Is Maine Ready for EVs?

E2Tech

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ReVision Energy

About ReVision Energy

Certified B Corporation®

bcorporation.net

Experience: 5,000+ solar energy systems installed since 2003

Credentials: NABCEP Certifications, Master Trade Licenses, extensive professional training & certification

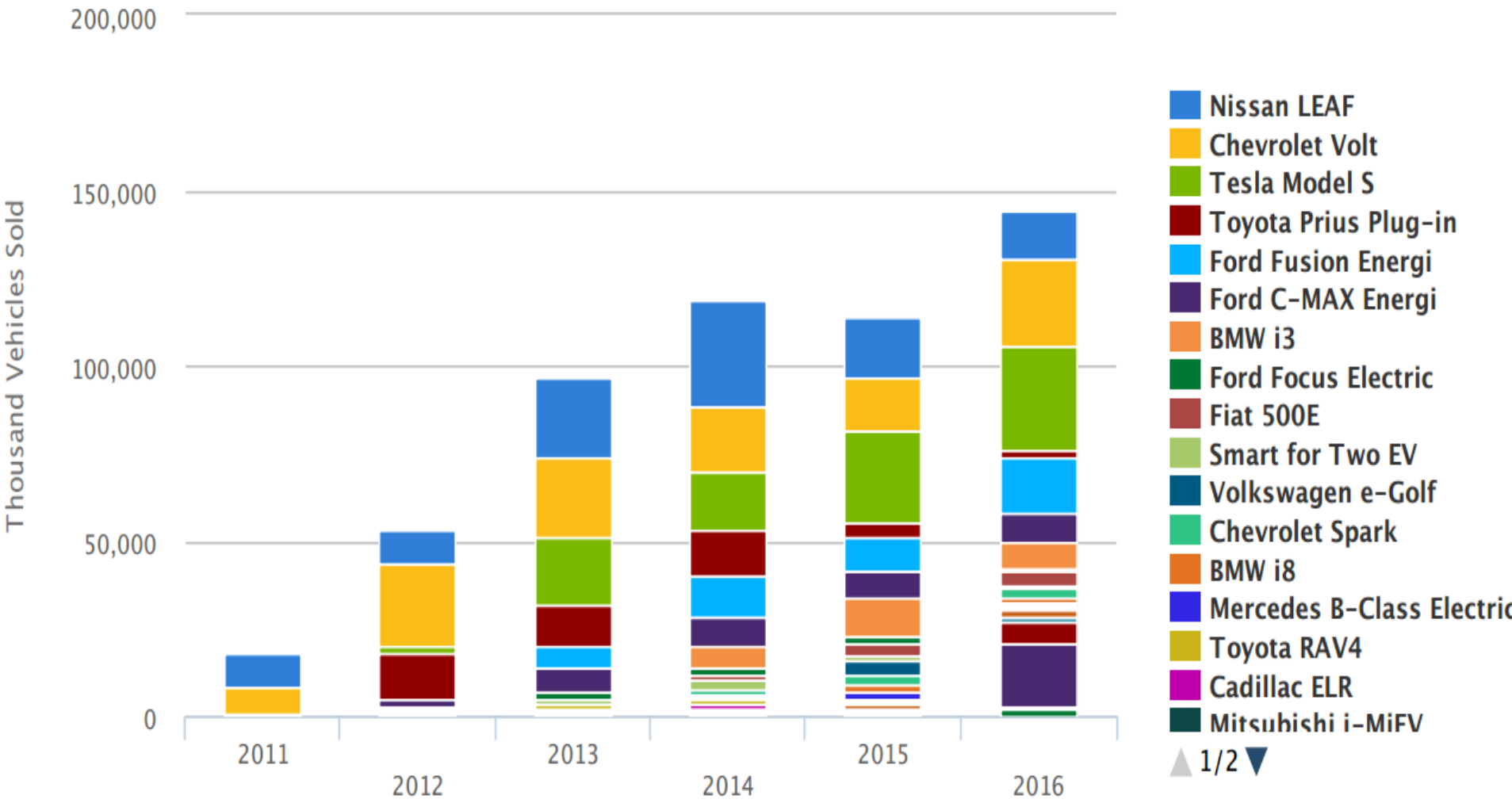
Vision: Transition Northern New England to a clean, solar energy powered economy while creating positive social change

Overview

- What level of disruption is coming & why?
- Where is Maine now?
- How can Maine best prepare for EVs?

- What level of disruption is coming & why?

