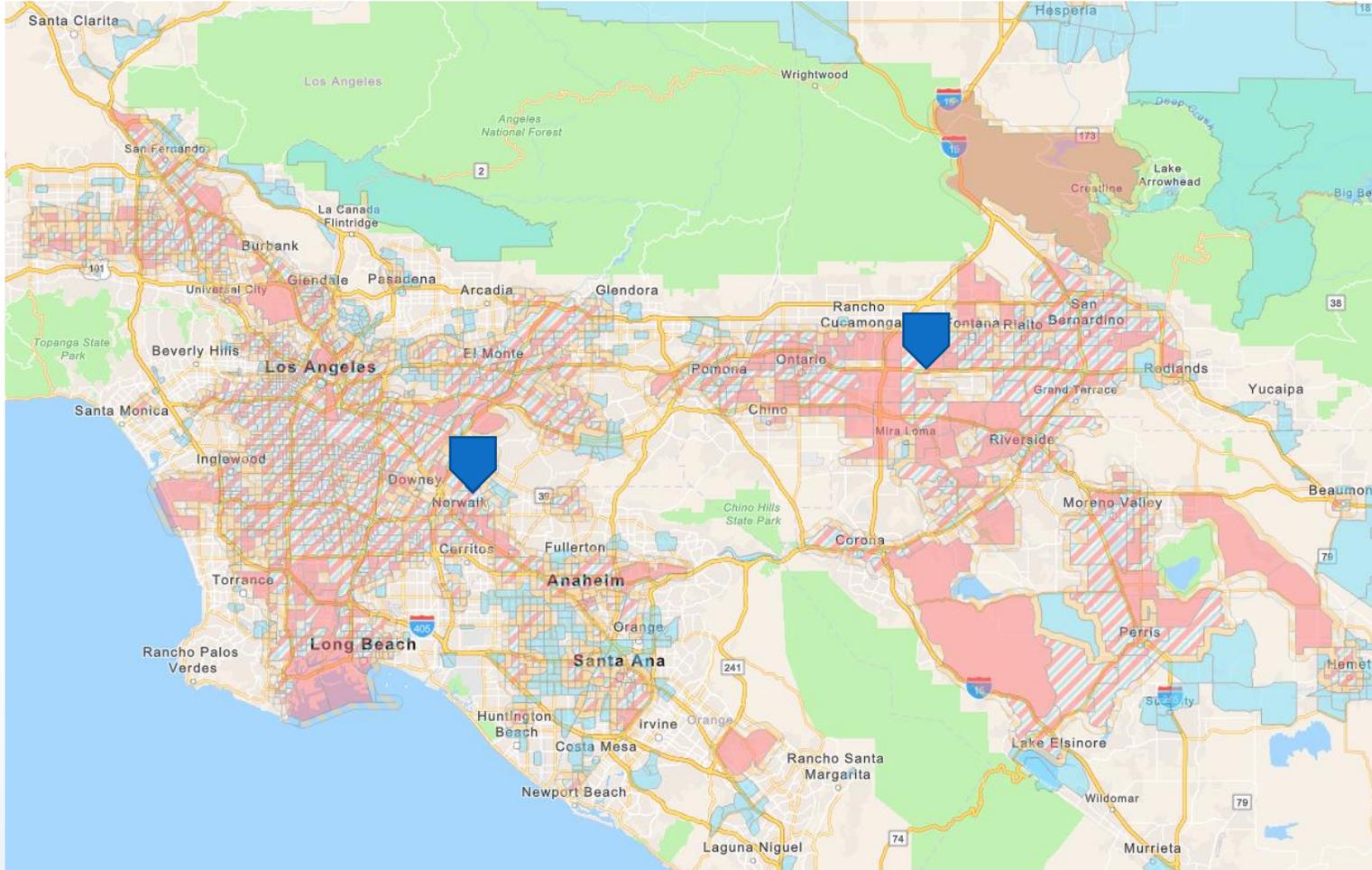
Item 13: Hydrogen Fuel Cell Truck and Bus Technology Integration and Demonstration (GFO-21-501)

