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**CALIFORNIA**  
**SUSTAINABLE**  
**FREIGHT**  
**ACTION PLAN**

**California Freight Advisory Committee**

May 10, 2016

# Overview

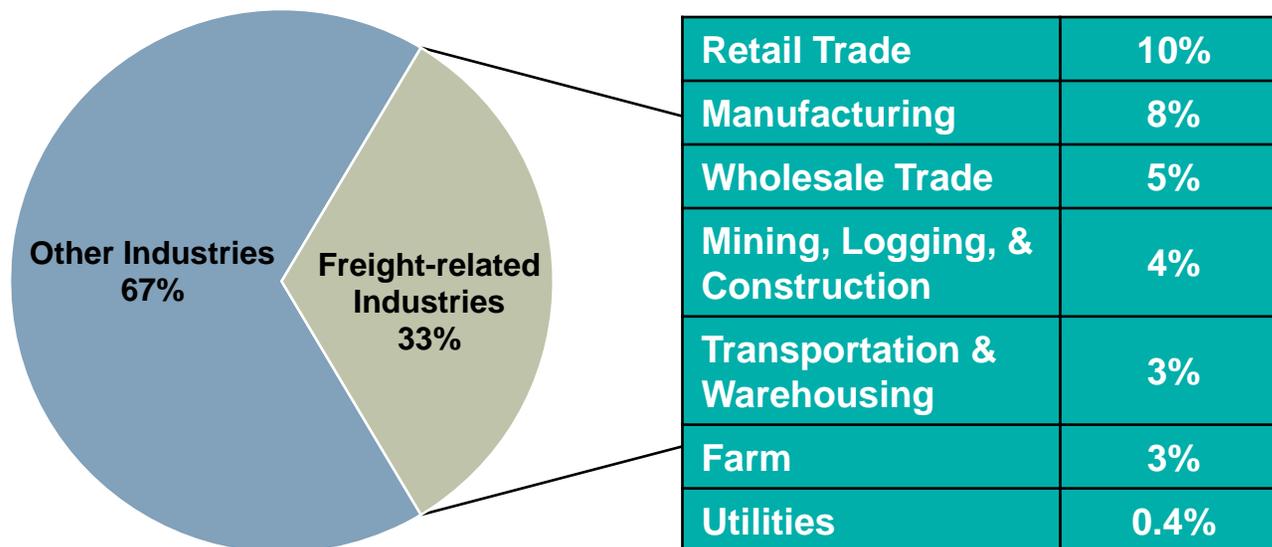
- **California's Freight Transport System**
- **Governor's Executive Order B-32-15**
- **Components of the Action Plan**
- **Process and Next Steps**



# 1/3 of California's Jobs and Economy

## California Industry Employment Composition

Total Employment (2014): 16 Million



Source: EDD, Labor Market Information Division, 2014

# Freight Is Important to California's Economy

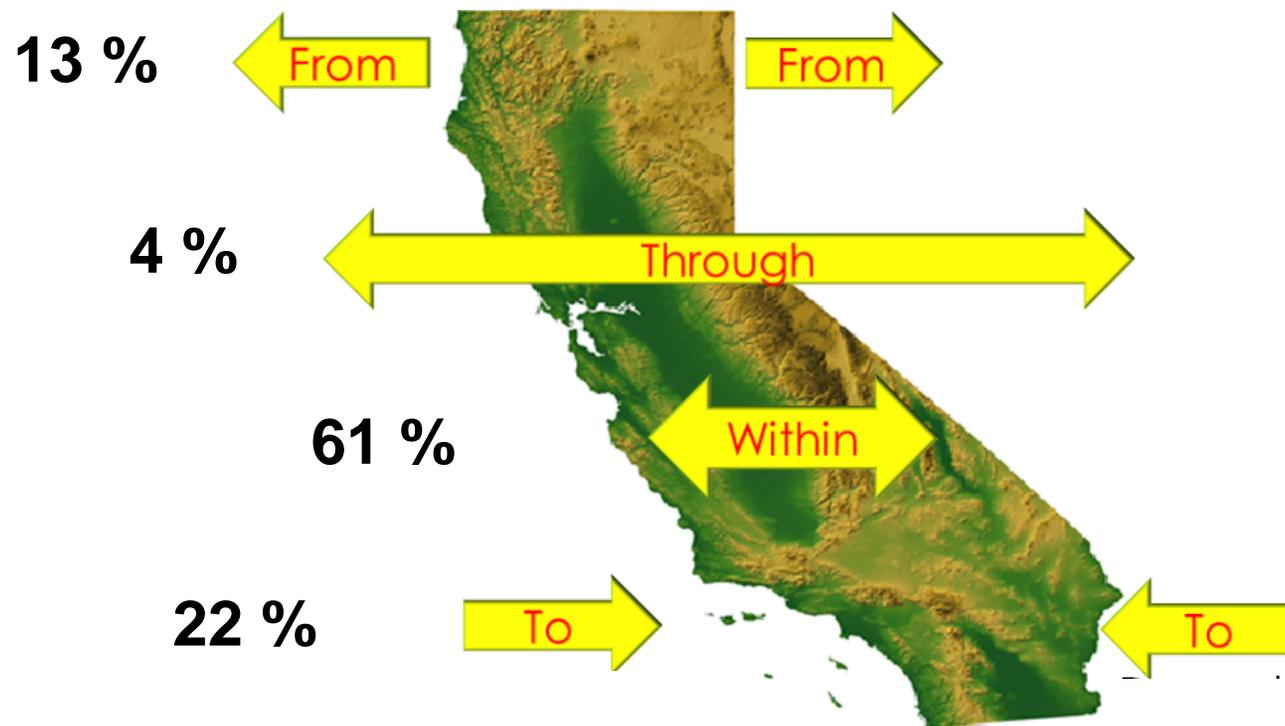
Freight-dependent industries account for:

