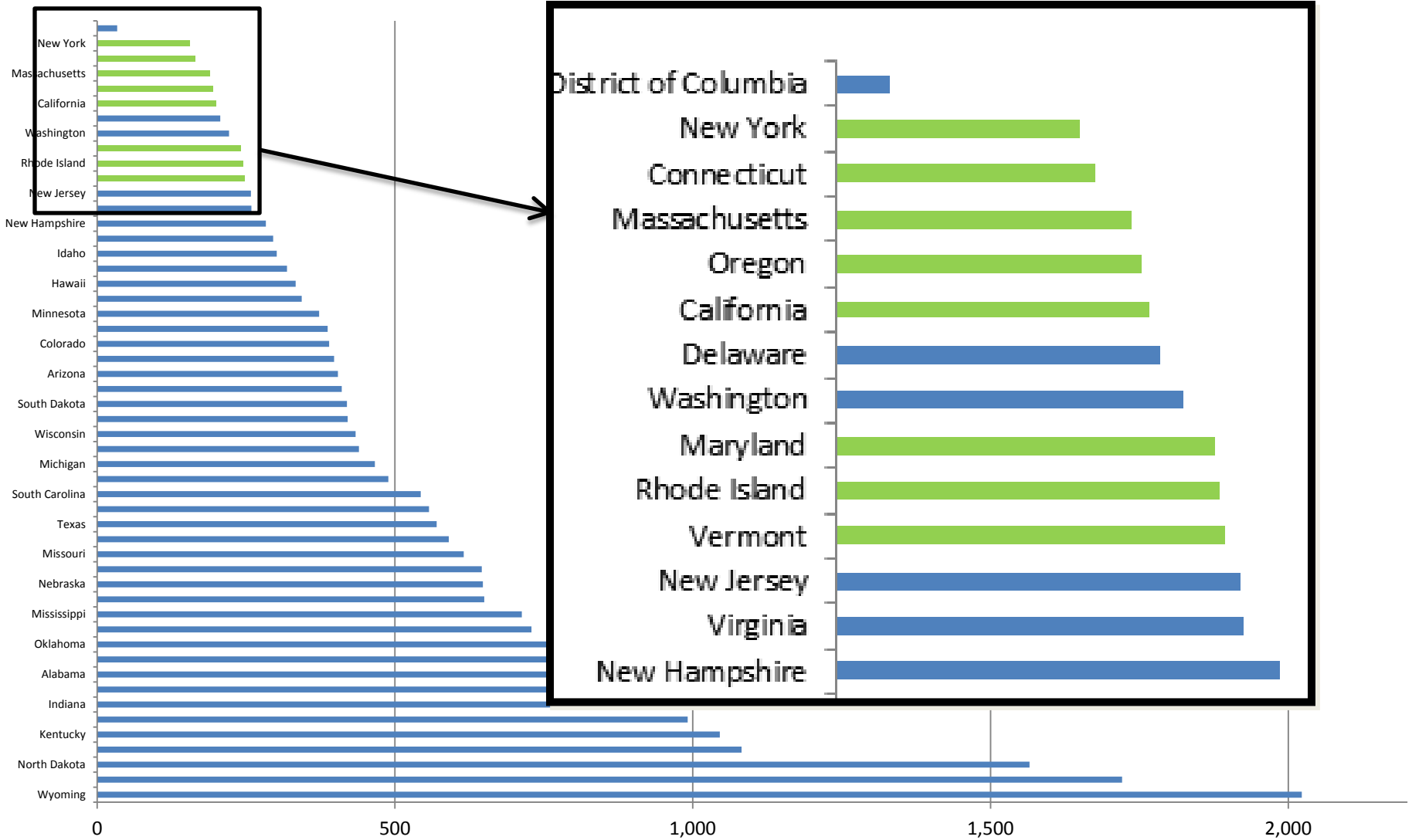




ZEV Stakeholder Coordination Meeting
November 18, 2016
Hartford, CT

Matt Solomon
Transportation Program Manager

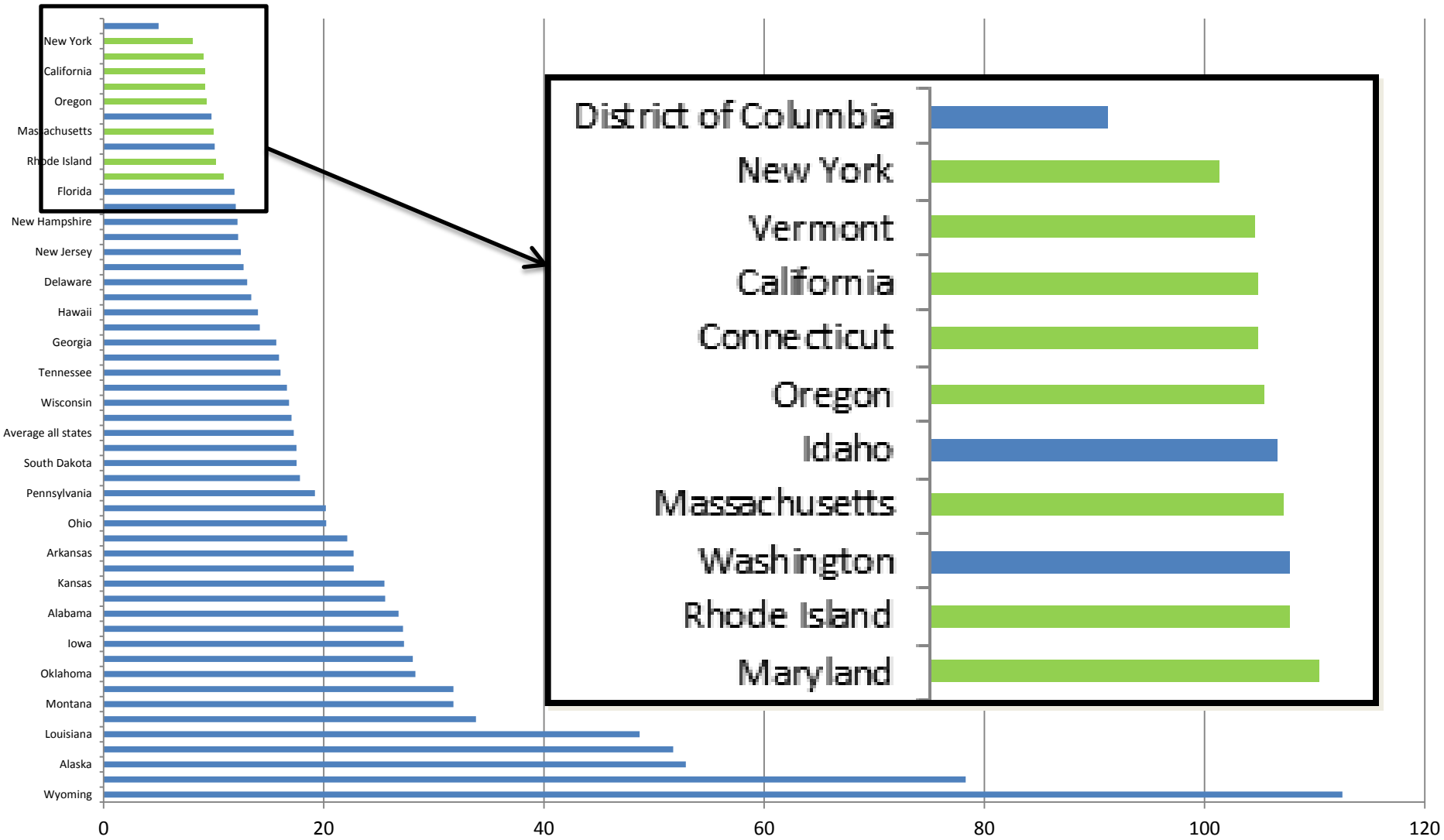
Energy-Related CO₂ Intensity, 2011



