

DOCKETED

Docket Number:	22-IEPR-01
Project Title:	2022 Integrated Energy Policy Report Update
TN #:	248975
Document Title:	Item 02 28 2023 Business Meeting Presentation 2022 IEPR
Description:	Item 02 28 2023 Business Meeting Presentation 2022 IEPR
Filer:	Raquel Kravitz
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	2/27/2023 8:14:52 AM
Docketed Date:	2/27/2023



Item 6: 2022 Integrated Energy Policy Report Update

February 28, 2023, Business Meeting

Heather Raitt, IEPR

Mona Badie, Public Advisor

Hilary Poore, Energy Assessments Division

Heidi Javanbakht, Energy Assessments Division

David Erne, Energy Assessments Division

Amanda Bourdet, Energy Assessments Division

Jane Berner, Fuels and Transportation Division



Benefits to Californians

Puts forward energy policies that:

- Conserve resources
- Protect the environment
- Ensure energy reliability
- Enhance the state's economy
- Protect public health and safety





Report Development

Public meetings in 2022

- 11 IEPR workshops, 1 hearing, 1 webinar

November 2022

- Posted Draft IEPR
- 18 sets of comments

February 2023

- Posted Final IEPR





Embedding Equity and Environmental Justice

Mona Badie, Public Advisor
Office of the Public Advisor, Energy Equity, and Tribal Affairs



Regional Engagement

- Historical context
- Addressing barriers
- Economic and workforce needs
- Targeted, customized resources
 - Engagement
 - Participation
 - Access





Energy Equity Indicators

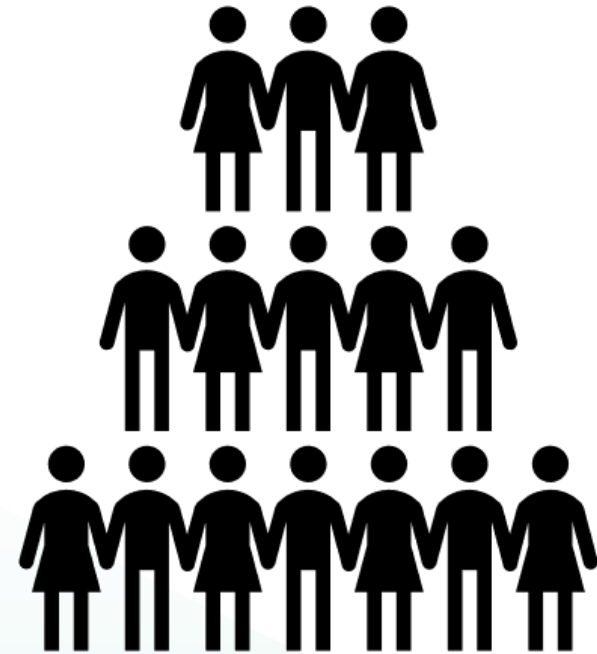
- Developed in 2018
- Goals
- Opportunity and support for update
- Available, accessible, and understandable data
- Iterative process





JAEDI Framework

- Vision
- Definitions
- Priority beneficiaries
- Guiding principles
- Best practices and considerations for embedding equity and environmental justice





Recommendations

- Informational proceeding
- Progress tracking
- Equity and environmental justice summits
- Customized support for communities, tribes
- Workforce development expertise
- Regional approach
- Supplier diversity



