



The California Zero Emission Vehicle Mandate: Legal and Market Expectations Intertwined

National Association of Motor Vehicle Boards and
Commissions

Jonathan Morrison

President

Auto Advisory Services, Inc.

Agenda



- History of the ZEV Mandate
- PEV Market Snapshot
- PEV Market Challenges
- PEV Retail Challenges
- Coming Challenges for PEV Market

California Emissions Regulations



- California v. Federal Standards
 - Low Emission Vehicle (LEV) Regulations
 - Greenhouse Gas (GHG) Regulations
 - Zero Emission Vehicle (ZEV) Regulations
- Section 177 of the Clean Air Act
 - 14 additional states have adopted California's LEV standards; 9 of which have adopted California's ZEV Mandate

ZEV Vocabulary



- **Partial Zero Emission Vehicle (PZEV):**
 - Standard (generally gasoline) vehicles that meet strict exhaust requirements, have zero evaporative (gas tank and fuel line) emissions, and have 15 year/150k mile emissions warranties.
- **Advanced Technology Partial Zero Emission Vehicle (AT-PZEV):**
 - Hybrid Electric Vehicles that meet certain voltage and peak power requirements; or
 - Compressed Natural Gas Vehicles.

ZEV Mandate History



- **Transitional Zero Emission Vehicle (TZEV):**
 - Plug-In Hybrid Vehicles that have at least 10 miles of all-electric range;
- **Zero Emission Vehicle (ZEV):**
 - Battery Electric Vehicles (BEV); or
 - Hydrogen Fuel Cell Vehicles (FCV);
- **ZEV Credits:** An amount of credit toward compliance with the ZEV mandate.

ZEV Mandate History



Round 1

- The ZEV Mandate was first launched in 1990.
- The regulation required that 2% of all light duty vehicles sold for delivery in California must be ZEVs by 1998.
- The mandate increased to 5% in 2001, and 10% in 2003.
- The “travel provision” allows a ZEV sold in any Section 177 state to count toward the requirements in any other state.

ZEV Mandate History



- After a 1996 Mid-Term Review, CARB eliminated the 1998 and 2001 mandates. In 1998, CARB gave PZEVs partial ZEV Credit.
- In 2001, CARB modified the ZEV regulation to require 2% ZEVs (Gold) , 2% AT-PZEVs (Silver), and 6% PZEVs (Bronze) by 2003. Increased to 10% ZEVs in 2018.

ZEV Mandate History



Lawyered Up

- Automakers sued CA to block implementation of the revised ZEV mandate, arguing that the requirements for ZEV credits for hybrids resulted in an indirect regulation of fuel economy. An injunction was granted for model years 2003 and 2004.
- The federal Department of Justice filed an amicus brief in support of the automakers; environmental groups filed briefs in support of CARB.

ZEV Mandate History



Round 2

- In 2003, CARB introduced a revised ZEV Mandate, similar to the 2001 version, but with no reference to fuel economy.
- The 2003 ZEV Mandate also created an “alternative compliance pathway,” which allowed greater flexibility and ZEV Credit to automakers creating fuel cell vehicles, and allowing remaining ZEV requirements to be met with ATPZEVs.

ZEV Mandate History



Round 3

- After hosting a technological symposium in 2006 and performing follow-up studies, CARB proposed a reworked ZEV Mandate in 2008.
- Most changes related to model years 2012 and later, and the revised program introduced additional ZEV Credits for Enhanced ATPZEVs (primarily plug-in hybrids) that would be soon launched.
- For the most part, this is the last MY of round 3.

Current ZEV Mandate



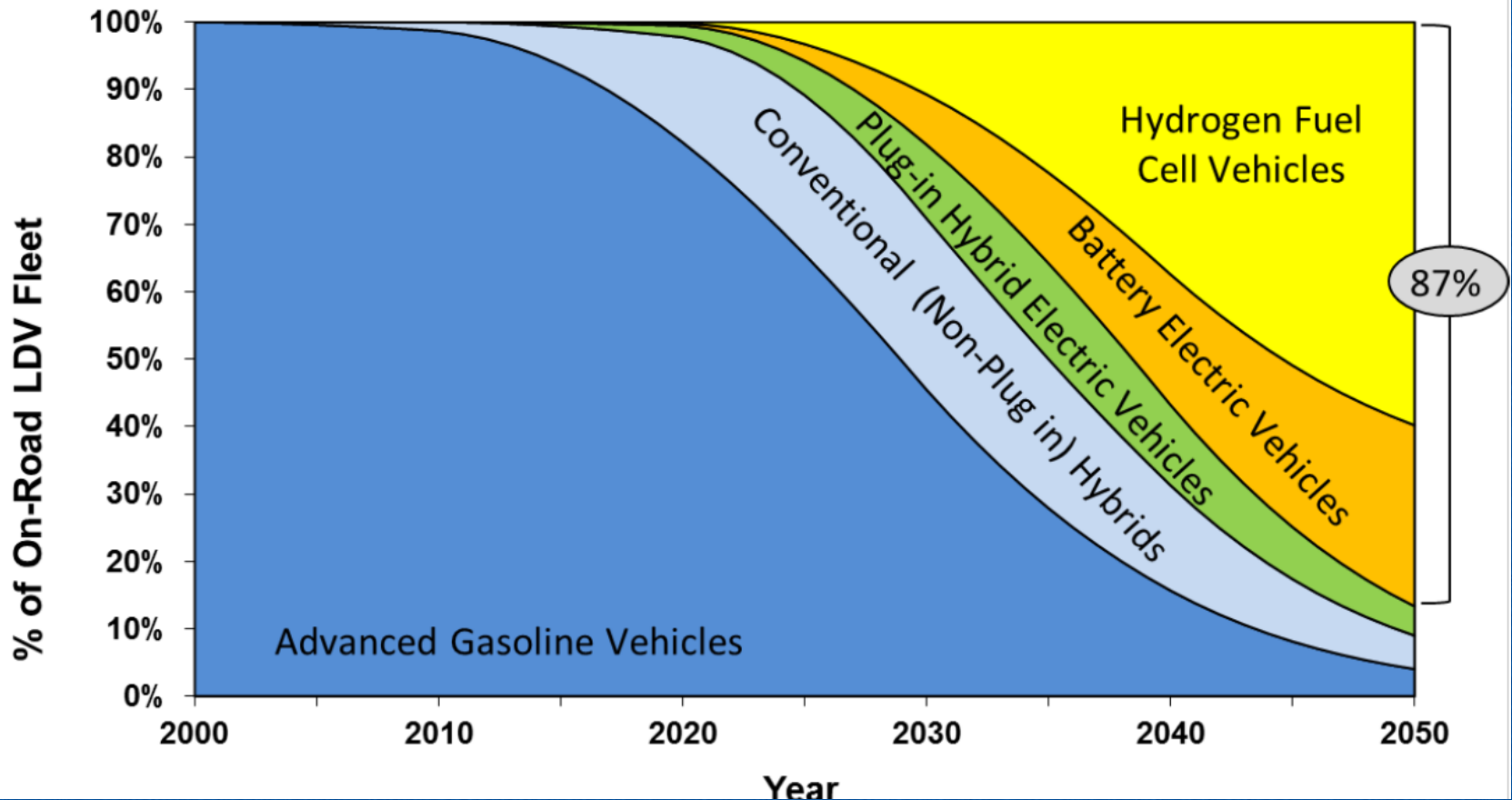
ZEV Review and Advanced Clean Car

- In 2009, CARB hosted another technological symposium leading to the restructuring of the LEV, GHG, and ZEV programs into a comprehensive vehicle emissions program.
- Key to the revised ZEV Mandate was Governor Schwarzenegger's Executive Order that required an 80% reduction in GHG emissions by 2050.

