



# California Sustainable Freight Action Plan

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**Andre Freeman**

Supervisor - MD-HD Vehicle Technology Unit  
Fuels and Transportation Division

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# CALIFORNIA SUSTAINABLE FREIGHT ACTION PLAN



# Governor's Executive Order B-32-15

Multi-decade, iterative process needed to transform California's freight system. State agencies, in consultation with stakeholders, to develop a comprehensive Action Plan by July 2016 to:

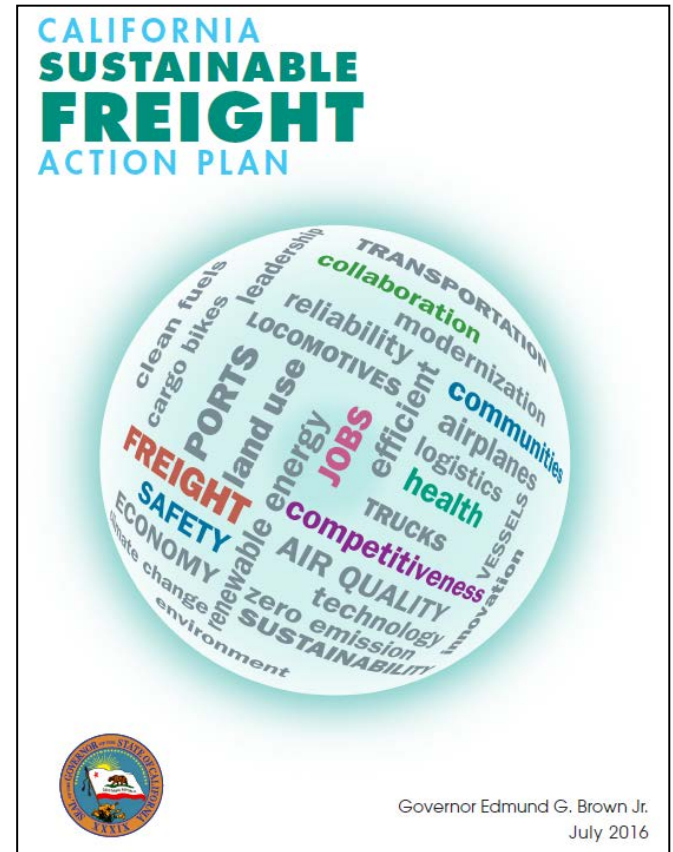
- Improve freight efficiency
- Transition to zero emission technologies
- Increase economic competitiveness



# Framework of the Action Plan

Finalized in July 2016, includes:

- 2050 Freight System Vision
- Guiding Principles
- 2030 Statewide Targets
- Freight Funding Opportunities
- Case Studies and Pilot Projects
- State Agency Actions
- Discussion Concepts
- Implementation Steps



[www.casustainablefreight.org](http://www.casustainablefreight.org)



# 2030 Vision for Sustainable Freight

- **Utilize a partnership of federal, State, regional, local, community, and industry stakeholders to move freight in California on a modern, safe, integrated, and resilient system that continues to support California's economy and healthy, livable communities.**
- **Transporting freight reliably and efficiently by zero emission equipment everywhere feasible, and near-zero emission equipment powered by clean, low-carbon renewable fuels everywhere else.**



# Guiding Principles

In the coming years, the California freight system should achieve all of the following through public, industry, and stakeholder collaboration to make progress toward the long-term vision



- Regional and Local Support
- Economy
- Safety
- Community Impacts
- Maintenance
- Reliability
- Efficiency
- Environment
- Resiliency
- Land Use



# 2030 Statewide Targets

- **System Efficiency Target**

Improve freight system efficiency 25 percent.

- **Transition to Zero Emission Technology Target**

Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy.

- **Increased Competitiveness and Economic Growth Targets**

Establish a target or targets for increased State competitiveness and future economic growth within the freight and goods movement industry.



# Freight Funding

- Utilizing lessons learned from past investments
- Developing a comprehensive approach to targeting ongoing freight investments
- Planning for potential future freight funding
- **Related Energy Commission Programs**
  - **Alternative and Renewable Fuel and Vehicle Technology Program**
  - **Renewable Energy Production and Utilization**
  - **Advanced Electric and Natural Gas R&D Activities**
  - **Energy Efficiency Measures**





# Pilot Projects and Case Studies

- **Dairy Biomethane for Freight Vehicles (San Joaquin Valley):** Work with State and local partners to advance a commercial-scale, dairy biogas sourced, biomethane fueling facility for use in freight and other vehicles. The pilot may focus on implementation of pipeline injection, and the construction of the fueling station.
- **Advanced Technology for Truck Corridors (Southern California):** Work with partners to promote new technologies that increase efficiencies and encourage zero and near-zero emission vehicles on primary freight corridors.
- **Advanced Technology Corridors at Border Ports of Entry (California-Mexico Border):** Work with partners to implement information technology management systems, innovative operation techniques, and enhanced traffic management technology.



# Discussion Concepts

- **Further development of inland marine corridors**
- **Non-traditional transport methodologies**
- **Packaging optimization**
- **Supply chain consolidation in the agricultural industry**
- **Local sourcing for local markets**
- **System efficiency improvements**
- **Other advancements for specific business models**



# Summary of State Agency Actions

- 1. Work with legislature on a freight transport funding package**
- 2. Work with legislature on distribution of federal FAST Act funds**
- 3. Plan and invest in infrastructure to modernize freight corridors**
- 4. Accelerate use of advanced technologies and renewable fuels**
- 5. Establish a sustainable freight think tank**
- 6. Develop strategies, tools, and data that considers commercial viability and promotes competitiveness**
- 7. Continue work with the freight efficiency development group**
- 8. Implement steps to meet existing and future workforce needs**
- 9. Identify regulatory or permitting process improvements**



# Energy Commission Action Items

## Research and Development

- **Natural Gas Vehicle Research Roadmap**
- **Vehicle-Grid Integration Technology Research, Funding and Technical Assistance**
- **Research Efforts to Support Sustainable Freight Transport System Development**

## Technology Demonstration and Deployment

- **Hydrogen Fueling and Electric Charging Infrastructure for Medium- and Heavy-Duty Vehicles**
- **Investments in Advanced Vehicles and Equipment Technology Demonstrations and Deployment, Renewable Fuel Production, and other Freight Technologies**
- **Further promotion of Renewable Electricity Resources**



# Energy Commission Implementation Steps

## Planning

- **Transportation Electrification Planning**
- **Regional and Statewide Energy Resource Planning**
- **Regional Zero Emission Vehicle Readiness Plans**
- **Freight Handbook for Freight Facility Siting, Design, and Operations**

## Outreach

- **Port Energy Collaborative**
- **Opportunities to Coordinate with Department of Defense**
- **Zero Emission Vehicle Market Forums**
- **Outreach and Advocacy to Increase Awareness of Advanced Vehicle and Equipment Technologies and Clean Energy Generation Options for Freight**



# Process and Next Steps

**July 2016 – Early 2017:** The State agencies anticipate providing periodic updates on Action Plan implementation to the California Freight Advisory Committee and other related stakeholder groups.

**By July 2017:** The State agencies will establish work plans for the workgroups on competitiveness, funding, system efficiency, workforce development, and regulatory and permitting process improvements

**By July 2018:** The State agencies anticipate providing a full progress report on Action Plan efforts.

**By July 2019:** The State agencies will evaluate the Action Plan Targets to determine if adjustments are needed.





# Thank You

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**Questions:**

**[Andre.Freeman@energy.ca.gov](mailto:Andre.Freeman@energy.ca.gov)**