



NEW HAMPSHIRE SENATE

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MEMORANDUM

DATE: November 9, 2020

TO: Honorable Chris Sununu, Governor
Honorable Donna Soucy, President of the Senate
Honorable Steve Shurtleff, Speaker of the House
Michael York, State Librarian

FROM: Senator David Watters, Chairman

SUBJECT: Final Report of the Electric Vehicle Charging Stations Infrastructure
Commission
SB 517, Chapter 154:1, Laws of 2018

Pursuant to SB 517, Chapter 154:1, Laws of 2018, enclosed please find the Final Report of the Electric Vehicle Charging Stations Infrastructure Commission.

If you have any questions or comments regarding this report, please do not hesitate to contact my office.

I would like to thank the members of the Commission and all those who participated in compiling this report for their efforts.

Senator David Watters

Enclosures:

Final Report

Commission Minutes

Cc: Commission Members

Final Report
Electric Vehicle Charging Stations Infrastructure Commission
Senate Bill 517 (2018)

The Electric Vehicle Charging Stations Infrastructure Commission (EV Commission) was established via Senate Bill 517, adopted in the 2018 legislative session. The current Commission members are:

Matthew Mailloux - Office of Strategic Initiatives	Dave Rodrigue - Dept. of Transportation
Richard Bailey, Jr - Dept. of Safety	Rebecca Ohler - Dept. of Environmental Services
Kevin Boughan - Eversource	Dan Bennett - NH Automobile Dealers Assoc.
Peter King (Geosyntec) - Business & Industry Assoc.	David Watters - Senate
George Sykes - House	Steven Smith - House
Gary Lemay (NH Elec. Coop.) - Drive Electric NH	Carleton Simpson - Unitil
Kevin Miller (ChargePoint) - Manufacturers Industry	

The EV Commission was tasked with making recommendations on the following eight areas:

1. The development of zero emission vehicle technology and infrastructure, including private and rental residence, business, and municipal installation of electric vehicle charging stations.
2. The availability of high-speed charging stations and the role of proprietary technology in relation to their availability and use on public property.
3. The development of electric vehicle charging stations, including high-speed charging stations, in state and federal highway corridors and at public transportation hubs and parking garages.
4. New Hampshire joining the Multi-State ZEV Task Force or forming an interstate compact for the development of electric vehicle charging station networks.
5. Legislation on tax credits for private and rental residence and business installation of electric vehicle charging stations.
6. Changes needed to state laws, rules, and practices, including building codes and public utilities commission rules, to further the development of zero emission vehicle technology and infrastructure.
7. Potential private, state, federal, and municipal funding sources, including grants, the Volkswagen settlement and other settlement funds, and regional greenhouse gas initiative funds.
8. State agency workplace charging.

This report provides an overview of the work of the EV Commission from its inception in 2018 through October 2020, and final recommendations from the Commission, which expires on November 1, 2020.

EXECUTIVE SUMMARY OF EV COMMISSION MEETINGS

The EV Commission met seventeen (17) times between August 2018 and November 2020. Due to the diverse background of the EV Commission members, the early meetings focused on educating members about the current status of the electric vehicle (EV) market, the basics of EV charging equipment (also known as electric vehicle supply equipment, or EVSE), a review of current policy in some Northeast states relative to zero emission vehicles (ZEV), where charging typically takes place (home, work, around town, travel corridors, destinations) and the types of chargers needed for different locations. The electric utilities shared information relative to the impact large-scale adoption of EVs could have on the grid and strategies to manage that impact to ensure reliability and to keep infrastructure costs down. The Commission also reviewed tools that have been developed for the Northeast states to help determine the best locations for Direct Current Fast Chargers (DCFC), which are essential for long range EV travel, and heard from the Office of Strategic Initiatives (OSI) regarding the planned use of the VW Settlement funds¹.

The Commission finds that electric utility investment in grid infrastructure to support the installation of EVSE lowers the barriers to such installation. Availability of EVSE is critical to facilitating the development of the overall EV market in the region and will support our tourism-based economy.