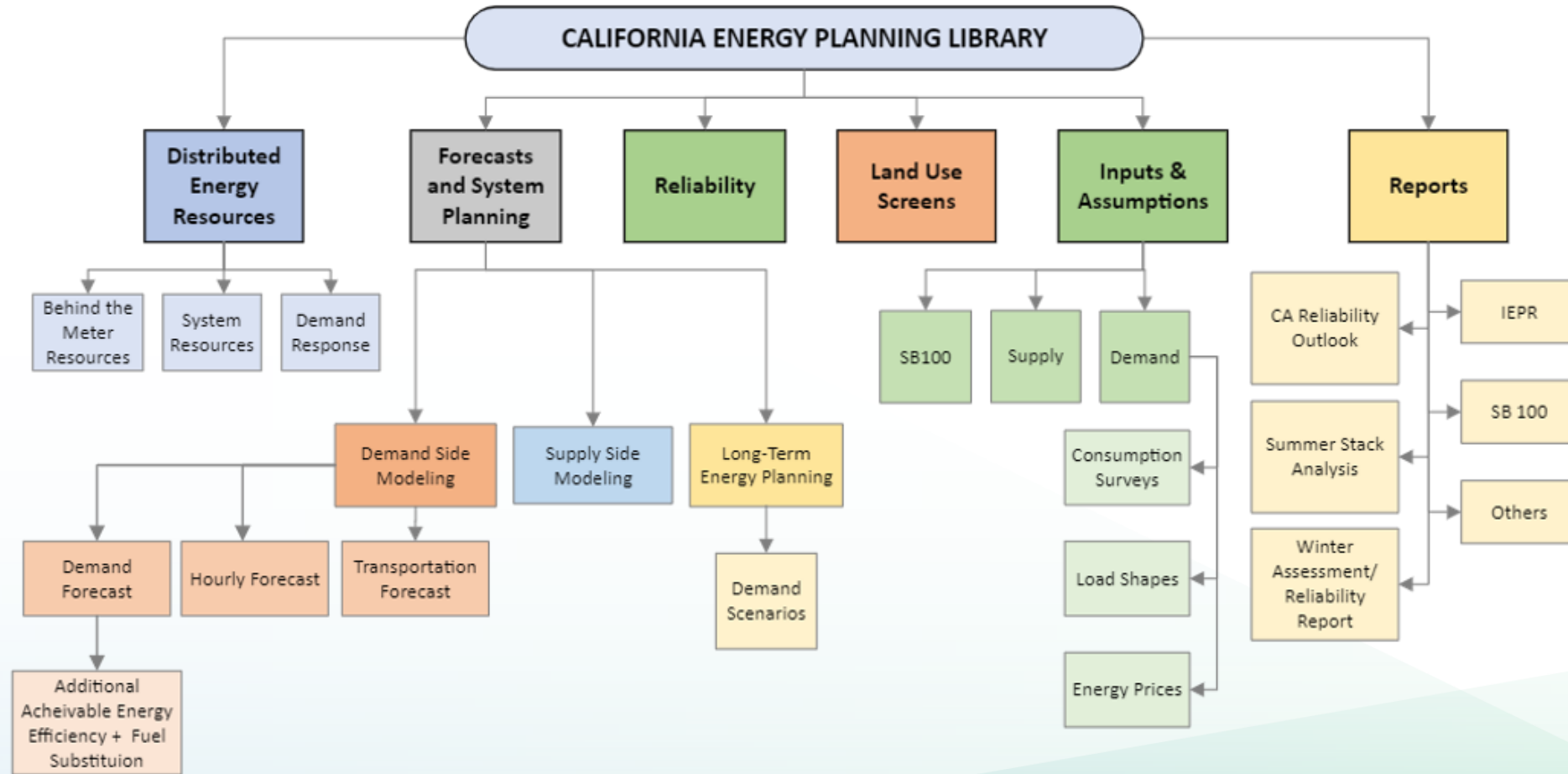


California Energy Planning Library

Hilary Poore, Supervisor
Energy Assessments Division



CA Energy Planning Library Site Map





CA Energy Planning Library Recommendations

- **Continued Improvement:** For future updates, the CEC should solicit stakeholder engagement and feedback on how to continue to improve the new platform.
- **Funding:** The state should provide adequate and consistent funding to support further development and ongoing data updates.



California Energy Demand Forecast

Heidi Javanbakht, Manager
Energy Assessments Division



CA Energy Demand Forecast

Foundational for procurement and system planning:

- Integrated Resource Planning
- Distribution System Planning
- Resource Adequacy
- Transmission Planning





2022 CA Energy Demand Forecast

Includes:

- End-user electricity consumption
- Peak and hourly
- Self-generation, electric vehicles, and other load modifiers
- Baseline and scenarios

Key Updates:

- Historical load data
- Economic, demographic, and rate projections
- Additional achievable framework:
 - Fuel substitution
 - Transportation electrification
- New forecast framework
- Single Forecast Set Agreement with the CPUC and ISO

