

California Energy Commission

**DOCKETED**

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# Integrated Energy Policy Report Workshop on Transportation

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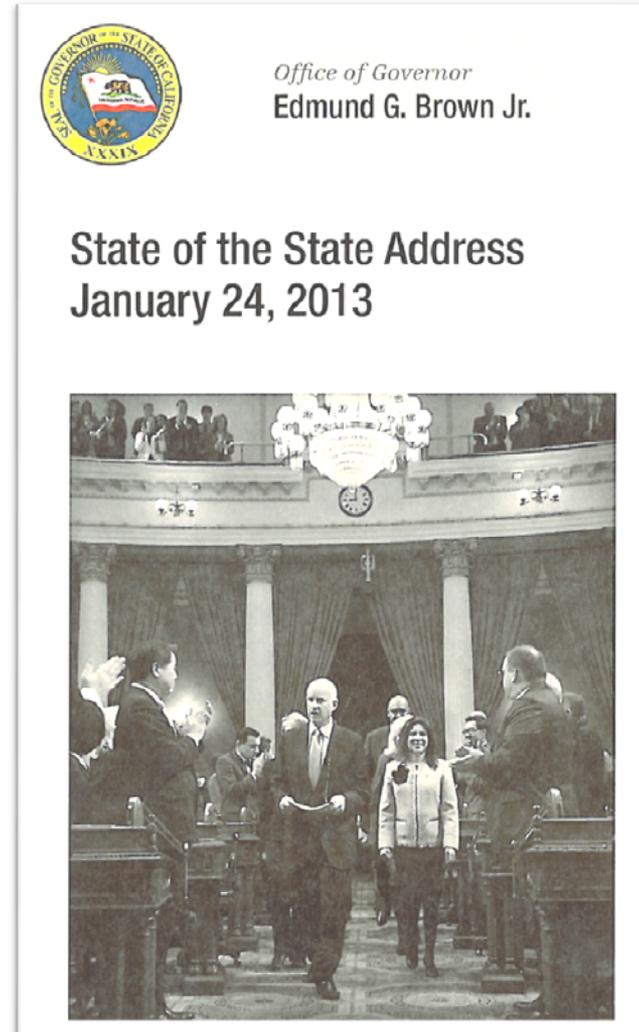
Office of Governor Edmund G. Brown Jr.

March 27, 2014

# Governor Brown on Climate Change

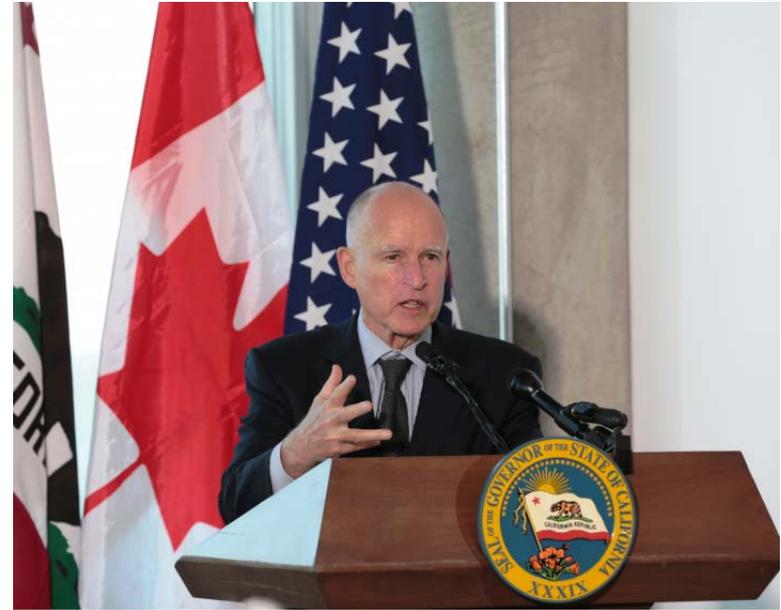
“When we think about California’s future, no long term liability presents as great a danger to our wellbeing as the **buildup of carbon dioxide and other greenhouse gases in the atmosphere.**”

*State of the State Address  
January 24, 2013*



# Governor Brown on Climate Change

“...you are witnessing an historic, small but powerful first step and it’s only the beginning.... this will spread until finally we get a real handle and grasp on what is **the world’s greatest existential challenge-that is, the stability of our climate on which we all depend.**”