Electric distribution companies (EDC) are uniquely positioned to enable strategic electrification as part of larger investments in grid modernization capabilities, specifically investments in electric vehicle charging infrastructure. Utility owned or funded behind the meter enabling infrastructure, also known as “make-ready” infrastructure, can accelerate charging infrastructure deployment, and it has the potential, all else equal, to put downward pressure on rates by spreading fixed costs over a greater volume of electric sales.

Solutions like make-ready charging infrastructure can leverage electric utility expertise in designing, building, and maintaining electrical distribution infrastructure, which can help support EV charging and serve as a platform for third party innovation and forward- thinking pilots designed to advance EV adoption and serve potential EV drivers in areas with additional market barriers.

The EV Commission adopted the following statement to provide guidance to OSI on use of the VW funds:

The Electric Vehicle Charging Infrastructure Commission recommends prioritizing EV charging infrastructure initial investment from the Volkswagen Settlement and other potential sources along the

¹ <https://www.nh.gov/osi/energy/programs/vw-settlement.htm>

interstate highway system, the NH turnpike system, and other roadways; and prioritized as deemed suitable as determined by OSI, NHDES, and NHDOT in consultation with the commission.

Through a brainstorming session in which public attendees were included, the EV Commission identified four priorities for the work of the Commission, including; providing guidance to OSI on the use of the Volkswagen funds; including development of Level 2 charging at key locations as part of long-term infrastructure planning; working to ensure state agencies lead by example through the purchase of EVs for the state fleet; and recognizing that building codes and zoning ordinances can play an important role, either positive or negative, in the development of adequate charging infrastructure.

The EV Commission evaluated and identified priority corridors for installation of DCFC, reviewed typical construction costs to install that infrastructure, discussed the appropriate role of electric utilities in development of EVSE, and heard a utility proposal for public-private investment at 12 sites in New Hampshire. Electric utility demand charges, which can make operation of DCFC unprofitable, were explored, and the Commission also heard from the New England Convenience Stores and Energy Marketers Association (NECSEMA) regarding their potential role in supporting vehicle electrification.

While most of the focus of the EV Commission was on battery electric vehicles, the Commission did also learn about Fuel Cell Electric Vehicles and their associated fueling infrastructure needs. The Commission also heard from the NH Department of Business and Economic Affairs (BEA) regarding NH's relatively high percentage of workforce engaged in the technology sector. BEA also commissioned a report, *Evaluating Electric Vehicle Infrastructure in New Hampshire*, that looked at how the State of New Hampshire can best support electric vehicle (EV) charging infrastructure through appropriate policies and prudent investments and benefit the state's overall economy. One benefit to the economy is the attraction EV charging can have to EV owners, and the Commission heard more about this concept through a discussion of *Drive Change. Drive Electric.*, an EV awareness campaign recently launched by Northeast states that highlights specific communities in each state that have small businesses that have actively supported EV charging. Dover, Portsmouth and Nashua are the New Hampshire communities highlighted in the regional outreach program.

The EV Commission spent a significant amount of time discussing the need for DCFC on New Hampshire corridors and the need to utilize the Volkswagen Settlement funds to support such investment. In June 2019, OSI provided a high-level overview of a planned Request for Proposals (RFP) for installation of DCFC and co-located Level 2 charging infrastructure. In response to this overview the EV Commission developed the following public statement:

Recognizing that:

- *Adequate electric vehicle supply equipment (EVSE) in New Hampshire, and in particular direct current fast chargers (DCFC) along major travel corridors in the state, is necessary to enable electric vehicle (EV) travel within and through New Hampshire; and*
- *Availability of adequately spaced EVSE along the state’s major travel corridors is essential to overcome “range anxiety” and enable and encourage broader adoption of EVs by New Hampshire residents and residents throughout the Northeast; and*
- *Manufacturers continue to introduce a wider variety of EV models which will be available to consumers in the coming years and that drivers will be best served if New Hampshire’s EV charging market supports multiple business models, generates new jobs, and encourages innovation and competition in equipment and networks services; and*
- *New Hampshire’s Volkswagen Beneficiary Mitigation Plan provides funding for the support of EVSE development within the state; and*
- *Electric utilities have proposed a “make ready” program for New Hampshire that could provide streamlined interconnection and behind the meter investment by the utilities;*

