

DRAFT

Electric Vehicle Infrastructure Council Meeting Minutes

Meeting Date: September 20, 2018

Meeting Location: Harry Hughes Conference Room, MDOT Headquarters, Hanover, MD

Attendees:

R. Earl Lewis (MDOT TSO)	Brendon Baatz (Charge EVC)
Colleen Turner (MDOT TSO)	Lanny Hartmann (Public)
Steve Charles (MDOT TSO)	Tom Curtain (MDOT TSO)
Gary Greening (MDOT TSO)	Jeff Stockdale (MDOT TSO)
Frank Lee (Baltimore City DPW)	Mike Raykher (OPC)
Paul Spies (MD Dept. of Commerce)	
Z. Andrew Farkas, Ph.D. (Morgan State)	
Tim Shepherd (MDE)	
Kevin Mosier (PSC)	<i>Via Phone:</i>
John Murach (BGE)	Tim Davis (MML)
Dave Schatz (ChargePoint)	Britta Gross (GM)
Mike Jones (MEA)	Joe Consoli (DBM)
Kristy Fleischmann (Pepco)	Scott Wilson (EVADC)
Ashley Myers (BEVI)	Lindsay Mendelson (Sierra Club)
Michael Wall (Clinton Electric)	Tom Walz (DHCH)
Paul Verchinski (Public)	Sevgi Erdogard (UMD)
Russell Owens (Energetics)	Eddie Pounds (Global Automakers)
Mark Howard (MDOT SHA)	Ben Margolis
Emily Wier (Greenlots)	

Welcome and Announcements Introductions

- MDOT Deputy Secretary, R. Earl Lewis, Jr., welcomed all meeting participants.
 - Deputy Secretary Lewis gave a brief update on recent happenings, such as the Georgetown Climate Center’s Transportation and Climate Initiative (TCI) Listening Session in Largo, MD, and the release of the Draft VW Mitigation Plan.
- Review of notes from May meeting
 - Accepted with no further comments.

Morgan State Update

- Z. Andrew Farkas, Ph.D.
 - Morgan State University (MSU) conducted a survey using MDOT Motor Vehicle Administration (MVA) data in the fall of 2016, sending a letter to all registered non-fleet Electric Vehicle (EV) owners.
 - The survey had a response rate of 31%, with the majority of respondents being white, male, educated, affluent, and older. The primary reason for buying EVs was environmental concern.
 - Since then, MSU has tried to discern other patterns within the database.

- Respondents who were Democrats and Independents were more concerned with environmental issues, Republican respondents purchased them for value.
 - Value related variables such as efficiency and performance were more influential for respondents earning less than \$100,000.
- Survey analyses indicates that two marketing messages may have value:
 1. Environmental benefits to target mid to high earners; and
 2. Economics to target low to mid earners.
- Mr. Farkas also noted how the study's analyses and recommendations directly support the strategy/recommendation #14 [see attachment] of the Mitigation Working Group of the Maryland Commission on Climate Change (MCCC).
- MSU's full report should be final in Early October 2018.

Public Comment

- Lanny Hartman discussed issues surrounding EVs and evacuation plans in the context of Hurricane Florence. He mentioned that there needs to be information on an evacuation network for EV drivers so that they are not stranded without power and noted that Tesla and GM enabled features to assist in evacuation for those in the path of Florence.
- **Mr. Hartman** attended the PSC hearing last week and had comments for EVIC related to fee structure.
 - The proposal includes connection fees of \$1-\$5 in addition to a per kWh charge:
 - 22.6 cents per kWh if charging for 4 hours
 - 75.6 cents per kWh for charging 1 hour
 - Mr. Hartman expressed concern that the connection fee will disincentivize charging for short periods of time.
 - Mr. Hartman wondered whether the proposal would include fees for overstaying the required charging period, like the Tesla model.
 - Paul Verchinski asked if all of the fees would be confusing to people new to EVs and would prevent some people from purchasing them. Mr. Hartman said that it could, especially if the value is not apparent.