U.S. Plug-in Electric Vehicle Sales by Model



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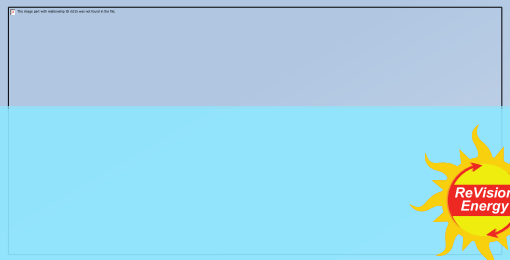
Printed on: October 9


EXCEPTIONAL

Where is Maine now?



Plug In Electric Vehicles

<1000 registered plug in's (PHEVs/BEVs)

Dealer engagement/availability-ZEV state!

Charging Station Infrastructure

Public Level 2 Chargers 101 sites +/-

Public DC Fast Chargers 13 sites

(Tesla has 3 Supercharger clusters)

EV Friendly Policies & Strategy

Only ZEV state without EV adoption goals

State/Agency EV or EVSE policies?

-Building codes? Incentives? eVMT?

Utility policy? Rates? Pilots?

Long distance travel corridors?

Regional Planning?

How can Maine best prepare for EVs?

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Create a Transportation Electrification Strategy

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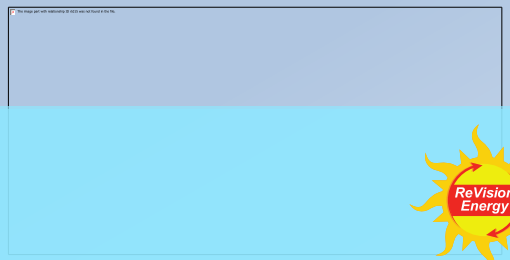
1. Engage Electric Utilities in EV Planning



Engage Utilities & Provide Favorable Regulatory Environment

- EVs and the Grid- improve grid efficiency using off-peak generation <u>&</u> offer storage options
  - Utility pilots needed for how to play with this smart appliance
    - Leverage existing smart grid investments
    - TOU rates/ DR charging Infrastructure/load balancing
  - Lower T &D rates through use of more flexible load- more efficient use of assets & grow state economy through cheaper rates

- EVs and Renewables- Solves Intermittency/Creates new renewable demand
  - Stop fighting over solar and grow the pie!
  - 3000 kWh= 10000 miles- and vehicle range capability keeps increasing!
  - Avg Maine household uses 6372 kWh annually

- EVs benefit state economy
  - use domestic energy & save consumers energy costs

- Conclusion: Maine should open an EV docket and develop a plan for utility engagement with EVs and Charging Infrastructure

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2. Develop Regionally Interlinked DCFC corridor

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TESLA
TESLA
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4B
CITGO
CITGO

Potential Washington & Oregon Fast-Charging Communities

Look for this symbol!

Legend

- EV Project Fast Charge
- AeroVironment* - Now Open
- AeroVironment* - Coming Soon
- Level 2 Charging at Safety Rest Area
- Range Accessible to Most Electric Vehicles

