

# Chevy Volt via Katrina

GSCC – Stakeholder Meeting

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# How did I get here?

- Gas Rationing 1973 to 1974
  - An independent NH Yankee I did not like it, but remembered it !
    - But as a poor college student I had very little control
    - Rationing went away
    - Spent the next 30 years working, married, house and raising a family
- Hurricane Katrina hits New Orleans in 2005
  - Car gas at about \$2.30 per gallon
    - In NH about 1500 miles away the next day
      - Car Gas goes up at least 10 cents per gallon
      - Boat Gas goes up at least 20 cents per gallon
- Time to Take Action !!!!!
  - Stated looking at options to reduce personal oil consumption
  - Conservation is always the first thing to do !
  - Home Heating Option – First A Wood Pellet Furnace now Heat Pumps
  - Hot Water Heating – First Solar Hot Water now Heat Pump Water Heater
  - Home Electric Photovoltaic Installation - 600 watts to 11790 & 6000 more ?
  - Electric Vehicles became available in 2011/2012
- Wood and Electricity is Local to NH, NE or North America

# EV - Plug in Hybrid (PHEV) or Battery Only (BEV)

- People need to determine their best option
- Driving habits
- Weather Changes
- Multiple Vehicles
- Charging Options
  - Home
  - Work
  - Traveling

# Volt or Plug in Prius

- My needs were best served by a PHEV
- Commute was 59 miles one way
- Volt List Price ~ \$40,000 in 2011 and 2012
  - All Electric - 38 miles/ Gas - 32 MPG (Premium)
- Plug in Prius List Price ~ \$33,000
  - All Electric - 11 miles/ Gas – 50 MPG
- My First PHEV was a Plug in Prius

# Switch to a Volt

- Plug in Prius was great at long distance MPG
  - Running 11 miles all electric is tough
- Changed Employers and Work Location
  - Commute became 23 miles each way
- Volt can make round trip commute (seasonal)
- Toyota puts all their marbles in hydrogen
- Volt \$7500 Tax Credit seals the deal

# Volt Likes

- All Electric Miles !!!!
  - Warmer Weather 52 to 54 miles when not on highway
  - Cold Weather 28 to 30 miles
- Quietness, Acceleration, Heated Seats, Low Gear Regeneration, Fit and Finish, Looks, Drive Options
  - Hold, Sport, Mountain, Normal
- Chevrolet Commitment to Electric Vehicles
  - Battery Capacity tweaked up over the years
  - 2016 model is the 2<sup>nd</sup> Generation Volt with updates!
  - Bolt Model Announced for ~2017
    - Electric Range about 200 miles

# Volt Desired Improvements

- More all Electric Range
- Better Gas Mileage without using Premium
- Want a vehicle that is higher off the ground
- Heat Pump use for Heating and Cooling
- More Conventional Dash Controls
- Headlights like a Prius
- Larger Screen in Dash
- Gas filler on Left / EV Charge port on right

