

Approved Minutes of the MA ZEV Commission Meeting of June 26, 2018 100 Cambridge Street, 2nd Floor, Boston, MA 02114

In Attendance

Daniel Sieger – Assistant Secretary for Environment, Executive Office of Energy and Environmental Affairs (EEA)

Patrick Woodcock – Assistant Secretary for Energy EEA

Linda Benevides – EEA

Stephanie Cooper, Christine Kirby, Sejal Shah – MA Department of Environmental Protection

Will Lauwers, Steve Russell, Michelle Broussard- MA Department of Energy Resources

Gus Block – Nuvera

Max Forsythe - NRC

Rob Garrity – Mass DOT

Mark LeBel – Acadia Center

Gina Coplon-Newfield - Sierra Club

Fouad Dagher – National Grid

Catherine Finneran, Charlotte Ancel – Eversource Energy

Robert Boch – Boch Toyota and Mass Auto Dealers Association

Scott Dube – Dube Cars and Mass Auto Dealers Association

Jeffrey Hyman – EMD Serono

ON PHONE ---

Colleen Quinn - ChargePoint

Erin Anderson, MCCA

Robert Wimmer – Toyota

Britta Gross, GM

Nicole Freedman - City of Newton

Susan Bunnell – Town of Wilbraham

Absent: Vineet Gupta, City of Boston; Tracy Woodard, Nissan; Jason Viadero, MMWC; Phil Carlin, EVSE LLC; Charles Carroll, DOS.

1. Dan Sieger, Call To Order

- Welcome and introductions
- Request approval of Notes from Previous Meeting – Motion, Second and Vote
 - Minutes for the May 16 meeting approved
- Agenda
 - MassDEP Review of VW Mitigation Input and Next steps
 - Feedback on previous discussion of MOR-EV
 - Expanding FCEV and Hydrogen Fueling in MA

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2. MASSDEP – Christine Kirby

VW Mitigation Plan

The Commonwealth has \$75 million total to spend over next ten years. MassDEP has been deemed as the designated beneficiary for the state and has held 10 stakeholder meetings and issued an RFI to obtain input.

Currently MassDEP is reviewing information and comments received through the RFI and stakeholder meetings. The most common themes brought up during the stakeholder meetings and/or the RFI responses are:

- Electrification of transportation is important - state can use 15% of the funding for ZEV infrastructure and should do so;
- Make sure we focus on electrification and not diesel to diesel conversions;
- Electrify transit buses;
- Ensure geographic distribution and making sure EJ populations are included in projects;
- Make sure all EMAs are considered.

MassDEP is working on draft Beneficiary Mitigation Plan (BMP) now - and expects to have it available for public comment later this summer. After the comment period for the draft BMP MassDEP will file the BMP with the Trust. Spending cannot begin until 30 days after the final plan submitted to the Trust.

Questions:

Fouad Dagher (National Grid) - How do you see utilities and MassDEP collaborating with these plans for VW funding?

- Christine Kirby – To date, we have had the 10 stakeholder meetings and RFI — please provide comments on the draft BMP.

Catherine Finneran (Eversource) – Is DEP the designated beneficiary? Does it anticipate contracting funding out?

- Christine Kirby – Yes, MassDEP is the beneficiary and does not expect to contract the funding out at this time. Aware that some states might take this approach.

Robert Boch (Boch Toyota) - Has the trust been funded?

- Christine Kirby – Yes, Volkswagen has funded the trust accounts for the states.

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The Multi-State ZEV Action Plan

Hot off the presses, the Multi-State ZEV Action Plan has a total of 80 actions recommended in the plan for states, OEMs, dealers, utilities, etc. to undertake to increase the adoption of EVs in the Northeast. States and NESCAUM consulted stakeholders for input. Significant benefits working on a regional approach. MA is already working on many of these actions and we will refine them as needed.

Questions:

Colleen Quinn (ChargePoint Phone) - Colorado has announced that they may join the ZEV MOU. What is the process for a state to join the ZEV MOU and how long does that take?

- Christine Kirby — Colorado governor has issued an executive order for Colorado to opt into the CA motor vehicle standards and join other section “177” states. It directs staff to initiate a regulatory process and if desired, proceed with signing onto the ZEV MOU.
- Gina Coplon-Newfield clarified that Colorado executive order called for LEV (not ZEV) regulation by the end of 2018.

Colleen Quinn (ChargePoint Phone) - So NJ was a member of the ZEV MOU previously and has the regulations so is now joining back in.

- Christine Kirby – NJ has had the regulations and has now signed on to the ZEV MOU.

NACCA & NESCAUM Meeting in Washington DC

In a meeting with OMB, Christine representing Massachusetts joined other states including NY (by phone) to let them know the importance of keeping the GHG and fuel efficiency standards for light duty vehicles in place. A number of stakeholders have been meeting with OMB to make sure that states’ rights to have more stringent standards and adopt California’s rules are not hindered by the federal government.

