Massachusetts Electric Vehicle Initiative (MEVI)
Mid-Year Report

With the Massachusetts Electric Vehicle Initiative (MEVI) Task Force, Governor Deval Patrick's Administration is working to accelerate the deployment of electric, plug-in electric and fuel cell vehicles (collectively referred to as zero emission vehicles or "ZEVs") in the Commonwealth of Massachusetts. This mid-year report briefly describes the background of MEVI, summarizes efforts towards early ZEV-readiness and lists priority state actions underway and under consideration based on Task Force recommendations.

ZEVs are a significant part of the suite of solutions to the challenge of providing affordable, clean, and reliable transportation and will help the Commonwealth achieve its goals under the Global Warming Solutions Act (GWSA). Accelerated deployment of ZEVs will help the Commonwealth to:

- protect public health and air quality by reducing transportation-related air pollution that contributes to the formation of smog and related health effects such as asthma and heart attacks;
- reduce greenhouse gas (GHGs) emissions that contribute to climate change;
- enhance energy diversity and security;
- save drivers money;
- promote economic growth.

The Departments of Energy Resources (DOER), Environmental Protection (MassDEP), and Public Utilities (DPU) within the Executive Office of Energy and Environmental Affairs (EEA), Massachusetts Department of Transportation (MassDOT), and the Office of Consumer Affairs and Business Regulation (OCABR) have taken leadership roles in the MEVI.

The Mid Year Report includes six sections - a background section that discusses the MEVI policy goals, a description of early ZEV-readiness activities, the actions planned or underway in three priority areas (ZEV Incentives, ZEV Charging Infrastructure, and ZEV Outreach/Education) and next steps.

I. Background – Air Quality and Greenhouse Gas Reductions

In 2008, Governor Patrick signed the Global Warming Solutions Act (GWSA), which required the Secretary of the Executive Office of Energy and Environmental Affairs (EEA) to establish a statewide limit on greenhouse gas (GHG) emissions of between 10 and 25 percent below 1990 levels for 2020, and to 80 percent below 1990 levels by 2050. EEA subsequently released the Clean Energy and Climate Plan (CECP), which is a portfolio of policies that EEA is

implementing to ensure that the Commonwealth reduces GHG emissions to the targeted levels. The Secretary established a statewide reduction target of 25 percent for 2020.

The GWSA offers a unique and historic opportunity for the Commonwealth to develop innovative solutions that will help prevent the devastating and costly effects of climate change while improving the quality of the environment and public health, saving households and businesses money through energy savings, creating jobs, and spurring economic development especially through our rapidly growing clean energy sector. The transportation sector accounts for 37 percent of GHG emissions associated with climate change. One of the key CECP strategies to reduce these emissions is to increase the deployment of zero emission vehicles. Reducing GHG through advancing alternative fuels, specifically electricity as a transportation fuel, is the priority policy objective of the ZEV Initiative.

In December 2013, Governor Patrick, along with the governors of seven other states, signed a memorandum of understanding to increase ZEVs on the road to a collective target of at least 3.3 million vehicles in the eight states by 2025 and to work together to establish a fueling infrastructure that will adequately support this number of vehicles. Massachusetts' participation in this MOU sets a bold goal of 300,000 ZEVs registered in the state by 2025.

The MEVI grew from an Electric Vehicle Roundtable held on March 7, 2013. The Roundtable was co-sponsored by the Executive Office of Energy and Environmental Affairs, the Department of Energy Resources' Massachusetts Clean Cities Coalition, and the Conservation Law Foundation. Over 90 participants provided meaningful input and recommendations to accelerate the deployment of plug-in hybrid, battery, and fuel cell electric vehicles here in Massachusetts. Senior managers in state government agreed with stakeholders that the Commonwealth should take numerous actions to demonstrate leadership on this important environmental, energy and transportation initiative. Participants advised that a high-level task force, MEVI, be created to set priorities and make specific recommendations on actions to consider implementing.

