Public Workshops
September 2014

Freight Transport System

Modes:

Facilities:
- Seaports
- Airports
- Rail yards & lines
- Distribution centers
- Warehouses
- High traffic roads
- Border crossings
Freight Is Important to California’s Economy

Jobs (millions)

<table>
<thead>
<tr>
<th>Location</th>
<th>Jobs (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern California</td>
<td>3.5</td>
</tr>
<tr>
<td>San Joaquin Valley</td>
<td>0.5</td>
</tr>
<tr>
<td>San Francisco Bay Area</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Freight Impacts at Many Levels

- Climate change
- Regional air pollution
- Localized health risk
Progress in Reducing Freight Emissions in California (Tons/Day)

- SOx
- NOx
- PM 2.5

2012 Freight Sector Contributions

- PM 2.5 Total: 32 T/D
- NOx Total: 945 T/D

- Cargo Handling / Industrial
- TRUs
- Harbor Craft
- Ocean Going Vessels
- Locomotives
- Aircraft

- TRUCKS
### 2020 Freight Sector Contributions

- **PM 2.5**
  - Total: 14 T/D
  - Cargo Handling / Industrial
  - TRUs
  - Harbor Craft

- **NOx**
  - Total: 640 T/D
  - Ocean Going Vessels
  - Locomotives
  - Aircraft

### Sustainable Freight Strategy Document

- Sustainable Freight Initiative vision
- Freight fundamentals
- Stakeholder concepts
- Technology assessment findings
- Actions needed over next 5 years for ARB and other public and private entities
Stakeholder Engagement is Critical

Related State Planning Efforts

- State Implementation Plans
- Climate Change Scoping Plan
- Freight Mobility Plan
- Transportation Plan
- Sustainable Freight Strategy
Sustainable Freight Strategy
Tentative Milestones

2014
September: Public Workshops
Late October: Release draft technology assessments for freight-related sources
Late November: Release discussion draft of Strategy with concepts

December 11-12: 2015
Board Informational Update on discussion draft of Strategy

Release draft document with preliminary staff recommendations
Hold public workshops
Release draft environmental analysis, economic analysis, and proposed Strategy
Board Hearing to consider proposed Strategy and final environmental analysis

Stakeholder Engagement Process

• Initiated in January
• Wide variety of stakeholders
  • 150+ smaller focus groups, individual meetings, and calls
  • 200+ Organizations
• Generated many discussion concepts
California Sustainable Freight System

Increases efficiency and uses of zero or near-zero emission equipment powered by renewable energy sources; improves mobility; provides reliable velocity and expanded system capacity; improves competitiveness of California’s logistics system and creates jobs; and supports clean air and healthy communities.

Concept Sorting

Staff sorted concepts based on eight categories and an initial assessment of their potential for near-term development. Concepts are not staff recommendations.
Achieve efficiency gains within the California freight system from 2012 to 2020, 2030 and 2050 that provide time and/or cost savings, and reduce air pollution.
Logistics and Infrastructure Efficiencies

Concepts under analysis:
- Develop efficiency metric to assess and set goals
- Maximize trailer/container use
- Reduce truck queuing and idling
- Increase efficiency of last-mile delivery
- Consider mode-shift
- Increase capacity using intelligent transportation systems
- Provide “Eco driver” training
- Demonstrate clean truck corridors

Engines and Equipment

Develop, demonstrate, and deploy zero emission technology where feasible; technology capable of zero emission miles; and cleanest combustion everywhere else
Engines and Equipment

Concepts under analysis:
On-road
- Prioritize zero emission vehicles
- Ensure the cleanest, most efficient new vehicles
- Reduce in-use emissions from existing and future engines
Off-road
- Ensure the use of zero emission cargo handling and ground support equipment
Both (trucks, locomotive, marine and air)
- Focus on battery, fuel cell and hybridization in vocational applications where technology is likely to reach commercialization first
- Increase demonstration and pilot projects

Energy and Fuel

Transition to a freight system powered by renewable, low carbon energy
Energy and Fuel

Concepts under analysis:
- Accelerate the availability of the cleanest low carbon biofuels
- Enhance and strengthen the Low Carbon Fuel Standard
- Support actions to further ultra-low sulfur diesel use in Mexico

Other Emission Reduction Approaches

Other approaches to reduce emissions and/or health risk from California’s freight system
Other Emission Reduction Approaches

Concepts under analysis:
• Implement freight facility reporting requirements
• Consider emission caps to cut community exposure to emissions from freight facilities
• Continue to partner with additional agencies to implement ARB regulations

Land-Use

Develop and use sustainability principles, criteria, and tools for new and expanded freight facilities, and freight transportation infrastructure projects, that put air quality and public health considerations on an equal footing with other considerations in the siting, design, and operation of projects
**Land-Use**

Concepts under analysis:

- Develop freight handbook to provide guidance for siting, design and operational characteristics of freight facilities and freight-related infrastructure projects

**Monetary Incentives**

Seek private and public investment to fund projects that will increase efficiency and advance the California freight system towards zero emissions
### Monetary Incentives

Concepts under analysis:
- Seek ongoing funding program for equipment and infrastructure to help transform freight system
- Support incentives and low-cost loans to accelerate development/purchase/use of advanced technologies including associated infrastructure
- Determine priorities for public funding and how to more efficiently use all pots of funds

### Non-Monetary Incentives

Develop and implement programs that provide significant non-monetary incentives to achieve increased efficiencies and accelerated emission reductions from the California freight system
Non-Monetary Incentives

Concepts under analysis:
- Establish public recognition programs
- Provide preferential freight facility and corridor access

Economy and Jobs

Recognize regional economies and current workforce training levels. Improve the competitiveness of California’s logistics system to support regional and State economies. Identify workforce development needs, including education and job training to provide a reliable workforce for logistics operations.
Economy and Jobs

Concepts under analysis:
• Develop economic goals for the logistics industry in California, including in-state manufacture of advanced freight equipment and complementary strategies to increase competitiveness of California businesses in the national/international freight system
• Identify actions needed to prepare for a growing freight system including: educating and expanded the existing workforce, and ensuring the necessary equipment and infrastructure is in place
• Expand the truck driver pool

We Need Your Input

ARB staff is seeking input on:
• Definition for sustainable freight
• Our initial categorization of concepts, including which should move forward
• Additional discussion concepts that need to be included
• Sources of data to help analyze discussion concepts