Current ZEV Mandate



Figure 1: On Road Passenger Car Scenario to Reach 2050 Goal

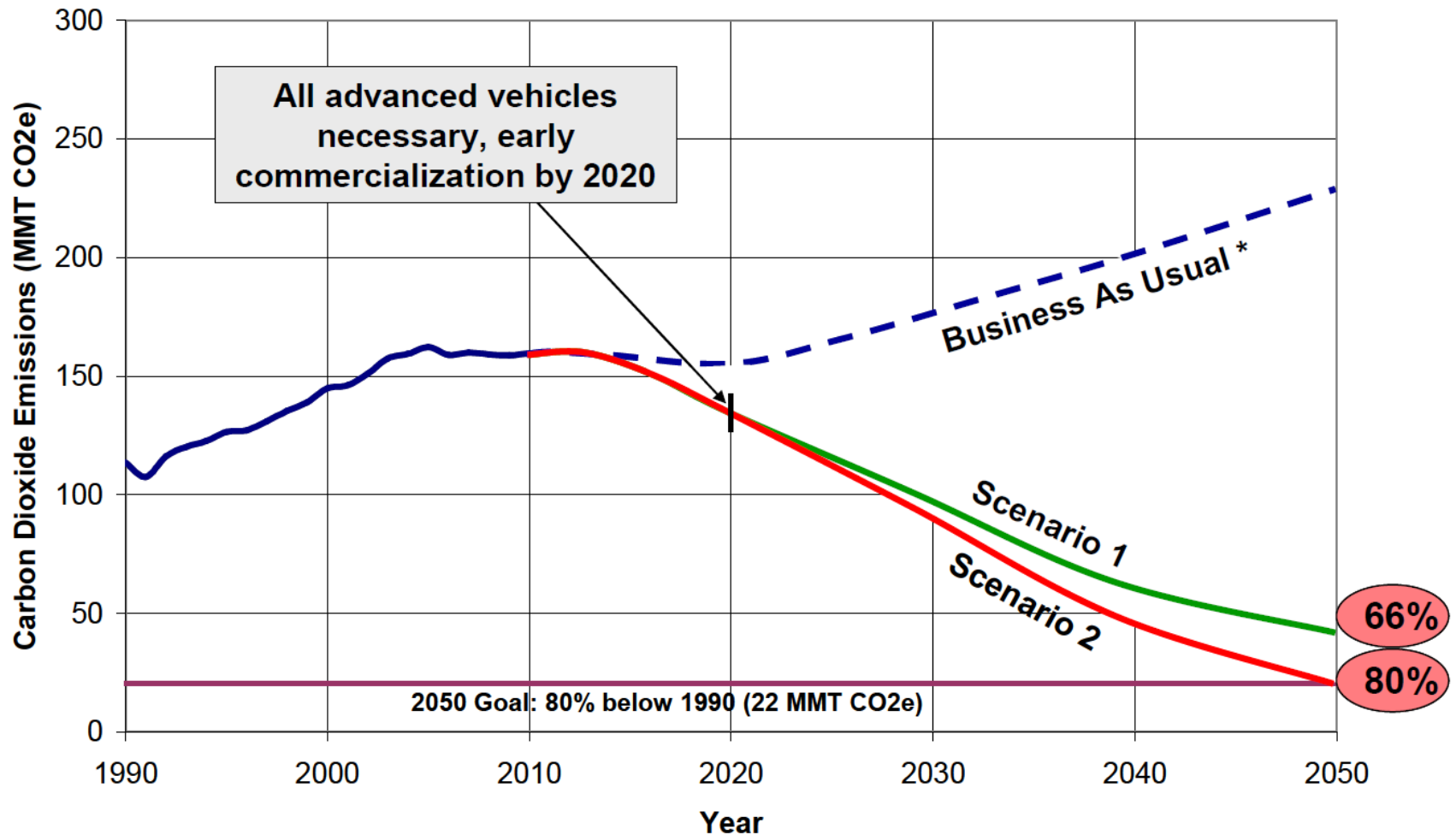


Source: ISOR for 2012 ZEV Regulation

Current ZEV Mandate

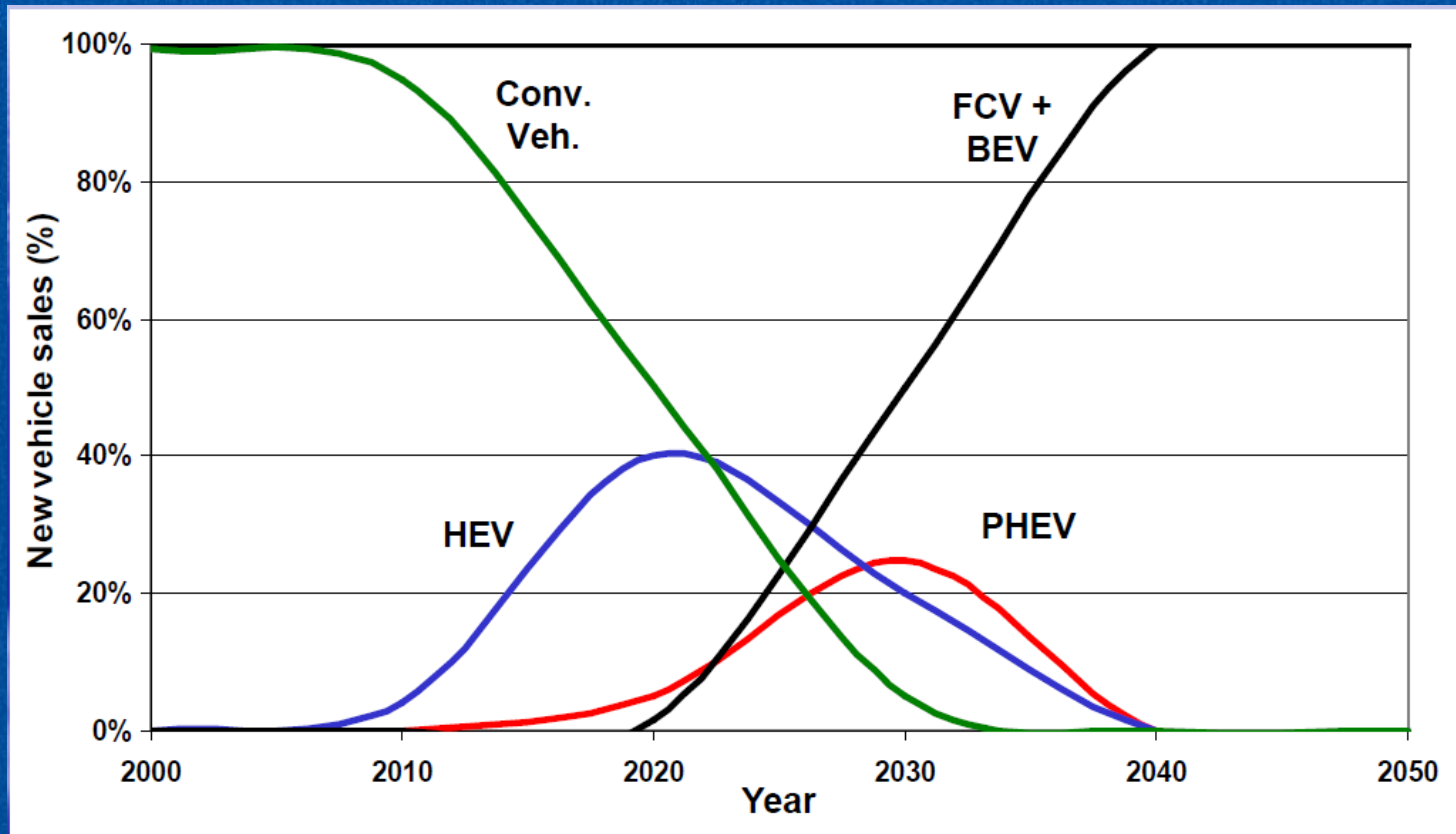


Figure 12: GHG Emissions for Three ZEV Sales Scenarios



Source: CARB Staff Modeling In Support of ZEV Regulation

Current ZEV Mandate



**ZEV sales reach 100% by 2040, but on-road fleet is still mixed:
ZEVs are 87% of on-road fleet in 2050**

Source: CARB Staff Modeling In Support of ZEV Regulation

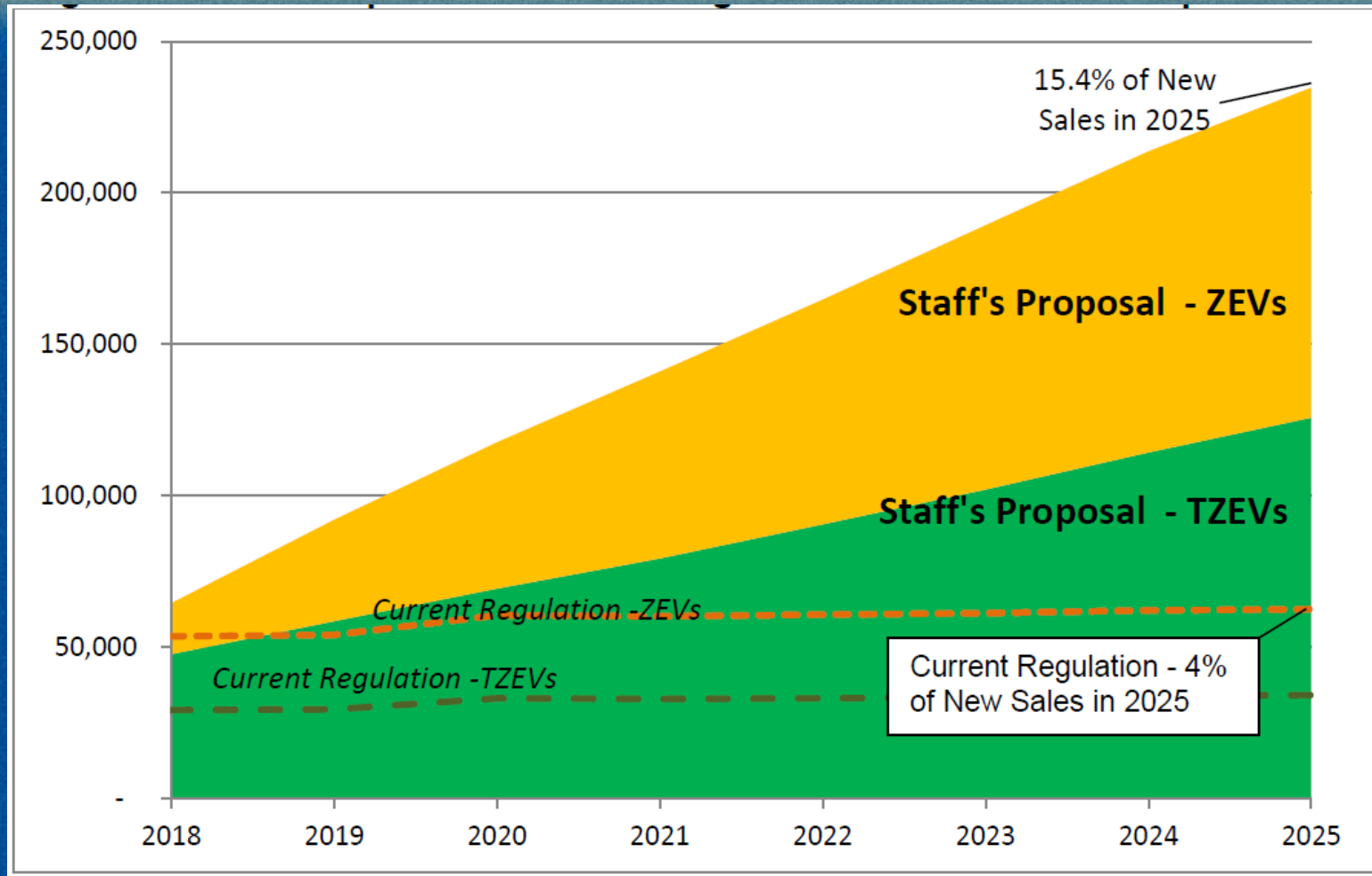
Current ZEV Mandate



Advanced Clean Car

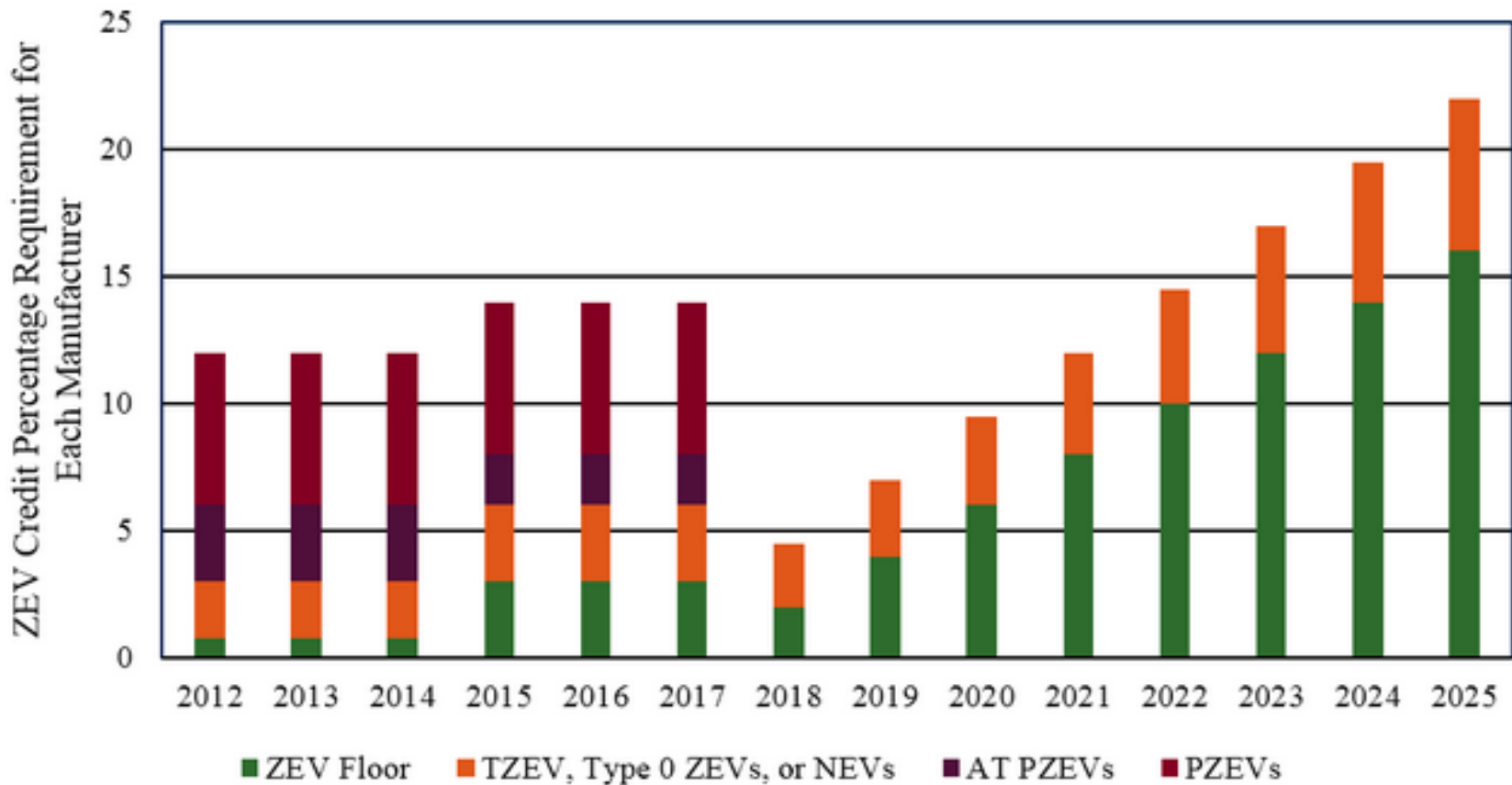
- The Advanced Clean Car Regulations divide future compliance into two key periods: 2015-2017, and 2018-2025.
- The earlier period contains simpler mandates, while the later period introduces extremely strict requirements.
- Crucially, beginning with model year 2018, automakers do not receive ZEV Credits when selling PZEVs or ATPZEVs, and the “travel” provision was eliminated for BEVs—effectively tripling the ZEV requirement.

Current ZEV Mandate



Source: ISOR for 2012 ZEV Regulation

Current ZEV Mandate



Source: Center for Climate and Energy Solutions

Current ZEV Mandate



ZEV Calculation:

ZEV				
ZEV Tier	Range (miles)	Fast Refueling Capability	Credit 2012-17	Credit 2018+
NEV	No min	N/A	0.3	ZEV Credit = 0.5 + (0.01 * Range) (min = 50 miles, max = 350 miles)
Type 0 (BEV)	< 50	N/A	1.0	
Type I (BEV)	≥ 50, <75	N/A	2.0	
Type I.5X (BEVx)	≥ 75, <100	N/A	2.5	
Type IIX (BEVx)	≥ 100	N/A	3.0	
Type I.5 (BEV)	≥ 75, <100	N/A	2.5	
Type II (BEV)	≥ 100	N/A	3.0	
Type III (H2 FCV or Fast Charge Ext Range EV)	≥ 100	Must be capable of replacing 95 miles (UDDS ZEV range) in ≤ 10 minutes per section 1962.1(d)(5)(B)	4.0	
Type IV (H2 FCV or Battery Swap Ext Range EV)	≥ 200	Must be capable of replacing 190 miles (UDDS ZEV range) in ≤ 15 minutes per section 1962.1(d)(5)(B)	5.0	
Type V (H2 FCV or Battery Swap Ext Range EV)	≥ 300	Must be capable of replacing 285 miles (UDDS ZEV range) in ≤ 15 minutes per section 1962.1(d)(5)(B)	2012-2014: 7.0 2015-2017: 9.0	

Source: 13 California Code of Regulations Sections 1962.1(d)(5)(C) & 1962.2(d)(5)(A)

Current ZEV Mandate



<i>Model Years</i>	<i>Minimum ZEV Requirement</i>
2009 through 2011	11 %
2012 through 2014	12 %
2015 through 2017	14 %

Source: 13 California Code of Regulations Section 1962.1(b)(1)(A)

Model Years	Total ZEV Percent Requirement	Minimum ZEV floor	TZEVs
2018	4.5%	2.0%	2.5%
2019	7.0%	4.0%	3.0%
2020	9.5%	6.0%	3.5%
2021	12.0%	8.0%	4.0%
2022	14.5%	10.0%	4.5%
2023	17.0%	12.0%	5.0%
2024	19.5%	14.0%	5.5%
2025	22.0%	16.0%	6.0%

Source: 13 California Code of Regulations Section 1962.2(b)(1)(E)

Current ZEV Mandate



Table 1.1: Summary of 2012 Through 2017 Model Year Requirements For Large Volume Manufacturers*

Vehicle Category	Vehicle Technology Descriptions	2012-2014 Annual Credit Requirement	2012-2014 Annual % of Fleet	2015-2017 Annual Credit Requirement	2015-2017 % of Fleet
ZEV	Zero tailpipe emissions: battery electric vehicles, and hydrogen fuel cells.	0.79%	0.2%	3%	0.7%
TZEV	Transitional Zero Emission Vehicles; Vehicles certified to PZEV standards that utilize a ZEV fuel: e.g. plug-in hybrid electric vehicles or hydrogen internal combustion engine vehicles. Proposed terminology replacing "Enhanced AT PZEV"	2.21%	1.5%	3%	2%
AT PZEV	Vehicles certified to PZEV standards and employing ZEV-enabling technologies: e.g. hybrids or compressed natural gas vehicles.	3%	7%	2%	6%
PZEV	Conventional vehicles certified to the most stringent tailpipe emission standards, zero evaporative emissions, and extended warranty.	6%	30%	6%	30%

*The ZEV regulation establishes a credit requirement, shown in shaded columns, for manufacturers each year. Manufacturers earn credits through production of vehicles from different categories. The "Annual % of Fleet" represents the percentage of new vehicle sales expected from each vehicle category due to compliance with the regulations.