The MEVI Task Force met for the first time on September 30, 2013 and held a second meeting on January 28, 2014 with a third meeting planned for early May. The Task Force set a goal to promote the adoption of zero-emission vehicles, including electric, plug-in hybrid electric, and fuel cell vehicles in Massachusetts. Participants in the MEVI Task Force are identified in Appendix A. The Task Force identified three priority areas with senior managers to lead each area:

- Incentives for ZEVs – Commissioner Mark Sylvia (now Undersecretary Mark Sylvia)
- Infrastructure and Regulatory Issues – Undersecretary Maeve Vallely Bartlett (now Undersecretary Martin Suuberg), Commissioner Ken Kimmell (now Commissioner David Cash)
- Outreach and Education – Undersecretary Barbara Kates-Garnick

Some of the recommended activities are underway while others are still in the planning stages. This mid-year report provides the status for each of the MEVI recommendations and ranking of the working groups' priorities to discuss over the next six months.

II. Early (2010-2012) ZEV Activities in Massachusetts

Massachusetts took steps towards ZEV-readiness through programs that engaged auto manufacturers to place vehicles in Massachusetts. DOER set up an EV charging network of Level II Electric Vehicle Service Equipment and EV charging systems were placed on state contract to facilitate acquisition by municipalities and state agencies. When the state first began to track the number of ZEVs in 2012, there were 950 registered ZEVs. At the end of December 2013, there were 3300 registered ZEVs in Massachusetts. While this increase represents progress, it still reflects less than 1% of the nearly five million registered vehicles in the state. Clearly, there is more work to do to reach the goal of 300,000 ZEVs in Massachusetts by 2025.

Attachment B lists the early accomplishments towards our goal of reducing GHG emissions and promoting an increased number of ZEVs in the state.

III. MEVI Task Force Recommendations - Incentives for ZEV purchasing

The Task Force recommended three priorities to be implemented immediately and the Incentives Working Group is evaluating several more.

Priority Action #1 – *Reduce the cost of ownership of ZEVs to encourage consumer purchasing and spur market growth*

The Task Force suggested that there be consideration of an approach similar to California's Clean Vehicle Rebate program and Pennsylvania's Alternative Fuel Vehicle program. The closer a rebate is to the time a consumer makes a purchasing decision the more effective the program will be. The Task Force asked the state to provide rebates to consumers purchasing or leasing new light duty electric, fuel cell, and plug-in hybrid electric vehicles. The rebate amount should be up to $2500 for plug-in electric vehicles and hydrogen fuel cell vehicles with 10 KWh electrochemical energy storage (e.g., battery or hydrogen) and $1500 for plug-in electric vehicles with less than 10 KWh electrochemical energy storage. The program should be multi-year to be effective with an evaluation every six months to determine program effectiveness, and update criteria, eligible vehicle lists, or rebate levels. DOER paid for license plates to identify EVs for first responder awareness and owners should be encouraged to apply for an EV plate to increase visibility of the vehicles.

The Task Force also advised us to work towards a long term funding strategy that is at the point of sale, such as through a sales tax reduction, or a continuation of the Phase I rebate program

after evaluating results. Other elements to consider include increasing rebates for vehicles with longer electric ranges, targeting program for low income citizens, and implementing an eligible vehicle price cap.

Action: Massachusetts is ready to implement a Phase I consumer rebate program in June, 2014. The program (MOR-EV) will be an on-line application system with documentation submitted to a third party contractor.

A. Establish grant programs for fleets of medium and heavy-duty trucks and transit buses that have a greater potential environmental impact due to their greater use of fuel and miles travelled.

Actions: In December 2013, DOER announced an $11.7 million Clean Vehicle Program to replace more than 200 public and private vehicles powered by gasoline and diesel with alternatively fueled vehicles. The alternative fuels include natural gas, propane (auto gas), electricity and renewable electricity (solar). At least $6 million will be dedicated to ZEVs and electric vehicle infrastructure.