Metric Tons CO₂ per Million Dollars of GDP

Source: EIA (<http://www.eia.gov/environment/emissions/state/analysis/#1>)

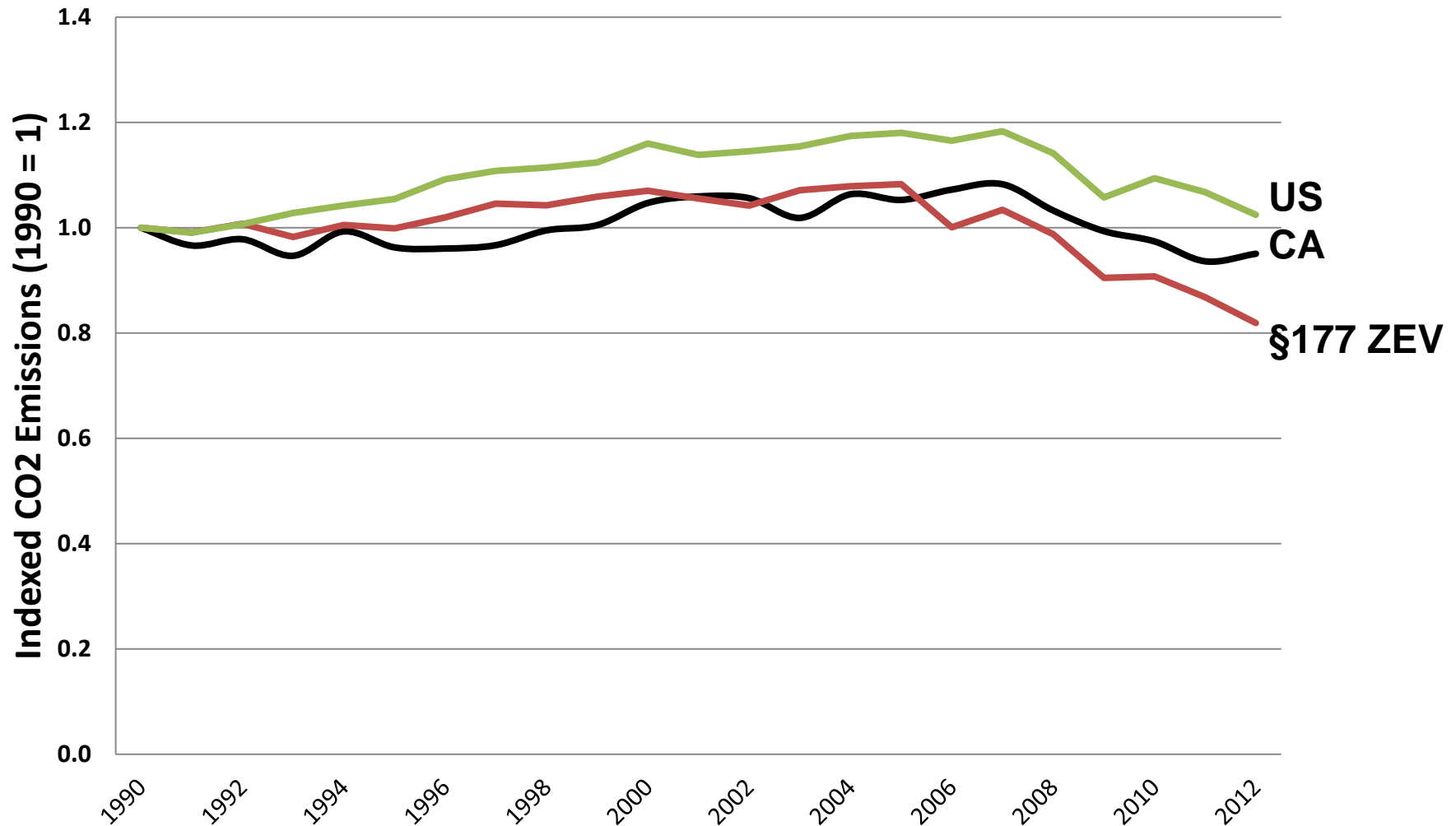
Energy-Related CO₂ Emissions per Capita, 2011



