| **DOCKETED** |
|-----------------|-----------------|
| **Docket Number:** | 22-BUSMTG-01 |
| **Project Title:** | Business Meeting Agendas, Transcripts, Minutes, and Public Comments |
| **TN #:** | 242231 |
| **Document Title:** | Presentation - March 9 Business Meeting |
| **Description:** | ***This document supersedes TN 242228*** |
| **Filer:** | Ngoc Tran |
| **Organization:** | California Energy Commission |
| **Submitter Role:** | Commission Staff |
| **Submission Date:** | 3/9/2022 10:41:59 AM |
| **Docketed Date:** | 3/9/2022 |
California Energy Commission
Business Meeting
March 9, 2022
10:00 a.m.
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.
Consent Calendar: a. – c.


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.
• 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

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
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<tbody>
<tr>
<td>11/20/1994</td>
<td>CEC Approved License</td>
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<tr>
<td>10/30/1997</td>
<td>Units Came Online</td>
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<tr>
<td>07/13/2016</td>
<td>CEC Approves Use of Recycled Water in Cooling Towers</td>
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<tr>
<td>07/15/2021</td>
<td>Ownership and Name Change Petition Filed</td>
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<tr>
<td>09/08/2021</td>
<td>CEC Approves Ownership and Name Change</td>
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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
<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
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<td>August 1999</td>
<td>CEC Approved License</td>
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<tr>
<td>July 2001</td>
<td>Facility Came Online</td>
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<tr>
<td>May 2011</td>
<td>CEC Approved Efficiency Improvements</td>
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<tr>
<td>March 2021</td>
<td>Petition Filed to Install Pipe and Divert Stack Gas</td>
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</table>
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.
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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Lead Commissioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume I: Building Decarbonization</td>
<td>Commissioner McAllister</td>
</tr>
<tr>
<td>Volume II: Reliability</td>
<td>Vice Chair Gunda</td>
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<tr>
<td><strong>Volume III: Gas – for consideration today</strong></td>
<td>Vice Chair Gunda</td>
</tr>
<tr>
<td>Volume IV: Forecast</td>
<td>Vice Chair Gunda</td>
</tr>
<tr>
<td>Appendix: Clean Transportation Program</td>
<td>Commissioner McAllister</td>
</tr>
</tbody>
</table>
Report Development

• Held 21 IEPR workshops
  o 5 addressed gas

• January 2022:
  o Posted Draft Volume III
  o 20 sets of comments

• February 2022
  o 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:
  o Gas demand and prices, production and supply, infrastructure, and GHG emissions

• Addresses emerging issues:
  o Building electrification impacts
  o Gas and electricity interdependencies
  o Potential role of renewable gas and renewable hydrogen
  o 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
  o Address long-standing pipeline constraints
  o 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

Rhetta 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

Phase 1:
Master Planning, NEPA/CEQA, Mitigation

Phase 2A:
Initial Construction of Berthing, Wharf, and Laydown Areas

Phase 2B:
Final Construction of Berthing, Wharf and Laydown

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

<table>
<thead>
<tr>
<th>CEC Project Phase</th>
<th>Tasks</th>
<th>Funding Amount</th>
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<tbody>
<tr>
<td>1</td>
<td>Tasks 1-5</td>
<td>$782,532</td>
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<tr>
<td>2</td>
<td>Tasks 6-10</td>
<td>$9,667,468*</td>
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*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
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 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
• 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)

- Over 300 miles: ≈ 27,000 CA tractors traveling 300+ mi/day
- 201 to 300 miles
- 151 to 200 miles
- 101 to 150 miles
- Up to 100 miles

≈ 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

- $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
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

• 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

Source: New Leaf Biofuel, LLC
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
  o Approve grant agreement for $1,500,000.
  o Adopt Staff CEQA findings.

• New Leaf Biofuel
  o Approve grant agreement for $1,000,000.
  o CEQA exempt.