The electric vehicle initiatives include:

- Replacement of diesel medium-duty trucks or shuttle buses with plug-in battery electric drive
- Replacement of diesel shuttle buses with battery electric shuttle buses using wireless charging embedded in the ground along a bus route. This technology can enable electric buses to be powered by smaller batteries, eliminating the need to charge overnight at one location.

DOER is also implementing a vehicle to grid electric school bus pilot as part of the Clinton Global Initiative program. Later this year, the agency will provide awards that total $1.8 million to communities, districts or other owners of school buses.

Priority Action #2 – *Provide additional non-monetary incentives for ZEV owners*

The task force recommended high occupancy vehicle (HOV) lane access for ZEVs regardless of number of passengers in the vehicle as an important incentive to offer ZEV drivers. This action requires analysis to determine the feasibility and potential air quality impacts. Moving forward with this action would require a revision to MassDEP's High Occupancy Vehicle Regulation, 310 CMR 7.37 and the State Implementation Plan, subject to EPA approval.

Action: MassDOT is in process of modeling transportation and air quality affects of HOV lanes.

Priority Action #3 – *Lead by Example by increasing ZEVs in state and municipal public fleets*

Provide cost-differential financial incentives to municipalities and state agencies for the acquisition of electric vehicles to increase the visibility of electric vehicles in Massachusetts.

Action: MassDEP established the Massachusetts Electric Vehicle Incentive Program (MassEVIP) Phase I to provide incentives to municipalities to acquire electric vehicles (through purchase or lease) and install Level 2 dual head charging stations. MassEVIP incentives are $5,000 for plug-in hybrid vehicles; $7,500 for battery electric vehicles and up to $15,000 per publicly accessible charging station.

Former MassDEP Commissioner Kimmell awarded $470,000 in incentive funding from Phase I to 16 municipalities for the acquisition of 40 electric and hybrid vehicles and installation of 14 Level 2 dual-head charging stations. A second round of funding was announced on March 27, 2014.Twenty one organizations (seventeen municipal entities, one state agency, and three public universities) applied to MassEVIP Phase II requesting $637,500 in incentives for the acquisition (purchase or lease) of electric vehicles and Level 2 charging stations. Applications included requests for 75 vehicles (34 PHEVs and 41 BEVs) and 16 Level 2 charging stations. All requests were funded. A final round of funding will also be available later in 2014.

Priorities to be Evaluated by the Incentives Working Group

The other priorities for discussion and recommendations from the MEVI Task Force in the second half of 2014 (in order of priority ranking by members) include:

- Tax Free holiday weekend for purchase of ZEVs
- Tax credits for installation of EV charging and fueling equipment
- Reduced vehicle registration costs ($50) or revenue neutral registration costs
- Reduced tolls or Discounted E-Z Pass (maximum # or timeframe) and coordination with NY for ease of interstate use
- Elimination or reduction of emissions and safety inspection fee for some/all ZEVs ($29 that is scheduled to increase to $35 as of July 1)
- Hydrogen fleet incentives and the hydrogen fueling requirements needed to support market expansion in Massachusetts
- Coordination with local authorities to put ordinances in place to penalize non-ZEVs that park in EV-restricted spaces
- Consideration of statewide policy to provide parking benefits for ZEVs at government-owned or leased building, parking lots and properties.

IV. MEVI Task Force Recommendations - Infrastructure Expansion and Regulatory Issues

The Task Force recommended three priority action areas and the Infrastructure Working Group is evaluating several more.