Energy-Related CO₂, Metric Tons per Capita

Source data: www.eia.gov/environment/emissions/state/analysis/

CO₂ Emissions Indexed to 1990



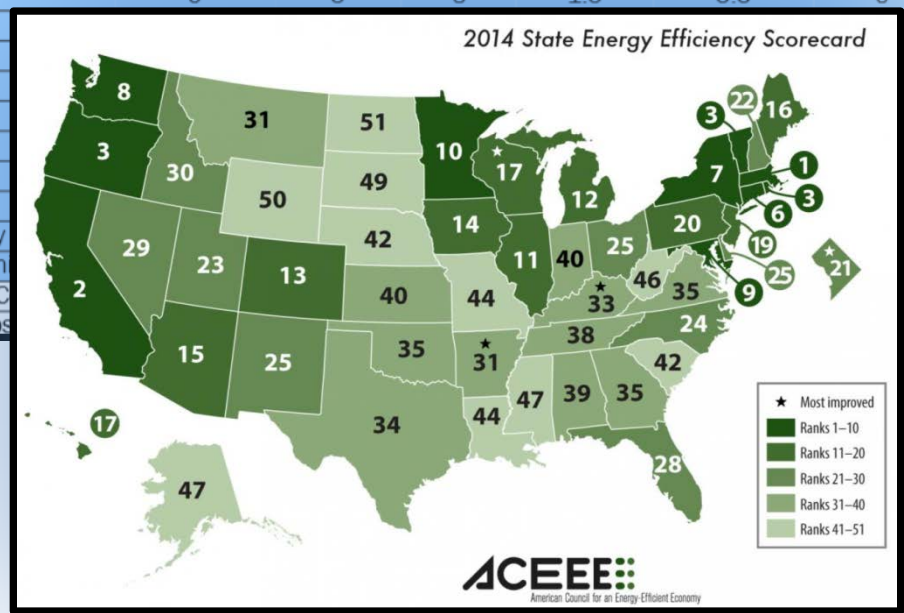
ACEEE Statewide Efficiency Rankings

Table 2. Summary of state scores in the 2014 State Scorecard

Rank	State	Utility & public benefits programs & policies (20 pts.)	Transportation policies (9 pts.)	Building energy codes (7 pts.)	Combined heat & power (5 pts.)	State government initiatives (7 pts.)	Appliance efficiency standards (2 pts.)
1	Massachusetts	20	7	5.5	4.5	5	0
2	California	12.5	8.5	7	4	6.5	2
3	Oregon	15	7	5.5	3.5	5.5	1
3	Rhode Island	20	5	6	3	3	0.5
3	Vermont	18.5	6	6	3	4	0
6	Connecticut	14	5	5	4.5	6	1
7	New York	13.5	8	5.5	2	6	0
8	Washington	13	7	6	2.5	4.5	0.5
9	Maryland	10.5	5	6	3	5	0.5
10	Minnesota	14	3.5	4.5	1.5	5.5	0
11	Illinois	9	5	6	1.5	5.5	0
12	Michigan						
13	Colorado						
14	Iowa						
15	Arizona						
16	Maine						
17	Hawaii						
17	Wisconsin						
19	New Jersey						
20	Pennsylvania						
21	District of C						
22	New Hamp						

Table 4. Leading states in the State Scorecard, by years at the top

State	Years in top 5	Years in top 10
California	8	8
Oregon	8	8
Massachusetts	7	8
New York	6	8
Vermont	6	8
Connecticut	4	8
Rhode Island	1	7
Washington	0	8
Minnesota	0	7
Maryland	0	4
Maine	0	2
New Jersey	0	2
Wisconsin	0	1
Illinois	0	1



2050 GHG Reduction Goals

STATE	GOAL
MA	80% below 1990
CT	80% below 2001
RI	80% below 1990
VT	80% below 1990
NY	80% below 1990

Multi-State ZEV MOU



State Zero-Emission Vehicle Programs Memorandum of Understanding

WHEREAS, the Signatory States have adopted regulations requiring increasing sales of zero-emission vehicles (ZEVs), or are considering doing so; and

WHEREAS, accelerating the ZEV market is a critical strategy for achieving our goals to reduce transportation-related air pollution, including criteria air pollutants, mobile source air toxics and greenhouse gas emissions (GHGs), enhance energy diversity, save consumers money, and promote economic growth; and

WHEREAS, our states are committed to reducing air pollution, including the emission of GHGs and other air pollutants from the mobile source sector; and

WHEREAS, many of our states have obligations or otherwise seek to reduce GHGs consistent with science-based targets by 2050; and

WHEREAS, motor vehicles are among the largest sources of GHGs and criteria air pollutants that adversely affect the health and well-being of our citizens in all of our states; and

WHEREAS, providing transportation alternatives such as ZEVs will help improve air quality, reduce the use of petroleum-based fuels in the transportation sector, protect consumers against volatile energy prices, and support the growth of jobs, businesses and services in a clean energy economy; and

WHEREAS, an increasing variety of vehicles that operate on hydrogen and low-cost electricity are commercially available and have the potential to significantly reduce emissions of criteria pollutants and GHGs, enhance consumer choice, and allow for home fueling; and

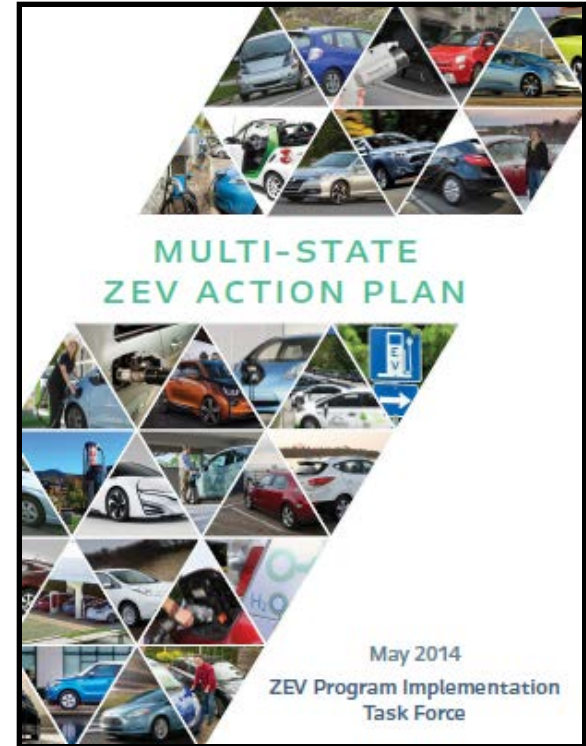
In October 2013, eight Governors announced an initiative to put 3.3 million ZEVs on their roads by 2025 to:

- Reduce GHG emissions
- Improve air quality and public health
- Enhance energy diversity
- Save consumers money
- Promote economic growth

Multi-State ZEV Action Plan to be released in May 2014

Multi-State Action Plan

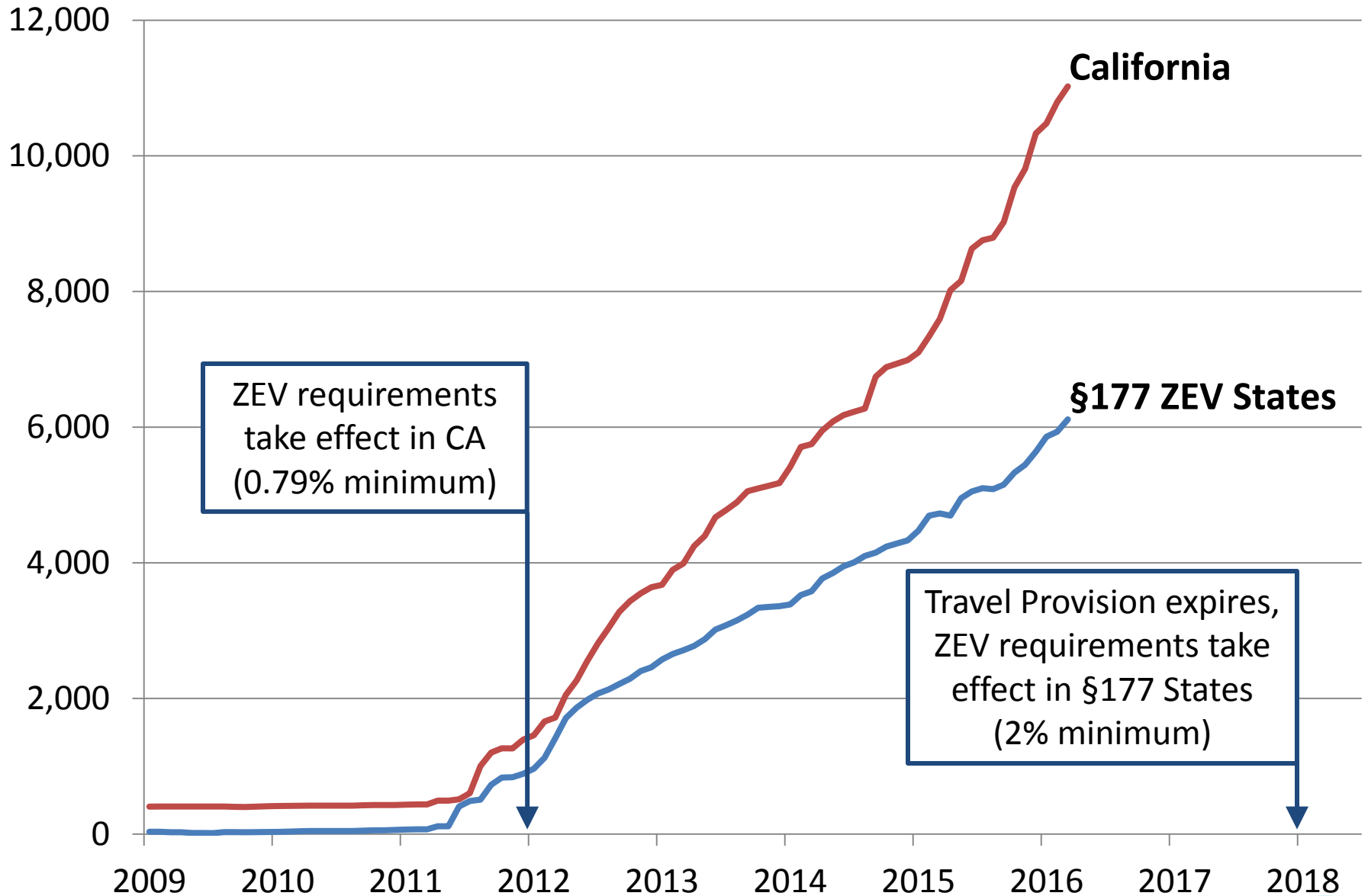
- Released May 2014
- 11 specific recommendations to:
 - support MOU goals
 - guide interstate coordination
 - advise state-specific action
- Informed by intensive stakeholder process
- States formed ZEV Task Force to implement Action Plan
- Stakeholder engagement ongoing