- Over \$740 Billion Gross Domestic Product, 32% of the California economy (2014)
- Over 5 million jobs, 33% of California jobs (2014)

California freight projections for 2025:

- 25% increase in volume
- 60% increase in commodity value

# 2/3 of Freight Transport Within California



- Source: Freight Analysis Framework Data by U.S. Department of Transportation, 2015

# Under Continuous Pressure to Evolve

- **25 percent increase in volume by 2025**
- **Competition and cost pressures**
- **Demands of e-commerce**
- **System capacity, safety, and security**
- **More protective toxics and air quality standards**
- **Increased vulnerability of freight facilities to climate change impacts**



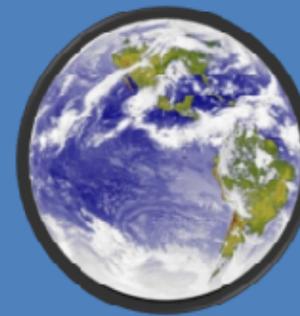
# Critical to California's Environmental Objectives



Cut air  
toxics  
health risk



Attain air  
quality  
standards



Mitigate  
climate  
change

← Zero-emission technology/ renewable energy →

# Progress Will Require Partnerships Across...

- Multiple sectors, disciplines, and organizations
- State government
- Industry
- Environmental and community partners
- Federal, regional, and local agencies
- International bodies