The EV Commission therefore requests that:

- *The Office of Strategic Initiatives (OSI), working with the electric utilities and the NH Department of Environmental Services (NHDES), develop a request for proposals (RFP) utilizing the VW settlement funds to spur private sector investment in DCFC, combined with Level 2 charging; and*
- *The RFP should strive to result in adequate EVSE along the priority travel corridors presented by NHDES and the Department of Transportation at the Commission’s January 2019 meeting to alleviate range anxiety; and*
- *The RFP should be released in a timely manner with the goal of having EVSE in place on those corridors by the end of 2020; and*
- *The fully regulated electric utilities work with the Public Utilities Commission and EVSE industry stakeholders to design and obtain approval for a “make ready” program for New Hampshire that is designed to work both in conjunction with the RFP and beyond; and*
- *OSI, in collaboration with the EV commission and NHDES, and in consideration of the results of the pending NH Department of Business and Economic Affairs statewide infrastructure plan, work to develop further initiatives for the remaining EVSE fund balance, such as: providing EVSE for state electric vehicles, a statewide Level 2 charging solicitation, EVSE to support fleet electrification, workplace electrification, or other similar efforts.*

Following a summer break the EV Commission returned to discuss rate design issues with Public Utilities Commission (PUC) staff that would be appropriate for the various types (DCFC and Level 1 and

2) of EVSE. In November 2019, the Commission was briefed on the DCFC RFP for charging infrastructure on major NH corridors, released by OSI in November 2019. The DCFC RFP closed in late January 2020, with no qualifying proposals submitted, and OSI and NHDES scheduled a listening session in March to accept feedback regarding the solicitation.

In the interim, the EV Commission discussed Level 2 charging needs, and in March 2020, the Commission discussed how the state should utilize VW funding to support Level 2 charger installations. No specific recommendations were adopted by the Commission, but numerous ideas were brought forth, including ensuring small communities had an opportunity to get VW funds for charging; ensuring our largest populations centers and intermodal transportation centers get funds; discussion whether the funds should be available for non-networked chargers or do we need/want the data from networked systems; competing ideas on whether a scoring system or just minimum qualifications should be used to distribute the funds; and whether VW funds should be available to support workplace charging. There was agreement that Level 2 chargers built with VW funds should still be able to collect a fee for charging.

Due to COVID the EV Commission did not meet in April, May or June 2020, resuming in a July virtual meeting where a representative of Congressman Pappas briefed the Commission on the recently passed “Moving Forward Act” and Sen. Shaheen’s staff discussed the pending Transportation Innovation Guaranteeing Emission Reduction through Energy Efficiency (TIGER-EE) Act. The Commission was also briefed on the Medium-Heavy Duty Zero Emission Vehicle Memorandum of Understanding (MHD ZEV MOU) that fifteen states signed on to in July.

The EV Commission heard from Clean Energy NH how EV charging could support the local economy north of the Notch by attracting EV owners who would “stay and play” while charging. The Commission was briefed by PUC staff regarding Order 26,394, issued in PUC docket IR 20-004, which was opened in response to Senate Bill 575 (2018) that directed the PUC to look at Rate Design standards relative to EV charging, including cost of service, prohibition of declining block rates, time of day rates, seasonal rates, interruptible rates, load management techniques, and demand charges.

Final discussions of the EV Commission were how to continue the unfinished business of the Commission, focusing on the existing Transportation Council (RSA 238-A:2) as the body best suited to take over this effort; and what should be the final recommendations of the Commission. The Commission completed its work on October 30, 2020 by adopting this report, inclusive of its recommendations.

More detailed reports of each meeting are included at Attachment A to this report.

EXECUTIVE SUMMARY OF COMMISSION RECOMMENDATIONS

The state should commit to the development of Zero Emission Vehicle (ZEV) technology and infrastructure, including the state, private and rental residence, business, and municipal installation of EV charging stations to reduce air pollution emissions and stimulate the transformation to a lower carbon transportation system.