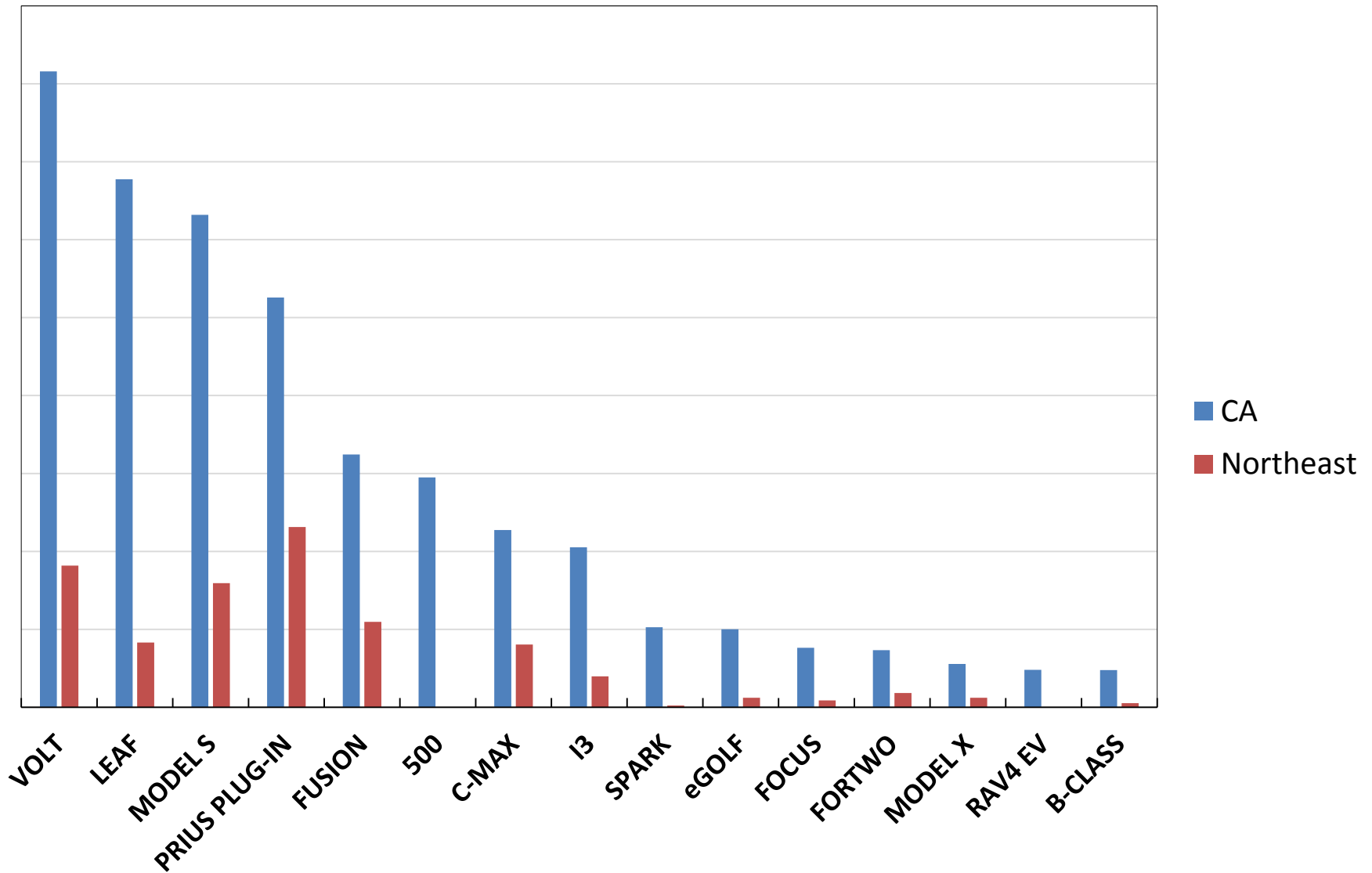
State Actions to Support ZEV

Initiative	CA	CT	MD	MA	NY	OR	RI	VT
Consumer Vehicle Incentive	✓	✓	✓	✓	✓		✓	✓
Charging Station Incentive	✓	✓	✓	✓	✓	✓	✓	✓
Fleet Incentive	✓	✓		✓	✓	✓	✓	
Dealership Outreach	✓	✓	✓	✓	✓		✓	✓
Dealer Incentives		✓						✓
State ZEV Commission	✓		✓	✓			✓	✓
PUC EVSE Exemption	✓	✓	✓	✓	✓	✓		
TOU Rates (incl. pilots)	✓	✓	✓	✓	✓	✓		✓
Workplace Charging Grants		✓		✓	✓			
HOV Lane Access	✓	NA	✓	✓	✓		NA	NA
Toll Waivers	✓	NA			✓			NA

Public and Private EV Charging Outlets



Cumulative PEV Sales through June 2016



Source: IHS Polk

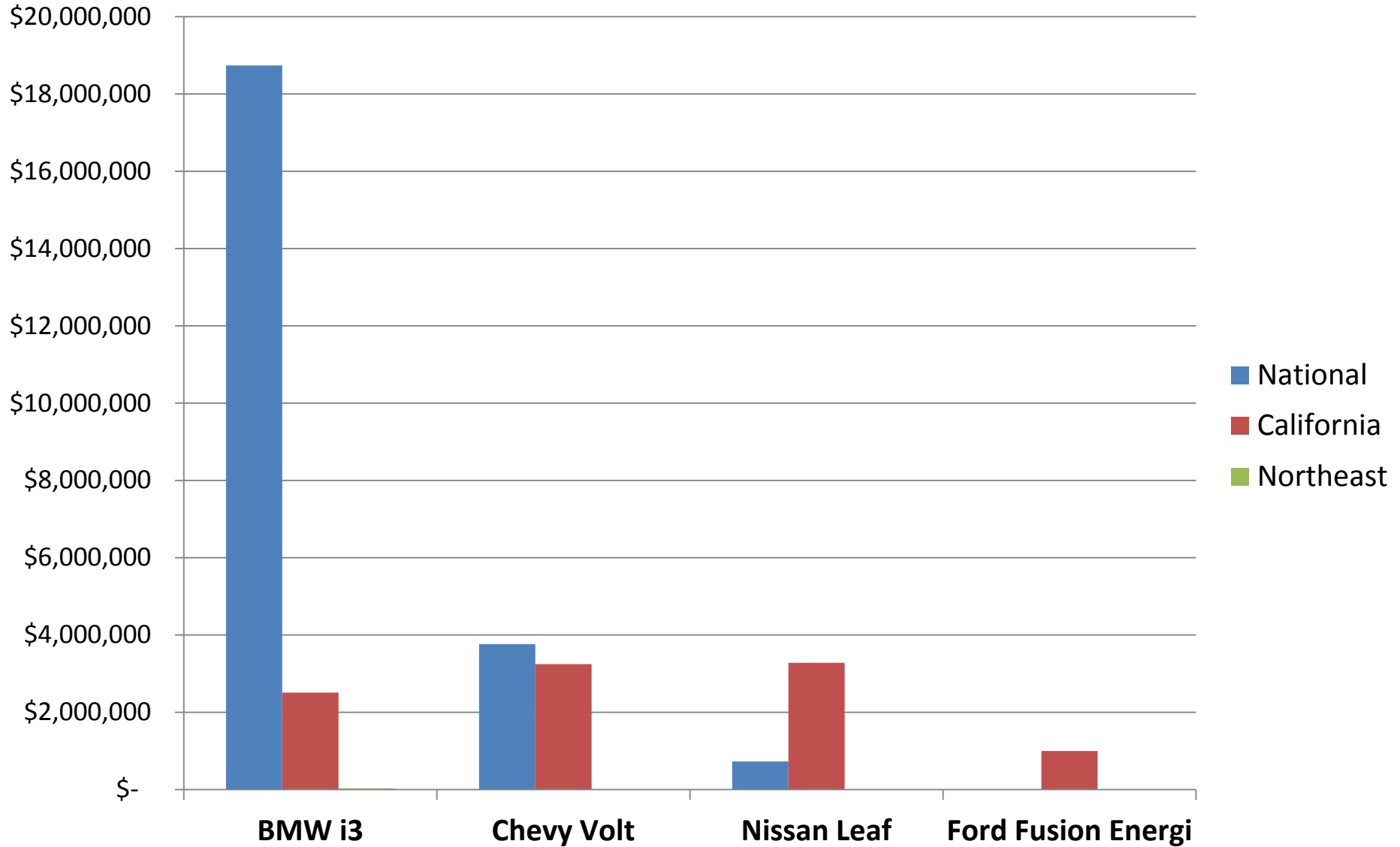
Where are ZEVs Available for Test Drive and Sale?

