PA EV Roadmap Process
Lessons Learned

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The Pennsylvania Electric Vehicle Roadmap reviews the state of the electric vehicle (EV) market in Pennsylvania, defines a set of proposed strategies to support the expansion of the EV market, and provides estimates of the potential benefits and impacts to the state from an increased EV market.

The roadmap is the result of 10 months of policy research, data and policy analysis, and facilitated discussions by our Roadmap contractor, with input from the DEPA Coalition.
The Drive Electric Pennsylvania Coalition includes state and municipal government officials, Department of Energy's Clean Cities Coalitions (clean cities), EV businesses and consultants, transportation organizations, electric utilities, environmental groups, auto companies, and other interested stakeholders.
Roadmap describes:

• State of EV market in PA
  • **Benchmarks**: 11,347 EVs in PA (3551 BEVs and 7,796 PHEVs) and 300 publicly available charging stations
  • **Barriers**: Awareness, vehicle options, stations, costs
• EV adoption strategies
• EV market penetration modeling
  • Energy, environmental, and economic implications from adopting more EVs
Electric Vehicle Distribution in PA

Sources: DVRPC, PennDOT Dec. 2017
EVSE Distribution in PA

As of Feb. 2018.
Source: AFDC
# PA Electric Vehicle Roadmap

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Near-term actions (0-2 years)</th>
<th>Mid-term actions (2-5 years)</th>
<th>Long-term actions (5+ years)</th>
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<tr>
<td>Establish utility transportation electrification directive</td>
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<td>Establish statewide EV sales goals</td>
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<td>Expand and improve AFIG rebate program</td>
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<td>Strengthen statewide EVSE network planning, investment, and communications</td>
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<td>Establish fleet education, cooperative purchase, and technical assistance program</td>
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<td>Create EV marketing and education campaign targeted at consumers</td>
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<td>Establish dealer outreach and support program</td>
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<td>Encourage residential and commercial EV rate designs</td>
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<td>Advance public and residential EVSE investment</td>
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<td>Develop municipal support, technical assistance, and grant program</td>
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<td>Establish workplace and multifamily EVSE education and outreach programs</td>
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<td>Adopt EV-ready building code amendments</td>
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<td>Explore development of financing for EVs/EVSE</td>
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• Importance of setting the parameters for Roadmap process
  • Define the scope & clearly communicate it
    • Statewide? Regional?
    • All EVs? MHD? Public transit? FCEV?
  • Define the intended audience
    • Agencies? Public? Legislature? Stakeholder groups?
  • Goal or no goal?
    • % sales? % registration? GHG reduction?
  • Understand the age and completeness of baseline data
EV Roadmap - Lessons Learned

• Strong Stakeholder group is essential
  • Identify key participants or champions (utility, local gov, agency)

• Active & meaningful engagement of stakeholders is key
  • Propose, develop, and prioritize Roadmap strategies
  • In PA, facilitation built into Roadmap contract
  • Foster Stakeholder buy-in/ownership in process

• Every step should have implementation in mind
  • Build expectation within Stakeholder group
  • Make each strategy action-oriented
  • Include implementation steps with each strategy