*Pacific Coast Climate Event  
October 28, 2013*

# Climate Partnerships

OR, WA & British Columbia

National Government of China

## PACIFIC COAST ACTION PLAN *on* CLIMATE AND ENERGY






**PREAMBLE**

**THE GOVERNMENTS OF CALIFORNIA, BRITISH COLUMBIA, OREGON AND WASHINGTON.**

*Pursuant to the Memorandum to Establish the Pacific Coast Collaborative of June 2008, as provided for in Article 6.*

*Affirming our shared vision of Pacific North America as a model of innovation that nurtures our communities and creates jobs and new economic opportunities for our combined population of 55 million.*

*Recognizing that the Pacific Coast is a region bound together by a common geography, shared infrastructure and a regional economy with a combined GDP of US \$2.4 trillion, which makes it the world's fifth largest;*

*Acknowledging the clear and convincing scientific evidence of climate change, ocean acidification and other impacts from increasing concentrations of carbon dioxide in the atmosphere, which threaten our people, our economy and our natural resources;*

*Emphasizing that states and provinces around the world are leading climate change through technology innovation and actions that limit greenhouse gas emissions and other air pollution while creating economic growth, consumer savings and new jobs;*

*Celebrating that our own governments have reduced greenhouse gas emissions by adopting regulatory, policy and market-based measures that shift energy generation to clean and renewable sources, manage energy use through greater efficiency and conservation, and enable and promote consumer choice for clean vehicles;*

*Recalling the findings of the 2012 Heat Coast Clean Economy report which projected 1.03 million new jobs could be created in key sectors, such as energy efficiency and advanced transportation, assuming the right policy environment;*

*Supporting positive federal action to combat climate change, including President Obama's climate action plan and proposed rules to limit greenhouse gas emissions from power plants;*

*Joining the growing international consensus on the need to secure an international agreement to reduce global greenhouse gas emissions, including discussions at the coming Conference of Parties meetings in Warsaw (2013), Lima (2014) and Paris (2015); and*

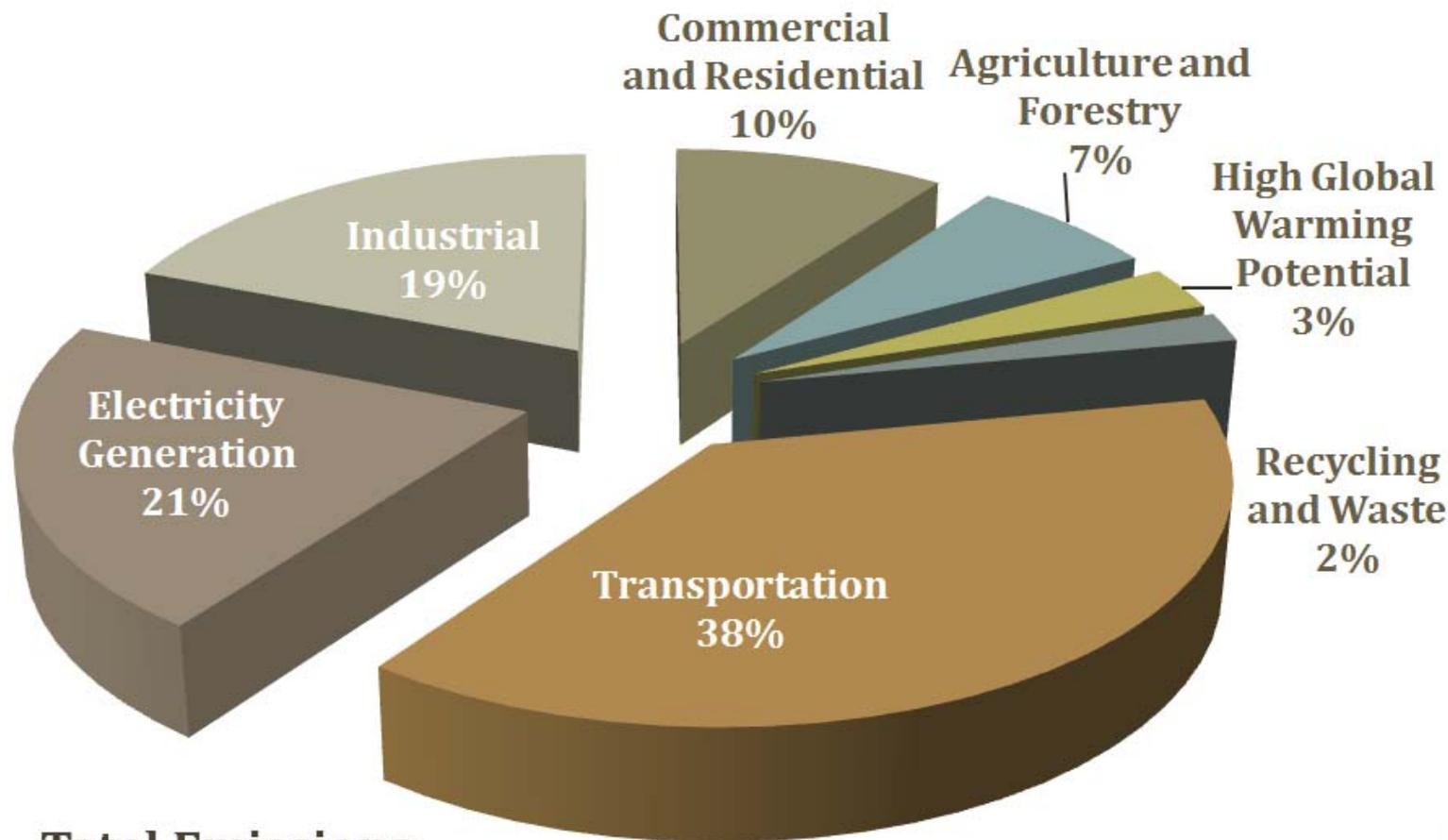
*Agreeing that meaningful coordination and linkage between states and provinces across North America and the world to actions to reduce greenhouse gas emissions can improve the effectiveness of these actions, increase their overall positive impact and build momentum for broader international coordination to combat climate change;*