Number of Vehicles at Dealerships
Within 100 miles of:

Make and Model	Sacramento	Boston
BMW i3	158	65
Chevy Spark EV	141	0
Fiat 500e	182	0
Ford Focus EV	130	1
Honda Fit EV	0	0
Kia Soul EV	83	0
Mercedes B-Class EV	72	1
Mitsubishi iMiEV	12	6
Nissan Leaf	826	42
Smart for Two EV	12	1
Toyota Rav4 EV	0	0
VW eGolf	122	16

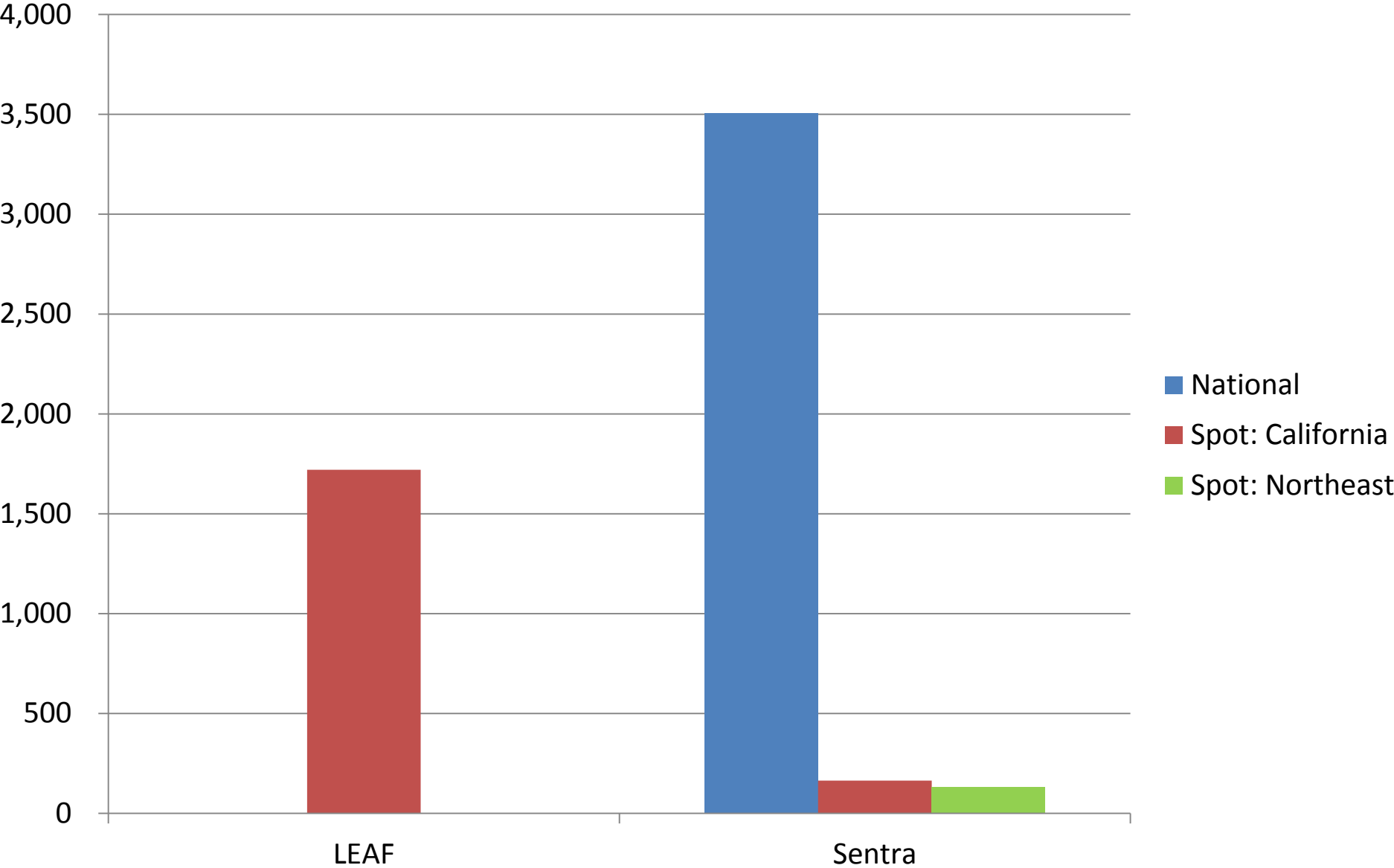
Source: Cars.com, accessed 05/13/2016, 2-3pm ET.

Ad Spending, 2015



Source data: CompetiTrack. Estimated advertising expenditures in selected Designated Marketing Areas in California (Bakersfield, Fresno, Los Angeles, Sacramento, San Diego, and San Francisco); and Northeast States (Baltimore, Boston, Hartford, New Jersey, New York City, Providence, and Syracuse). Includes TV, radio, print, and online advertising.