March 9, 2022 Business Meeting

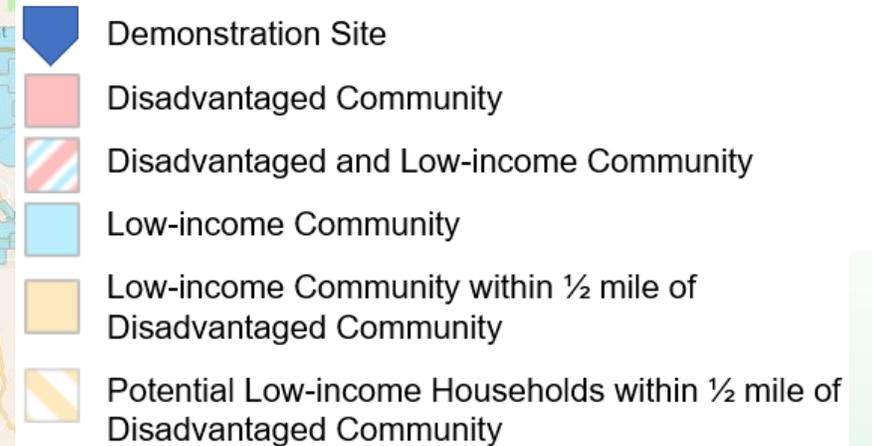
Peter Chen
Energy Research and Development Division
Energy Generation Research Office



Benefits to Californians



- Reduce emissions
- Improve efficiency and economics
- Accelerate commercialization



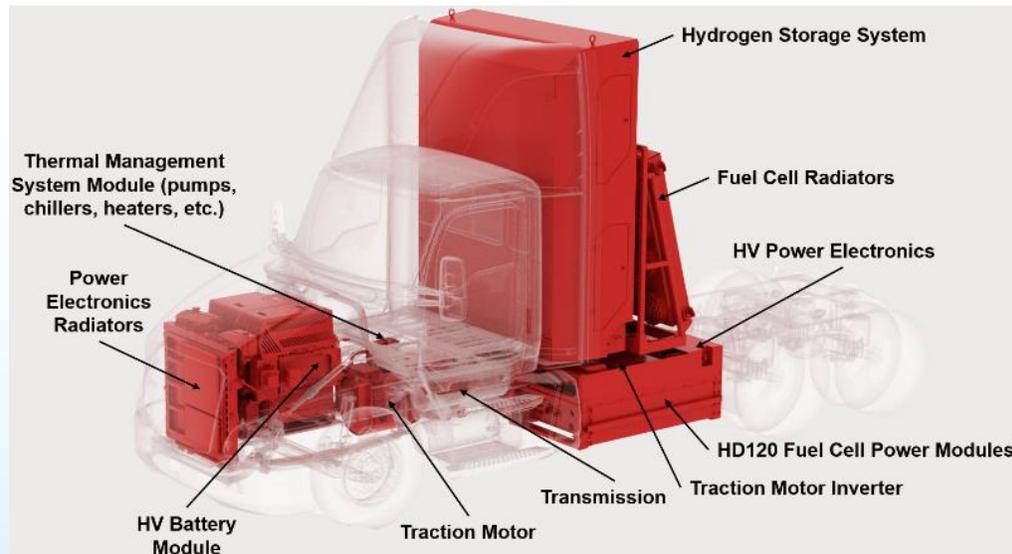
Source: California Climate Investments Priority Populations 3.0 by Census Tract



Cummins Electrified Power NA Inc.



- Demonstrate 2 hydrogen (H₂) trucks for industrial bulk gas delivery
- High efficiency heavy-duty fuel cell modules
- Electrified power takeoff for cryogenic tank trailers
- Assess liquid H₂ onboard storage feasibility





