



How Hawaii Can Lead The World in EV Deployment

September 9, 2013

John Gartner
Research Director, Smart Transportation

Introduction



Navigant Research provides in-depth analysis of global clean technology markets.

The team's research methodology combines supply-side industry analysis, end-user primary research and demand assessment, and deep examination of technology trends to provide a comprehensive view of the Smart Energy ecosystem.

Sector Focus:

Smart Energy
Smart Utilities
Smart Transportation
Smart Industry
Smart Buildings

Research Offerings:

Research Reports

Subscription Research Services











Custom Market Research

- Go-To-Market Strategy
- Custom Market Analysis
- Market Sizing & Forecasts
- Primary Research
- Technology Evaluation
- Commercial Due Diligence
- Competitive Benchmarking
- Strategic Advisory Sessions

Research Services











SMART ENERGY

-  Solar Energy
-  Wind Energy
-  Emerging Renewables
-  Biofuels
-  Biopower
-  Energy Storage
-  Advanced Batteries
-  Fuel Cells
-  Distributed Generation
-  Microgrids





SMART UTILITIES

-  Smart Meters
-  Transmission Systems
-  Distribution Optimization
-  Home Energy Management
-  Demand Response
-  Utility Communication Networks
-  Smart Grid Technologies
-  Utility Innovations







SMART INDUSTRY

-  Smart Cities
-  Industrial Innovations








SMART TRANSPORTATION

-  Electric Vehicles
-  Light Electric Vehicles
-  Natural Gas Vehicles
-  Commercial Vehicle Innovations
-  Advanced Transportation Technologies



SMART BUILDINGS

-  Building Energy Management
-  Building Automation Systems
-  Energy Efficient Lighting
-  Smart Building Technologies
-  Green Buildings

Smart Transportation Program



SMART TRANSPORTATION



Electric Vehicles



Light Electric Vehicles



Natural Gas Vehicles



Commercial Vehicle Innovations



Advanced Transportation Technologies

How does Hawaii Measure Up?

Accomplishments:

- » Incentives for parking, driving PEVs
- » Requirement for EV charging locations in parking lots
- » University involvement
- » Laws addressing MUD issues
- » Fleets beginning to include PEVs
- » Foundation of EV charging infrastructure
- » Addressed demand charges from DC charging

Work To Be Done:

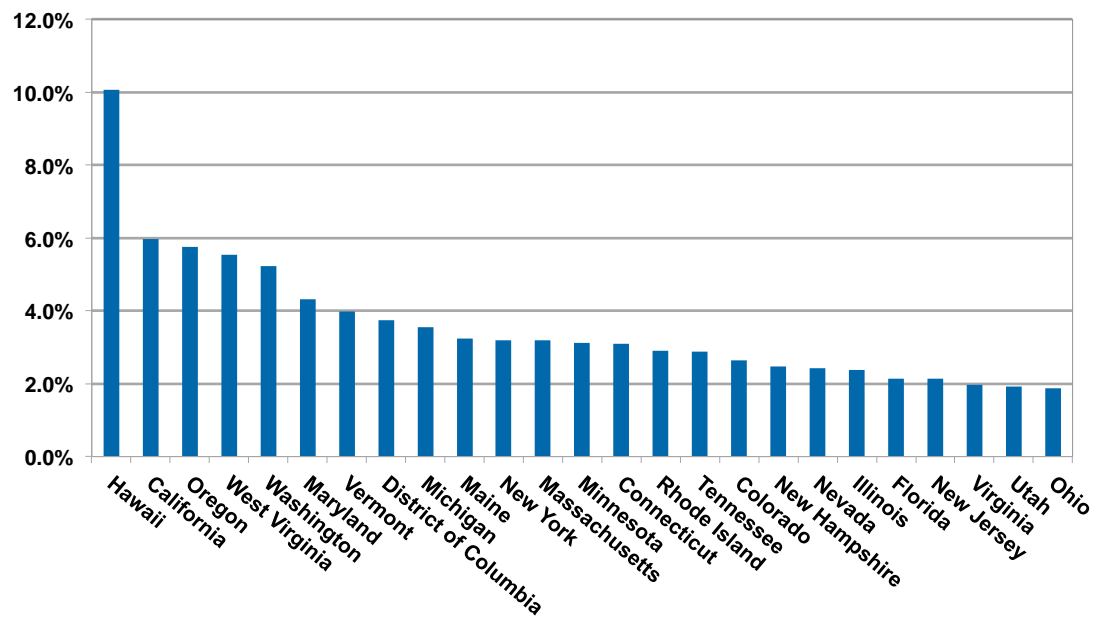
- » Reinstitute financial incentive for PEV and EVSE purchase
- » Expand EV carsharing programs with flexible locations
- » Create marketing programs aimed at tourist EV rentals
- » Increase percentage of allowable wind/solar
- » Enable smart charging to balance renewables
- » Promote solar installers and EVSE company partnerships