**NOW THEREFORE HEREBY AGREE AS FOLLOWS:**

- I. Lead national and international policy on climate change with actions to:
  - Direct our relevant agencies and officials to work together to:
    - 1) Account for the costs of carbon pollution in each jurisdiction. Oregon will build on existing programs to set a price on carbon emissions. Washington will set binding limits on carbon emissions and deploy market mechanisms to meet those limits. British Columbia and California will maintain their existing carbon-pricing programs. Where possible, California, British Columbia, Oregon and Washington will link programs for consistency and profitability and to expand opportunities to the region's low-carbon economy.
    - 2) Harmonize 2050 targets for greenhouse gas reductions and develop mid-term targets needed to support long-term reduction goals. Climate scientists have identified the scale of greenhouse gas reductions that must be achieved globally to stabilize the climate. Where they have not already done so, California, British Columbia, Oregon and Washington will establish long-term reduction targets that reflect these scientific findings. To advance long-term reduction, Washington already has in place a mid-term 2015 target. California and Oregon will establish their own mid-term targets. British Columbia has already legislated 2020 and 2050 targets and will explore whether setting a mid-term target will aid their achievement.
    - 3) Affirm the need to inform policy with findings from climate science. Leaders of California, British Columbia, Oregon and Washington affirm the scientific consensus on the human causes of climate change and its very real impacts, most recently documented by scientists around the world in the Intergovernmental Panel on Climate Change's Fifth Assessment Report released in September 2013, as well as other reports such as the Scientific Committee on Oceanic Drift's (SCOD) report on the 21st Century. Governmental actions should be grounded in this scientific understanding of climate change.
    - 4) Cooperate with national and sub-national governments around the world to press for an international agreement on climate change in 2015. The governments of California, British Columbia, Oregon and Washington will join with other governments to build a coalition of support for national and international climate action, including securing an international agreement at the Conference of Parties in Paris in 2015. The governments of California, British Columbia, Oregon and Washington will coordinate the activities they undertake with other sub-national governments and combine these efforts where appropriate.
    - 5) Fund support for research on ocean acidification and take action to combat it. Ocean health underpins our coastal shellfish and fisheries economies. The governments of California, British Columbia, Oregon and Washington will urge the American and Canadian federal governments to take action on ocean acidification, including critical research, modeling and monitoring to understand its causes and impacts.
  - 2) Transition the West Coast to clean modes of transportation and reduce the large share of greenhouse gas emissions from this sector with actions to:
    - 1) Adopt and maintain low-carbon fuel standards in each jurisdiction. Oregon and Washington will adopt low-carbon fuels standards, and California and British Columbia will maintain their