Priority Action #4 – *Clarify how charging stations are currently regulated by DPU and identify a comprehensive, coordinated approach to charging station regulatory issues.*

Action: DPU opened a notice of investigation on December 23, 2013 to facilitate and accommodate more widespread adoption of EVs. Discussions at working group meetings and at the second MEVI Task Force meeting led DOER and MassDEP to submit initial comments that included these statements:

> "Massachusetts rule making should be guided by the principles for regulating Electric Vehicle Supply Equipment (EVSEs) and the EVSE regulatory issues that are recommended by the Massachusetts Electric Vehicle Initiative Task Force. The Task Force agreed that:
>
> 1. Our goal is to encourage EV adoption and minimize barriers to EVSE infrastructure.
> 2. Getting ahead of national and state proceedings should be avoided. MA should strive for consistency among states wherever possible.
> 3. The Task Force recommends that these principles guide the process and approach to regulating EV charging stations where a usage fee exists or may be imposed by the owner/operator in the future:
>
> - Encourage EVSE technology advancement and competition
> - Minimize state regulations that add to the cost of installation and operation of public and private hosts
> - Encourage private investment in EVSE infrastructure and establish programs that ensure owner/operators are able to maintain the infrastructure
> - Keep EVSE user costs as low as possible
> - Ensure consumers know what they will pay if they use the charging station
> - Reassure the public that the charging station delivers the amount of electricity expected
> - Encourage open access and strive for interoperability of EVSE infrastructure
> - Establish clear and streamlined regulations and compliance programs that do not require permits but adopt a certification and sampling/audit approach.

Final reply comments were submitted jointly by MassDEP and DOER and several Task Force members on March 17, 2014 and are under evaluation by the DPU.

Priority Action #5 - *Work with neighboring states to ensure effective regional EVSE deployment of fast chargers*

The state has spent slightly over $1 million of federal and state funds to install 140 publically available Level 2 EVSEs, many with multiple charging points. An Electric Power Research Institute (EPRI) analysis (Attachment B) conducted at the request of Northeast Utilities shows that approximately 63 new level 2 stations will provide a charging "fuel" safety net for ZEV owners. The Task Force agreed that the working group should prepare recommendations and a presentation for the MEVI Task Force on appropriate public/private financing opportunities to expand the network.

The Task Force agreed that the state should proceed with plans to solicit proposals for fast charging stations using federal Congestion Mitigation and Air Quality (CMAQ) funds. Along with our neighboring states, the state should coordinate to create interstate charging in key corridors that will facilitate long-range travel.

Action: Through the Clean Vehicle Program, DOER has allocated $1 million and is working with MassDOT to fund additional fast charging stations on or near the major arteries (such as the I-95 Northeast Corridor, I-91, and I-90) to accelerate ease of use and adoption of ZEVs. The state will coordinate with nearby states to facilitate interstate travel of ZEVs.

Priority Action #6 – *Help Direct Drivers to Public Charging Stations*

It was suggested that MA adopt EV charging station signage from the Federal Highway Administration's Manual on Uniform Traffic Control Devices and provide signage that will direct the traveling public to charging stations.

Action: MassDOT has agreed to provide free EVSE logos for existing highway panels and place them along the highway (where EVSEs are within 3 miles of the highway). Additionally, MassDOT will install free-standing EVSE signage free of charge (based on the demand for signage). DOER prepared a list of existing EV charging stations for MassDOT to review eligible locations and site conditions. MassDOT will also provide EVSE signs to municipalities to help direct drivers to EVSE on other roadways. The municipalities will have to install the signs themselves. Any installations where DOER or MassDEP grant funds are used to purchase or install will require that owners or operators provide on-site and directional signage for charging stations available to the public. DOER will monitor the U.S. Department of Energy's Alternative Fuels Data Center database to help register new public host site installations.