The State should move quickly to use the VW Settlement funds to deploy DC fast charging stations along major corridors and to deploy level 2 EVSE on other corridors and locations, including municipalities and businesses, with a portion of funds available in a rebate program, and should consider utilizing a third party to develop and administer programs.

New Hampshire should consider authorizing public utilities to include EVSE “make ready” programs and other EVSE initiatives as part of the systems benefit charge, and it should consider authorizing the use of tax credit programs for EVSE installation in residential and business locations.

The state should study and consider adopting a successful ZEV mandate or vehicle incentive program and joining regional, multi-state programs.

State Agencies should assess EVSE needs for employees, with stations also available for public use, and the state should adopt plans to move the state vehicle fleet towards ZEV.

The State of New Hampshire and agencies should develop Operating Budgets and Capital Budget funding proposals and goals for ESVE, and pursue funding from Federal sources.

The state should encourage and enable deployment of EVSE in residences and businesses, and make any needed changes in building codes, rules, and practices.

FINAL RECOMMENDATIONS OF THE EV COMMISSION

Enabling and encouraging the use of electric vehicles (EVs) in New Hampshire will support economic development in areas of the state dependent on tourism, lower lifetime costs of owning a vehicle for many drivers, and result in lower emissions of criteria pollutants and greenhouse gas emissions that contribute to climate change. Therefore, the following recommendations regarding actions, legislation and policies necessary to support and encourage increased adoption of electric vehicles by New Hampshire residents, and to support travel to and throughout New Hampshire by visitors, are put forth by the members of the Electric Vehicle Charging Station Infrastructure Commission. Recommendations include actions to hasten development of electric vehicle supply equipment (EVSE) necessary to charge EVs, as well actions to spur the sale and adoption of EVs.

All levels of state government, including state agencies and departments, are requested to use these recommendations as a guide to future policies, practices, rules, and legislation. The Commission's recommendations should be advanced by the New Hampshire Transportation Council², which should serve as a successor to the work of the EV Commission and should develop new recommendations as circumstances require.

Executive Branch

Through the New Hampshire Volkswagen Settlement Beneficiary Mitigation Trust Fund (NH VW Trust), the Governor's Office of Strategic Initiatives (OSI) should solicit and fund projects to deploy direct current fast charging (DCFC) stations along New Hampshire's major corridors as expeditiously as possible. Additional EVSE at public transportation hubs and public parking areas should also be pursued in the near-term.

OSI should re-issue a solicitation for electric school buses using NH VW Trust in the near term.

OSI should consider allocating of a portion of the NH VW Trust EVSE for a non-proprietary Level 2 EVSE rebate program for publicly accessible chargers, to be administered by a non-governmental entity.

New Hampshire should consider participating in existing regional efforts to reduce emissions from the transportation sector, including signing on to the ZEV Memorandum of Understanding (ZEV MOU) and participating in the multi-state ZEV Program Implementation Task Force, which serves as a forum for coordination and collaboration on the full range of program support.

General Court

The legislature should study and consider adopting successful ZEV mandates such as the California Low Emission Vehicle (CALEV) or other vehicle incentive programs and joining multi-state programs, such as the Northeast and Mid-Atlantic Transportation Climate Initiative (TCI), to promote ZEV adoption and EV infrastructure.

New Hampshire should consider implementing any final recommendations from the (TCI) collaborative efforts to cap global warming pollution from transportation fuels and invest millions annually to achieve additional benefits through reduced emissions, cleaner transportation, healthier communities, and more resilient infrastructure.

Since regulated electric utility investment can reduce the cost of and barriers to the installation of EVSE, particularly DCFC, New Hampshire should consider legislation to encourage and enable fully

² Established by House Bill 267 (2018), Chaptered Law 291 via Revised Statutes Annotated 238-A:2, <http://www.gencourt.state.nh.us/statstudcomm/>

regulated electric utilities to include EV charging “make ready” programs to fund upgrades necessary to support the installation of EVSE, and in particular for DCFC, through the system benefits charge or other mechanisms, and make any other needed statutory changes needed to accommodate the findings in PUC Order 26,394 issued August 18, 2020, in response to Senate Bill 575 (2018) which was addressed via docket 20-004, and subsequent dockets on rate setting, to provide some assurance for predictable and sustainable operating costs.