Current ZEV Mandate



	2015	2016	2017
<i>CA ZEV Requirements (Vehicles)-Likely Compliance Scenario</i>			
% of Total ZEVs Made = BEVs	50%	50%	50%
% of Total ZEVs Made = FCVs	50%	50%	50%
BEV%*1.5			
FCV%*4			
Weighted Average Credits	6	6	6
Min CA FCVs (LVM)	2,134.11	2,269.03	2,297.05
% of CA sales = FCVs (LVM)	0.17%	0.17%	0.17%
Min CA BEVs (LVM)	6,402	6,807	6,891
% of CA sales = BEVs (LVM)	0.50%	0.50%	0.50%
Min Total CA ZEVs (LVM)	8,536	9,076	9,188
% of CA sales = ZEVs (LVM)	0.67%	0.67%	0.67%
Max CA TZEVs (LVM)	25,609	27,228	27,565
% of CA sales = TZEVs (LVM)	2.00%	2.00%	2.00%
Total CA ZEVS and TZEVs	34,146	36,304	36,753
% of CA sales = ZEVs + TZEVs (LVM AND IVM)	2.12%	2.22%	2.22%

Current ZEV Mandate



	2018	2019	2020	2021	2022	2023	2024	2025
<i>CA ZEV Requirements (Vehicles)-Likely Compliance Scenario</i>								
% of Total ZEVs Made = BEVs	82.5%	81.4%	78.0%	75.0%	70.8%	68.2%	64.6%	60.0%
% of Total ZEVs Made = FCVs	17.5%	18.6%	22.0%	25.0%	29.2%	31.8%	35.4%	40.0%
BEV%*1.5	1.2	1.2	1.2	1.1	1.1	1.0	1.0	0.9
FCV%*4	0.7	0.7	0.9	1.0	1.2	1.3	1.4	1.6
Weighted Average Credits	1.9	2.0	2.1	2.1	2.2	2.3	2.4	2.5
Min CA FCVs (LVM)	2,943	6,215	10,626	15,422	21,639	27,766	35,174	43,589
% of CA sales = FCVs (LVM)	0.18%	0.38%	0.64%	0.94%	1.31%	1.66%	2.08%	2.56%
Min CA BEVs (LVM)	13,873	27,250	37,672	46,267	52,551	59,500	64,231	65,383
% of CA sales = BEVs (LVM)	0.85%	1.66%	2.28%	2.82%	3.18%	3.56%	3.79%	3.84%
Min Total CA ZEVs (LVM)	16,816	33,465	48,298	61,689	74,189	87,266	99,405	108,972
% of CA sales = ZEVs (LVM)	1.03%	2.04%	2.93%	3.76%	4.49%	5.23%	5.87%	6.40%
Max CA TZEVs (LVM)	58,179	70,430	82,509	93,635	106,316	119,235	133,034	145,945
% of CA sales = TZEVs (LVM)	3.57%	4.29%	5.00%	5.71%	6.43%	7.14%	7.86%	8.57%
Total CA ZEVS and TZEVs	78,075	108,728	137,393	163,585	190,580	218,424	246,311	270,655
% of CA sales = ZEVs + TZEVs (LVM AND IVM)	4.66%	6.43%	8.09%	9.70%	11.19%	12.71%	14.13%	15.44%

Current ZEV Mandate



Table 5.4: Incremental technology package prices above average MY2016 baseline technology (2009\$)¹

Vehicle Class	Technology Package (energy capacity) ²	Incremental Vehicle Price in 2016	Incremental Vehicle Price in 2025
Subcompact	PHEV20 ³ (6.6 kWh)	13,233	8,448
	PHEV40 (13.4 kWh)	16,580	10,259
	BEV75 ⁴ (23 kWh)	17,010	9,405
	BEV100 (30 kWh)	19,655	10,829
	FCV ⁵ (3.3 kg H ₂)	19,060	7,513
Midsize car / Small MPV	PHEV20 (7.7 kWh)	13,807	8,876
	PHEV40 (15.5 kWh)	17,818	11,043
	BEV75 (27 kWh)	17,562	9,794
	BEV100 (35 kWh)	20,785	11,551
	FCV (3.8 kg H ₂)	23,472	9,334
Large Car	PHEV20 (9.1 kWh)	17,280	11,205
	PHEV40 (18.7 kWh)	23,134	14,390
	BEV75 (30 kWh)	20,820	11,628
	BEV100 (40 kWh)	23,959	13,363
	FCV (4.3 kg H ₂)	33,238	13,406

¹ Refer to the LEVIII ISOR Section III-A-4.3 and Appendix R for additional vehicle packages

² Energy capacity for BEV/PHEV is kWh rated battery pack capacity, kg H₂ for FCV

³ EPA and NHTSA designation for a PHEV is a "range extended electric vehicle" or REEV.

⁴ For BEVs and PHEVs, the residential charging equipment costs are included in these technology packages.

⁵ FCV costs include the fuel cell system (as shown in later figures), the hydrogen storage system, the hybrid battery module, and other EV components and power electronics similar to the BEV technology package.



Put Your Money Where Your Mouth Is

- **Easier to Buy:**
 - \$7,500 Fed Tax Credit;
 - CVRP: \$2,500 for BEVs; \$1,500 for PHEVs
 - Local Districts: Up to \$3,000 for BEVs (limited)
- **Easier to Drive:**
 - HOV Lane : Unlimited BEV/FCV; 55k PHEVs
 - Infrastructure:
 - BEVs: \$120-\$150 Million in Charging Stations
 - FCVs: Up to \$140 Million in Hydrogen Stations
- **Easier to Park:**
 - Cities/Counties: Free Parking + Free Charging
 - Utilities: Free Charging Stations (limited)

PEV Market Snapshot



CA

Year	Total Sales	%PHEV	%BEV	%PHEV + BEV
2011	1,290,920	0.1%	0.4%	0.5%
2012	1,529,212	1.0%	0.4%	1.4%
2013	1,711,563	1.2%	1.3%	2.5%
2014 (Q1-2)	912,572	1.7%	1.4%	3.1%

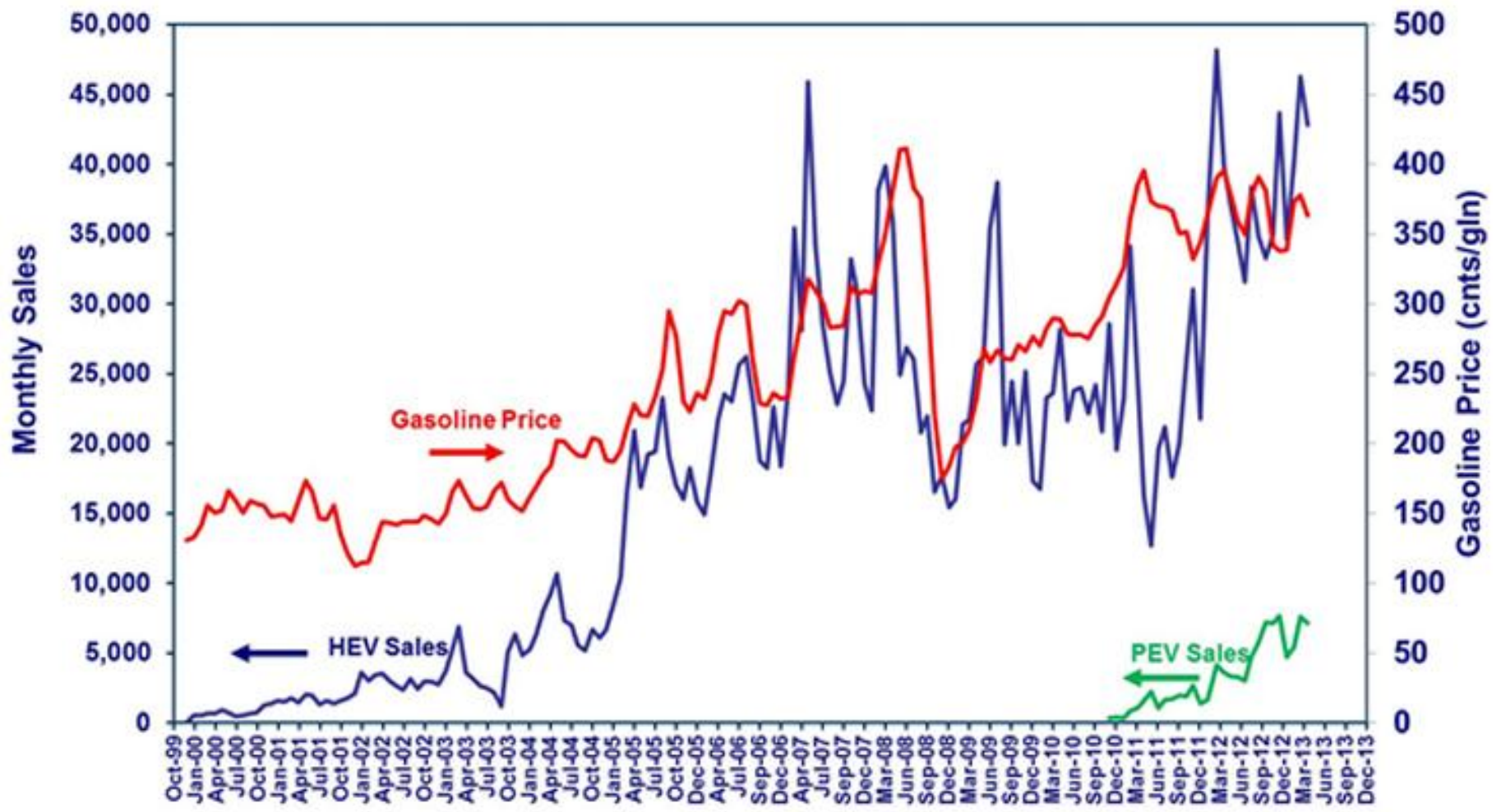
Source: Polk; California Auto Outlook

US

Year	Total Sales	%PHEV	%BEV	%PHEV + BEV
2011	12,778,940	0.06%	0.08%	0.14%
2012	14,492,277	0.27%	0.10%	0.36%
2013	15,581,519	0.31%	0.31%	0.63%
2014 (Q1-3)	6,741,905	0.34%	0.29%	0.69%