PSC PC 44

- Colleen Turner began walking through the presentation regarding EVIC's roles and responsibilities.
 - **MDOT will send the 12 roles and responsibilities of EVIC to group [see attachment].**
- The PSC Commissioners requested that EVIC respond to the Request for Clarification by September 28th. The initial recommendations for the letter include:
 - Express regret for failing to appear at the hearing – request lead time.
 - Point PSC to the August 2018 letter submitted by EVIC, which represented the Council's views.
 - Outline EVIC's role as defined by legislation.
 - Address any overlap with the MCCC.
 - Summarize any additional points generated from discussion today to address question of role moving forward.
- Discussion of PSC PC 44 followed:
 - John Murach noted that the letter, and any supplemental marketing / educational materials, should help educate the PSC and the public on the role of EVIC and how it fits in the picture of EVSE.

- Mr. Murach suggested that EVIC may play a role in providing comments to the Electric Vehicle Portfolio Advisory Council (EVPAC) during implementation and semi-annual review.
 - Tim Shepherd and Mike Jones noted that EVIC is not an implementing body.
 - Per legislation, EVIC is primarily charged with establishing plans and developing recommendations to enhance EV/EVSE deployment in Maryland.
 - Dave Schatz agreed that EVIC's role be documented in the letter so that it is included as part of the public record.
 - Paul Verchinski said that while the role for MDOT should be to facilitate EVSE through transportation plans and programs, the Office of People's Counsel (OPC) and PSC Staff has significant issues with PC 44.
- To summarize:
 - Generally, the initial recommendations above were accepted.
 - EVIC's future role is uncertain, but it will be collaborative.
 - MDOT (Colleen Turner) will lead the letter drafting effort.

State Agency Update

- MEA
 - So far, 310 rebates have been issued – 241 residential, 69 commercial
 - For the 310 rebates, the total amount is around \$375k out of a \$1.2 million budget, which leaves around \$825k remaining.
 - Mike Jones said that this is far more residential rebates than have been issued in the past, compared to one year from FY2015-FY2017 overall.
 - Based on the current burn rate, the fund could potentially be out of money in February.
 - Paul Verchinski stated that EVIC should look at supporting legislation to extend funding, since it ends in 2020.
 - Dave Schatz agrees, but it should not be included until the following legislative session.
- MDE
 - Tim Shepherd said that MDE released the draft VW Mitigation Plan and they have already received over 300 comments on the plan.
 - There were two listening sessions on the plan – August 20th at MDE and August 29th in Frederick.
 - Once they are done working on the comments, the plan will be sent to the Governor's Office, for approval/amendment. The plan then goes to the trustee for final approval, which must be completed within 30 days.
 - The proposal period closes on December 31st and MDE hopes to award projects in the first quarter of 2019.
- MDOT
 - EVIC's State Agency Work Group has started looking at the potential for increasing EVs in the state fleet, as it is very important to the State Treasurer.
 - The Annual Report is being prepared and EVIC can expect to approve the final version of the plan during the November meeting.
 - **MDOT will send the outline to the group.**
 - Paul Verchinski is aware of the current outreach efforts but is wondering if EVIC has ever reached out to shopping mall operators. Mr. Verchinski said that he chatted with the

management team of the Columbia Mall for over an hour about EVs. Mr. Verchinski said that they will be installing 4,200 solar panels as well as EV chargers on the second floor of the garages.

- Colleen Turner stated that the outreach effort to date has been focused on educating Maryland residents.
- Michael Wall said that convincing malls and other business to install EV chargers is difficult because they are primarily looking for a return on investment.

Legislative Committee Update

- Dave Schatz reached out to HOA groups based on feedback at past EVIC meetings. HOA groups still have the same concerns that they have had the past two sessions with respect to right to charge legislation.
 - Mr. Schatz suggested EVIC and HOA groups have a conversation. The HOA groups agreed and would like to send someone to the next EVIC meeting.
 - Mr. Schatz proposed a sub-committee meeting before the next EVIC meeting to have a discussion with the HOA group.
 - **MDOT to send out a request for volunteers for the HOA sub-committee and will then send out Doodle Poll to determine available dates.**
- Mr. Schatz also asked whether the State is doing anything to respond to the roll back of the fuel standard and the California waiver.
 - Tim Shepherd clarified that Maryland is adopting the regulation as an emergency regulation, which lasts for six months. MDE is also working on a permanent regulation.