(Source: Navigant Research)

Hawaii Already a Leader in PEV Sales

- » Percentage of new vehicles that are PEVs to grow from 2.7 to 10.1 between 2013 and 2022
- » Annual sales of PEVs to grow from 1,200 to nearly 6,000

PEV Sales as a Percentage of Light Duty Vehicle Sales, Top 25 States: 2022

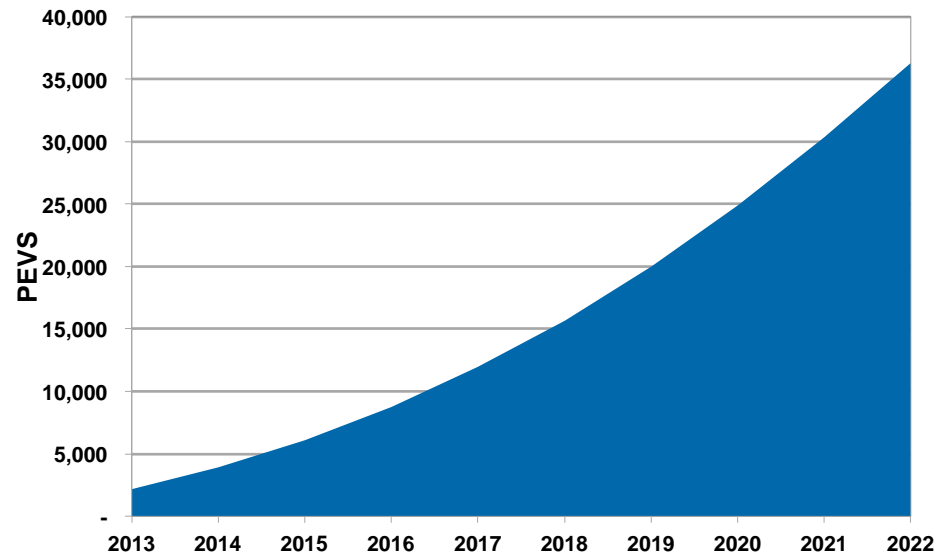


(Source: Navigant Research)

PEVs on the Road in Hawaii

- » More than 36,000 PEVs will be sold between 2013-2022

Cumulative PEVs Sold in Hawaii, 2013-2022

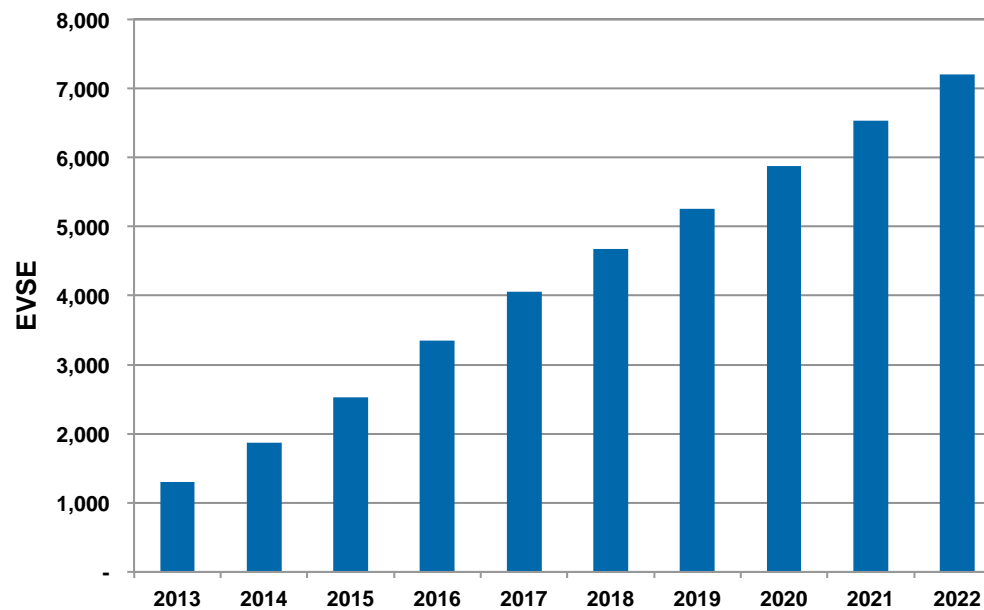


(Source: Navigant Research)

EV Charging Infrastructure

- » More than 400 commercial EVSE currently installed, including private equipment
- » 1,300 new installations in 2013, CAGR through 2022 is 20%

EVSE Sales in Hawaii, 2013-2022



(Source: Navigant Research)