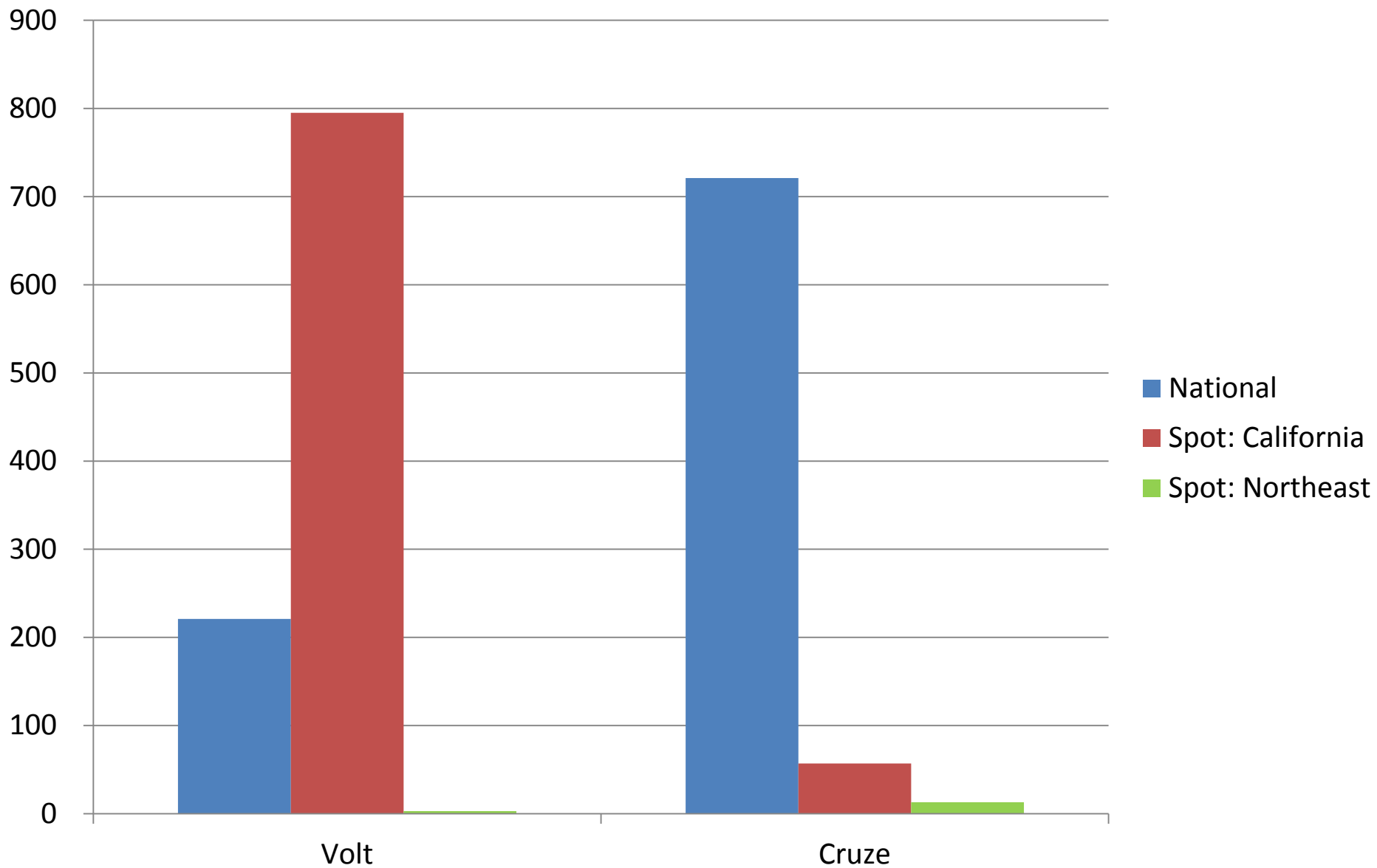
Tier-1 Cable & Broadcast TV Advertising Instances, 2015



Source data: Motor Intelligence. Total instances in selected markets in California (Los Angeles, San Francisco) and Northeast (Baltimore, Boston, Hartford, New York)



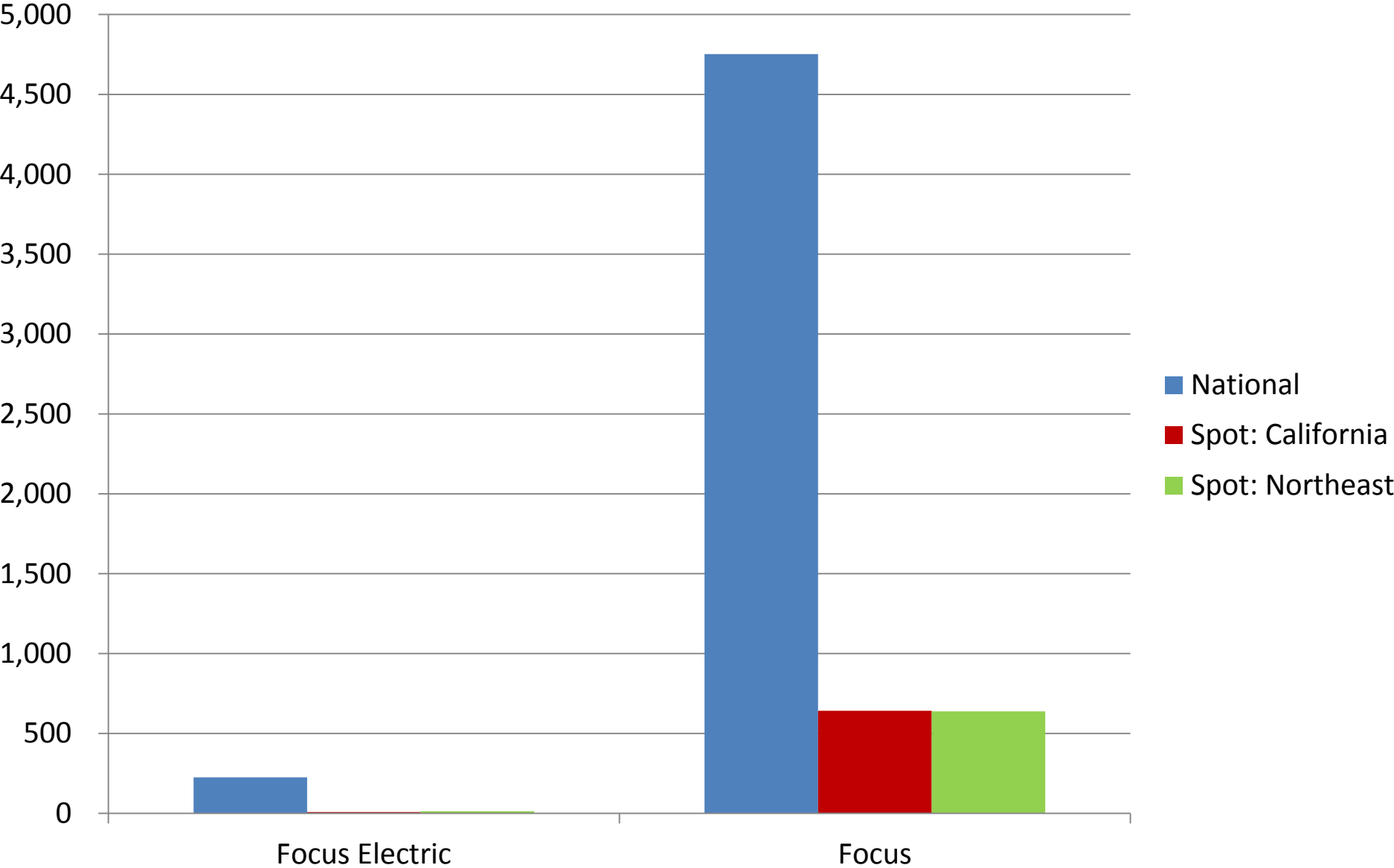
Tier-1 Cable & Broadcast TV Advertising Instances, 2015