Communications Committee Update

- Ashley Myers said that BEVI concluded the internship program, with the interns producing 20 blogs and 2.5 informational videos. Ms. Myers is currently working on funding for next year and planning the internship program.
- Ms. Myers also asked if anyone knew of an organization that needs a Nissan Leaf. BEVI can no longer afford the lease and hopes to transfer it to someone who needs it, rather than return it to the dealership.
- Upcoming outreach events are posted on the EVIC Website.
- The new *marylandev.org* website went to the Communications Committee for review and should be ready for EVIC review before the next meeting.

**Next Meeting November 15th, 2018
2:00 p.m. – 4:00 p.m. at MDOT
Harry Hughes Conference Room**

Attributes of Electric Vehicle Ownership and Commuting Behavior in Maryland: Public Policy and Equity Considerations

By Z. Andrew Farkas, Hyeon-Shic Shin and Amirreza Nikkar, Morgan State University

MVA identified 4,282 EV (non-fleet) owners by county in summer 2016. MVA notified the owners by letter of survey objectives and a web link that took owners to our on line survey. We received 1,323 responses (31% return).

- EV owners are white (85%) males (75%), well educated, affluent (80% >\$100,000 household income), older, and more environmentally focused than are owners of ICEVs.
- “Environmental concerns” is the most important factor for purchasing and driving an EV; “price and status” is the second most important factor; “efficiency and performance” of the EV is the third most important.
- With respect to education attainment, EV owners with lower education levels are more concerned about the price and status of the EV than environmental issues and efficiency and performance of the EV.
- EV owners with lower household income (<\$100,000) are more concerned about the price and status of the EV.
- Generally, for younger EV owners, efficiency and performance of the EV is the main reason for purchasing, rather than environmental issues and price and status.
- Republican EV owners with lower household incomes (< \$100,000) and rural orientation purchased an EV for price and fuel independence considerations. Environmental concerns influenced Democrats and independents with higher incomes and urban orientation, the large majority of owners.
- For 85% of EV owners, home is the main charging location, while for 11% work is the main location.
- Very few EV owners used rail transit for the commute to work prior to EV purchase (5%), and even fewer after purchase (2.6%).
- Older EV owners drive less and shorter distances than younger ones, and EV owners with higher education levels drive less than EV owners with lower education levels.
- EV owners who have long commute trips are more concerned about price and efficiency and performance of EVs than those with shorter commute trips.
- Suburb-to-suburb (32%), city-to-suburb (24%), and city-to-city (17%) are the most frequent EV home-to-work trip pairs.
- EV owners with high household incomes are more likely to have city-to-city, suburb-to-city and city-to-suburb commuting trips.
- Suburbs and rural areas are the primary origins/destinations of commute trips for those EV owners who have lower household incomes and lower education levels.
- Public charging stations in suburban/rural and multifamily locations, and financial incentives for EV fleets and lower income households could promote market penetration among non-traditional vehicle purchasers. Promotional campaigns should focus on costs of operation and efficiency characteristics of EVs.

For access to the completed report in early October 2018 go to
https://www.morgan.edu/school_of_engineering/research_centers/national_transportation_center/research/completed_projects.html