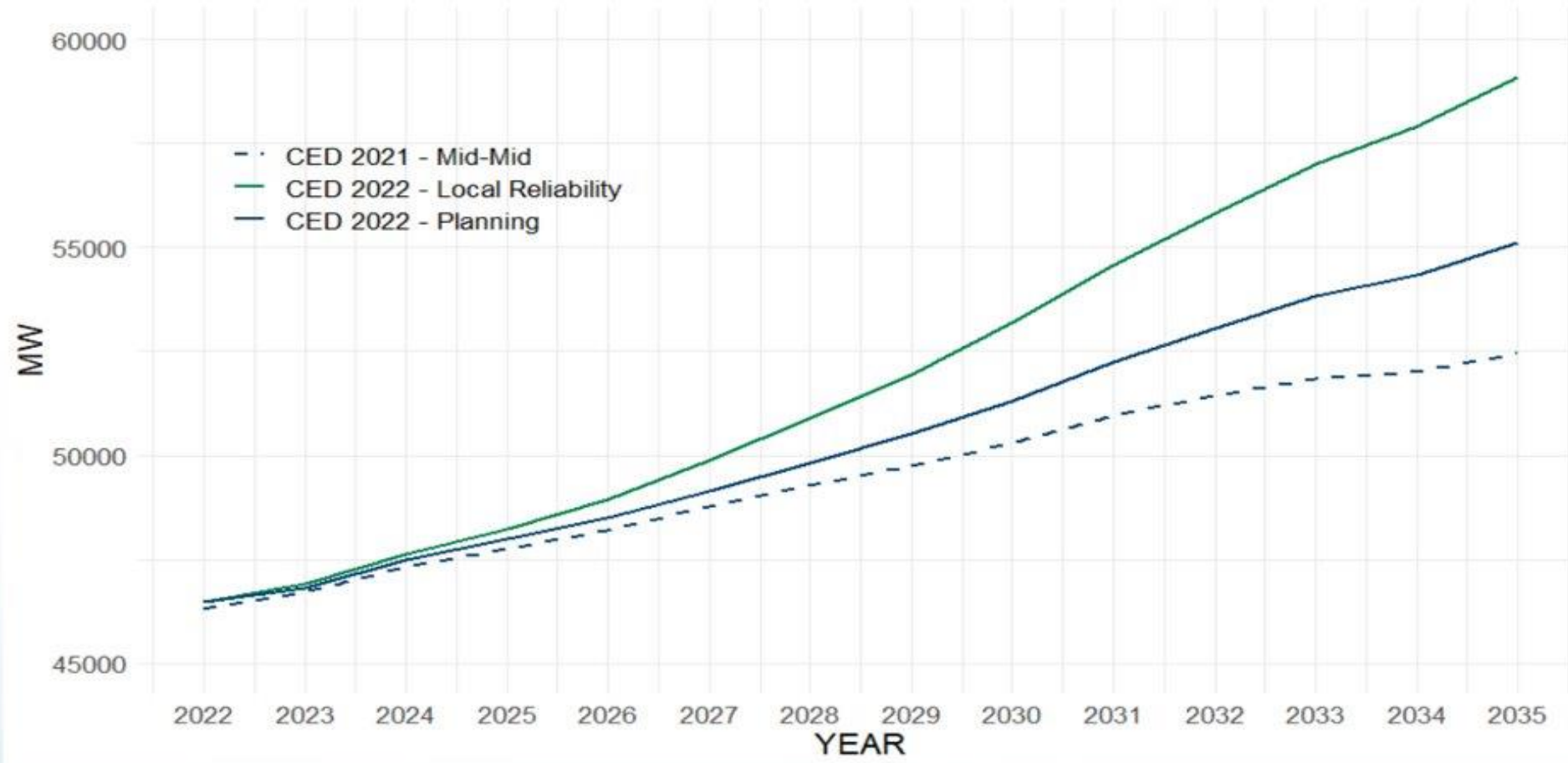


Forecast – Peak Load

Planning Forecast: grows by 1.3 percent per year

Local Reliability Scenario: adds 4,000 MW in 2035

Managed Peak Demand (CAISO)





Reliability, Western Integration, Fossil Gas, and Distributed Energy Resources

David Erne, Deputy Director
Energy Assessments Division



Reliability

California reliability needs

- Improve planning
- Grow and diversify clean energy resources
- Support to extreme events

Successfully maintained reliability during September extreme heat event

- Strong state-wide coordination
- Customer voluntary reductions
- Strategic Reliability Reserve