Source: Automotive News

PEV Market Snapshot

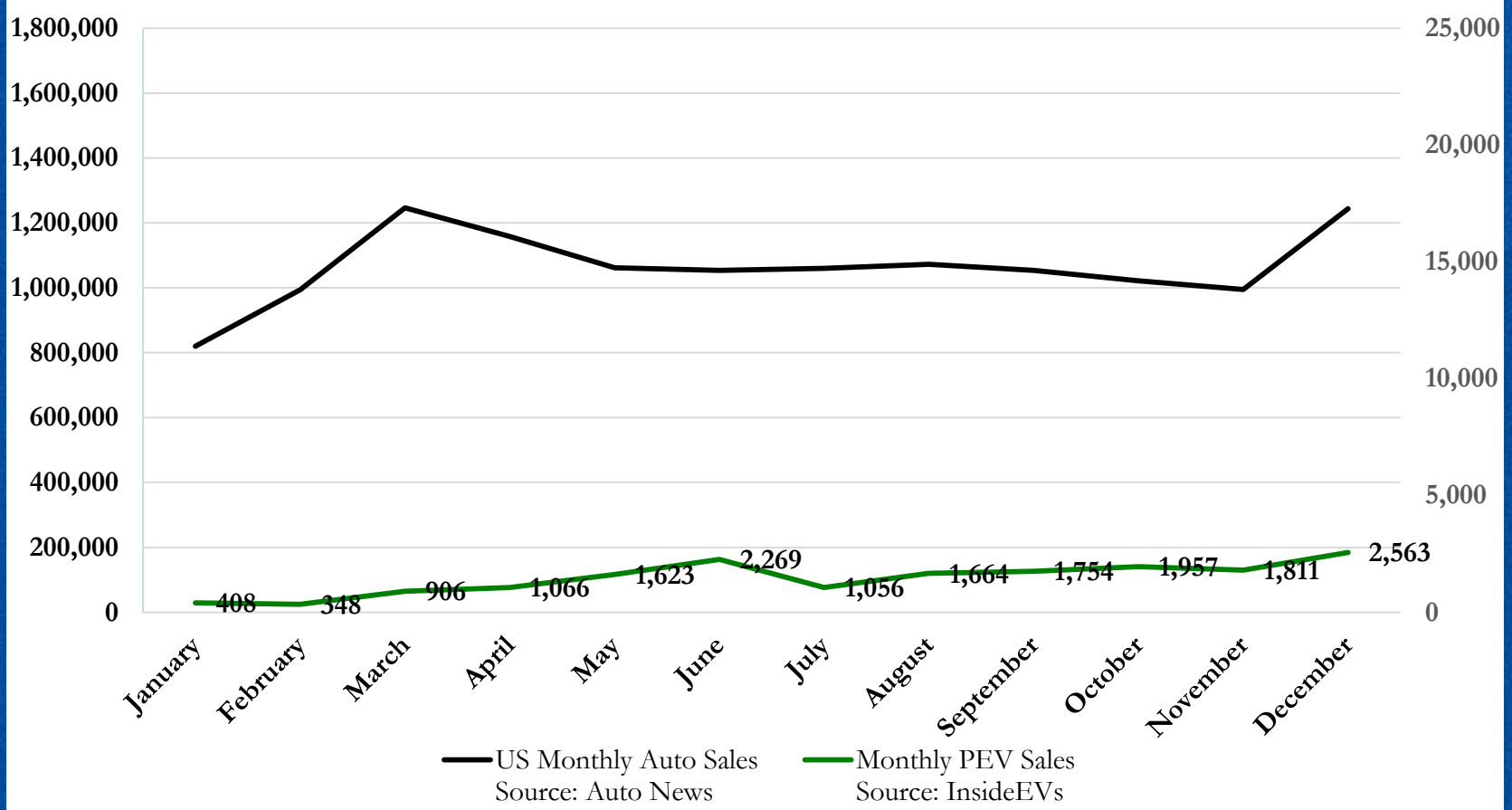


Source: Polk

PEV Market Snapshot



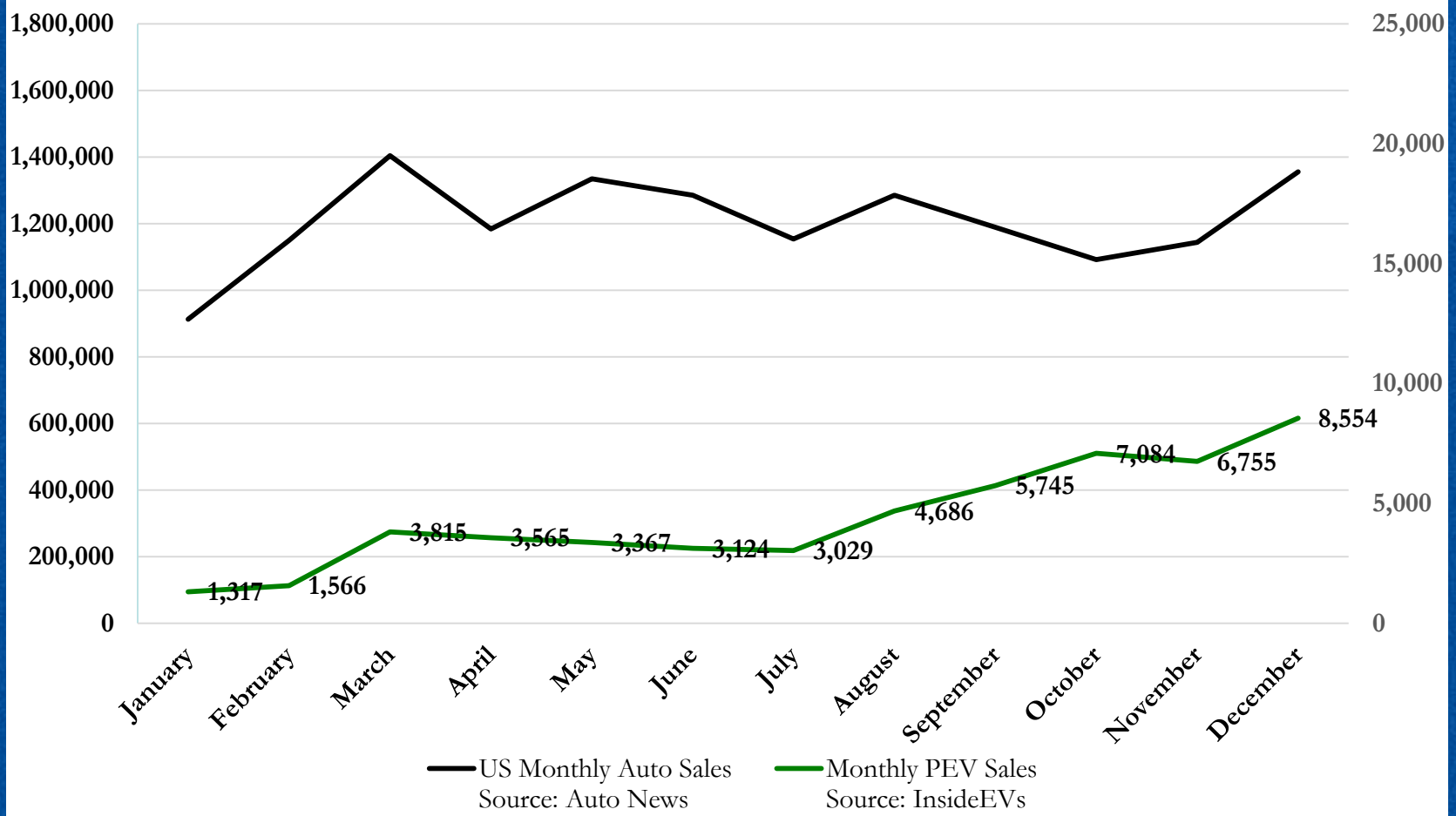
2011 Monthly Auto & PEV Sales



PEV Market Snapshot



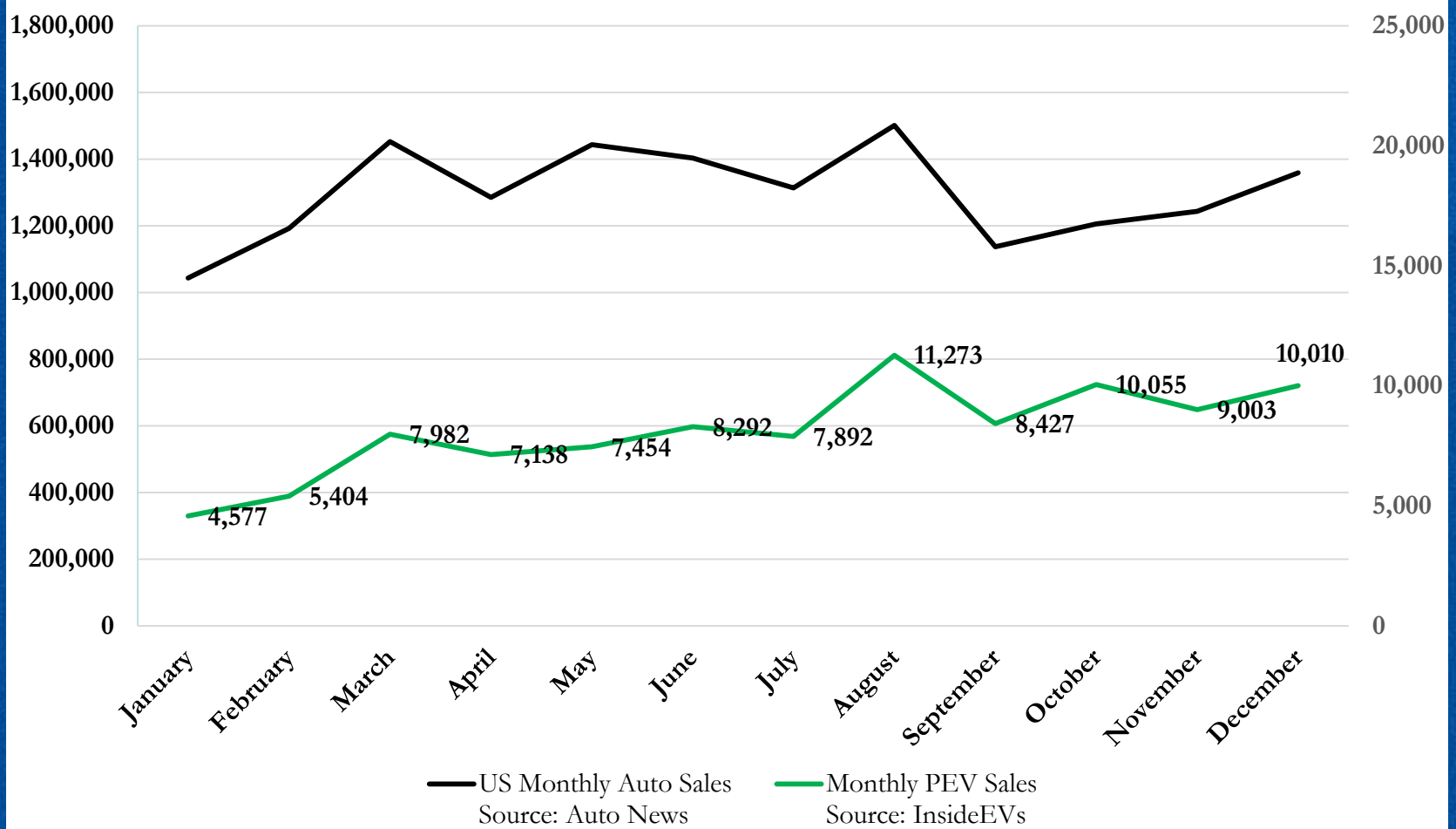
2012 Monthly Auto & PEV Sales



PEV Market Snapshot



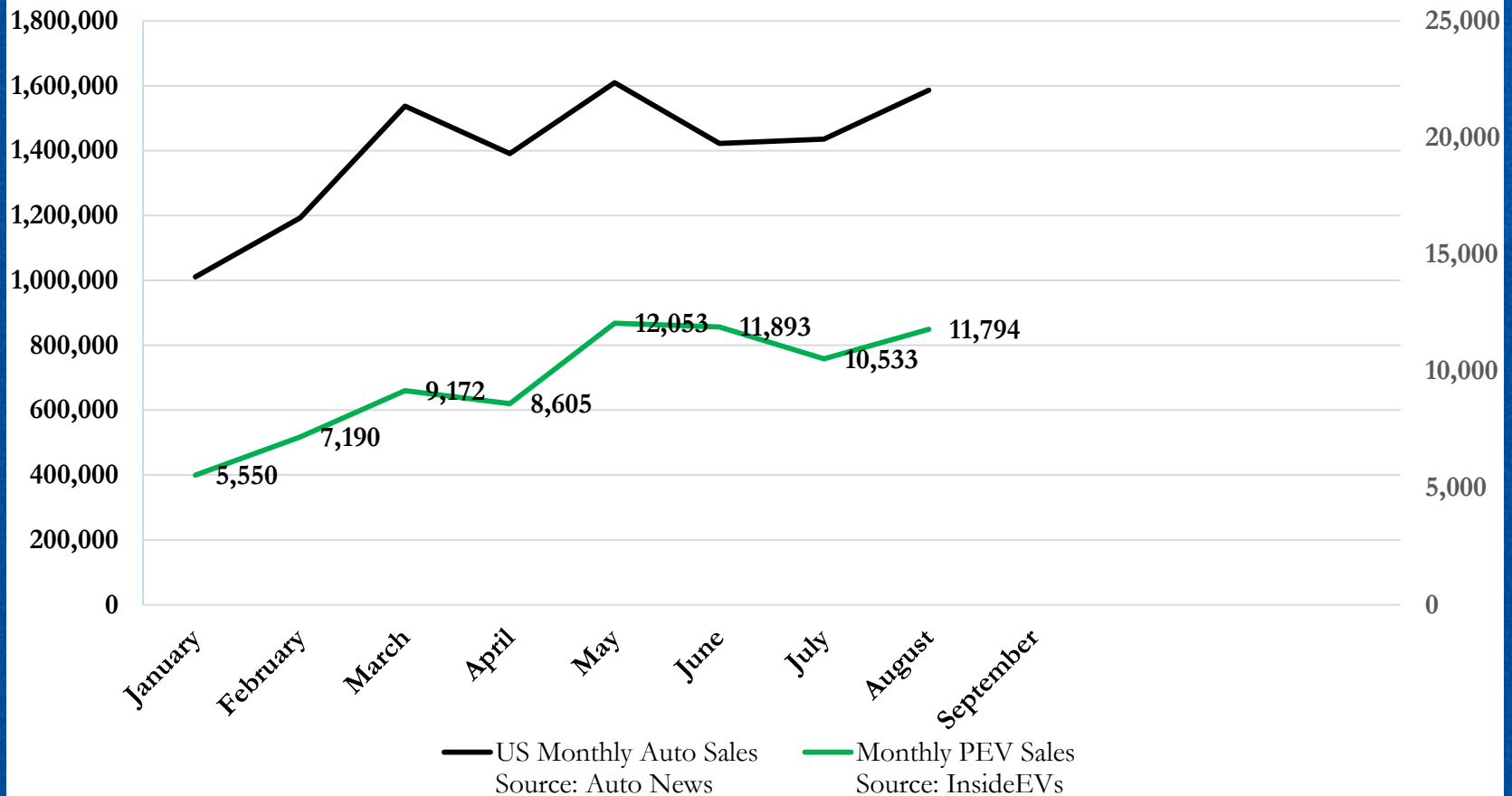
2013 Monthly Auto & PEV Sales



PEV Market Snapshot



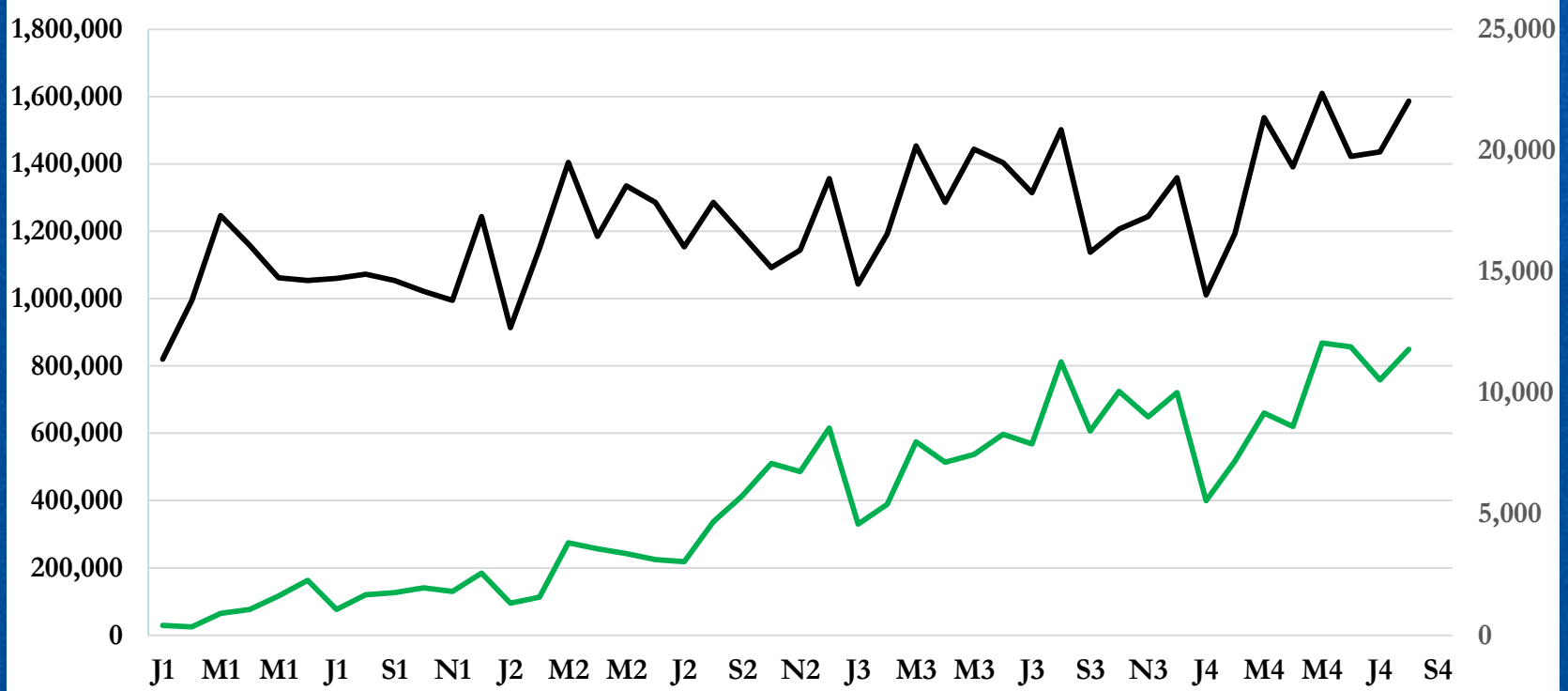
2014 Monthly Auto & PEV Sales



PEV Market Snapshot



2011-2014 YTD Monthly Auto & PEV Sales

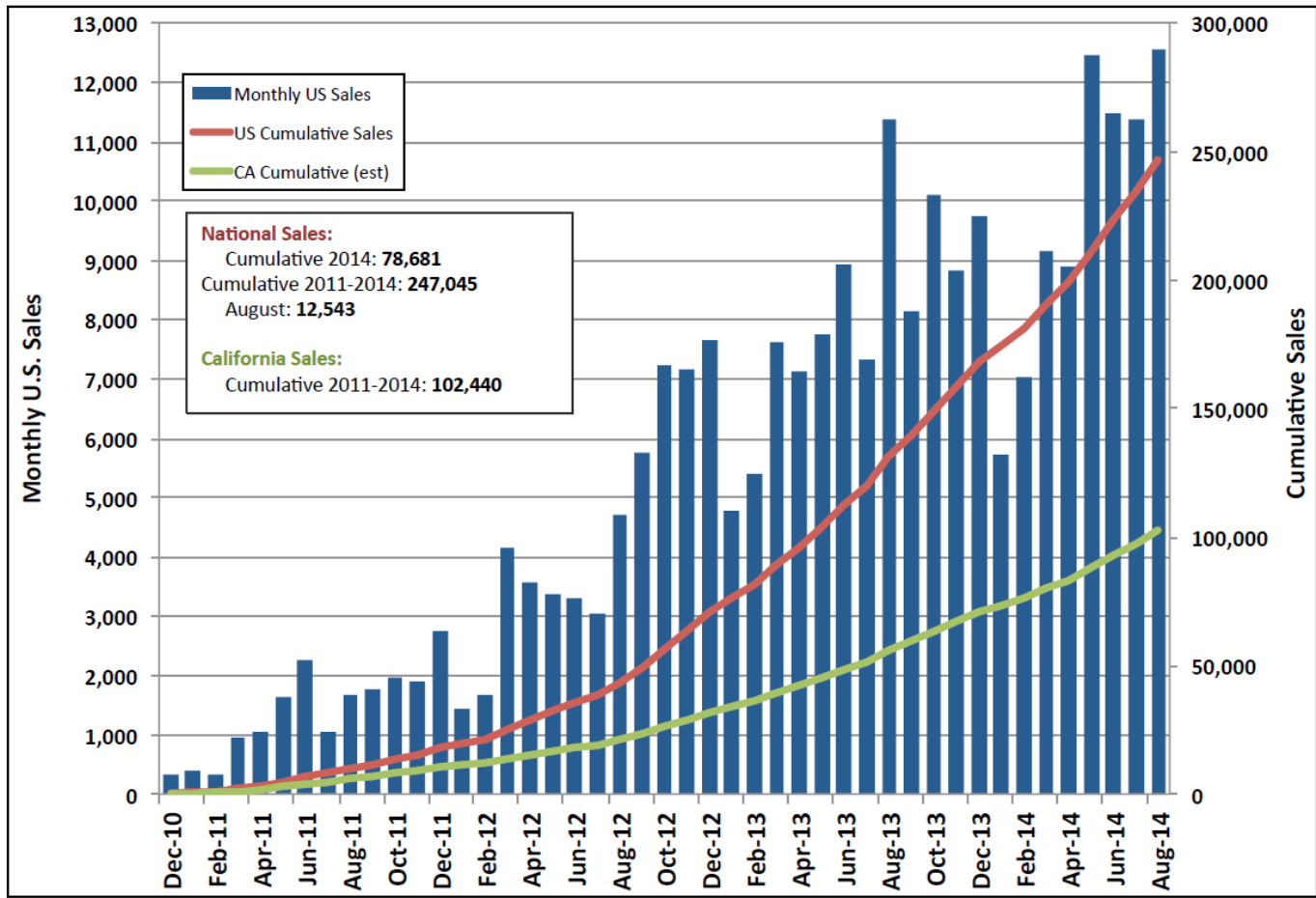


— US Monthly Auto Sales
 Source: Auto News
 — Monthly PEV Sales
 Source: InsideEVs

PEV Market Snapshot



CALIFORNIA
PLUG-IN ELECTRIC VEHICLE
COLLABORATIVE



Note: Approximation assumes CA sales are 40% of national sales.
Reference: www.hybridcars.com

PEV Market Challenges



- **Paradigm Shift**
- **Range Anxiety:** Limited range, small number of charging stations, and long charging times creates consumer concern with being “Clooneyed.”
- **Unsuitability for Many Consumers:** Apartment-dwellers, street-parkers, large families, long-commuters, campers, boat haulers, etc.
- **Aspirational Purchasing:** With the exception of “dream cars,” consumers don’t buy cars to meet some of their needs, but all of them.

PEV Market Challenges

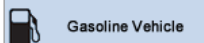



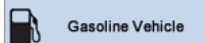













- **Expense: PEVs compete directly with the cheapest and most fuel efficient vehicles on the road: 4-cylinder compact and subcompact vehicles.**
- **Bang for the Buck? Depends on the Customer**

Model	EPA MPG(e)	MSRP
Ford Fusion S	21/34	\$21,970
Ford Fusion S Hybrid	47/47	\$26,270
Ford Fusion Energy SE	108/92	\$34,700
Nissan Versa	31/40	\$11,990
Nissan Leaf	130	\$29,830

PEV Market Challenges

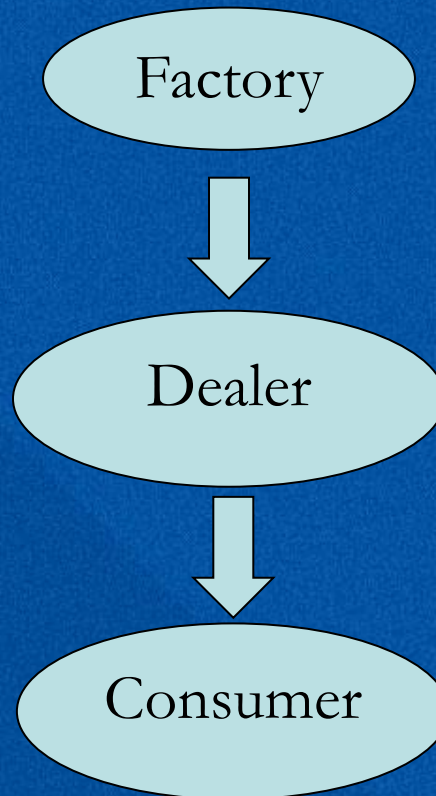


Fuel Economy Energy and Environment Safety Specs								
Personalize Edit Vehicles	2014 Nissan Versa X   1.6 L, 4 cyl, Automatic (variable gear ratios) MSRP: \$11,990 - \$16,890	2014 Nissan Leaf X   Automatic (A1) MSRP: \$28,980 - \$35,020	2014 Ford Fusion FWD X   1.5 L, 4 cyl, Automatic (S6), Turbo MSRP: \$21,970 - \$30,600	2014 Ford Fusion Energi Plug-in Hybrid X   2.0 L, 4 cyl, Automatic (variable gear ratios) MSRP: \$34,700 - \$36,500 Plug-in Hybrid Calculator				