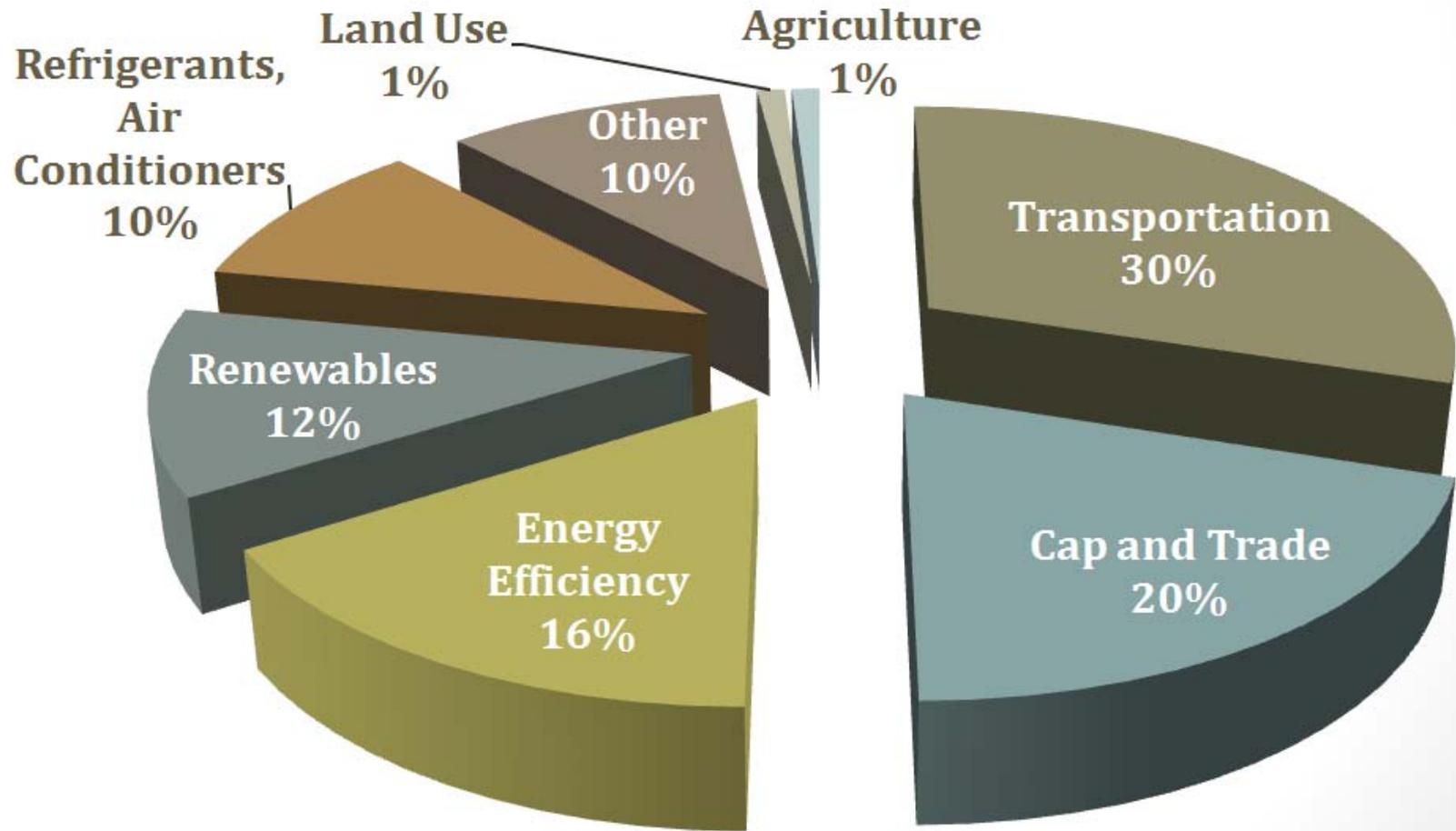


# California 2010 Emissions



**Total Emissions:  
452 MMTCO<sub>2</sub>E**

# AB 32 Scoping Plan



# Governor's ZEV Executive Order - 2050 Goal

- Greenhouse gas emissions due to transportation are 80% less than 1990 levels



COURTESY: NISSAN MOTOR COMPANY

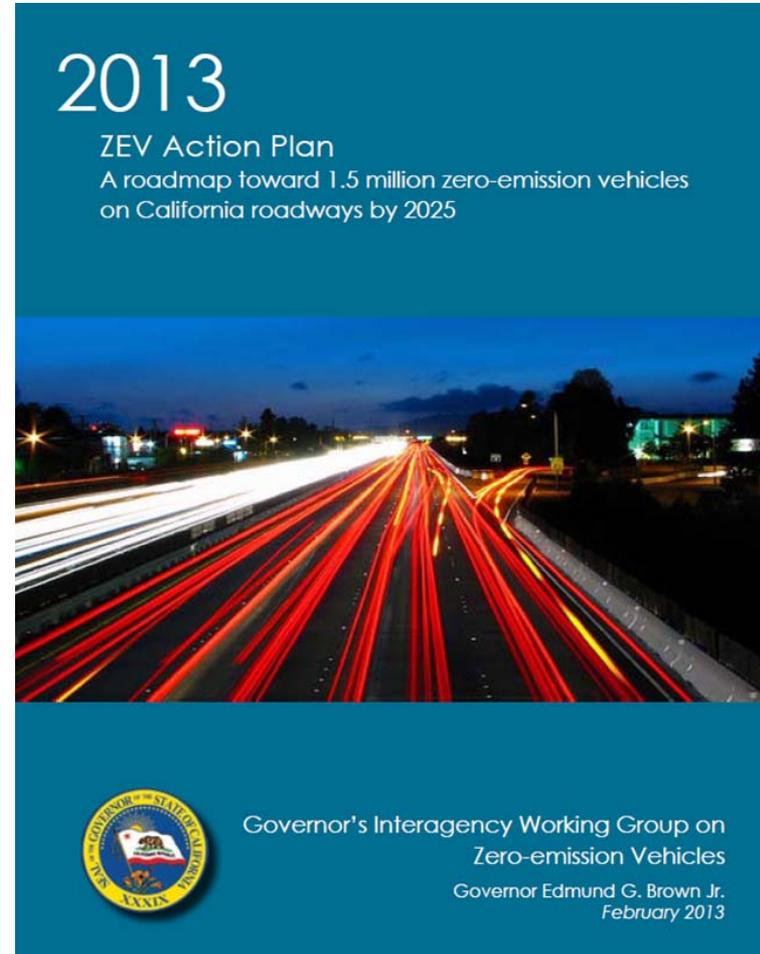
# Transportation Policies: Comprehensive Approach

- Advanced Clean Cars
- Low Carbon Fuel Standard
- SB 375
- High-speed rail
- Port electrification
- Zero-Emission Vehicles



# ZEV Executive Order & Action Plan

- Goal of 1.5 million ZEVs by 2025
- Complete needed infrastructure and planning
- Expand consumer awareness and demand
- Transform fleets—10% by 2015; 25% by 2020
- Grow jobs and investment in the sector