Western Electricity Integration

Markets are expanding

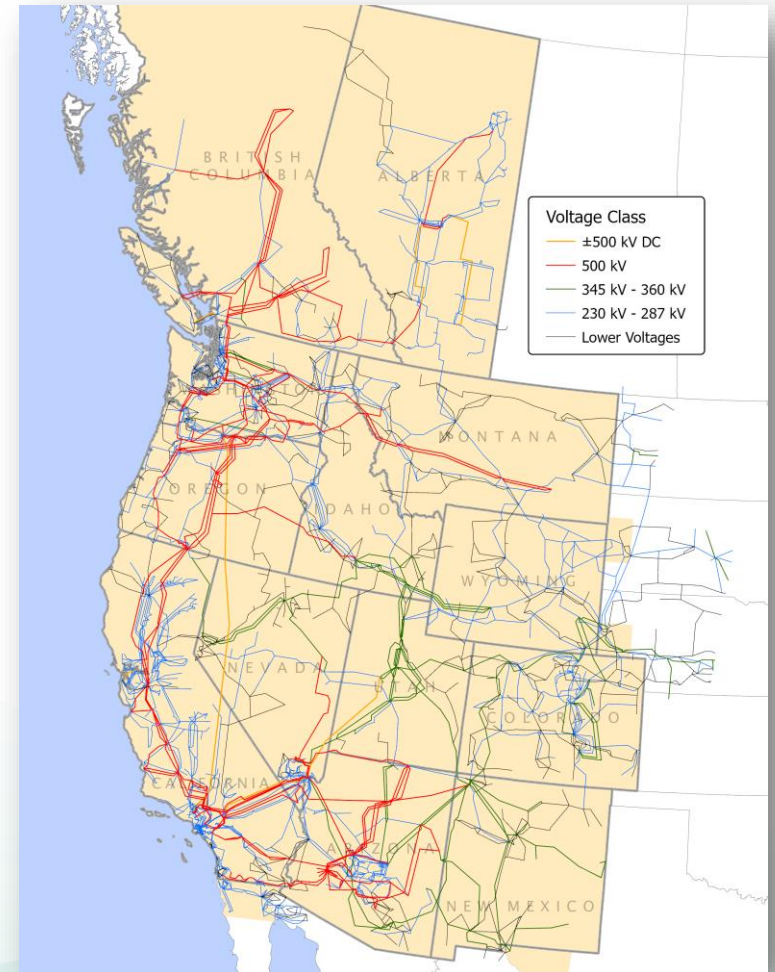
- CAISO Extended Day-Ahead Market
- Southwest Power Pool Market+

Resource adequacy has challenges

- Tight conditions across the west
- Planning for extreme events

Transmission infrastructure is needed

- Long lead times
- Critical to invest now



Western Electricity Coordinating Council Image



Fossil Gas Transition

California depends on fossil gas

- 31% of 2021 total energy consumption

Challenges to long-term climate goals

- Reducing emissions
- Maintaining safety and reliability
- Minimizing rate impacts

Coordination is key

- CEC Gas Decarbonization Proceeding
- CPUC's multiple proceedings
- CARB Scoping Plan





Distributed Energy Resources (DER)

DER growing – but not fast enough

Challenges

- Expand value proposition
- Identify optimal balance of DER and grid assets
- Speed interconnection safely

CEC/CPUC coordinating proceedings





Gasoline Cost Factors and Price Spikes

Amanda Bourdet, Branch Manager
Energy Assessments Division



FACTORS DRIVING CALIFORNIA'S GASOLINE PRICES



Global Crude Market



Geopolitical Issues



Isolated Refinery Market



Cleaner Fuel Blends



Environmental Program Costs



Taxes



Gasoline Price Spikes

March 2022

- Global crude oil prices spiked, resulting in gasoline prices spikes nationally, highest in California

October 2022

- Unplanned refinery maintenance and low inventory
- California diverged from US prices by a record \$2.61 per gallon
- Oil refineries realized exceedingly high profits



Looking Forward in Transportation Fuels

Legislation

- The Governor proposed legislation to protect consumers from fuel price gouging and shed greater transparency on refiners.

Data

- More refinery operations data is needed.

Transportation Fuels Transition Study

- Plan for and track progress on the state's transition away from petroleum fuels.