	EPA Fuel Economy 1 gallon of gasoline=33.7 kWh	Regular Gasoline  35 MPG combined city/highway 2.9 gal/100mi	Electricity  114 MPGe combined city/highway 30 kWh/100 mi	Regular Gasoline  28 MPG combined city/highway 3.6 gal/100mi	<table border="1"> <tr> <th>Elec + Gas</th> <th>Reg. Gas</th> </tr> <tr> <td>  88 MPGe combined city/highway .0 gal/100mi of gas + 37 kWh/100mi </td> <td>  38 MPG combined city/highway 2.6 gal/100mi </td> </tr> </table>	Elec + Gas	Reg. Gas	 88 MPGe combined city/highway .0 gal/100mi of gas + 37 kWh/100mi
Elec + Gas	Reg. Gas							
 88 MPGe combined city/highway .0 gal/100mi of gas + 37 kWh/100mi	 38 MPG combined city/highway 2.6 gal/100mi							
Unofficial MPG Estimates from Vehicle Owners Learn more about "My MPG" Disclaimer	Average based on 3 vehicles 36.9 MPG 32 Lo → 45 Hi View Individual Estimates	Average based on 2 vehicles 155.6 MPGe 150 Lo → 162 Hi View Individual Estimates	Average based on 5 vehicles 27.9 MPG 25 Lo → 33 Hi View Individual Estimates	Average based on 4 vehicles 85.0 MPGe 56 Lo → 112 Hi Not comparable to EPA fuel economy because these estimates do not include electricity use.				
You save or spend* Note: The average 2014 vehicle gets 23 MPG	You SAVE \$3,750 in fuel costs over 5 years compared to the average new vehicle	You SAVE \$8,500 in fuel costs over 5 years compared to the average new vehicle	You SAVE \$2,000 in fuel costs over 5 years compared to the average new vehicle	You SAVE \$6,000 in fuel costs over 5 years compared to the average new vehicle				
Annual Fuel Cost*	\$1,500	\$550	\$1,850	Electricity + Gasoline: \$1,050				
Cost to Drive 25 Miles	\$2.47	\$0.90	\$3.09	\$1.36 (on a single charge) ⓘ \$2.28 (driving on gas only)				
Cost to Fill the Tank	\$37		\$57	\$48 (gas only)				
Tank Size	10.8 gallons		16.5 gallons	14.0 gallons				

PEV Transaction Complexity



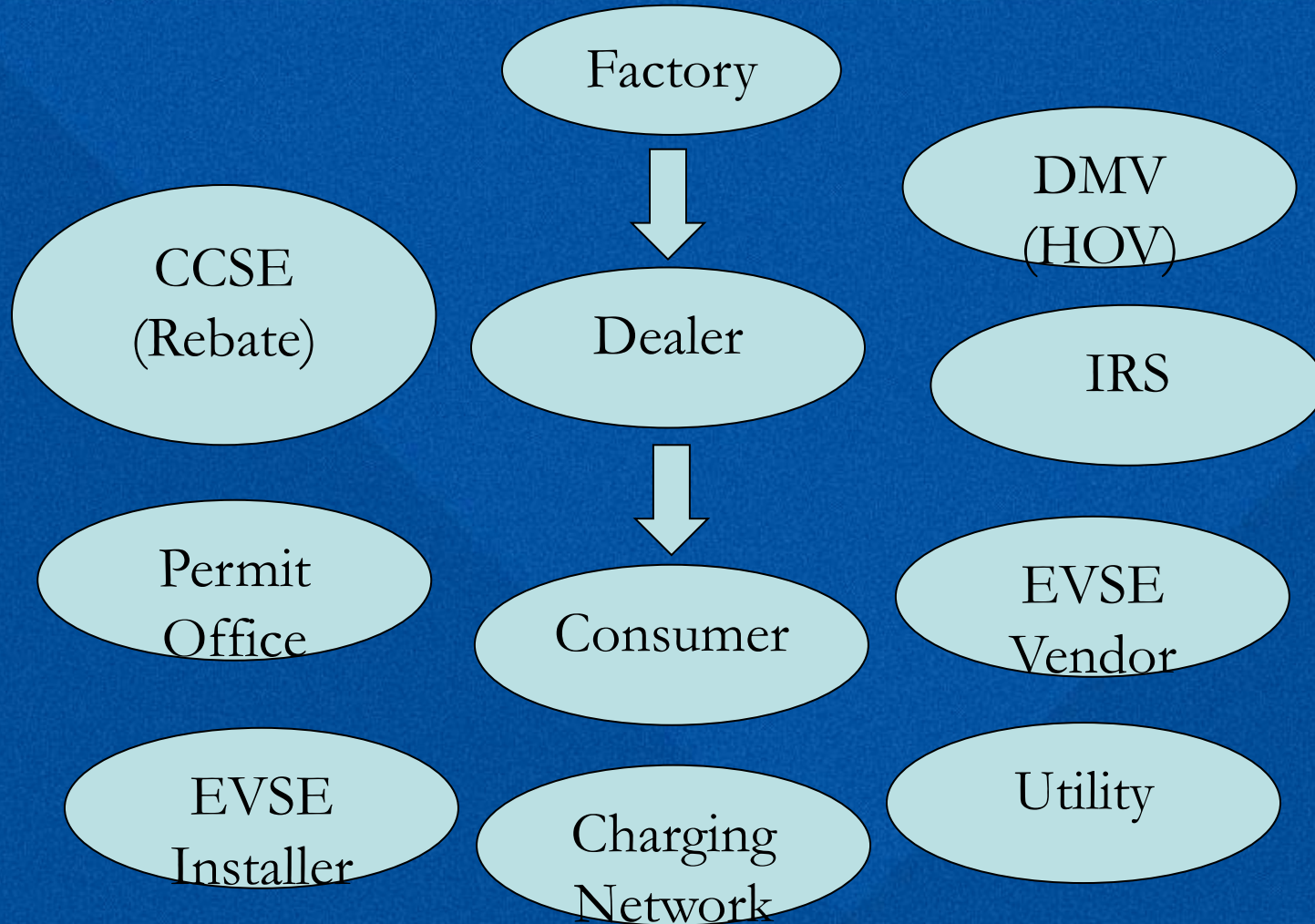
- Traditional Vehicle Sale Model



PEV Transaction Complexity



- PEV Vehicle Sale Model



PEV Dealer Challenges



- Given that the vehicles are not suitable for everybody, dealers can't "hard sell" PEVs.
- "Steering" a person to a PEV without understanding whether the vehicle will fit their needs will result in an unhappy customer and potential litigation.