Priorities to be Evaluated by the Infrastructure Working Group

The other priorities for discussion and recommendations from the MEVI Task Force in the second half of 2014 (in order of priority ranking by members) include:

- Evaluate and make recommendations on public/private partnerships to finance infrastructure;
- Promote workplace charging and employer outreach including high profile programs such as Governor's events;
- Encourage adoption of a streamlined permitting process for the installation of residential EV chargers. For example, see Oregon's "Minor Label" program; (www.bcd.oregon.gov/programs/minorlabel/minor_label_programs.html
- Work with DOER to establish criteria in the stretch code for ZEV readiness to reduce future costs of installing EV charging infrastructure in residential, public, or commercial buildings and parking locations;
- Establish model ordinances and zoning regulations;
- Evaluate currently available guidance for EVSE installation for residential, privately or municipally funded EVSE installations and update the Massachusetts guidance;
- Plan for hydrogen storage and on-site generation infrastructure.

V. MEVI Task Force Recommendations - Outreach and Education

The Task Force recommended two key priorities and the Outreach Working Group is evaluating several more.

Priority Action #7 – *Get Seats in Seats*

Take steps to help consumers understand the comfort, convenience, and fun of driving ZEVs. The MEVI Task force recommended:

- Emphasize large-scale events such as National Drive Electric Week (September 14-21 2014) by sharing on-line resources and encouraging local action or at large sports venues;
- Emphasize education for legislators to become familiar with ZEVs so that they can help respond to constituent questions
- Pilot Ride and Drives at workplaces and monitor sales and other results.

Priority Action #8 – *Create EV Charging in Public Town Centers*

Establish EV charging clusters in high profile, high use public spaces and consider integration with renewable power.

Actions: A spring action plan will be drafted and discussed with the Outreach Working Group.

Priorities to be Evaluated

The other priorities for discussion and recommendations from the MEVI Task Force in the second half of 2014 (in order of priority ranking by members) include:

- Best methods to advance the MORE-EV rebate program (new)
- Explore GoElectric Drive, the education arm of the EDTA (Electric Drive Transportation Association) assistance for using outreach mechanisms
- Support, motivate, and educate Dealers and Mechanics - Evaluate the availability of the Massachusetts Clean Energy Center (MassCEC) workforce development funds to train dealers on EVs and alternative fuels. Identify and recognize dealers who are promoting and selling EVs and make sure to include them in Ride and Drive days. Determine how to motivate and increase enthusiasm from dealers: availability of incentives such as education grants; advertising and recognition awards for dealers
- Publicize state/municipal fleets that are leading by example
- Use the internet to post Frequently Asked Questions (FAQs) and other pertinent information
- Develop applications for online car reservations
- Spread through word of mouth and social media – encourage EV owners to talk about EVs through forums or clubs; consider the general audience, videos of owners.

VI. Conclusion and Next Steps

The Executive Office of Energy and Environmental Affairs has found the Task Force to be extremely valuable in advising the Commonwealth on how to increase ZEVs and obtain GHG reductions and other benefits that will result from meeting this goal.

We look forward to releasing a final comprehensive action plan with input from the Task Force on or before September 30, 2014. The final report will also include ZEV actions related to work done in coordination with other states. Specifically, this will include collaborative work with the Transportation Climate Initiative, a partnership between the northeast and Mid-Atlantic States to reduce greenhouse gas emissions in the transportation sector, and commitments made as one of the eight states[1] in the Multi-State ZEV Action Plan for the deployment of 3.3 million ZEVs by 2025.

[1] The other seven states are California, Connecticut, Maryland, New York, Oregon, Rhode Island and Vermont. The plan can be found at: http://www.nescaum.org/topics/zero-emission-vehicles

