Today

• Present Action Plan implementation status and receive ideas and feedback regarding these activities.

• State agency team is here to discuss implementation elements.

• Public is encouraged to ask questions, share ideas, and provide input.
California Sustainable Freight Action Plan

Action Plan Finalized in July 2016, includes:

- Vision and Guiding Principles
- 2030 Statewide Freight Targets
  - Increase efficiency by 25%
  - Deploy over 100,000 zero emission vehicles and equipment and maximize near-zero vehicles and equipment powered by renewable energy
  - Establish a target for increased State competitiveness and future economic growth
- Freight Funding Approach
- State Agency Actions and Implementation Steps
- Pilot Project Concepts
1/3 of California’s Jobs and Economy

California Industry Employment Composition

Total Employment (2014): 16 Million

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Trade</td>
<td>10%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>8%</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>4%</td>
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<tr>
<td>Mining, Logging, &amp; Construction</td>
<td>4%</td>
</tr>
<tr>
<td>Transportation &amp; Warehousing</td>
<td>3%</td>
</tr>
<tr>
<td>Farm</td>
<td>3%</td>
</tr>
<tr>
<td>Utilities</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

Other Industries 67%

Freight-related Industries 33%

Source: EDD, Labor Market Information Division, 2015
Statewide Emissions from Freight Sources

**NOx (tons per day)**

**SOx (tons per day)**

**PM2.5 (tons per day)**

**GHG (MMTCO2e per year)**
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 freight think tank
6. Develop strategies, tools, and data that considers commercial viability and promotes competitiveness
7. Continue work with the freight efficiency group
8. Implement steps to meet existing and future workforce needs
9. Identify regulatory or permitting process improvements
Senate Bill 1: The Road Repair and Accountability Act of 2017

Overview:
• Signed into law by Governor Brown on April 28, 2017
• Invests $52.4 billion over the next 10 years to fix California’s roads, freeways and bridges, and invests billions in public transit and safety
• Includes $3 billion for trade corridors improvement over the next decade

Implementing Agencies: Multi-agency effort

Product/Outcome: Increased transportation revenues for improving California’s transportation system

Timeline: 10 year funding package
Action #2: FAST Act Funding

Overview: Federal reauthorization has established formula and discretionary funding for freight projects

Implementing Agencies: California Transportation Commission and Caltrans

Product/Outcome: CA Freight Investment Program Guidelines and criteria to prioritize and program freight projects

Timeline: Anticipated California Freight Improvement Program guideline ratification by May 2017
Action #3: Modernize Freight Corridors

Freight System Improvements

Overview: System preservation, resiliency, safety, efficiency, and advanced technology activities

Implementing Agencies: Caltrans, ARB, CEC

Product/Outcome: A safer, more resilient, technologically advanced freight system

Timeline: Many projects will be ongoing once new processes are in place
A) Accelerate Use of Zero and Near-Zero Emission Technologies and Fuels

Overview: Pursue a number of implementation steps through —
• Cleaner combustion truck standards
• Freight technology data collection and analysis
• Low-carbon renewable fuels development and requirements
• Oceangoing vessel standards
• Zero emission freight vehicle and equipment
• Further deployment of cleaner technologies

Implementing Agencies: ARB (with U.S. EPA on national-level actions)

Product/Outcome: incentives, regulatory approaches, petitions, literature review and surveys, efficiency measures, advocacy

Timeline: Varies for individual implementation steps
Action #4: Advancing Technologies and Fuels

B) Advanced Technology Vehicles and Alternative/Renewable Fuels

**Overview:** CEC provides funds for advanced technology vehicles and the production of alternative and renewable fuels through the Alternative and Renewable Fuel and Vehicle Technology Program.

**Implementing Agencies:** CEC

**Product/Outcome:** Solicitations and Grant Awards

**Timeline:** Ongoing
C) More Stringent Locomotive Emission Standards

**Overview:** ARB has petitioned U.S. EPA to promulgate by 2020 new Tier 5 national locomotive emissions standards and more stringent national requirements for remanufactured locomotives to reduce criteria and toxic pollutants, fuel consumption, and greenhouse gas emissions.

**Implementing Agencies:** ARB and U.S. EPA

**Product/Outcome:** Petition to U.S. EPA for federal action

**Timeline:**
- ARB petition sent — April 2017
- U.S. EPA rulemaking date — Potentially by 2020
- Implementation schedule — Remanufactured locomotives beginning in 2023; Newly manufactured locomotives beginning in 2025
D) Last Mile Delivery

Overview: Develop and propose a regulation that would require the use of low-nitrogen oxides engines and the purchase of zero emission trucks for class 3-7 last mile delivery trucks in California.