14. As part of the process to meet the State's current light-duty zero emission vehicle (ZEV) goals and projections, the Maryland Electric Vehicle Infrastructure Council (EVIC) should specifically assess: (a) bolstering the State's consumer purchasing incentives for ZEVs, and regulatory and financial incentives for high power/speed ZEV infrastructure installation, including particular attention to investments and incentives for challenging areas; (b) policies that employ Maryland's public utilities to aid in efforts to rapidly and equitably expand EV infrastructure in Maryland, with specific targets in rural areas; and (c) policies that make it easier to install EV charging infrastructure at multi-family housing locations with attention to high density, urban populations.
15. The Maryland Department of Transportation (MDOT) should continue to research and evaluate the GHG emission reduction potential of vehicle and infrastructure technologies, including: connected and autonomous vehicles; EVs and other ZEVs; transportation network companies/shared rides; and system operations. The evaluation effort should include consideration of safety, congestion, and equity issues including public health, economic, and workforce impacts.
16. MDOT should continue to enhance travel demand management strategies, land use/smart growth, active transportation, and inter-city travel strategies, in collaboration with the Maryland Department of Planning (MDP) and other State agencies and stakeholders.
17. MDOT should develop tracking of key indicators of GHG reduction strategies to monitor progress of achieving goals. Examples include state facilities and fleet adoption of renewable/low-emissions energy sources, ZEV penetration, equity indicators to track participation, congestion levels, vehicle miles traveled (VMT) per capita, mobility access, and adoption of low-emissions vehicle technology for personal use.
18. MDOT, MDE, Maryland Energy Administration (MEA), Department of Budget and Management (DBM) and the Department of General Services (DGS) should review state fleet procurement procedures and practices and provide direction on procurement of EVs and other ZEVs, and associated charging/filling station installation guidance and targets, by October 2019.
19. MDOT should work with other appropriate agencies and stakeholders to examine the costs and benefits of supporting deployment opportunities of ZEV school and transit buses in Maryland. The analysis should include: (a) capital, maintenance and operating cost comparisons; (b) research into the viability of ZEVs as well as hybrid and alternative fuel technologies; (c) emissions reduction benefit summaries; and (d) potential goals to fully electrify bus transport in the State, including targets for deployment and provisions for low-interest financing.
20. MDE, Maryland Department of Natural Resources (MDNR), and Maryland Department of Agriculture (MDA) should utilize best available scientific data on land-based carbon sequestration and GHG emissions for existing GGRA programs, in collaboration with the University of Maryland/NASA Carbon Monitoring System program, the US Forest Service, and the MCCC Scientific and Technical Working Group.
21. MDNR should add a program on the carbon benefit of land conservation and avoided forest conversion through compliance with Maryland's Forest Conservation Act.



Electronic File Date: September 28, 2018
Maillog No.: 222327

September 28, 2018

Terry J. Romine, Executive Secretary
Public Service Commission of Maryland
William Donald Schaefer Tower
6 St. Paul Street, 16th Floor
Baltimore, MD 21202

**Re: Case No. 9478 – Additional Comments for
*Petition for Implementation of a Statewide Electric Vehicle Portfolio***

Dear Ms. Romine:

Maryland’s Electric Vehicle Infrastructure Council (“EVIC” or “Council”) members have reviewed the contents of the *Petition for Implementation of a Statewide Electric Vehicle Portfolio* (“*Petition*”), as well as submissions under Case No. 9478 as part of Public Conference 44 and have determined that this proposal supports the mission of EVIC and the goals for electric vehicle (“EV”) promotion and proliferation. EVIC submitted a letter documenting support for the *Petition*, which was dated August 6, 2018 and was filed on August 9, 2018 (Mail log No: 221618).

This correspondence is intended to address specific questions raised by the Public Service Commission (“Commission”) during the legislative-style hearing held on September 6 and 7, 2018, in the matter of the Petition of the Electric Vehicle Work Group for Implementation of a Statewide Electric Vehicle Portfolio. This letter documents the discussions that took place during the September 20, 2018 EVIC meeting, and addresses the following topic areas: (1) The role of EVIC; (2) The role EVIC could play if the Commission elects to move forward with the proposal to implement a coordinated Statewide Electric Vehicle Portfolio; and (3) EVIC’s absence during the hearing.

EVIC was established through legislation introduced in 2011 as part of a package of bills to promote EVs in Maryland. EVIC’s mission is to: evaluate incentives for the ownership of electric vehicles (EVs) and the purchase of EV charging equipment; develop recommendations for a statewide infrastructure plan; and, propose policies to promote the successful integration of EVs into Maryland’s communities and the transportation system. Per the *Maryland Electric Vehicle Infrastructure Council – Reporting and Sunset Extension Act* (“Act”) of 2015, the Council shall submit a final report of its work and recommendations to the Governor and the General Assembly on or before June 30, 2020. At the end of June 30, 2020, with no further action required by the General Assembly, the Act shall be abrogated and of no further force and effect. Table 1, below, outlines EVIC’s legislative requirements and the status of those requirements as of 2017, as documented in EVIC’s 2017 Annual Report to the Governor and General Assembly.