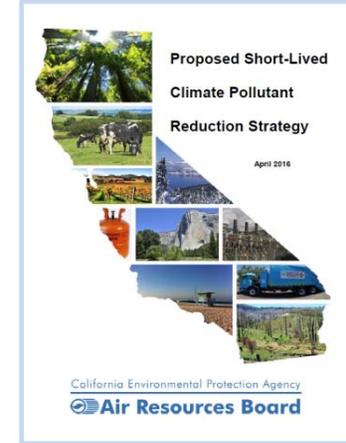
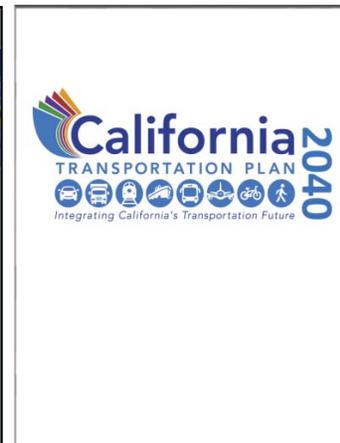
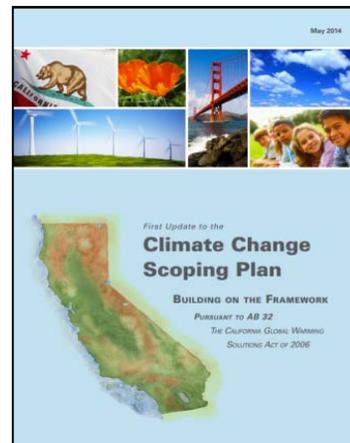
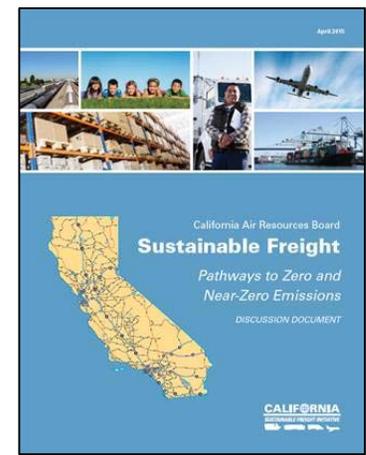
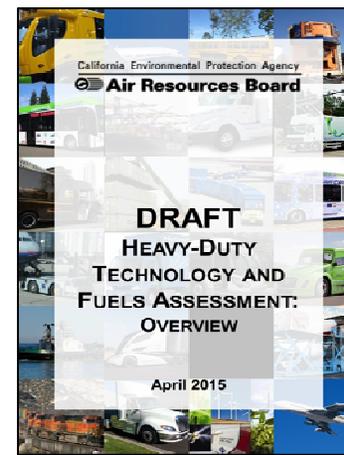
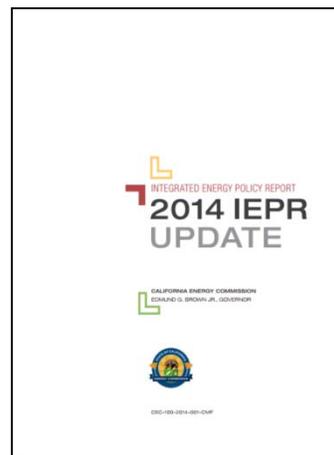
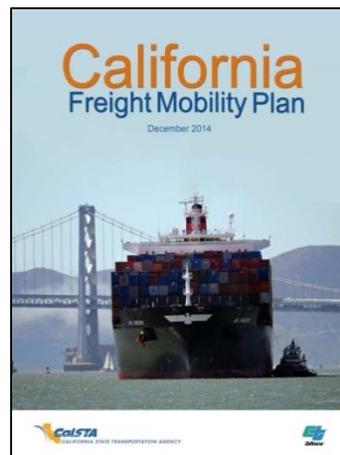
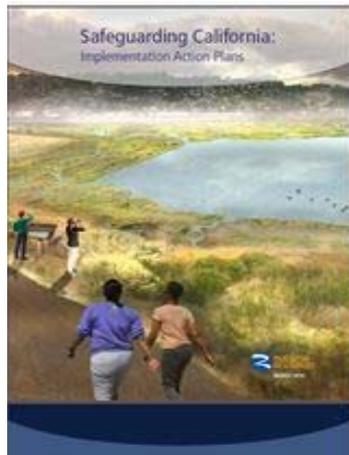
# Governor's Executive Order B-32-15

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

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



# Other Recent State Plans



# Stakeholder Engagement

## **Public Workshops and Webinars**

- July 2015
- October 2015
- January-February 2016

## **Individual and Stakeholder Group Meetings**

- California Freight Advisory Committee
- Freight Efficiency Working Group
- California Cleaner Freight Coalition
- Tribal governments
- Other groups as requested

# Freight Efficiency Working Group

## FREIGHT EFFICIENCY STRATEGIES

March 2016

A White Paper Series to Inform the California  
Sustainable Freight Action Plan

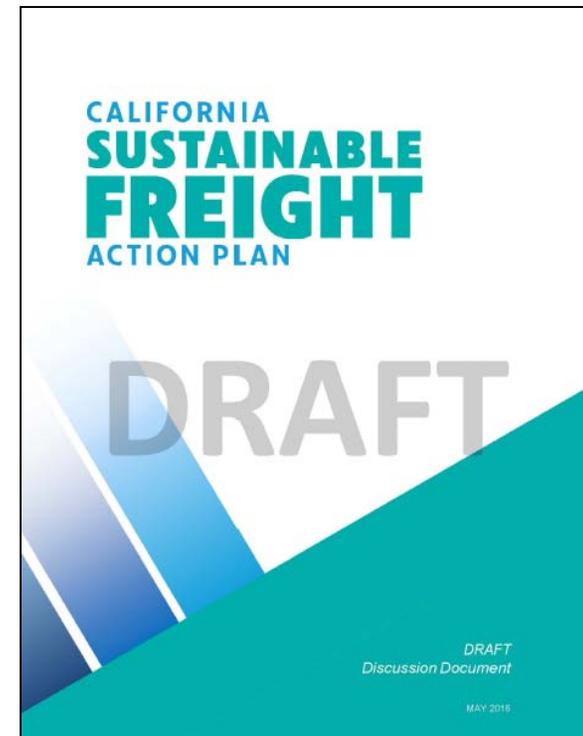
Chaired by Dr. Sperling  
and  
Convened by Caltrans