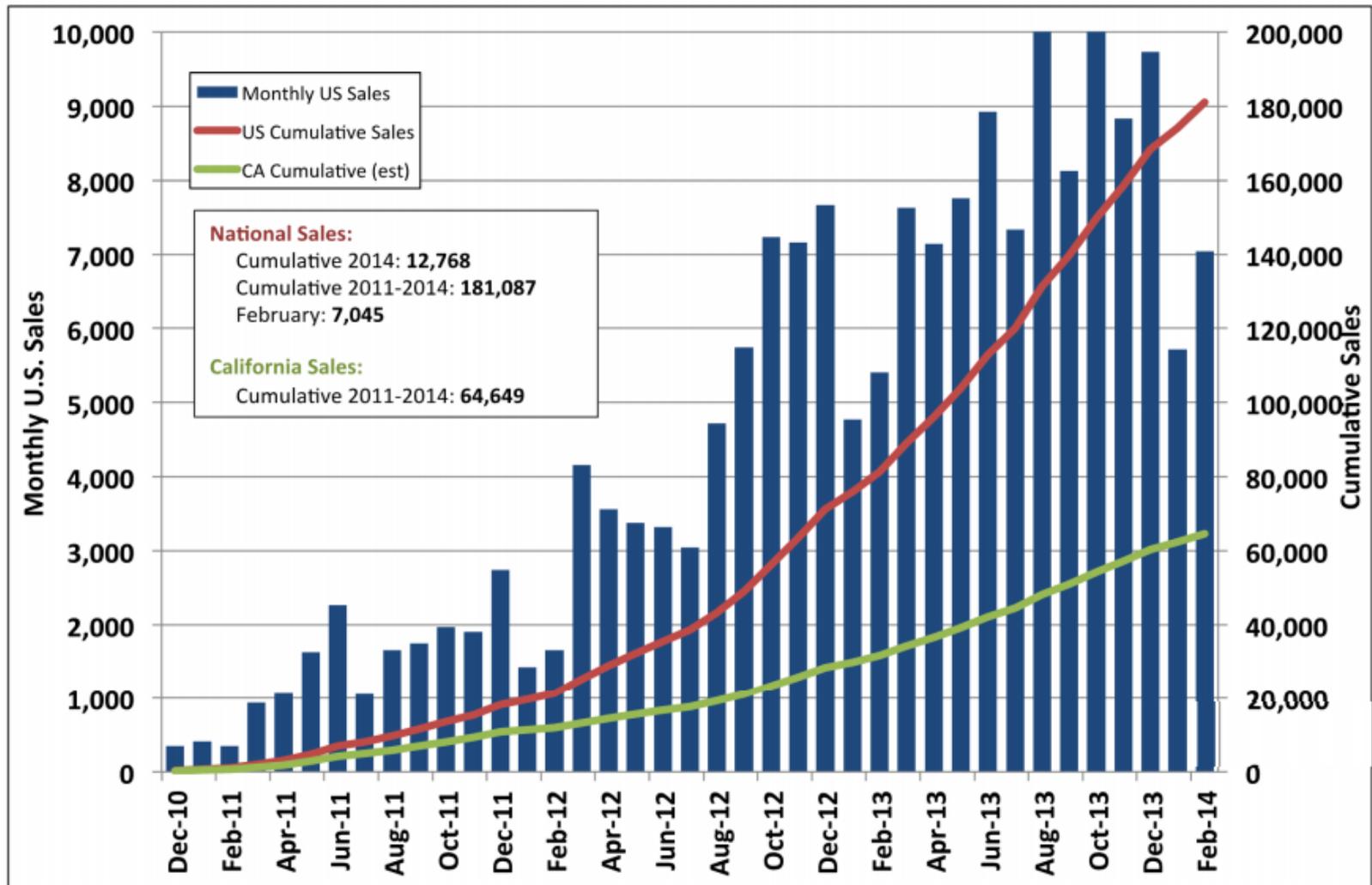
# Multi-State ZEV MOU (2013)

- Governors of 8 states: California, Connecticut, Maryland, Massachusetts, New York, Oregon, Rhode Island, Vermont
- 3.3 million ZEVs on the road by 2025



**State Zero-Emission Vehicle Programs**  
Memorandum of Understanding

# ZEV Sales – February 2014



Source: California Plug-In Electric Vehicle Collaborative, 2014.

# ZEV Plan – Milestones Achieved

- Reauthorization of AB 118
- Open access to charging stations & network/roaming interoperability
- Building codes being updated to be ZEV ready
- Guidance documents –
  - OPR guidebook for local communities
  - DGS guidance for charging infrastructure
- HOV decals distributed by car dealers
- V2G roadmap
- PACE financing for charging stations
- Ombudsman in GO-Biz for hydrogen fueling stations & ZEV infrastructure

# ZEV Plan – Ongoing Challenges

- Raise consumer awareness & demand
  - Reduce upfront purchase costs
- Increase access for low & middle income consumers
- Pilot for financing charging stations
- Grow medium-duty and heavy-duty fleets
- Support hydrogen development & help build network of hydrogen fueling stations

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