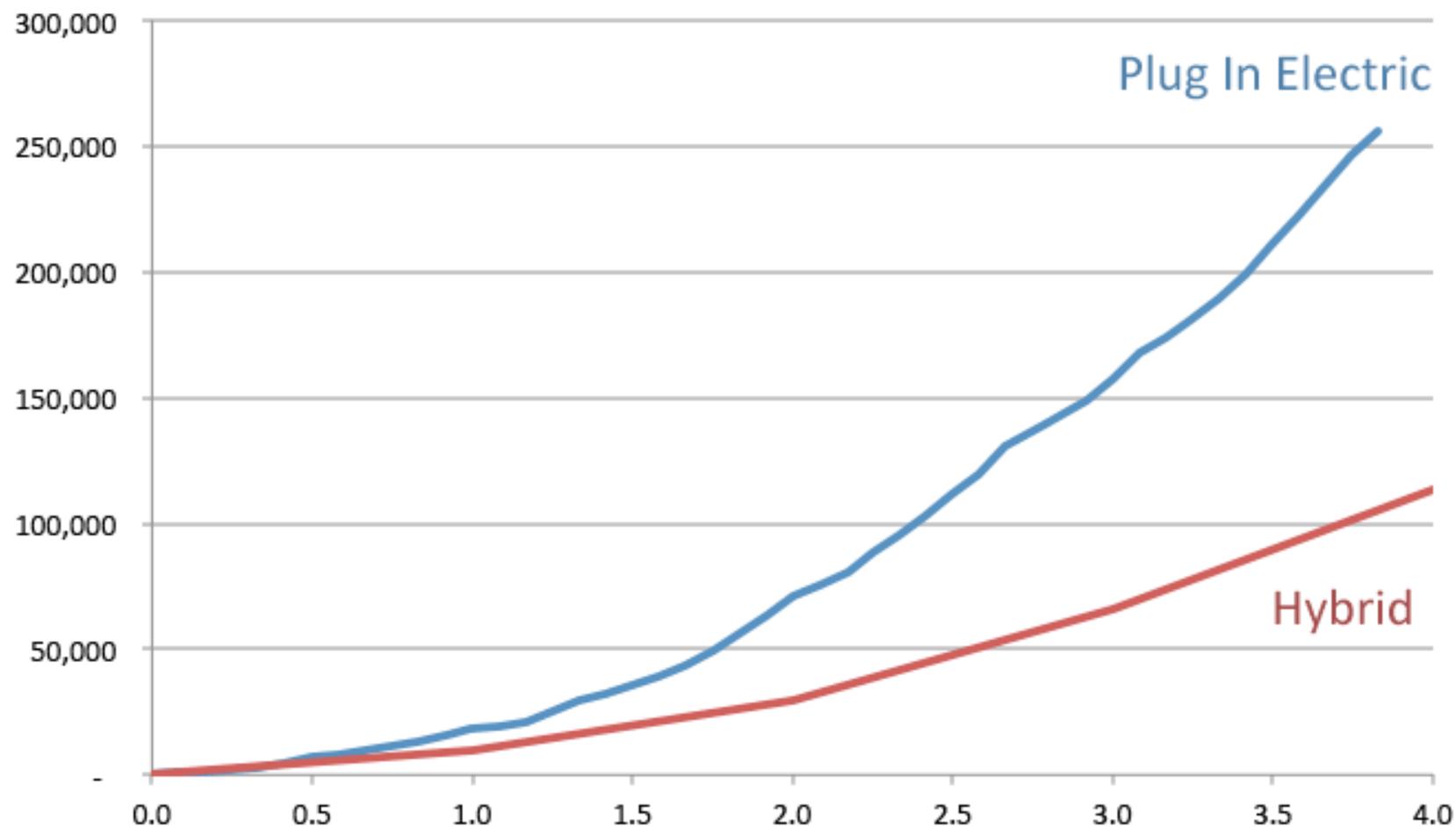
# 2016 Volt Improvements

- Electric Range Rated at 50 miles
- More Battery Capacity yet Lighter
- Gasoline MPG 41 on Regular
- Lower Base Price
- Heated Steering Wheel and Rear Seats, More Efficient Electric Motors, Faster Acceleration, Lighter Motors, More Conventional Controls
- LED Headlights, Lighted Charger Port with Charging Status, Slightly more legroom in Rear, Rear Middle Seat, Air Ducts to Rear, Air Dam Move

# Interesting EV Facts

- Faster Adoption Rate than Hybrid Vehicles
- Now About 26 Vehicles Available in US
- VW & Audi Claim they will have more EV's than any manufacturer in a few years.
- Emission and performance seem to be driving new models not gas prices
- High correlation between EV's and PV
- (PS - I still want a Tesla !!!)