- **Participants:** Freight industry, academics, advocates, and government
- **Developed a series of white papers:**
  - Funding for Freight Infrastructure and Clean Equipment
  - Strategies to Maximize Asset Utilization
  - Planning and Policy
  - Operational Modernization at Distribution Nodes
  - Information Technology

# Framework of Draft Action Plan

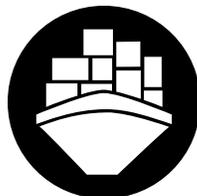
**Released on May 3, includes:**

- **2050 Freight System Vision**
- **Guiding Principles**
- **2030 Statewide Targets**
- **Freight Funding Approach**
- **State Agency Actions**
- **Pilot Projects**
- **Discussion Concepts**



## 2050 Freight System Vision

Utilize a partnership of federal, State, regional, local, and industry stakeholders to move freight in California on a modern, safe, integrated, and resilient system that continues to support California's economy and livability. 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 addition to statutory requirements, the **Guiding Principles** characterize priorities for future investments of freight funding in California.”**



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

# 2030 Statewide Targets

- **System Efficiency:** Improve 25 percent by 2030
- **Technology:** Deploy over 100,000 zero emission vehicles/equipment and maximize near-zero by 2030
- **Economy:** Foster future economic growth within the freight and goods movement industry



# Investing in California's Freight Transport System

- **Potential Freight Funding**
  - Fixing America's Surface Transportation (FAST) Act
  - Governor Brown's Fiscal Year 2016-2017 Budget Proposal
- **Approach to Ongoing Freight Investments**
  - Trade Corridor Improvement Fund/Goods Movement Emission Reduction Program – Phase II
  - Further explore matching grants, financing assistance, and bulk purchasing power

# 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**
- \* Associated implementation steps identified in Appendix C

## State Agency Actions (cont'd)

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**
- \* Associated implementation steps identified in Appendix C

# Action 1

Work with the legislature to enact a freight transport system funding package that enables new investment for transportation assets and advanced vehicles and equipment that move freight in California's freight corridors and is consistent with the long-term Vision and Guiding Principles presented in this document.

## Action 2

Work with the legislature to enact legislation that enables distribution of federal Fixing America's Surface Transportation Act funds based on high-priority State and regional improvements to California's freight corridors as identified in transportation plans and programs.

# Associated Implementation Steps

**“The State Agencies have identified associated implementation steps for Actions 3, 4, 6, 7, and 8.”**

- **Implementing Agency**
- **Timelines**
- **Estimated Costs**
- **Associated Benefits**



Details in Appendix C

## Action 3 Implementation Steps:

Focus freight infrastructure planning and investments on providing modern freight corridors. Future freight planning and program documents should identify high-priority projects with multiple benefits for future funding, and establish performance criteria.

- Medium- and Heavy- Duty Vehicle Charging and Hydrogen Fueling Infrastructure Assessments, Planning, and Incentives
- Coordination with Local and Regional Partners on Freight Facilities, Siting, Design, and Operation
- Research Efforts to Support Freight Transport System Development
- Freight Data Collection and Modeling Tool Development to Enhance Knowledge and Planning for Freight Corridor Improvement State Investments

## Action 3 Implementation Steps Continued:

- Highway Freight Network Design, Planning, Maintenance and Operations Improvement
- Feasibility Assessment of Developing Dedicated Freight Lanes Along Highway Capacity Corridors
- Inland Facility, Short-Haul Shuttle, and Inland Seaports Utilization with Less Impact on Nearby Communities
- Freight Rail Network Improvements
- Aviation Efficiencies: National Satellite-Based Air Traffic Management System
- Freight Network Safety Improvements

# Action 4 Implementation Steps:

Accelerate use of clean vehicle and equipment technologies and fuels for freight through targeted introduction of zero and near-zero emission technologies, and continued development of renewable fuels.

- Investments in Advanced Vehicles and Equipment Technology Demonstrations and Deployment, Renewable Fuel Production, and other Freight Technologies
- Cleaner Combustion Truck Standards
- Freight Technology and Fuels Data Collection and Analysis
- Low-Carbon Renewable Fuels Development and Requirements
- Vehicle-Grid Integration Technology Research and Technical Assistance

## Action 4 Implementation Steps Continued:

- Heavy-Duty Zero Emission Vehicle Fueling Infrastructure Research, Development, and Demonstration
- Oceangoing Vessel Standards and Incentives
- Zero Emission Freight Vehicle and Equipment Requirements and Incentives
- Stricter National Locomotive Emission Standards and Remanufacture Requirements
- Further Deployment of Cleaner Technology Through Regulations, Partnerships, and Incentives
- Partnerships with Seaports to Advance Freight Vehicle and Equipment Technology Demonstrations
- Outreach and Advocacy to Increase Awareness of Advanced Vehicle and Equipment Technologies and Clean Energy Generation Options for Freight

## Action 5

Establish a sustainable freight think tank to provide foresight into the innovative future of freight transport and identify the transformative technologies, solutions, partnerships, and critical steps for implementation.