- Gina Coplon-Newfield thanked Christine for her travel and commitment to this important issue.

1. Linda Benevides (EEA) Board of Building Regulation and Standards

Next meeting is scheduled for August 14th. If anyone would like to attend this meeting, Linda B. can send out the information.

2. Rob Garrity (MassDOT)

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No new updates. MassDOT has been working with Christine Kirby and MassDEP on VW Mitigation funding.

3. MassDOER – MOR-EV

Dan Sieger (EEA) — Is there any feedback on the MOR-EV funding and program change and program planning issues that we spoke about at the last meeting?

Will Lauwers (DOER) — MOR-EV is very successful but rebates are growing faster than incoming funding from RGGI. We would like feedback on program changes to make the program sustainable for the long run. Does anyone have any feedback?

- Catherine Finneran (Eversource Energy) — Strongly supports the rebate program which goes well with Eversource's make-ready infrastructure program. The program criteria should be based on what puts more cars on the road. The MSRP changes seem easiest to implement and would likely not affect EV purchase decisions. It would also aide the EJ communities.
- Fouad Dagher (National Grid) — Employee program launched in April 2018 which provides its employees a \$5000 rebate for EV purchase. National Grid has added 115 EVs since April of 2018. Very much in favor of the continuation of the MOR-EV rebate program.
- Robert Boch (Boch Toyota and MSADA) — Favor the rebate but to make it redeemable at the point of sale is too much of a financial burden on the dealer. Would like to keep it as is where the consumer gets the rebate from the state unless there is a way to front the money to the dealer.
- Gina Coplon Newfield (Sierra Club) — Discussed this with Acadia/CLF, would like to outline some broad principles that will help support the program.
 - ✓ Would like this change the last for the near future – keep it consistent after any change
 - ✓ Find other sources of funding
 - ✓ Needs to shrink the types of people that have access
 - ✓ Survey results that would truly use the rebate to make their purchase
 - ✓ Largest rebates should have the largest e-miles
 - ✓ Keep the program as simple as possible for consumers to understand
 - ✓ Try to expand the focus for a low-income program similar to Oregon and California
- Marc Lebel (Acadia Center) – Two thoughts for MOR-EV rebate program:
 - ✓ Income verification is too complex so a MSRP limitation of \$60,000 maybe easiest to implement

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- ✓ Take a look at the rebate amounts based on electric range of the vehicles, for example, may need to shuffle \$2500 down to \$1500 or \$1500 down to \$500 or nothing.

Question:

Dan Sieger (EEA) — What criteria can MA use for a tiered rebate program?

- Marc Lebel (Acadia Center) — Using the battery range is a good option. EVs with a longer battery range should be given a higher rebate.

Patrick Woodcock (EEA) — would like to restate that the success of the program is really making us look at the fiscal reality of funding

Scott Dube (Dube Cars and MSADA) -- Have you worked with the OEMs to look at the rebates? OEMs know what effects sales. It does depend on what our goal is. Do we want numbers or do we want more e-miles? The OEMs would have data on how much rebates affect results/sales and at what level they work. They may say all in favor for one rebate instead of diluting rebates for all vehicles.

Fouad Dagher (National Grid) – Reminds the group of the Tesla purchaser who said the EV rebate was critical to her decision. Can VW fund passenger car rebates?

- Christine Kirby – No this is not an eligible mitigation action under the VW Settlement.
- Dan Sieger (EEA) -- We are looking for input from everyone over the summer as we proceed in thinking this through.

Scott Dube (Dube Cars) - The question of “Would you buy the EV without the rebate?” is a loaded question, since everyone will say yes. Difficult to get objective results given human nature to respond to any question “Do you want more money” with a “Yes”. Are you putting too much weight on the MOR-EV survey data on responses to the question of how important the MOR-EV rebate was to the decision of buying the EV? It should also be clarified as to goal, # sales vs. # miles.

Max Forsythe (NRC) - How dire is this? How soon do the decisions need to be made?

- Patrick Woodcock (EEA) – Funding is a serious constriction as we look at budgeting for 2019. We want stability in the future.

Marc Lebel (Acadia Center) –Are there other sources of funding for the low-income program? But, understands that short term is to make sure we stay within the budget. Maybe the smallest range PHEVs can be taken down in rebate funding as other states have done.

- Dan Sieger (EEA) — Open it up for phone and audience

Colleen Quinn (ChargePoint) — Learned from Union of Concerned Scientists that there is some movement going forward for using RGGI funding differently or changing RGGI funding?

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- Patrick Woodcock —There are ongoing discussion, but is not short-term policy option. The Governor has proposed legislation to allow RGGI funding to be used with more flexibility, including using resources to target the transportation sector. There are regional discussions to reduce GHG emissions from the transportation sector and those will be ongoing.