Gas Technology Institute

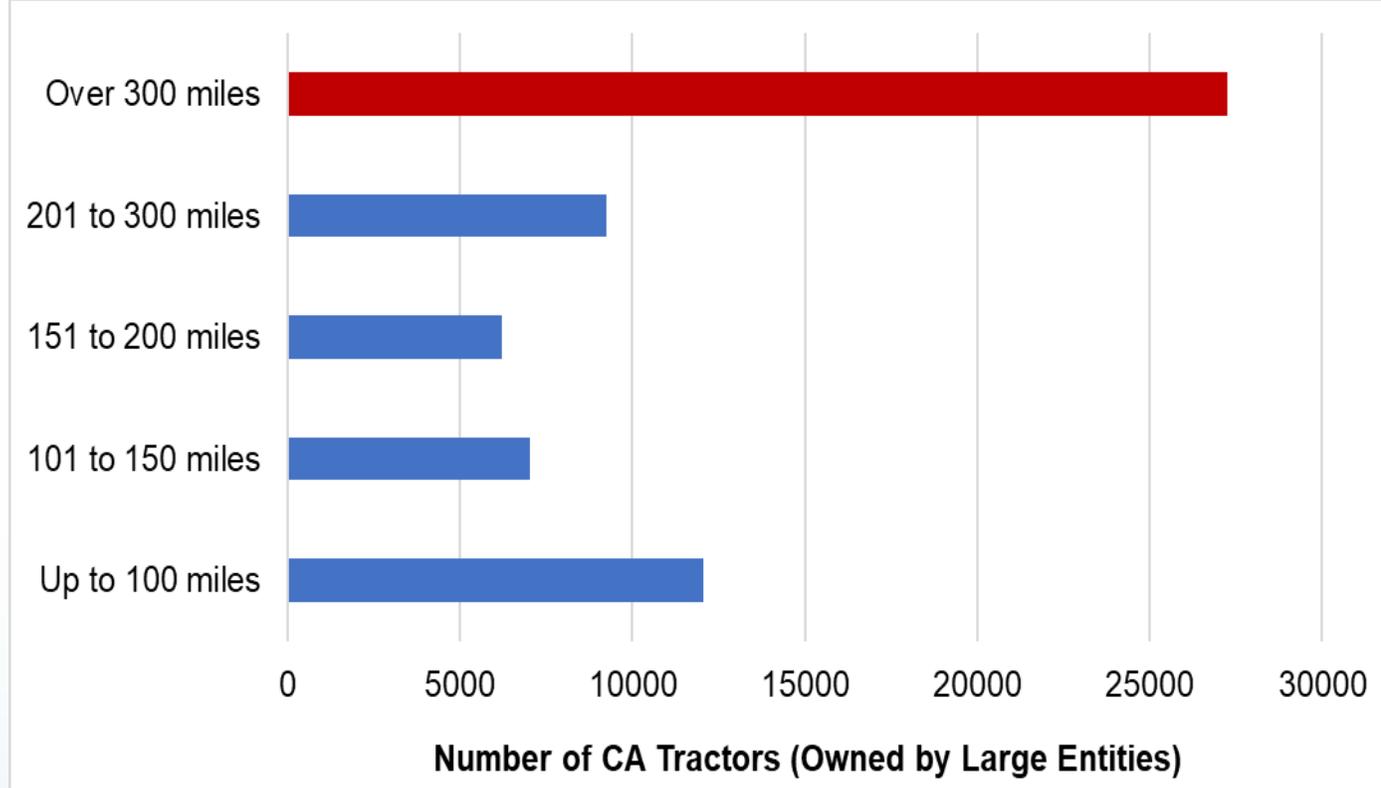
- Demonstrate H2 truck for extended regional haul
- High power fuel cell system with advanced controls
- Lightweight H2 onboard storage system
- Assess low rolling resistance tires in high-torque conditions





Market Potential

Estimated Daily Mileage for California Tractors (Semi-Trucks)



≈ 27,000

CA tractors traveling 300+ mi/day

≈ 4.2 MMT CO₂e

GHG emissions avoided annually

≈ 1,100 metric tons

NOx emissions avoided annually

Source: California Air Resources Board. Large Entity Fleet Reporting – Statewide Aggregated Data.



Staff Recommendation

- Approve grant agreements.
- Adopt staff's determination that projects are exempt from CEQA.



Item 14: City of Long Beach Harbor Department (Port of Long Beach)

March 9, 2022 Business Meeting

Patrick Brecht, Energy Commission Specialist II
Fuels and Transportation Division, Transportation Integration and
Production Office



Benefits to Californians

- **Improve** access to EV charging infrastructure
- **Reduce** barriers to zero emission transportation
- **Support** green job creation





Overview



Port of
LONG BEACH
THE PORT OF CHOICE

- \$2,500,000 proposed agreement with Port of Long Beach
- Install 10 Level 2 ZEV charging stations and 6 additional stub-outs for use by Port fleet vehicles, employees, and visitors
- Electric Drayage Truck Charging Station Siting Toolkit for local business owners
- Produce Workforce Assessment Report to support the ZEV industry
- Provide ZEV industry workforce outreach and recommendations





Staff Recommendation

- Approve Port of Long Beach agreement
- Adopt staff's determination that action is exempt from CEQA