Table 1: EVIC Legislative Requirements & Status

	Requirement	Status
1	Develop an action plan to facilitate the successful integration of electric vehicles into Maryland's transportation network.	The Action Plan was delivered in 2012.
2	Assist in developing and coordinating statewide standards for streamlined permitting and installation of residential and commercial PEV charging stations and supply equipment.	Addressed through Legislative Workgroup and EVIC recommendations.
3	Develop a recommendation for a Maryland charging infrastructure plan, including placement opportunities for public charging stations.	Discussed in 2017 and currently being developed in conjunction with Volkswagen Consent Decree efforts.
4	Increase consumer awareness and demand for electric vehicles through public outreach.	Continued improvements through Communications.
5	Make recommendations regarding monetary and nonmonetary incentives to support electric vehicle ownership and maximize private sector investment in electric vehicles.	Addressed through the Legislative Workgroup and EVIC recommendations related to the Maryland Clean Cars Act of 2017.
6	Develop targeted policies to support fleet purchases of electric vehicles.	Discussed in 2017.
7	Develop charging solutions for existing and future multi-dwelling units.	Addressed through the Legislative Workgroup and EVIC recommendations.
8	Encourage local and regional efforts to promote the use of electric vehicles and attract federal funding for Plug-In Electric Vehicle programs.	Currently being developed in conjunction with Volkswagen Consent Decree efforts.
9	Recommend policies that support PEV charging from clean energy sources.	To be addressed by Workgroups.
10	Recommend a method of displaying pricing information at public charging stations.	To be addressed by Workgroups.
11	Establish performance measures for meeting PEV-related employment, infrastructure, and regulatory goals.	To be addressed by Workgroups.
12	Pursue other goals and objectives that promote the utilization of electric vehicles in Maryland.	To be addressed by Workgroups.

More information, including details on The Council's membership and our legislatively required annual reports can be found on EVIC's website:

http://www.mdot.maryland.gov/newMDOT/Planning/Electric_Vehicle/About_the_Council.html

During the September 20, 2018 meeting, Council members discussed the role that EVIC might play should the Commission grant the *Petition*. Given the charge of the Council, it will play an instrumental role in the implementation of the proposal. While the proposal relies on participating electric companies to serve as program administrators, EVIC believes that it will need to continue to collaborate on facilitating the successful integration of electric vehicles into the transportation network and will play a key role in the development of a charging infrastructure plan, including placement opportunities for public charging stations. In addition, there is overlap between the proposal and draft recommendations from the Maryland Commission on Climate Change, which has requested that EVIC, "... assess policies that employ Maryland's public utilities to aid in efforts to rapidly and equitably expand EV infrastructure in Maryland, with specific targets in rural areas; and policies that make it easier to install EV charging infrastructure at multi-family housing locations with attention to high density, urban populations."

While many of the Council's members were in attendance and provided testimony and comments during the September 6 and 7, 2018 hearing, the full Council regrets being absent. The Council respectfully requests that the Commission issue a formal invitation to appear with at least ten days' notice should EVIC be required to testify or appear before the Commission on any future matter.

As currently outlined in the filing dated January 19, 2018, the *Petition* represents significant programs and investments in critical EV infrastructure throughout Maryland. The proposal is the result of a yearlong set of policy discussions and deliberations among many stakeholders, including EVIC members. EVIC members continue to generally support the *Petition* and expect the Commission to consider input from all stakeholders and make modifications as appropriate.

Should the Commission require further clarity on the role of EVIC, its support of the *Petition*, or the contents of this letter, please feel free to reach out to me at 410-865-1006 or rlewis1@mdot.state.md.us or EVIC Staff, Colleen Turner at (410) 865-2773 or cturner@mdot.state.md.us.

Respectfully,



R. Earl Lewis, Jr.
EVIC Chairman