# Plug In Electric vs Hybrid Sales by Years After Market Introduction



Plug-in electric vehicle sales since introduction: December, 2010

Hybrid vehicles sales since introduction: December, 1999

Prepared by Plug In America based on data from US DOE

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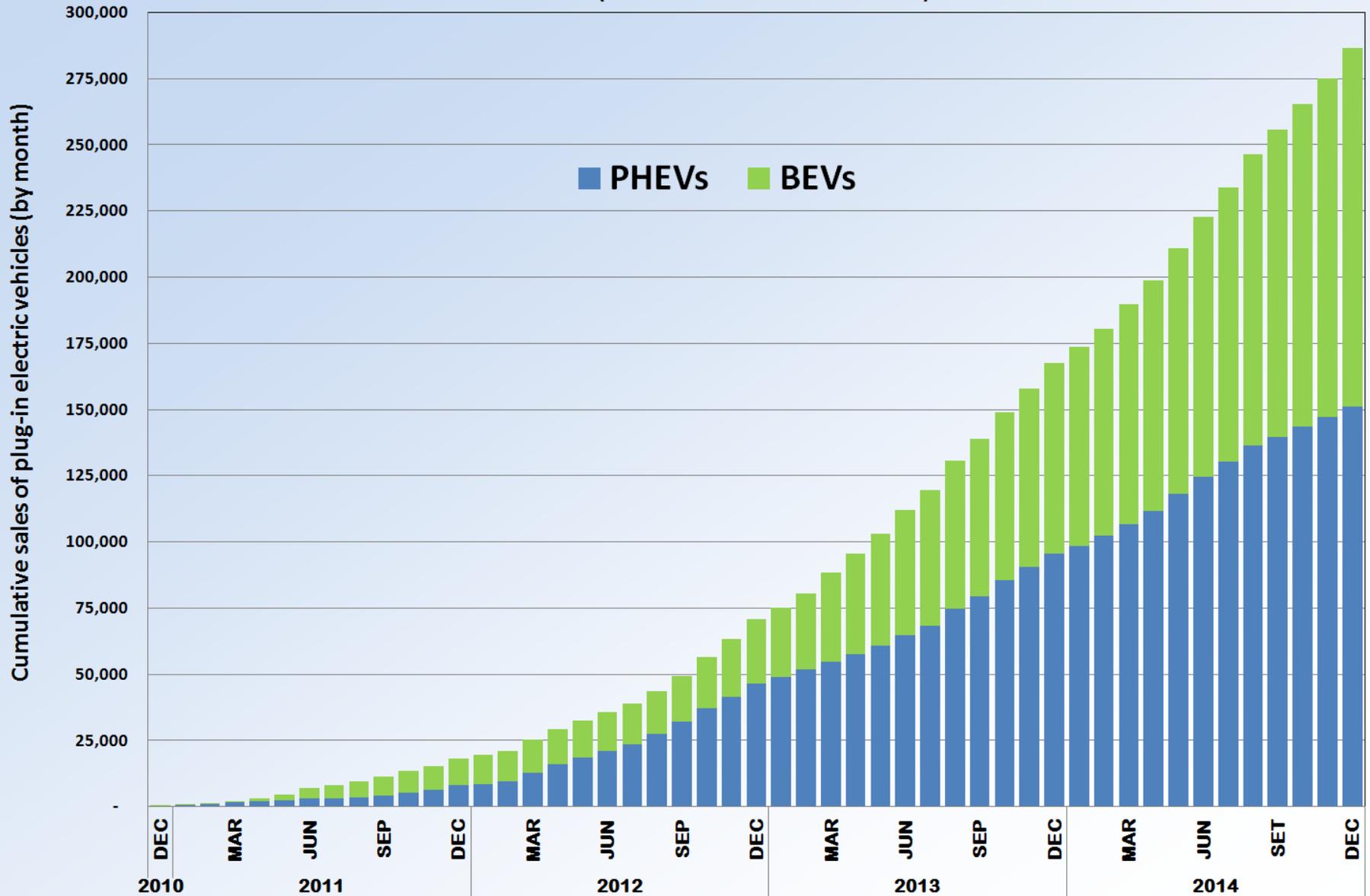




# U.S. cumulative sales of plug-in electric vehicles

by monthly sales of all-electric cars (BEVs) and plug-in hybrids (PHEVs)

(December 2010 - December 2014)



## WHERE COMPLACENT BRANDS GO



TOM  
FISH  
BURNÉ

# NHEC Electric Vehicle Charger Locations

<u>Member Name &amp; Address</u>	<u>Brand-Level 2 Charger</u>
• Red Jacket Inn, 2251 White Mountain Highway, – North Conway, NH 03860	Siemens
• Woodstock Inn, 80 Main Street, Woodstock, NH 03262	Leviton
• Common Man Inn, 231 Main Street , Plymouth, NH 03264	Siemens
• Indian Head Resort, 664 US Route 3, Lincoln, NH 03251	Siemens
• Bernerhof Inn, 342 US Route 302, Glen, NH 03838	Siemens
• Church Landing Inn at Mills Falls, 281 Daniel Webster Highway, – Meredith, NH 03253	GE

# Questions ?

- ***Event to Check Out***
  - Mt. Washington Alt Energy Summit – July 25, 2015
  - [www.altenergysummit.org](http://www.altenergysummit.org)
- ***Websites to Check Out***
- Plugshare – [www.plugshare.com](http://www.plugshare.com)
- Plug In America – [www.pluginamerica.org](http://www.pluginamerica.org)
- Charged Magazine – [www.chargedevs.com](http://www.chargedevs.com)
- US DOE Alt Fuels – [www.afdc.energy.gov/locator/stations/](http://www.afdc.energy.gov/locator/stations/)
- Plug in Cars – [www.pluginincars.com](http://www.pluginincars.com)

Thank you !!

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