The EV Landscape - Stakeholder involvement

Stephen Russell Clean Cities & Alternative Transportation Program Coordinator, DOER
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Creating A Greener Energy Future For the Commonwealth
Mass Commitment - to clean air

- **Policies:**
  - Global Warming Solutions Act of 2008
    - Clean Energy and Climate Plan set GHG emission reduction goals at 25% below 1990 Baseline Levels by 2020; 80% reduction by 2050
    - Transportation Sector: 7.6% GHG reduction

- **Regulations:**
  - Adoption of the California Zero Emission Vehicle (ZEV) standards to encourage ZEV production and sales in the State

- **Programs:**
  - Leading by Example, Getting State buildings to embrace EVSE’s
  - Signed MOU with Nissan and BMW supporting EV’s
  - Involved Clean Cities stakeholders early in the process.
  - **Funded EVSE pilot for communities to install charging stations**
The Energy Office houses Clean Cities.
The question is:
“What is a transportation person doing in an energy office?

Alternative transportation involves “renewable fuels” so Clean Cities is part of the “Renewable Division” in DOER!

In addition being part of a State agency has other benefits:

- Ability to dialogue with utilities about the oncoming EV’s was a natural.
- Provides opportunity to open communications with DOT and DEP.
Stakeholder Involvement

• Early in the process we identified key folks in the State and the industry and presented the EV101.
• Stakeholders included State officials, Electricians, Fleets, Dealers and EVSE vendors.
• Then on an ongoing basis we kept them informed with Emails, meetings and events.
• Now it is time for consumer awareness tactics!
EV ready - where do you start?

- Who do you talk to:
  - State Licensing board
  - Electrical inspectors
  - Electricians
  - Utilities
  - IBEW — The Electrical Vehicle Infrastructure Training Program (EVITP), an industry initiative to train and certify electric vehicle equipment installers, was recently recognized as a Partner by the U.S. Dept. of Energy Clean Cities program.
  - In Massachusetts NFPA 70, National Electric code article 625 - 2011 has been adopted.
147 Public Supply Stations Representing 296 Charge Points

Massachusetts Alternative Fuel Stations

Alternative Refueling Stations
- BIODIESEL (3 Public, 3 Private)
- ELECTRICITY (124 Public, 30 Private)
- NATURAL GAS (20)
- PROPANE (20 Public, 0 Private)
- ETHANOL (6 Public, 0 Private)

Vehicles that use alternative fuels, such as biodiesel, electricity, and natural gas, in place of oil help to reduce the amount of carbon dioxide emitted into the atmosphere and increase our energy security.
What have we learned?

Some utilities may want to meter the EVSE and the further from the power source the more expensive the install.

Wall mounted units are more cost effective to install.

On street installs in a city require patience and many meetings.
(valet spot at Lenox hotel in Boston)
What we have learned

• Avoid soft ground around station gets muddy in New England weather.

Overall permitting for us was not an issue and the private sector is embracing the technology!

Parking facilities are getting creative with a free juice bar for vehicle charging!
Massachusetts Next Steps?

• Begin dialogue with the Stretch Energy Code folks in our state to add EVSE prep to the program
  ➢ Make sure that “EV-Ready codes” document is at the table
• Work with DPU in the grid modernization process to make sure charging scenarios are explored for the EV’s
• Use resources available from the TCI initiative in this process.
For more information and documents that can help on EVs and EV infrastructure from the:

http://www.transportationandclimate.org/northeast-electric-vehicle-network-documents

At this site you can get many EV readiness documents:

**Planning, Guidance, and Analysis**
- Plug-In Electric Vehicle Deployment in the Northeast: A Market Overview and Literature Review
- Electric Vehicle Siting and Design Guidelines
- EV-Ready Codes for the Built Environment
- Assessment of Current EVSE and EV Deployment
- Creating EV-Ready Towns and Cities: A Guide

And many more documents.
EV license plates now available at your RMV office for EVs, PHEV’s, and HEVs (sorry only in Massachusetts and Hawaii)

Contact info:
Stephen.Russell@state.ma.us
617-626-7325

Or

Linda.Benevides@state.ma.us
Policy development

- MOU’s with manufacturers to commit to infrastructure development.
- State licensing bureau
- Electrician education on NEC625 codes union and non union folks
- Utility involvement
- NFPA - National Fire protection code safety issues
- Registry of motor Vehicles