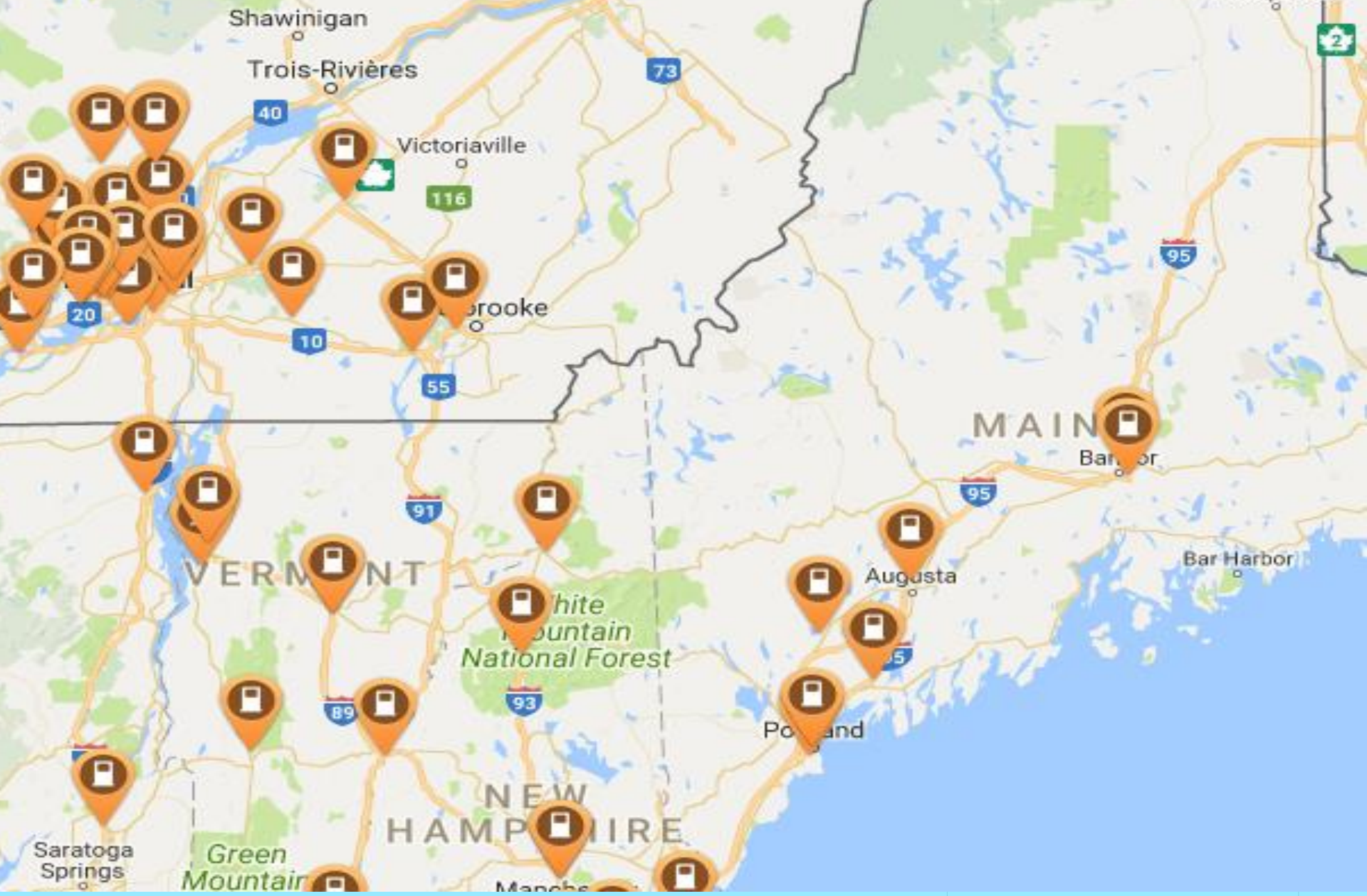
*** Join the Network**

Subscribe to the charging network and get a personal key fob to access the West Coast Electric Highway stations. www.evsolutions.com/avnetwork

Canada

Custer SB Rest Area
Bellingham
Burlington
Sultan
25 DCFC
Seattle
Skykomish
Leavenworth
Snoqualmie Pass
Wenatchee
Cle Elum
Tumwater
Centralia
Castle Rock
Ridgefield
Gee Creek NB Rest Area
3 DCFC
Vancouver
Washington
Astoria
Clatskanie
Saint Helens
Cannon Beach
Banks
17 DCFC
Tillamook
Newberg
McMinnville
Portland Metro
Cascade Locks
Hood River
Welches
Government Camp
Lincoln City
Grand Ronde
5 DCFC
Salem/ Keizer
Monmouth
Newport
Detroit
Corvallis
2 DCFC
Halsey/Brownsville
Yachats
Sisters
Springfield
Veneta
2 DCFC
Eugene
Blue River
Florence
Oregon
Cottage Grove
Rice Hill
Roseburg
Canyonville
Wolf Creek
Grants Pass
Central Point
1 DCFC
Medford / Ashland
Ashland

WEST COAST ELECTRIC HIGHWAY


Shawinigan
Trois-Rivières
Victoriaville
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93
89
VERMONT
MAINE
Augusta
Bar Harbor
National Forest
NEW
HAMPSHIRE
Saratoga
Springs
Green

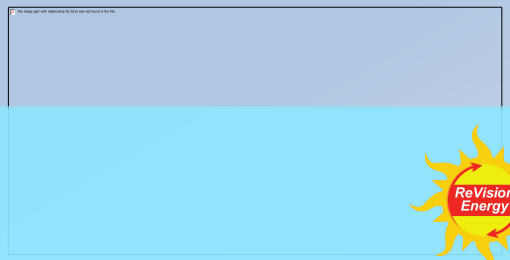

NEW
HAMPSHIRE
Saratoga
Springs
Green
Mountain
and Finger
Lakes..
Albany
MASSACHUSETTS
90
Springfield
84
195
CONNECTICUT
RHODE
ISLAND
95