Peter Brennan (Mass Auto Dealers Association) — Discussion with liberal legislator about MOR-EV running out of funds, tiers/MSRP may eliminate concerns of promoting expensive cars such as Tesla.

- Dan Sieger (EEA) —Hydrogen Infrastructure, introduce David Edwards

4. David Edwards - Air Liquide on Hydrogen Infrastructure & Vehicles — PRESENTATION

Edwards wants to see FCEV promoted as a complement to BEVs. Requests help from the ZEV Commission to support equal opportunity and provide all options to consumers as available. His presentation uses Hydrogen Council and H2@Scale sources not just his company knowledge.

Status Update— Global Perspective

- I. FCEVs introductions are eminent and require timely actions
- II. Request equal treatment with other ZEVs – all vehicles LDV, trains, buses, freight.
- III. Legislation and regulation recommendation and changes sought will be all inclusive for ZEV vehicles
- IV. Hydrogen (H₂) production will go from fossil fuels to renewables (biomethane sources & renewable power sources) and H₂ can serve as a complementary energy source.

Question:

Gina- what is the percentage for renewables to natural gas currently in hydrogen production?

- In CA, 1/3 of hydrogen has to be produced from renewables by regulation/state mandate. We know the requirements will increase as will the demand for hydrogen. Currently use landfill gas to meet this requirement. Looking at transition to solar and wind going forward – if 30-50% solar and wind produced energy is excessed and not used, the power needs to be stored or could be utilized to make H₂ to stabilize the grid. This could be reality in 3-5 years.

Fouad Dagher (National Grid) - what is DOE doing for hydrogen technologies?

- Vehicle Technology Office helped develop the technologies for FCEVs and is now focusing on deploying Hydrogen production technologies at scale throughout the country.

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Charlotte Ancel (Eversource) – ME/VT balancing grid with wind. Customers pay congestion fees, H2 production could benefit ratepayers.

- If design to use excess renewables from grid and convert to H2 that would be a benefit.

Patrick Woodcock (EEA) – Could you explain the benefits of FC fork lifts?

- Up to 80% of the fork lift market can become FC. Reduce indoor air pollution and compared to alternative technology (battery) much less downtime, less refueling time.

Cont. David Edwards Presentation

- Current US production is about 13MMT/year – with potential demand of 87 MMT.
- Germany, Denmark, Korea, Japan & France are working on hydrogen
- Agreement with Toyota - 12 stations to the Northeast. NY (1 on Long Island, and three elsewhere) CT (Hartford), MA (Braintree, Mansfield (open), Newton, Lexington planned), New Jersey (2 sites) & Rhode Island (Providence).
- Hydrogen Sourced in Quebec using excess hydropower, liquid H2 is sent to storage facility in Littleton, MA and then distributed as gas to fueling stations in MA. Cannot simply replace NG with H2 in existing pipelines although some mixing is possible (need higher pressure and H2 a smaller molecule so need different material in piping to contain).
- MA tunnel access issues. Working with MassDOT for access to tunnels and survey/real estate issues for stations at two MassDOT sites.

5. Ed Young - Toyota – FCEVs - PRESENTATION

FCEVs benefits to MA – ZEV choices to all consumers

- fueling within 3-5 minutes; provide longer range for those consumers that need it
- Infrastructure is less real estate intensive.
- FCEVs have cold weather performance benefits over BEVs; fuel can be stored down to -22 degrees F
- Scalable to larger vehicles

CA Update

- Leased 3500 Mirai cars, 1100 Clarity vehicles, almost 5000 FCEVs total in CA
- One station serves about 300 FCEV (larger systems serve 600-900 LDV)
- 35 hydrogen stations operating - 60 by 2019 expected to be operating - Gov. Brown would like 200 stations by 2025

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Northeast launch update

- Boston is the focal point for Mirai's launch. Dealerships need training to sell and maintain cars; need to have special service area.
- Looking to launch 6 hydrogen stations in Northeast. Mansfield operational, Braintree, Providence & Hartford being build. Newton and Lexington need leases worked out.

Future of FCEVs

- beyond light duty - transit buses (are much lighter compared to a BEV bus), full size trucks and home delivery trucks are appropriate for hydrogen

Dan Sieger (EEA) - Next ZEV Commission Meeting in September, 2018, Linda Benevides will be reaching out to plan the agenda for that meeting. Topics may include infrastructure and outreach issues.

Any other announcements?

Gina Coplon-Newfield (Sierra Club) - reminder that drive electric week is in September (9/8-9/16). Great time to launch programs and show off your ZEV deployment.

Dan Sieger (EEA) -- Motion to adjourn

Meeting Adjourned at 12:00