New Hampshire should consider including EVSE installation as an allowable investment under the research and development tax credit. New Hampshire should consider legislation to enable municipalities to offer tax credits for the installation of EV charging stations in residential and business locations.

The legislature should consider including EVSE as an allowable expenditure under the municipal registration fee transportation surcharge.

The legislature should consider enacting goals for increasing the share of ZEV vehicles in the state vehicle fleet. A state fleet EV requirement should be considered, and include total cost of ownership as a factor, using actual ownership time. Legislation should be considered to incentivize agencies to adopt ZEV and to support EV charging infrastructure. The legislation could also set a sequence of escalating minimum fuel economy standards as part of the transition to ZEVs.

The legislature should consider requiring EVSE in relevant capital budget proposals for building construction, as well as in school construction aid, and creating a separate fund for competitively bid agency proposals for EVSE.

The legislature should consider legislation to increase the registration fee for ZEVs, with proceeds to be dedicated to EVSE and other ZEV infrastructure.

The legislature should consider legislation to fund and encourage private funding along travel corridors other than the major highways for DC fast charging stations and Level 2 charging stations, with particular attention to the North Country and other rural areas, so people living there and traveling to the region for recreation will have access to EV charging.

The legislature should consider supporting the development of ZEV technology and infrastructure, including the state, private and rental residence, business, and municipal installation of EV charging stations.

State Agencies and Municipalities

The New Hampshire Department of Transportation should consider including EV infrastructure as an eligible project for funding under the Congestion Mitigation and Air Quality Improvement (CMAQ) Program.

OSI and the Department of Environmental Services (NHDES) should include budgetary requests to support programs aimed at promoting EV adoption and implementing EVSE infrastructure projects.

New Hampshire state agencies should assess the current and future needs for EVSE for their employees and the public and determine appropriate locations for charging stations. These charging stations could be funded through VW settlement, federal or other funds, as available for this purpose, and through the capital budget. The agencies should consider third-party operation and maintenance of EVSE and should ensure the cost of the power supply is borne by the users of the equipment.

Stations funded through state programs, including the VW Trust and other programs utilizing federal or competitive funds, should leverage open standards and facilitate inter-network roaming to ensure the broadest possible use of those stations by EV drivers.

The state and municipalities should encourage the installation of charging infrastructure in single-family residential, multi-family residential, workplaces, public garages, and municipal locations.

The state should consider adopting the EV-ready building code requirements in the most recent International Energy Conservation Code to enable installation of charging infrastructure in new residential and business construction.

Municipalities should consider adopting the EV-ready building code requirements in the most recent International Energy Conservation Code (if such requirements remain absent from the State Energy Code) to enable installation of charging infrastructure in new residential and business construction.

Since difficulty in obtaining local permits can be a significant barrier for installing EVSE, municipalities should ensure code inspectors are educated about EVSE and review “best practices” for streamlining permitting processes to the extent feasible.

CONCLUSION

The EV Commission thanks all those who have served on the commission and helped create the recommendations in this report, particularly Senator David Watters who served as the chair of the commission and Rebecca Ohler who served as clerk.

The EV Commission members also thank the members of the public, state agency personnel, businesses, and organizations who participated in and informed the work of the Commission.

ATTACHMENT A

SUMMARY OF EV COMMISSION MEETINGS

The EV Commission met seven times from December 2019 through October 2020. Meeting summaries are below and full minutes and all meeting materials are available on a webpage hosted by the NH Department of Environmental Services³.

August 24, 2018 - At this inaugural EV Commission meeting elections were held and Senator David Watters was elected Commission Chair and Rebecca Ohler (NHDES) was elected clerk. Senator Watters reviewed the charge of the commission and went over the rules of a commission and the Right to Know law as it relates to the commission. Sarah McKearnan, Senior Policy Advisor with Northeast States for Coordinated Air Use Management, a nonprofit association of air quality agencies in the Northeast, provided a broad overview of the current status of the electric vehicle (EV) market, the basics of EV charging equipment (also known as electric vehicle supply equipment, or EVSE), a review of current planning in the Northeast, opportunities to coordinate infrastructure investment, where charging takes place (home, work, around town, travel corridors, destinations), and key overarching issues.