## Action 6 Implementation Steps:

Convene stakeholders to identify and deploy strategies that consider commercial viability and promote the competitiveness of California's statewide and local freight transport system, develop tools and share data to analyze benefits and impacts of actions, including costs, and develop and implement a quantitative metric to track progress.

- Competitiveness Data Development
- Marketing Campaign

# Action 7 Implementation Steps:

Work with freight efficiency development group to refine its work to identify and deploy strategies to improve the efficiency of freight transport in California now and in the coming years, consistent with the objectives of this Action Plan.

- Truck Trip Planning, Coordination, and Management Improvements
- Freight Intelligent Transportation System Enhancements
- Off-Hour Delivery/Pick-Up Strategy
- Cross-Jurisdictional Information Sharing

## Action 8 Implementation Steps:

Convene stakeholders and the California Workforce Development Board to identify and implement steps to ensure that the existing and future workforce meets the needs of the California sustainable freight transport system.

- Regional Workforce Development Initiatives
- Training Models
- Community Workforce Agreements

## Action 9

Develop a process involving the Office of Planning and Research, along with federal, regional and local partners, and industry and environmental stakeholders, to identify regulatory or permitting process improvements to expedite the delivery of projects identified as meeting the objectives of this plan.

# Pilot Projects

- **Dairy Biogas for Freight Vehicles**  
San Joaquin Valley
- **Advanced Technology for Truck Corridors**  
Southern California
- **Advanced Technology Corridors at Border Ports of Entry**  
California-Mexico Border

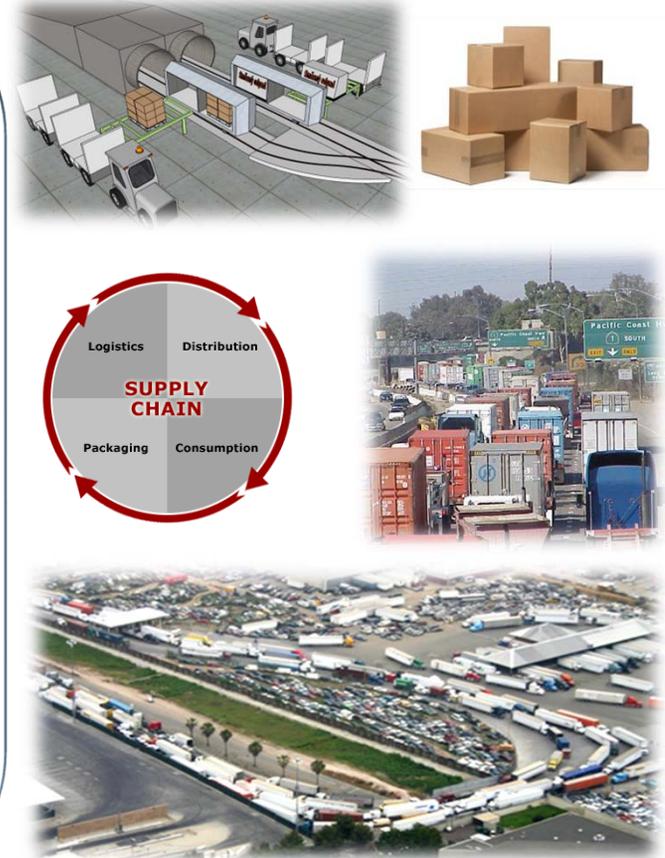
Agency support actions under consideration identified in Appendix D



# Discussion Concepts

- **Inland marine corridors**
- **Non-traditional transport methodologies**
- **Packaging optimization**
- **Supply chain consolidation in the agricultural industry**
- **System efficiency strategies**
- **Transportation projects**
  - Interstate 710 Corridor
  - State Route 11 Otay Mesa East Port of Entry

Details in Appendix E



# Action Plan Timeline

May 3, 2016	Draft Plan Released for Public Comment
May 10, 2016	CFAC Meeting
May 18, 2016	CTC Meeting
May 19, 2016	ARB Board Meeting
July 6, 2016	End of Public Comment
July 2016	Finalize and submit to Governor

View the full draft Action Plan at:

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