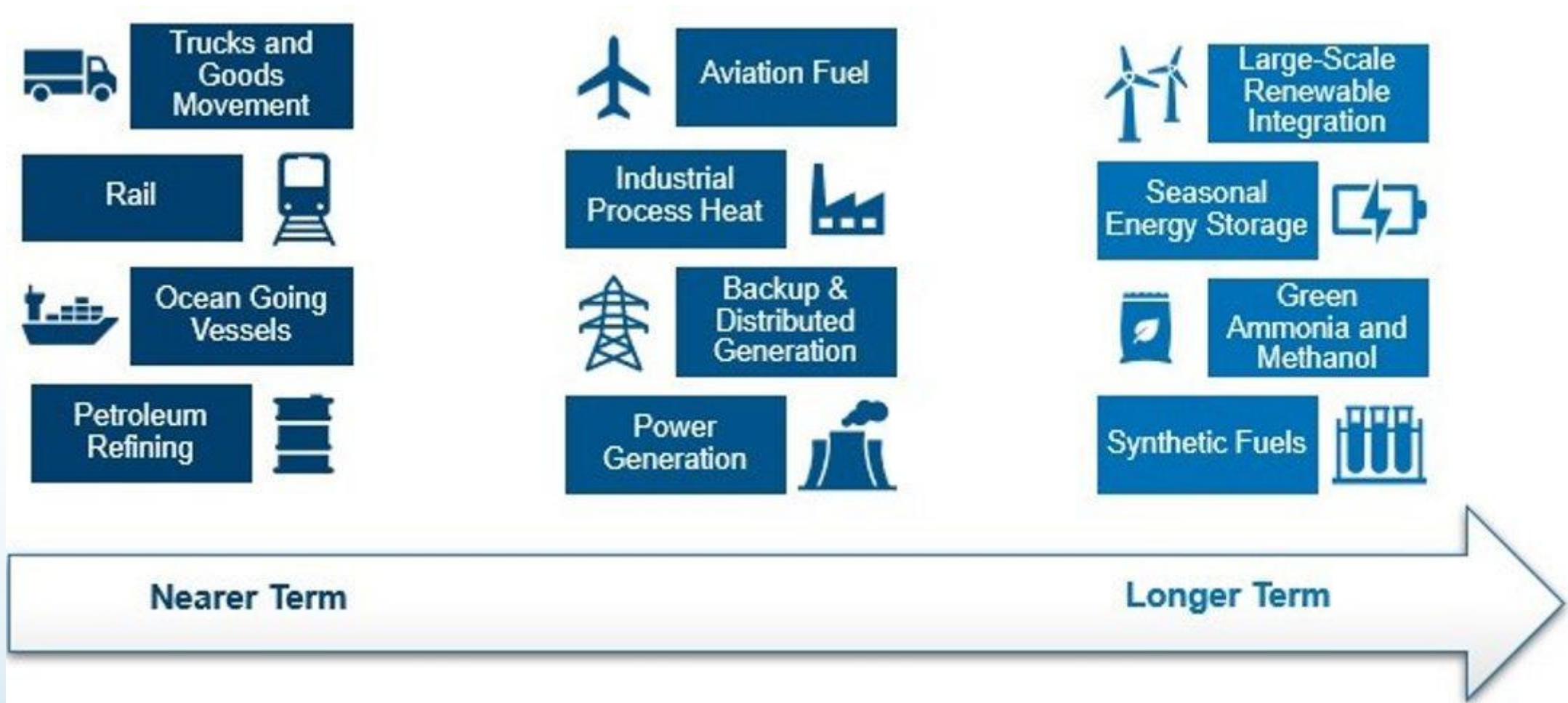
Role of Hydrogen in California's Clean Energy Future

Jane Berner, Air Pollution Specialist
Fuels and Transportation Division



Potential Roles for Low-Carbon Hydrogen

High potential areas: hard-to-electrify industrial processes, hard-to-electrify transportation, and grid reliability





Recommended Next Steps for Hydrogen

- **Standardize** method to measure climate benefits while accounting for varying feedstocks and production processes.
- **Set targets** for reducing GHG emissions from production.
- **Expand analysis** of supply adequacy and demand for electricity.
- **Fully engage** in the federal Hydrogen Hub initiative.



Source: Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES)



Staff Recommendation

Adopt the 2022 IEPR Update with Errata

Thank you!