September 28, 2018 - The EV Commission heard from representatives of the four major electric utilities – Eversource, Liberty Utilities, Unitil and the NH Electric Cooperative. Collectively the discussion brought out the following information:

- EVs will be cost competitive in the next two to five years;
- There are benefits to all electric customers from increased adoption of EVs;
- It is important that we think through and manage the transition to avoid unintended consequences.
- Incentives (i.e. EV rebates, EVSE rebates) can be effective in increasing electric vehicle adoption rates;
- EV charging rates can be effective at reducing use of electricity for EV charging during peak demand periods; and
- EVs include hydrogen fuel cell (HFC) vehicles, not just battery electric vehicles.

October 26, 2018 - Matthew Goetz, Electric Vehicle Manager at the Georgetown Climate Center, presented an MJ Bradley & Associates tool developed to assist states in determining the best places to locate fast chargers (DCFC) along major corridors. The tool utilizes multiple data sets such as traffic volumes, location of existing charging stations, and availability of amenities near highway exits.

Matthew Mailloux and Alexis Labrie from the Office of Strategic Initiatives (OSI) presented an overview of the 2018 Ten Year State Energy Strategy and an overview and update on the status of the Volkswagen Settlement funds (VW Funds), including the state's Beneficiary Mitigation Plan.

The Commission voted to provide guidance to OSI on the use of a portion of the VW Funds by adopting the following statement:

³ <https://www.des.nh.gov/organization/divisions/air/tsb/tps/msp/sb517.htm>

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The Electric Vehicle Charging Infrastructure Commission recommends prioritizing EV charging infrastructure initial investment from the Volkswagen Settlement and other potential sources along the interstate highway system; the NH turnpike system, and other roadways; and prioritized as deemed suitable as determined by OSI, NHDES, and NHDOT in consultation with the commission.

The Commission's intent is for the statement to be guidance to OSI to place an initial focus on corridor charging, but that there will likely also be investment potential in charging infrastructure in other locations as well. This statement was also intended as a directive to the three agencies to come up with a plan and bring it back to the commission for approval.

December 7, 2018 - This meeting was designed as a workshop to create a roadmap for the work of the Commission over the coming months that would enable the Commission to provide recommendations on the 8 areas specified in SB 517. Through breakout groups, that included Commission members and attending public, the following top priorities/issues were identified:

1. Provide guidance to OSI on the use of the Volkswagen funds
2. Long-term infrastructure planning should include development of Level 2 charging at key locations
3. State agencies should lead by example through the purchase of EVs for the state fleet.
4. Building codes and zoning ordinances could play an important role by requiring "make ready" in new building and reconstruction projects.

January 25, 2019 - Becky Ohler (NHDES) presented the work completed by NHDES and NHDOT to identify priority corridors for the development of DCFC infrastructure in New Hampshire: Interstates I-89, I-93, and I-95; and portion of state Routes 2, 3, 4, 9, 11, 16, and 101.

David Rodrigue (NHDOT) presented DOT's proposed signage policy for DCFC on the limited access highway system.

Charlotte Ancel, (Eversource) presented information about heavy duty transit and school bus electrification projects in surrounding states. Preliminary evaluation points to a positive cost/benefit; however, demand charges are a significant issue and strategies must be developed to minimize them.

February 22, 2019 - Chris Nihan from ChargePoint gave a presentation titled DC Fast Charging in New Hampshire: Capital and Operating Cost Barriers and Opportunities. The presentation provided figures for the installation costs for two 50 kW fast chargers and two 150 kW fast chargers.

- Site acquisition: \$0 – 25,000
- Hardware (DCFC equipment): \$60-80,000 (50 kW) \$90-150,000 (150 kW)
- Electrical panels and switchgear: \$4-20,000 (50 kW) \$12-26,000 (150 kW)
- Engineering, design and permitting: \$3,500 – 12,000 (50 kW) \$7-16,000 (150 kW)
- Utility upgrade: \$2-5,000 (50 kW) \$35-100,000 (150 kW)
- Project management: \$3-10,000 (50kW) \$5-15,000 (150 kW)
- Construction: \$35-90,000 (50kW) \$70-120,000 (150 kW)

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The presentation went on to discuss demand charges and how they are a barrier to DC Fast Charging as a business opportunity during the beginning of electric vehicle adoption.