Attachment A - Massachusetts Electric Vehicle Task Force Participants

Affiliation	Participants
MassDEP	Former Commissioner Ken Kimmell, Commissioner David Cash, Christine Kirby, Richard Blanchet
Office of Consumer Affairs	Charles Carroll
Operational Services Division	Julia Wolfe
MassDOT	Steve Woelfel, Eileen Gunn, Dustin Rhue
Mass DPU	Mike Wallerstein
Mass Clean Energy Center	Jeremy McDiarmid
EOEEA	Kurt Gaertner
New England Clean Energy Council	Janet Besser and Charity Pennock
Frito-Lay	Eugene Porter
ChargePoint	Colleen Quinn
Plug In America	Barry Woods
Nuvera Fuel Cells, Inc.	Gus Block
Conservation Law Foundation	Jennifer Rushlow
Environment Northeast	Peter Shattuck and Mark LeBel
City of Boston	Jim McGonagle
City of Newton	Bob Rooney, Rob Garrity
Town of Tyngsborough	Nina Nazarian
MA Senate	Senator Barry Finegold and Caitriona Fitzgerald
MA House of Representatives	Representative Frank Smizik and Laurel Schwab
Tufts Health Plan	Mark Foster
EMD Serono	Jeffrey Hyman
Mass Convention Center Authority	Fred Peterson, Jong Wai Tommee (NEW)
Northeast Utilities	Watson Collins
National Grid	John Gilbrook
MMWEC	Kim Boas
NESCAUM	Matt Solomon
Massachusetts State Automobile Dealers Association, Inc.	Peter Brennan (NEW)
Nissan	Tracy Woodard, Brandon White, Timothy Slattery, Jean Gough, Anthony Lambkin (NEW)
Toyota	Kevin Kinnaw, Ed LaRocque, Geri Yoza
Energy Co-Chair	Bobbi Kates-Garnick
Environment Co-Chair	Maeve Vallely Bartlett (now Martin Suuberg)
DOER Co-Chair	Mark Sylvia
EEA staff	Linda Benevides
Mass. Clean Cities Coordinator	Steve Russell

MEVI Interested Party	Affiliation
Gina Coplon-Newfield	Sierra Club
Barbara Allan	American Lung Association
Pat Lynch and Ben Fierro	Lynch and Fierro
Charles Myers	MA H2 Coalition
Bill Watts and Dr. John Collura	UMass Amherst
Robin Kebernick	NSTAR
Chris Noonan	Institute for Energy & Sustainability
Dave Packard	
Zach Stanley	Rasky Baerlein Strategic Communications
Karen Harris	Merck Foundation
Emily Norton	Newton
Kathleen Rosen	Voltrek
Peter Zchokke	National Grid
Jim Motavalli	EV writer
Brian Jones	MJ Bradley
Galen Nelson	MassCEC
Catherine Paquette	MassRIDES
Liz Rizzuto	RMV
John Neale	Driver
Rachel Szmarky	Boston Transportation Department
Greg Moreland `	DOE contractor
Joshua Goldman	Union of Concerned Scientists

Attachment B

Massachusetts Activities to Promote Electric (EV) and Plug-in Hybrid (PHEV) Vehicles (2010-2011)

1. Facilitate adoption of EV and PHEVs in MA.
   - Obtained commitments from Ford, Mercedes, Nissan, BMW, Think and Chrysler EVs and Toyota PHEVs to sell vehicles in Massachusetts because of our commitment to building an EVSE infrastructure
   - Facilitated demonstration of 12 pre-production PHEV Dodge Ram trucks at the MBTA
   - Signed MOU with Nissan to be an early adopter state for sale of EV Leaf
   - Converted 10 state fleet hybrid vehicles to PHEVs
   - DEP proposed and adopted ZEV rules that require automakers to annually increase the volume of vehicles they manufacture
   - Continue to track the volume of vehicles sold in MA and location data if available

2. Reach out to stakeholders to facilitate an understanding of issues and opportunities related to installation and permitting of the fueling (charging) stations.
   - Held an EV Workshop and vehicle demonstration at UMass Lowell on October 6, 2010 with about 200 attendees to obtain understanding of obstacles and challenges for the installation and permitting of EVSE
   - The National Fire Protection Association held its first emergency responder electric/hybrid safety training
   - Developed guidance to include EV and charging station installation in parking areas as a GHG reduction strategy for proponents of projects requiring MEPA review
   - Provided guidance for new and renovated state building parking areas to provide electricity for EV charging stations
   - Requested that relevant section of National Electric Code on EVSEs be added to the re-certification training for electricians that began in 2011
   - Discussed issues and raised awareness with fire, safety and building code professionals who have told us there is no need to change codes and permitting will be done within the 5 day request for installation permit and 5-day final inspection time limit
   - Held meetings with environmental groups interested in championing EVs
   - Held Clean Cities meetings that presented EV and hybrid information to fleet managers