Governor LePage and Quebec Premier Couillard Announce Electric Vehicle Corridor Initiative

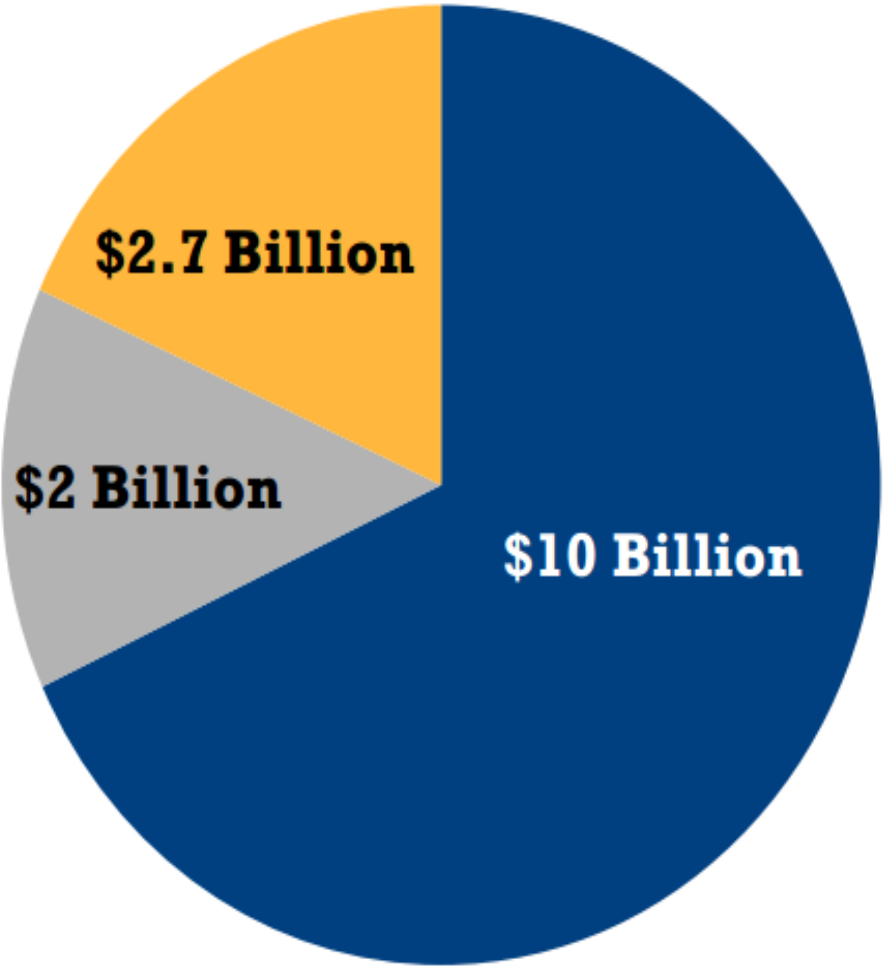
March 9, 2016

"Tourism is our biggest industry, and it is critical that we ensure we have the electric vehicle infrastructure to ensure that the people of Quebec can continue to visit our beautiful state," said Governor LePage. "The history of the Quebec and Maine relationship is strong, and we must maintain our connectivity with modern transportation infrastructure. Electric vehicles have made significant progress and are coming to Maine. It's vital we have a plan to make Maine open to this important technological change."

3. Harness VW and Tesla funding to build charging infrastructure



Settlement Breakdown



- Vehicle buyback and modification (consumers)
- Zero Emission Vehicle investment (national and CA)
- Environmental Mitigation Trust (states)

TESLA

DESTINATION CHARGING

CONVENIENT CHARGING AT HOTELS & RESTAURANTS

4. Support Maine’s only EV Stakeholder Group

DRIVE
ELECTRIC
MAINE

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Drive Electric Maine

A Public/Private stakeholder group whose primary goal is to harness the economic, social and environmental benefits of EVs for the state of Maine.

Areas include:

- Public Outreach & Education- RnD
- Auto Dealer and Utility Engagement
- Tourism/Workplace/Commercial Charging Hosts
- State Incentives and EV Friendly Policy

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Drive
Electric
Vermont

Drive Electric
New Hampshire

Thank you!

Questions/Comments?

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