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L E G I S L A T I V E A N A L Y S T ' S O F F I C E

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Overview of ARB's Emission Reduction Goals and Planning Efforts in Transportation Sector

Presented to:

Assembly Committee on Transportation

Hon. Jim Frazier, Chair

and

Senate Transportation and Housing Committee

Hon. Jim Beall, Chair





Major Emission Reduction Laws— Criteria Pollutants



Federal Clean Air Act of 1970, as Amended in 1990

- Requires the U.S. Environmental Protection Agency to establish national air quality standards for certain common pollutants known as “criteria pollutants,” such as ozone and particulate matter. States are required to adopt plans to achieve and maintain the standards.
- The Air Resources Board (ARB) is responsible primarily for regulation of mobile sources of pollution. (Local air districts manage the regulation of stationary sources of pollution.) Regulations include emissions standards for cars and trucks and requirements on the type of gasoline that can be sold.
- Certain areas of the state, particularly the San Joaquin Valley and the Los Angeles area, do not meet current federal standards. In addition, standards become more stringent in coming years.



California Clean Air Act of 1988 (Chapter 1568 [AB 2595, Sher])

- Requires areas that do not meet established state ambient air quality standards established by ARB for pollutants, such as ozone and sulfur dioxide, to develop plans to attain standards. The ARB and local air districts coordinate to create these plans.
- State standards were generally more stringent than federal standards when first implemented. However, state and federal standards are more closely aligned now, and ARB planning efforts are more focused on meeting federal standards to avoid potential penalties.



Major Emission Reduction Laws— Greenhouse Gas (GHG) Emissions

- Vehicle GHG Emission Standards (Chapter 200 of 2002 [AB 1493, Pavley])**

 - Directs ARB to adopt regulations to achieve maximum feasible and cost-effective reduction of GHG emissions from light-duty vehicles.
 - Allows ARB to adopt federal standard for light-duty vehicles (calculated as GHG per mile traveled) if it determines the federal standard is at least as effective as the state standard. (Currently, compliance with federal standards is sufficient for state compliance.)

- The Global Warming Solutions Act of 2006 (Chapter 488 [AB 32, Núñez/Pavley])**

 - Established the goal of reducing GHG emissions statewide to 1990 levels by 2020 and directed the ARB to adopt regulations to achieve technologically feasible and cost-effective emission reductions by 2020.
 - Regulations the ARB has adopted to achieve these goals include the low carbon fuel standard and cap-and-trade.

- The Sustainable Communities and Climate Protection Act of 2008 (Chapter 728 [SB 375, Steinberg])**

 - Requires ARB to establish 2020 and 2035 GHG reduction targets for passenger vehicles in each region and review strategies developed by transportation planning organizations to determine whether they would achieve the GHG reduction targets.
 - Strategies include such things as increasing availability of public transit and implementing projects that promote biking and walking.



Governor's 2030 and 2050 GHG Goals



Executive Orders Establish Long-Term GHG Goals

- 40 percent reduction below 1990 levels by 2030.
- 80 percent reduction below 1990 levels by 2050.
- 80 percent reduction in transportation emissions below 1990 levels by 2050.



Governor's "Five Pillars" for Achieving 2030 GHG Reduction Goals

- 50 percent renewable electricity.
- Double energy efficiency savings in buildings.
- Reduce petroleum use in vehicles by 50 percent.
- Reduce short-lived climate pollutants (SLCPs).
- Increase carbon sequestration.



Major ARB Planning Efforts



State Implementation Plan (SIP)

- Plan for meeting federal criteria pollutant standards from stationary sources and mobile sources. The ARB is the lead agency responsible for submitting and updating the SIP and developing a plan for reducing emissions from mobile sources. It also reviews and approves local air districts' plans to reduce emissions from stationary sources.
- The ARB's draft 2015 mobile source strategy—a component of the SIP planning process—identifies potential transportation emission reduction measures that could help meet air quality standards, as well as the Governor's GHG reduction and petroleum consumption goals.



AB 32 Scoping Plan

- Assembly Bill 32 required ARB to develop a Scoping Plan to identify measures for achieving 2020 GHG target. The Scoping Plan was first provided in 2008 and most recently updated in 2014.
- Executive order directs ARB to develop a new Scoping Plan to achieve Governor's 2030 GHG target.



SLCP Strategy

- Chapter 523 of 2014 (SB 605, Lara) directs ARB to develop a strategy to reduce SLCPs.
- Draft strategy released September 2015 identified reduction targets below current levels for methane (40 percent), fluorinated gases (40 percent), and non-forestry sources of black carbon (50 percent).



Major ARB Planning Efforts

(Continued)



Sustainable Freight Strategy

- Executive order directs state agencies, including ARB, to develop a Sustainable Freight Strategy by July 2016.
- Strategy must establish clear targets to improve freight efficiency, transition to zero-emission technologies, and increase competitiveness of California's freight system.
- The ARB released a discussion document in April 2015 and has been conducting public workshops in recent weeks.