Item 15: Ultra-Low-Carbon Fuel: Commercial-Scale Production Facilities & Blending Infrastructure (GFO-20-608)

March 9, 2022 Business Meeting

Hieu Nguyen, Energy Commission Specialist
Fuels and Transportation Division
Transportation Integration and Production Office,
Manufacturing and Production Unit



Solicitation Overview

- Commercial-Scale Facilities
 - Fuel Production
 - Fuel Blending
- ≥ 1 million diesel gallon equivalents per year
- New or Existing Facilities
 - New: \$3 million max
 - Existing: \$1.5 million max
- Ultra-Low-Carbon Fuel: ≤ 30 gCO₂e/MJ

GRANT FUNDING OPPORTUNITY

Clean Transportation Program

Ultra-Low-Carbon Fuel: Commercial-Scale Production Facilities & Blending Infrastructure



Addendum 5

GFO-20-608

<https://www.energy.ca.gov/funding-opportunities/solicitations>

State of California
California Energy Commission
August 2021

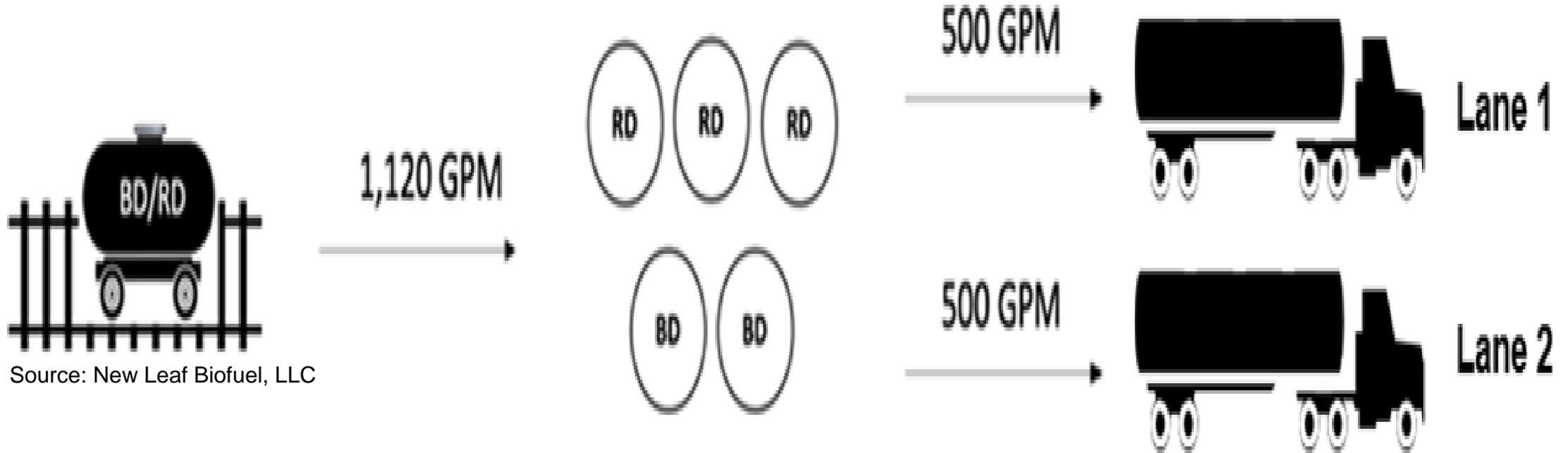


Benefits of Merced Pipeline

- Provides 39+ new jobs in low-income and disadvantaged community
- Decreases fugitive methane emissions from dairy manure
- Expected to reduce 113,000+ metric tons of carbon dioxide equivalents



Project Overview of New Leaf Biofuel



Source: New Leaf Biofuel, LLC

- Install tank farm at existing facility
- Enable 1+ railcar to simultaneously offload into tanks, instead of waiting trucks
- Increase throughput by 78 million gallons per year



Benefits of New Leaf Biofuel

- Located in low-income and disadvantaged community
- 12 new jobs
- Increase availability of waste-derived renewable fuels
- Reduce GHG emissions by 700,000+ metric tons per year



Staff Recommendation

- Merced Pipeline
 - Approve grant agreement for \$1,500,000.
 - Adopt Staff CEQA findings.
- New Leaf Biofuel
 - Approve grant agreement for \$1,000,000.
 - CEQA exempt.