PEV Dealer Challenges

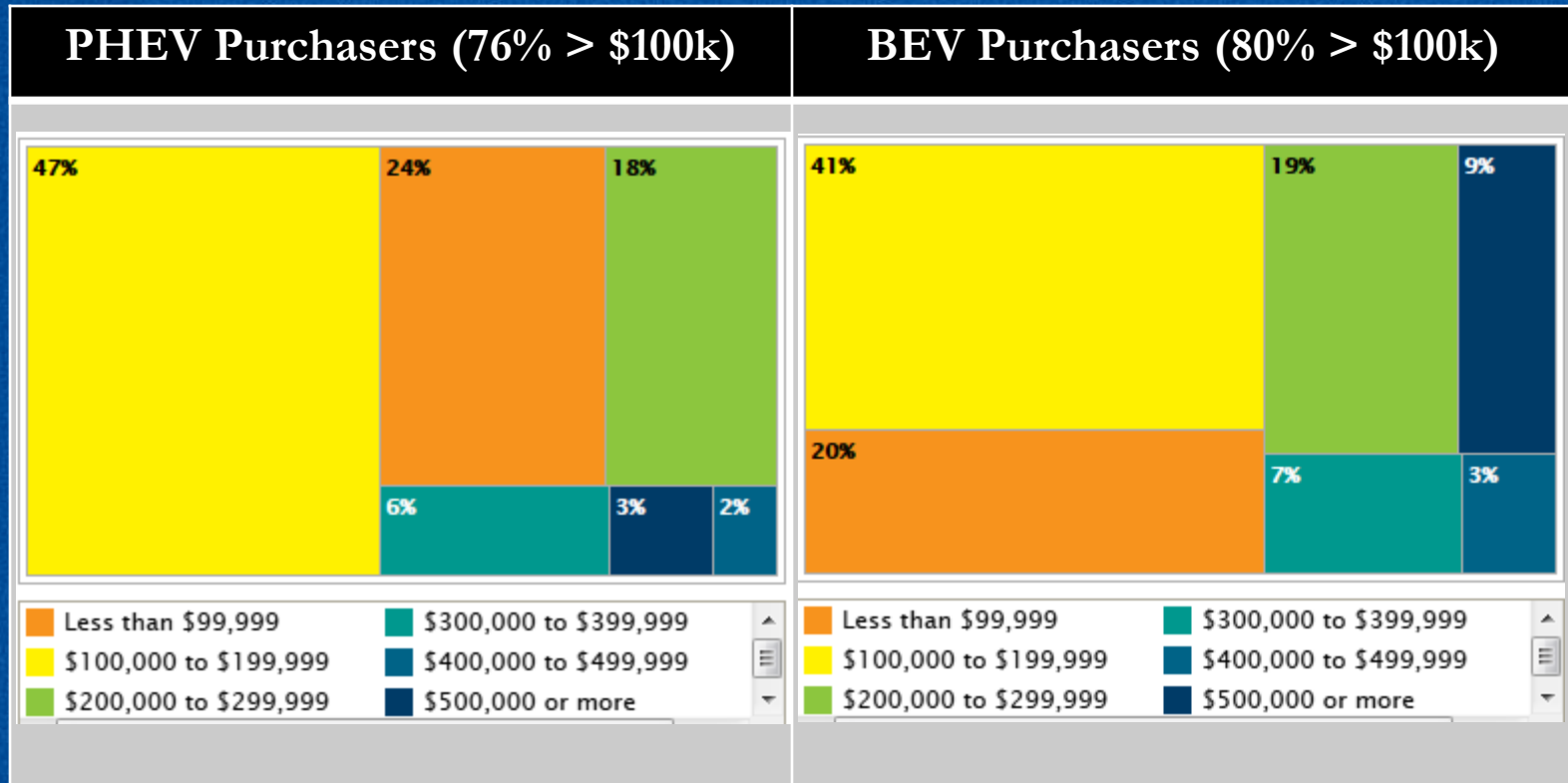


- **Customer Profile:** Most PEVs are purchased through franchised Nissan, Ford, Chevrolet, or Toyota dealers.
 - The average consumer at these dealerships wants to know about vehicle features, and negotiates primarily on trade-in valuation, price and financing.

PEV Dealer Challenges



- PEV consumers do not reflect the average purchaser at such dealerships.

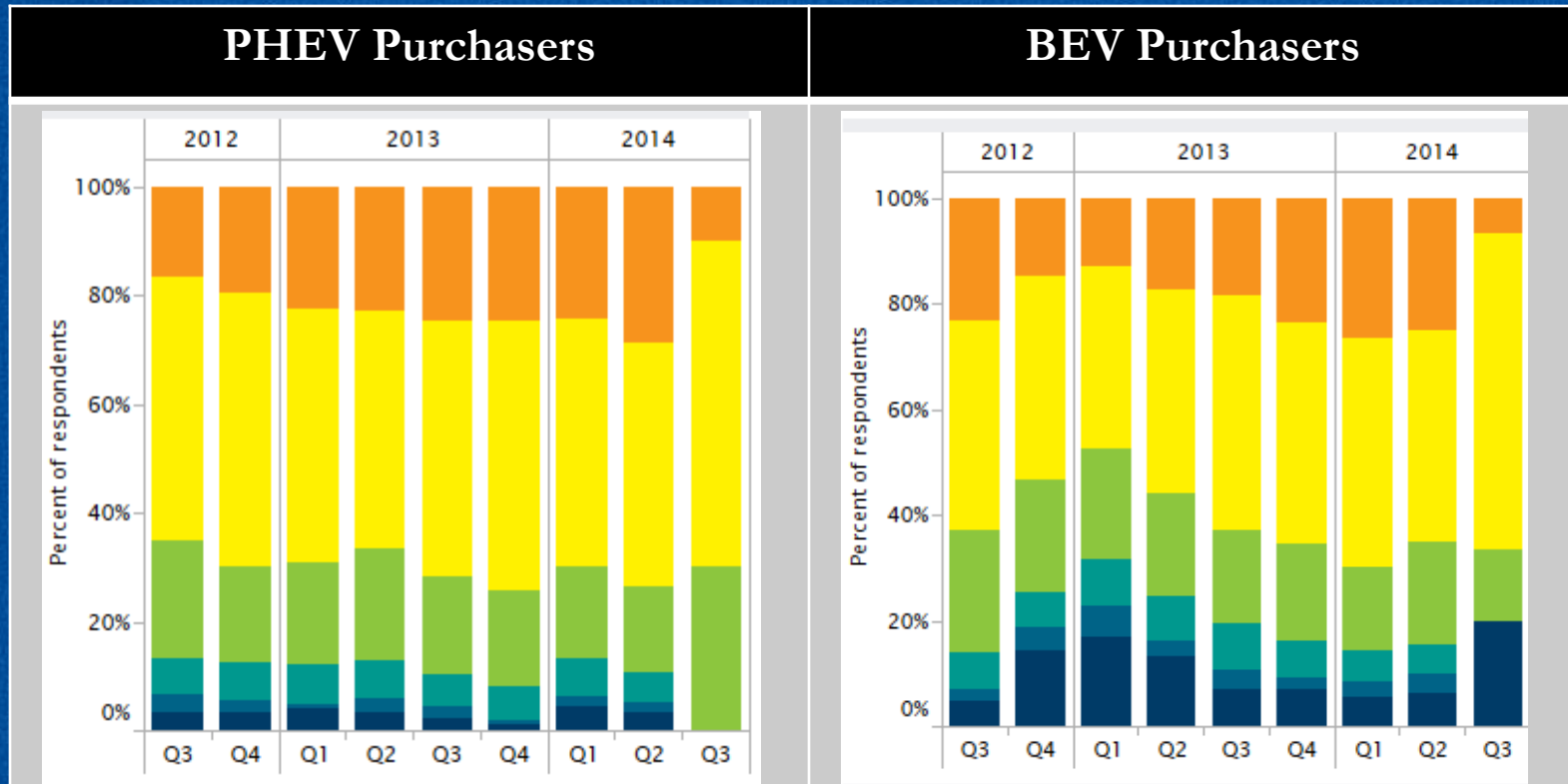


Source: California Center for Sustainable Energy CVRP Survey

PEV Dealer Challenges



- But we're *starting* to see these vehicles in less-wealthy households.



Source: California Center for Sustainable Energy CVRP Survey

PEV Dealer Challenges



- PEV consumers tend to be well-educated, inquisitive, technology enthusiasts.
- PEV consumers tend to be accustomed to luxury vehicle dealership experiences.

PEV Dealer Challenges



- In addition to information on vehicle features, financing, trade-in disposition, warranties, PEV consumers seek info on:
 - Charging Stations: products, installation requirements and costs, installers, building permit requirements, local station locations, and retail charging network subscriptions;
 - Incentives: availability of tax credits, rebates, and other incentives;
 - Local Utility Rates; and
 - Non-Financial Perks: HOV Access, free charging and parking.

PEV Dealer Challenges



- In a nascent market, dealers will succeed or fail in attempting to gauge local consumer interest in PEVs.
- Overestimating consumer demand can result in major losses.
- Underestimating consumer demand will result in lost sales, and potentially long-term negative consequences.

Policies Helpful for PEV Sales



Control and Command Regulations Cannot Succeed Without Customer Demand:

- Incentives must be continued and predictable:
 - CVRP and HOV Lane Access Concerns
- Infrastructure must be continuously developed
- Centralized informational websites for dealers and consumers.

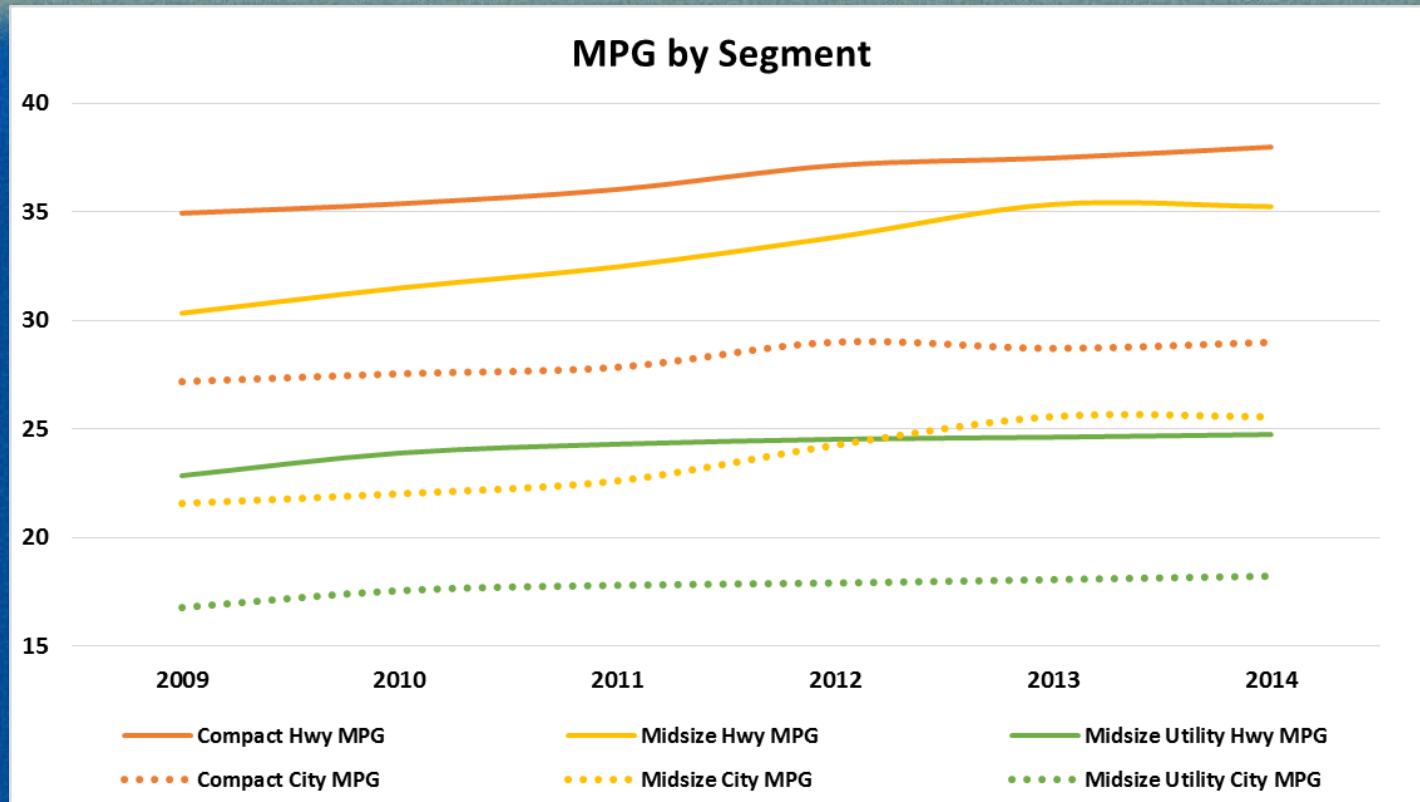
Consumer Expectations:

- Educate consumers on what they need to know *before* they visit the dealership, what to expect, and who to talk to when they get to the dealership.



**...BUT ARE WE TINKERING TOO
MUCH WITH THE MARKET?**

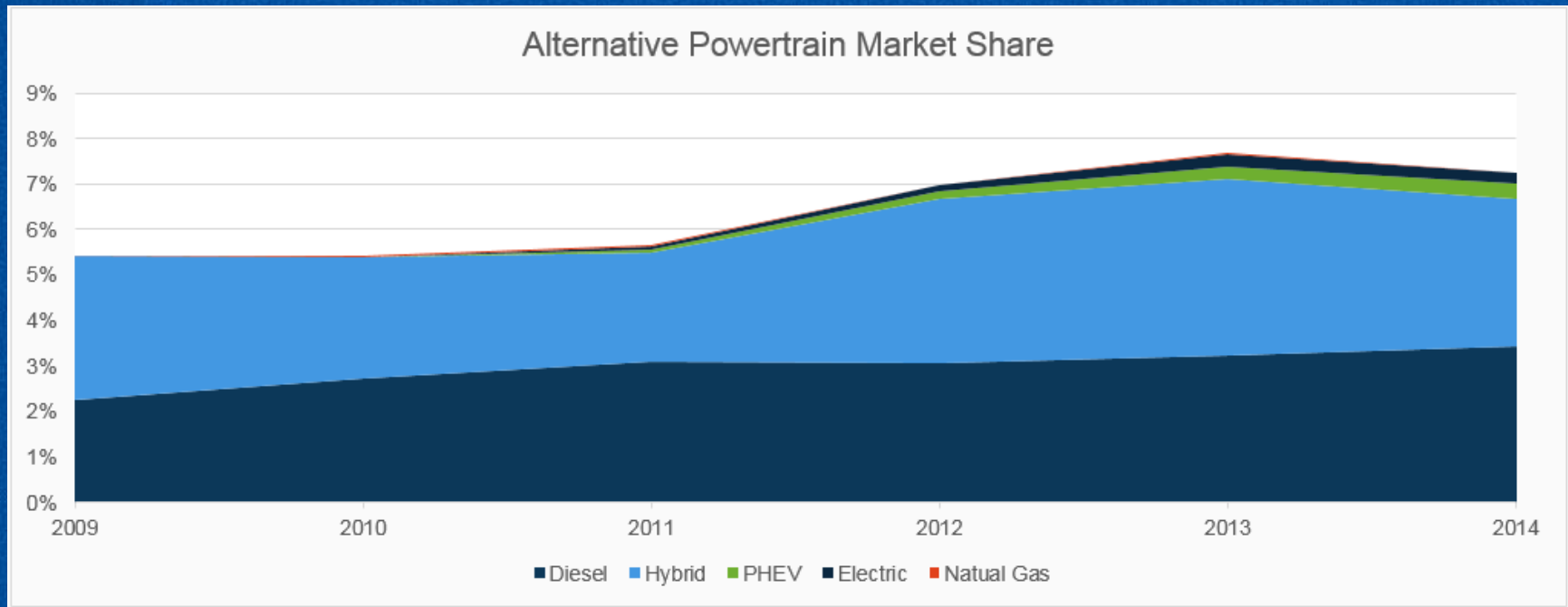
Fuel Economy Trends by Segment



Source: Automotive Leasing Guides

Increases in fuel efficiency have eroded the value proposition of EVs and hybrids