3. Support R&D and business development in MA for battery manufacturers, alternative fueling options and vehicle retrofits to hybrids/plug-in hybrids.
   - Supported small companies interested in providing hybrid and PHEV conversions kits for existing vehicles, by connecting them with business expertise at the Clean Energy Center and potential funding under our control
   - Supported purchases of EVs by municipal fleets, state fleet and MBTA through CMAQ, AEP and Clean Cities funding

4. Optimize the installation of an appropriate number of electric charging stations in a statewide network that is flexible, market-driven and technology neutral.
   - Activated existing charging stations already in place at two MBTA transit rail stations (Alewife and Braintree).
   - MBTA obtained and installed free Chrysler vehicle charging stations provided for the pilot to gain initial experience
   - Established a best value statewide contract to allow easy purchase of equipment and services by eligible entities (state agencies, colleges, universities or cities/towns) to install charging stations.

- Solicited proposals from communities and MBTA/MassPort commuter parking for a pilot program to install up to 200 charging stations in optimal locations across the state to gain "on-the-ground" experience
- Adopted Deployment Guidelines for Massachusetts business/communities and finalize as experience and information evolves
- Continued collaborating with utilities to ensure available electricity particularly in clustered infrastructure communities
- Obtained RGGI Transportation Climate Initiative grant to plan a more comprehensive network of charging stations as funding is made available in the future

Massachusetts Activities to Promote Electric (EV) and Plug-in Hybrid (PHEV) Vehicles (2012)

1. Evaluate EV adoption rates and EVSE utilization to identify consumer behavior and provide EV purchasing opportunities
   - Updated DOE EVSE database with EVSE location information
   - Promulgated MassDEP LEV/ZEV rules to require ZEV by MY 2016
   - Monitored EV registrations – by end of the year 950 electric vehicles registered in MA
   - Ensured state vehicle contract includes PHEVs/EV dealers
   - Provided RMV with design and $58,000 to produce 16,000 electric and hybrid vehicle license plates. By end of year, 105 passenger and 15 commercial plates issued
   - Completed EVSE pilot program using $300,000 state funds and $800,000 ARRA funds. The Massachusetts Bay Transportation Authority's (MBTA) Electric Vehicle Charging Parking program provides customers with an opportunity to charge electric vehicles while they are parked at MBTA stations
   - Obtained access to collect data from "smart" EVSE systems

2. Provide additional outreach and infrastructure
   - Clean Cities sponsored two meetings related to EVs (truck stop electrification, electric vehicles)

3. Establish regulatory certainty, determine actions needed to ensure reliability and safety of electrical grid and maximize GHG benefits for EV charging
   - Regulatory and consumer issues raised in 2012 with DPU and deferred to the smart grid investigation

Summary of Key Actions (Mid-Year)

Priority Action #1 – *Reduce the cost of ownership of ZEVs to encourage consumer purchasing and spur market growth*

Priority Action #2 – *Provide additional non-monetary incentives for ZEV owners*

Priority Action #3 – *Lead by Example by increasing ZEVs in state and municipal public fleets*

Priority Action #4 – *Clarify how charging stations are currently regulated by DPU and identify a comprehensive, coordinated approach to charging station regulatory issues.*

Priority Action #5 - *Work with neighboring states to ensure effective regional EVSE deployment of Fast Chargers*

Priority Action #6 – *Help Direct Drivers to Public Charging Stations*

Priority Action #7 – *Get Seats in Seats*

Priority Action #8 – *Create EV Charging in Public Town Centers*