Source data: Motor Intelligence. Total instances in selected markets in California (Los Angeles, San Francisco) and Northeast (Baltimore, Boston, Hartford, New York)



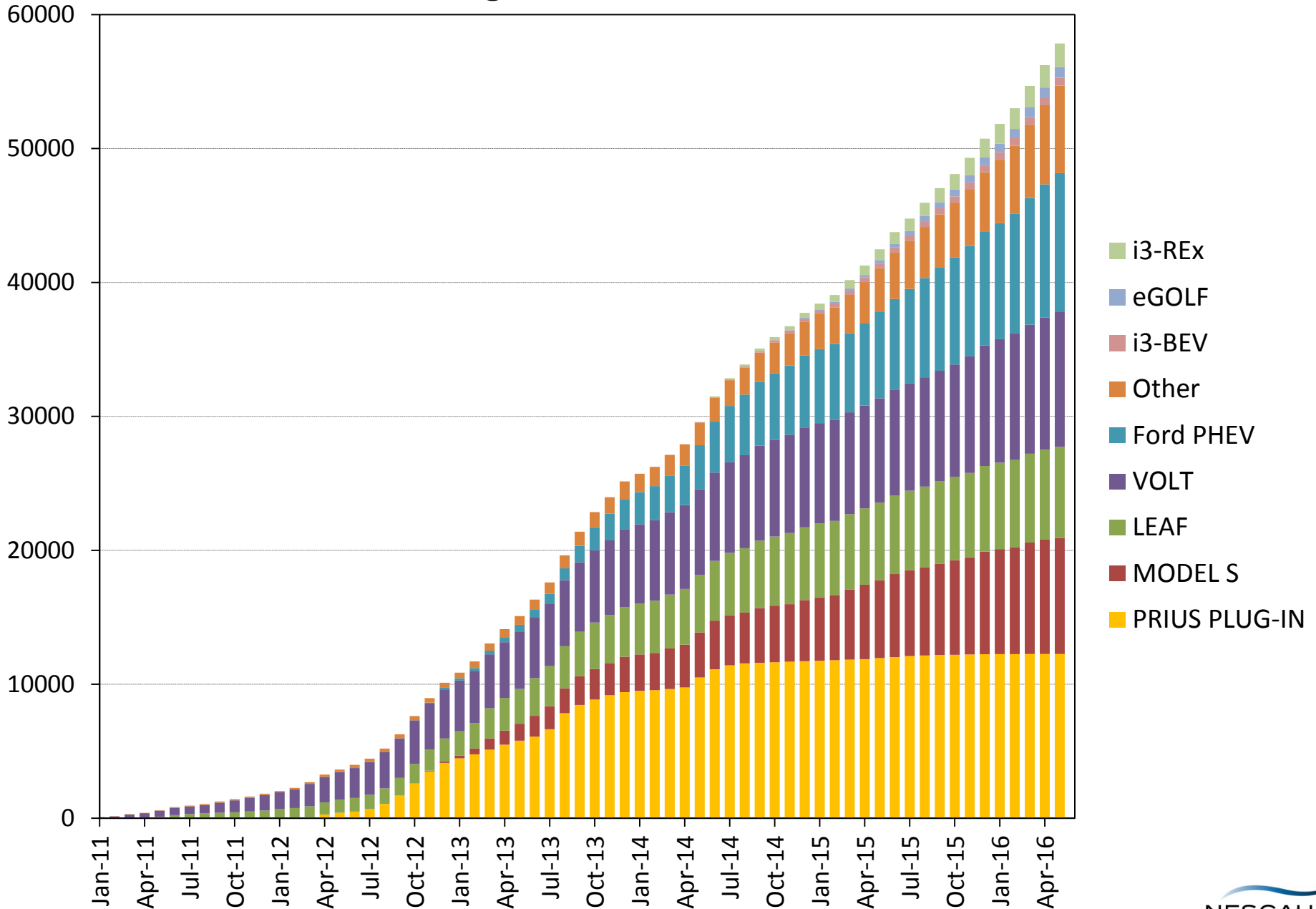
Tier-1 Cable & Broadcast TV Advertising Instances, 2015



Source data: Motor Intelligence. Total instances in selected markets in California (Los Angeles, San Francisco) and Northeast (Baltimore, Boston, Hartford, New York)



Cumulative Registrations, §177 ZEV States



New ZEV Registrations , January-May, §177 ZEV States