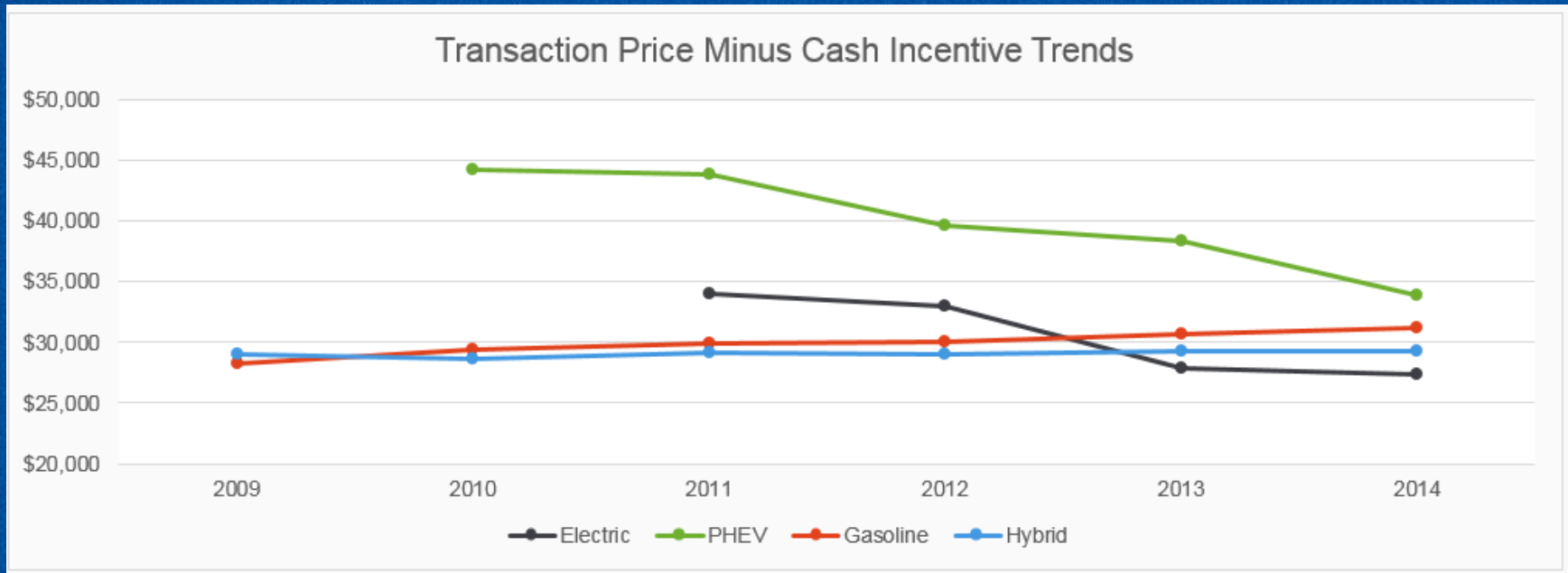
Alt Fuel Market Share Trends



Source: Automotive Leasing Guides

In 2014, hybrid vehicles have experienced a dip in share

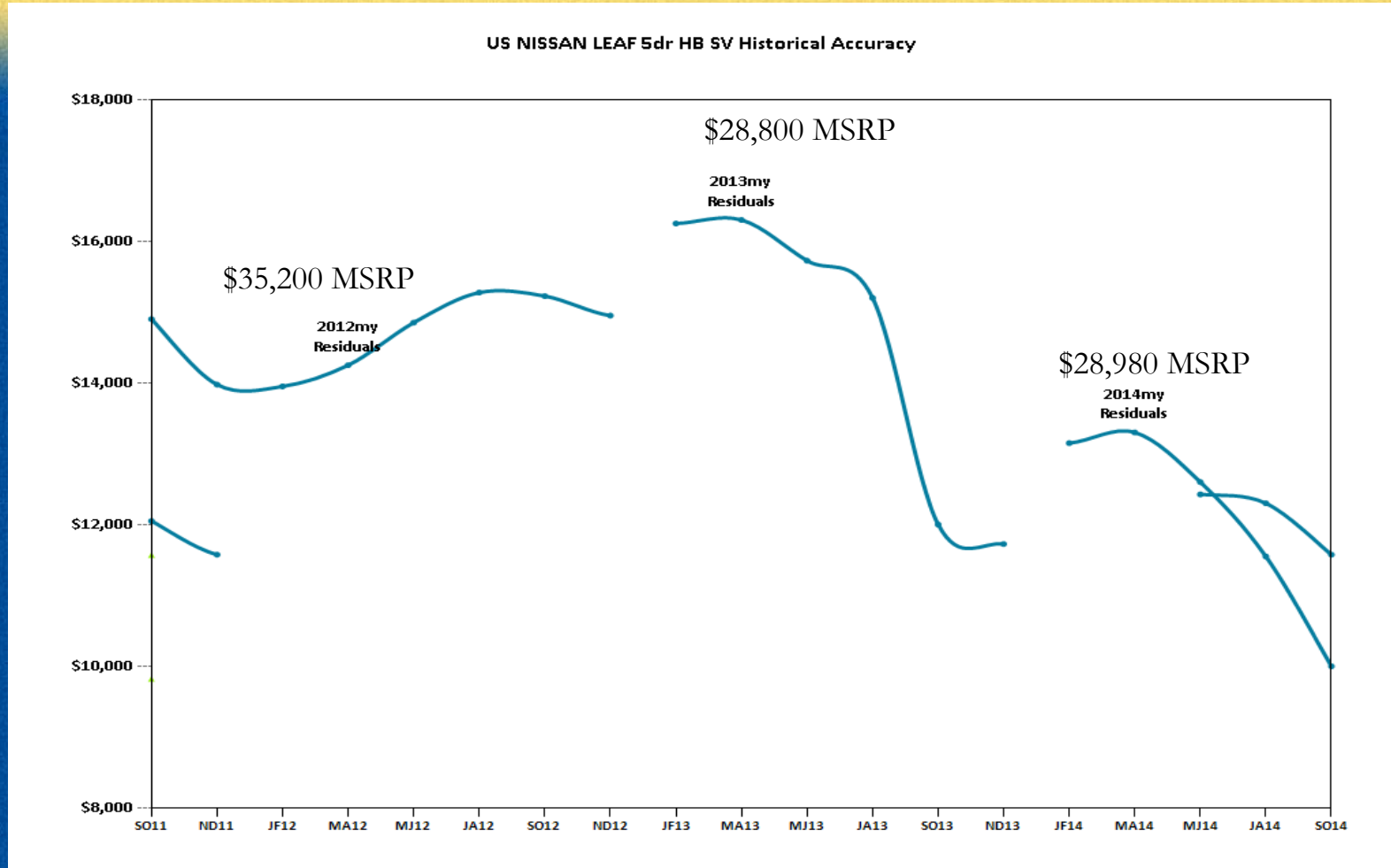
Transaction Price Trends by Powertrain



Source: Automotive Leasing Guides

Hybrids (incl. Plug-In) and EVs have experienced drops in transaction prices relative to gas/diesel models

Residual Value Forecast History: Nissan Leaf



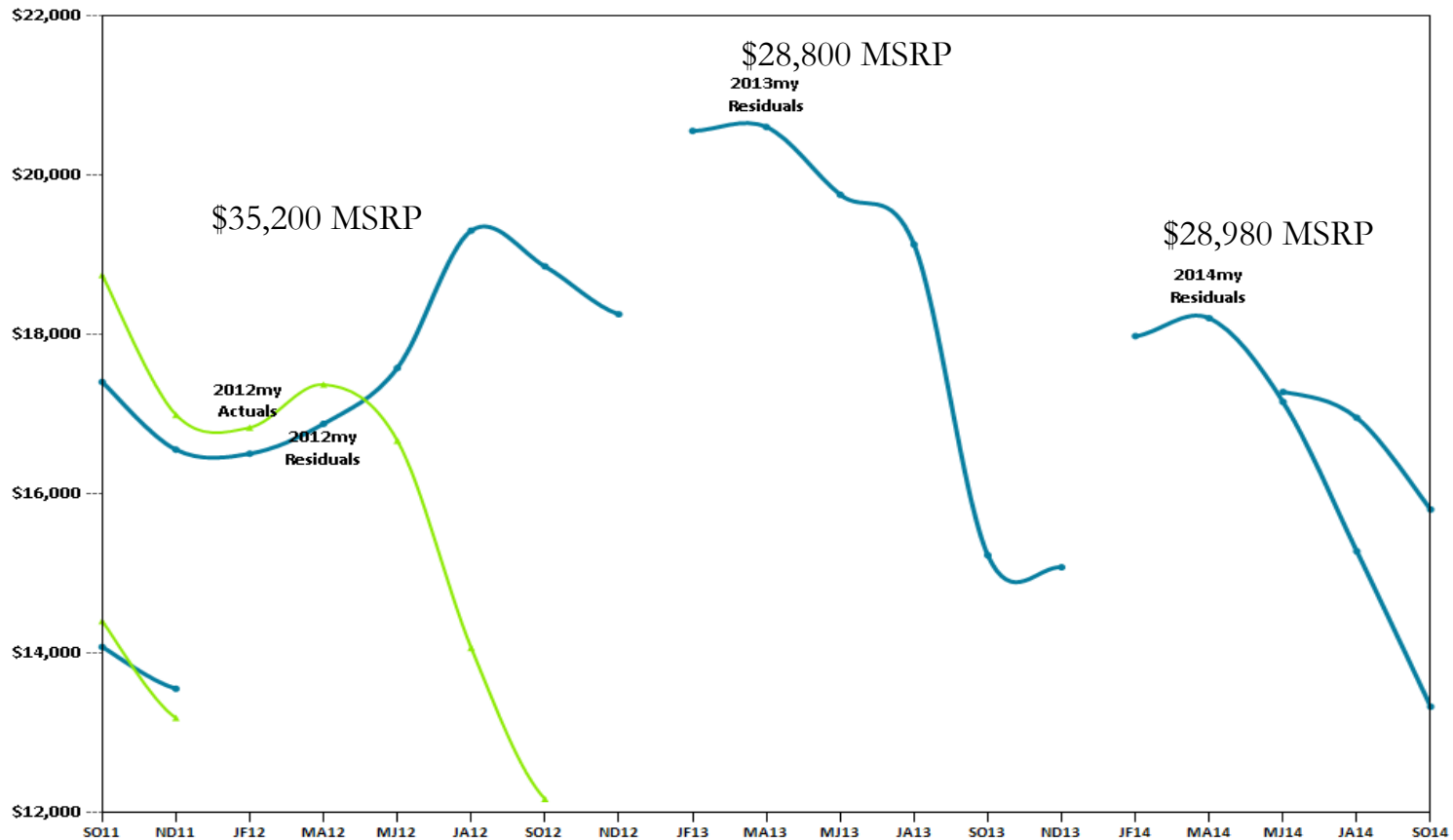
Source: Automotive Leasing Guides

Leaf incurred a ~\$3,000 negative adjustment in Sep/Oct '13

Residual Value Forecast History: Nissan Leaf



US NISSAN LEAF 5dr HB SV Historical Accuracy



Source: Automotive Leasing Guides

Initial 24m forecast was spot on, but values have collapsed in recent months

CY Residual Value Forecast : Nissan Leaf v. Nissan Sentra



cars.com Residual Values
The projected market value of a vehicle at the end of the lease, used to determine the cost of the lease at the time of negotiation.

Select a vehicle to obtain its residual value

Make: Model: Year:

[Search for Values](#)

2014 Nissan LEAF

5dr HB S

	24 months	36 months	48 months	60 months
MSRP	\$31,080	\$31,080	\$31,080	\$31,080
ALG Residual %	42	31	24	17
ALG Residual Value	\$13,225	\$9,775	\$7,650	\$5,425
Money Factor	0.002868	0.002992	0.003016	0.003092
Payments	Calculate	Calculate	Calculate	Calculate

cars.com Residual Values
The projected market value of a vehicle at the end of the lease, used to determine the cost of the lease at the time of negotiation.

Select a vehicle to obtain its residual value

Make: Model: Year:

[Search for Values](#)

2014 Nissan SENTRA

4dr Sdn S MT

	24 months	36 months	48 months	60 months
MSRP	\$16,800	\$16,800	\$16,800	\$16,800
ALG Residual %	66	53	44	37
ALG Residual Value	\$11,125	\$8,875	\$7,350	\$6,150
Money Factor	0.002868	0.002992	0.003016	0.003092
Payments	Calculate	Calculate	Calculate	Calculate


Residual Value Storm Clouds



2014 Nissan Leaf Hatchback - Build and Price

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2 Colors and Options
3 **True Market Value®**
4 Get Dealer Quotes



S 4dr Hatchback
(0-cyl. Electric 1-speed Direct Drive)

[View Photos](#)

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True Market Value®

\$27,835

Invoice \$28,276 MSRP \$29,830

The True Market Value® (TMV®) price is our exclusive method for calculating what others are paying for a **2014 Nissan Leaf Hatchback S** in **Costa Mesa, CA** (based on actual sales data from your region).