Implementing Agencies: ARB

Product/Outcome: Regulation

Timeline:
- Anticipated Board Consideration— 2018
- Implementation Schedule — 2020-2050
Action #5: Freight Think Tank

**Overview:** The Principals will convene a meeting with freight strategists, forecasters, and innovators to:

- Gain insight into the demands on the future freight transport system.
- Identify transformative technologies, solutions, partnerships, and critical steps to meet those demands.

**Implementing Agencies:** CalSTA, CalEPA, California Natural Resources Agency, Caltrans, ARB, Energy Commission, GO-Biz

**Product/Outcome:** Summary report of discussions and key findings will be published.

**Timeline:** Convene meeting in July 2017, publish report Fall
Action #6: Economic Competitiveness

Overview: Identify a target or targets and deploy strategies that consider commercial viability and promote the competitiveness of California’s statewide and local freight transport system. Develop economic growth and competitiveness metrics, models, and other tools and data to analyze benefits and impacts of actions, including costs, and develop and implement a suite of quantitative metrics to track progress in order to ensure that the impacts of actions on economic growth and competitiveness are considered throughout the development and implementation process.

Implementing Agencies: GO-Biz

Product/Outcome: Convene stakeholders, assess needs

Timeline: 2017+
Action #7: Efficiency Strategies

Overview: Assess various strategies such as truck platooning, drayage truck optimization, truck parking, and intelligent transportation system enhancements

Implementing Agencies: Caltrans, internal and external partners

Product/Outcome: Improve freight system efficiency

Timeline: Feasibility assessments by 2020
Overview: Identify and implement steps to ensure that the existing and future workforce meets the needs of the California sustainable freight transport system and sufficiently skilled labor is available to meet the needs of an expanding freight-related job market.

Implementing Agencies: GO-Biz, California Workforce Development Board

Product/Outcome: Convene stakeholders, needs assessment

Timeline: 2017 - 2030
Overview: Identify and evaluate specific implementation barriers faced by sustainable freight projects and determine what specific regulatory or permitting process improvements would expedite the delivery of these projects in a manner that is in keeping with this Action Plan.

Implementing Agencies: Office Planning and Research

Product/Outcome: Convene stakeholders

Timeline: 2017+
Pilot Projects

Dairy Biomethane for Freight Vehicles
San Joaquin Valley

Advanced Technology for Truck Corridors
Southern California

Advanced Technology Corridors at Border Ports of Entry
California-Mexico Border
Dairy Biomethane for Freight Vehicles

**Concept:** Work with local partners to demonstrate a commercial-scale dairy biogas to biomethane project.

Phase 1 – Pipeline injection with pipeline fuel sales
Phase 2 – Fueling station construction

**Product/Outcome:** Work plan to be released in July 2017 outlining objectives, a project plan, and agency roles.

**Progress:** Multiple digesters under construction; securing permitting for biogas upgrading facility and low pressure pipeline.
Advanced Technology for Truck Corridors

**Concept:** Deploy emerging technologies such as integrated corridor and active traffic management, connected vehicles, and clean trucks along Southern California freight corridors

**Product/Outcome:** Create efficiencies and improve sustainability

**Progress:** Work plans are being developed and project partnerships formed
Advanced Technology Corridors at Border Ports of Entry

Concept: Deploy intelligent transportation infrastructure, advanced traveler information, and interchangeable lane management

Product/Outcome: Improve freight mobility by reducing border wait-times and improve air quality along the U.S.-Mexico border

Progress: Work plans are being developed, partnerships made, and funding options investigated
<table>
<thead>
<tr>
<th>Date</th>
<th>Task</th>
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<tbody>
<tr>
<td>May 2017</td>
<td>Workshops and Public Input</td>
</tr>
<tr>
<td>July 2017</td>
<td>State agencies to work with partners to establish workgroups and work plan for Action Plan implementation</td>
</tr>
<tr>
<td>July 2018</td>
<td>Provide progress report on Action Plan implementation efforts</td>
</tr>
<tr>
<td>July 2019</td>
<td>Evaluate Action Plan freight targets to determine if adjustments are needed</td>
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</tbody>
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Involvement

- Innovative Ideas and Feedback on the Implementation Approaches and Concepts
- Information and Contacts
- Work Group Participation
- Pilot Project Partnerships

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