

**2016 AQMP Symposium**

*Diamond Bar*

*June 10, 2015*

**National/International  
Transportation Sources:**

***Locomotives***

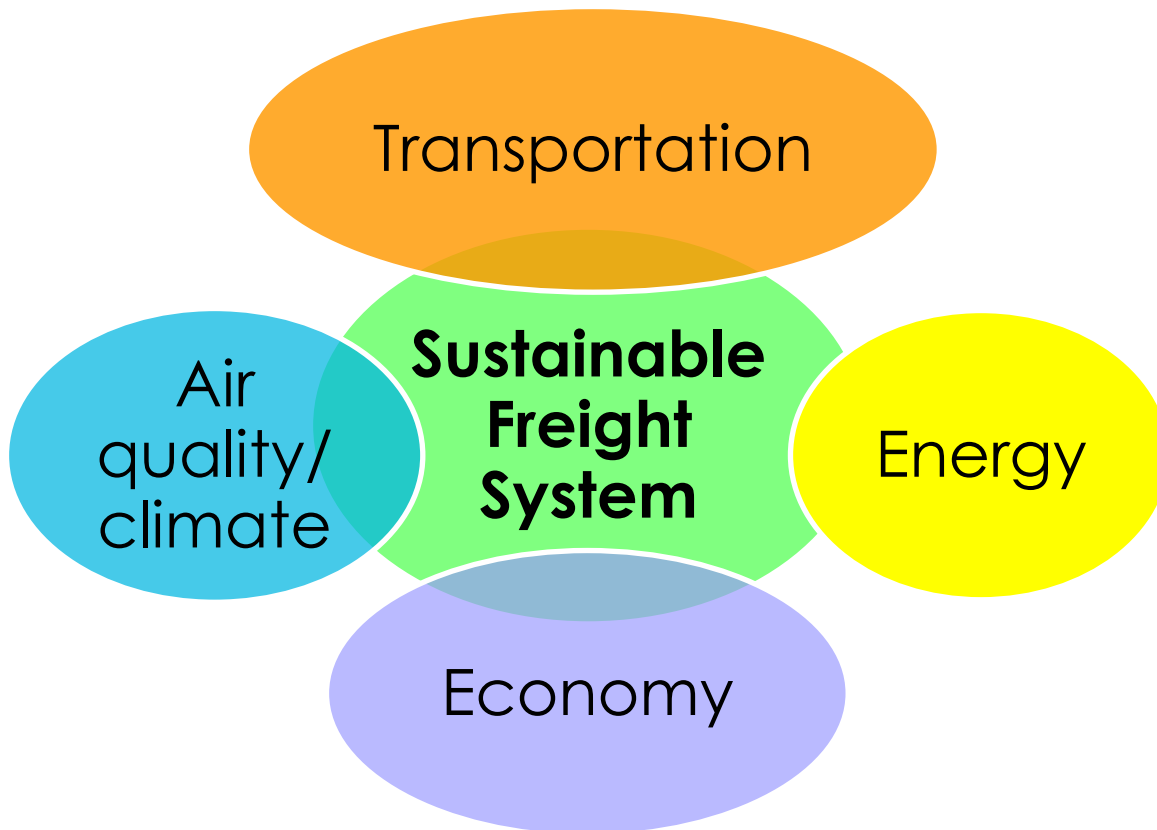
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California Environmental Protection Agency

 **Air Resources Board**

# California Sustainable Freight Strategy

*Integrated Approach*



**Actions and milestones that transition California to an efficient and sustainable freight system**



California Air Resources Board  
**Sustainable Freight**  
Pathways to Zero and Near-Zero Emissions  
DISCUSSION DRAFT

CALIFORNIA  
Department of Transportation  
California High-Speed Rail Authority

# Near-Term ARB Measures- Locomotives

1. Petition US EPA to set Tier 5 national locomotive emission standards by 2018 (2015)
2. Petition US EPA to redefine “new” locomotives by 2017 so ARB can regulate all others (2015)
3. If 2., propose CA regulation to maximize use of Tier 4, natural gas, zero-emission units (2018)



**Tier 4 diesel-electric**



**Fuel cell tender concept**

(completion  
of ARB action)

# State Zero Emission and Low NOx Incentives – Rail Examples



## Prop 1B-Freight

- Tier 4 locomotives
- Emissions capture and control system
- Cargo equipment
- Charging/fueling

## Cap&Trade Proceeds

- Passenger/freight locomotives
- Transit operations