True Market Value® Pricing

Description	Invoice	MSRP	True Market Value®
Base Price	\$27,154	\$28,980	\$26,879
Destination Fee	\$850	\$850	\$850
Advertising Fee	\$272*		
Regional Adjustment for Zip Code: <input type="text" value="92626"/> UPDATE			\$106
Color Adjustment			\$0
Total Price	\$28,276*	\$29,830	\$27,835*

[*Disclaimers](#)
Next Step [GET DEALER QUOTE](#)

Residual Value Storm Clouds



NISSAN LEAF® OFFERS 2014 model ✕

All APR Lease Cash Back Others

<p>\$28,980 STARTING MSRP</p> <p>2014 LEAF S Starting MSRP \$28,980. Price excludes tax, title, license, options and destination charge. Dealer sets actual price. See dealer for details.</p> <p>Offer Details »</p> <p>Text Me this offer </p>	<p>0.0% APR FOR 72 MONTHS</p> <p>2014 LEAF 0.0% APR financing for up to 72 months plus \$3,500 NMAC cash for well qualified buyers</p> <p>Offer Details »</p> <p>Text Me this offer </p>	<p>\$7,500 Up to</p> <p>FEDERAL TAX SAVINGS</p> <p>Up To \$7,500 Tax Savings.</p> <p>Offer Details »</p> <p>Text Me this offer </p>
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NISSAN LEAF® OFFERS 2014 model ✕

All APR Lease Cash Back Others

<p>\$1,012 NO CHARGE TO CHARGE</p> <p>No Charge to Charge GET 2 YRS OF PUBLIC CHARGING</p> <p>Offer Details »</p> <p>Text Me this offer </p>	<p>\$199 MONTH LEASE FOR 36 MOS. \$1,999 INITIAL PAYMENT</p> <p>2014 LEAF S Lease</p> <p>36 Months - \$199/Month - \$1,999 initial payment.</p> <p>Offer Details »</p> <p>Text Me this offer </p>	<p>\$3,500 NMAC CASH Up to</p> <p>\$3,500 NMAC Cash only available when you finance through NMAC. Subject to credit approval.</p> <p>Offer Details »</p> <p>Text Me this offer </p>
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Residual Value Storm Clouds



The 2014 Nissan LEAF®

\$199 Month lease for 36 mos.
\$1,999 Initial Payment

2014 LEAF S Lease

36 Months - \$199/Month - \$1,999 initial payment.

Excludes taxes, title, and license. \$1,999 initial payment required at consummation. (Includes \$1,800 consumer down payment, \$199 first month payment.) (INCLUDES \$9,725 manufacturer's rebate applied to \$199/Month lease. Offer valid only when financed through Nissan Motor Acceptance Corporation.) Subject to residency restrictions.

2014 LEAF S Lease model 17014 subject to availability to well-qualified lessees through Nissan Motor Acceptance Corporation. \$29,830 MSRP incl. destination charge. Net capitalized cost of \$17,877 includes a \$595 non-refundable acquisition fee. Dealer contribution may affect actual price set by dealer. Monthly payments total \$7,164 At lease end, purchase for \$10,739, plus purchase option fee up to \$300 (except KS & WI), plus tax, or pay excess wear & use plus \$0.15 per mile for mileage over 12,000 miles per year. Lessee is responsible for maintenance and repairs. A disposition fee is due at termination of lease term. No security deposit required. Must take delivery from new dealer stock. See participating dealer for details. Offer ends 09/30/2014.

Residual Value Storm Clouds



\$10,739 Purchase Option
+\$300 Purchase Option Fee
=\$11,039

+8% Sales Tax (\$883.12)
=\$11,922.12

-\$1,999 Downpayment
=\$9,923.12

Auto Loan Calculator

Use this car payment calculator to estimate monthly payments on your next new or used auto loan. Simply enter the loan amount, term and interest rate to calculate your monthly auto loan payments. This calculator will help you determine how much car you can afford.

Auto loan amount: \$ 9923.12

Auto loan term: 5.000 years or 60 months

Interest rate: 8.8 % per year [Today's Rates](#)

Auto loan start date: 09/16/2014

Monthly auto loan payments: \$ 205.03

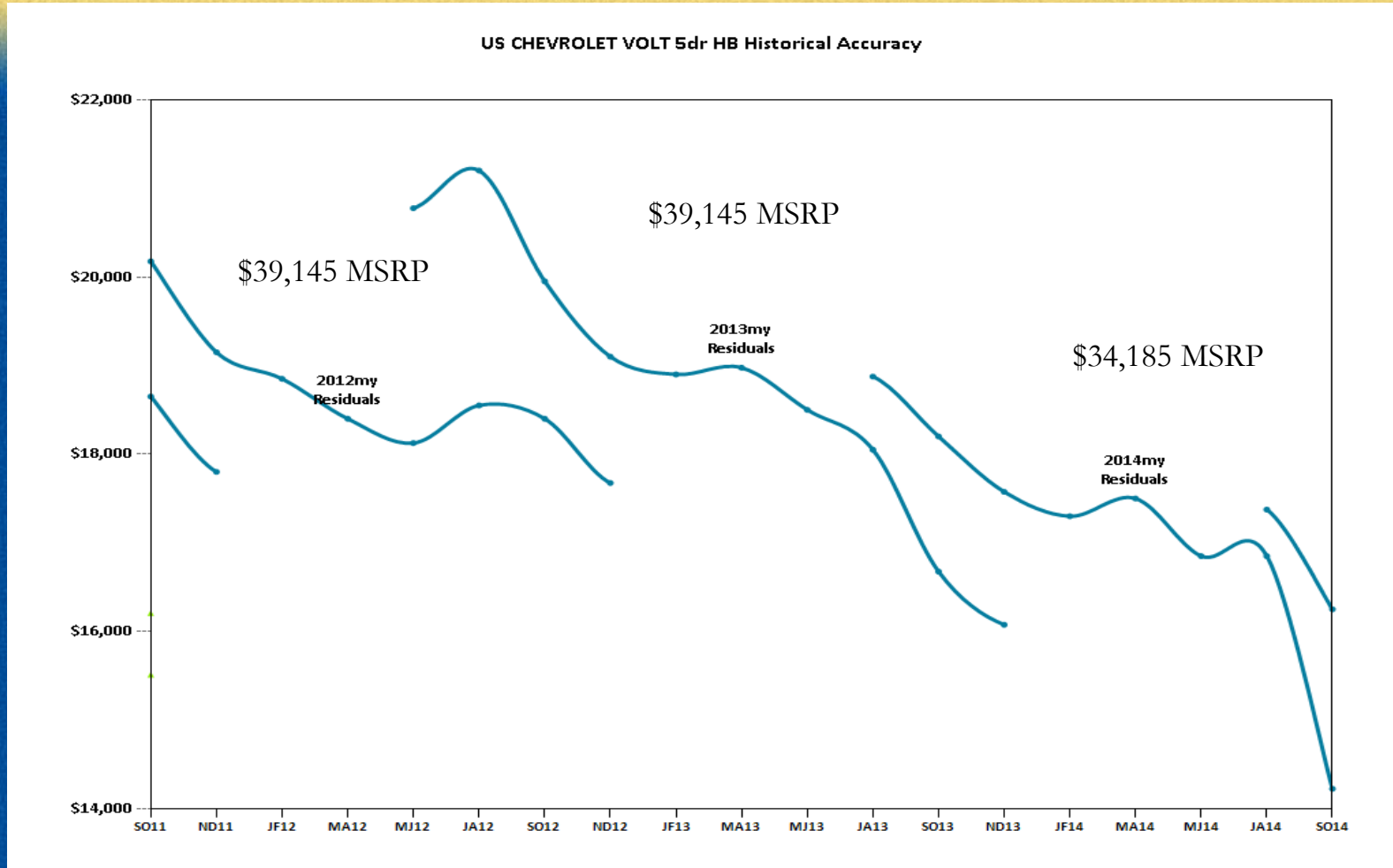
Calculate

Residual Value Storm Clouds



<u>New Lease</u> <u>(36 months)</u>	<u>End of Lease Purchase Option</u> <u>(after 36 months)</u>
\$1,999 Upfront Payment	\$1,999 Upfront Payment
\$199 per month (over 36 months)	\$205 per month (over 60 months)

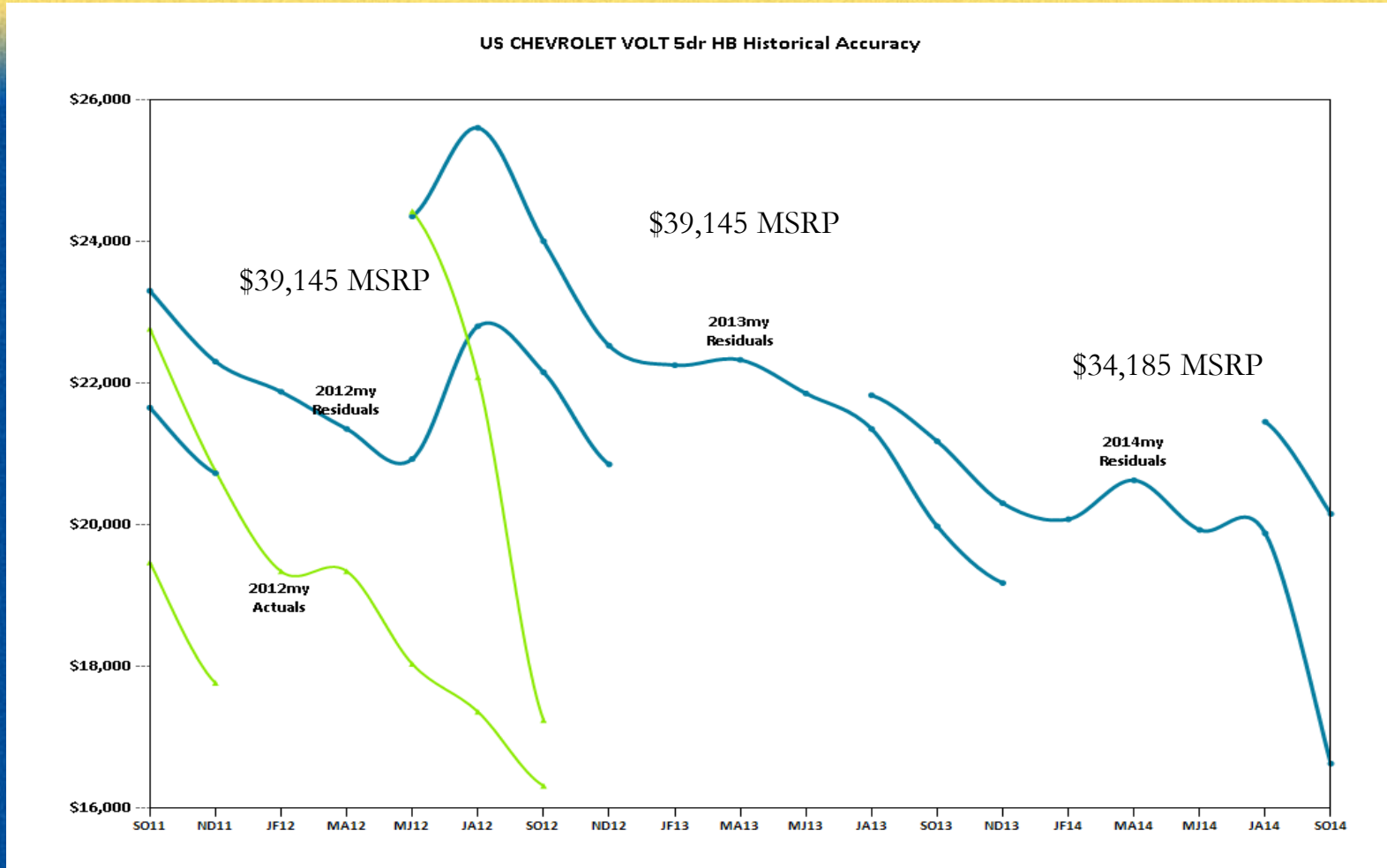
Residual Value Forecast History: Chevrolet Volt



Source: Automotive Leasing Guides

Volt experienced two negative adjustments in Sep/Oct '13 and again in Sep/Oct '14

Residual Value Forecast History: Chevrolet Volt



Source: Automotive Leasing Guides

Volt returns have underperformed ALG forecasts, leading to two significant negative adjustments in 2013 and 2014

CY Residual Value Forecast : Chevrolet Volt v. Chevrolet Cruze



cars.com **Residual Values**
The projected market value of a vehicle at the end of the lease, used to determine the cost of the lease at the time of negotiation.

Select a vehicle to obtain its residual value

Make: Model: Year:

[Search for Values](#)

2014 Chevrolet VOLT

5dr HB				
	24 months	36 months	48 months	60 months
MSRP	\$36,885	\$36,885	\$36,885	\$36,885
ALG Residual %	53	45	37	32
ALG Residual Value	\$19,875	\$16,850	\$13,925	\$11,875
Money Factor	0.002868	0.002992	0.003016	0.003092
Payments	Calculate	Calculate	Calculate	Calculate

cars.com **Residual Values**
The projected market value of a vehicle at the end of the lease, used to determine the cost of the lease at the time of negotiation.

Select a vehicle to obtain its residual value

Make: Model: Year:

[Search for Values](#)































2014 Chevrolet CRUZE

4dr Sdn LS MT				
	24 months	36 months	48 months	60 months
MSRP	\$18,345	\$18,345	\$18,345	\$18,345
ALG Residual %	53	45	38	31
ALG Residual Value	\$9,900	\$8,400	\$7,050	\$5,825
Money Factor	0.002868	0.002992	0.003016	0.003092
Payments	Calculate	Calculate	Calculate	Calculate

Residual Value Ratings



★☆☆☆☆ 1 Star Rated Vehicles Hide

 BMW 6 SERIES GRAN COUPE	 BMW 7 SERIES	 BMW i3	 BMW M5	 BMW M6 GRAN COUPE	 BUICK LACROSSE
 CADILLAC CTS WAGON	 CADILLAC ELR	 CHEVROLET IMPALA LIMITED	 CHEVROLET SPARK EV	 CHEVROLET TRUCKS CAPTIVA SPORT	 CHEVROLET TRUCKS EXPRESS CARGO VAN
 CHEVROLET TRUCKS EXPRESS PASSENGER	 CHRYSLER 200	 CHRYSLER 200 CONVERTIBLE	 FIAT 500E	 FORD FOCUS ELECTRIC	 FORD TRUCKS ECONOLINE CARGO VAN
 FORD TRUCKS ECONOLINE WAGON	 FORD TRUCKS F-250 SUPER DUTY	 GMC TRUCKS SAVANA PASSENGER	 JAGUAR XJ	 KIA SEDONA	 MERCEDES BENZ CL CLASS
 MERCEDES BENZ SL CLASS	 MITSUBISHI iMiEV	 NISSAN LEAF	 RAM TRUCKS CARGO VAN	 RAM TRUCKS PROMASTER	 SMART FORTWO ELECTRIC



Thank You

Jonathan Morrison

Auto Advisory Services, Inc.

(714) 838-1233

jmorrison@autoadvisory.com