Jon Shaer, Executive Director of New England Convenience Stores and Energy Marketers Association (NECSEMA), shared the perspective of the convenience stores and transportation fuels distributors.

Gary LeMay (NH Electric Coop) discussed some of the barriers to electric utility investment in electric vehicle charging including high infrastructure costs, lack of experienced/knowledge operating EVSE; and lack of knowledge regarding location of EVs.

March 22, 2019 - Representative from three of the electric utilities in New Hampshire (Carleton Simpson, Unitil; Huck Montgomery, Liberty Utilities; and Kevin Boughan, Eversource) discussed the role of electric utilities in development of EVSE. A joint utility DCFC corridor investment proposal that would utilize a public-private partnership to develop 12 sites with four 50kW DCFC per site on major transportation corridors in New Hampshire was presented.

April 26, 2019 - Charles Myers, Massachusetts Hydrogen Coalition, provided an overview of fuel cell vehicle (FCV) technology and the associated fueling infrastructure needs. The presentation reviewed the fuel cell concept and current vehicles available on the market, including light duty passenger cars; medium duty delivery trucks; transit buses; and heavy duty class 8 tractor trailers.

Tim White (NHDES) gave an update on the nominations for FHWA alternative fuel corridors.

May 24, 2019 - Carol Miller (New Hampshire Bureau of Economic Affairs (BEA)) discussed key growth sectors in New Hampshire - healthcare, advanced manufacturing, technology, hospitality, and construction. New Hampshire ranks fairly high among all states for the percentage of workforce employed in technology and technology jobs continue to grow in New Hampshire. BEA recruits businesses, workforce/talent, travel industry, and students into New Hampshire, targeting millennials and commuters from age 28-32 years old, who are also likely to drive electric vehicles. BEA hired Plug-in America to develop a strategic plan for EV infrastructure improvements in NH. Peter O'Connor (Plug-in America) provided an overview of that plan. Plug-in America is working with CALSTART (to address heavy duty fleet needs) and S Curve Strategies (for communications and outreach) on the plan.

Jessica Wilcox (NHDES Granite State Clean Cities Coordinator) provided an overview of the *Drive Change. Drive Electric. Destination Electric* EV awareness campaign recently launched by Northeast states. *Destination Electric* identifies small, unique businesses have EV charging available within walking distance of. In New Hampshire Dover, Portsmouth and Nashua are participating in the program. The goal is to raise consumer awareness of electric cars and the availability of EV charging in that community.

Senator Watters presented the following policy statement developed by the electric utilities that the commission might consider endorsing in advance of any DC Fast Charging Corridor Proposal:

"The Commission endorses utility electric vehicle charging station and supply equipment 'make-ready' programs that provide streamlined interconnection and behind the meter investment. Such investments are viewed as prudently incurred and just and reasonable capital expenditures by the utility."

After some discussion, senator Watters decided to share the language with the Office of Strategic Initiatives.

June 28, 2019 - Matthew Mailloux (OSI) presented a high level overview of the proposal for funding DCFC using VW funds. He stated that the targeted corridors will be in line with the ones presented by NHDOT and NHDES to the commission earlier in the year. In response to this pending Request for Proposals the Commission approved the following statement:

Recognizing that:

- *Adequate electric vehicle supply equipment (EVSE) in New Hampshire, and in particular direct current fast chargers (DCFC) along major travel corridors in the state, is necessary to enable electric vehicle (EV) travel within and through New Hampshire; and*
- *Availability of adequately spaced EVSE along the State's major travel corridors is essential to overcome "range anxiety" and enable and encourage broader adoption of EVs by New Hampshire residents and residents throughout the Northeast; and*
- *Manufacturers continue to introduce a wider variety of EV models which will be available to consumers in the coming years and that drivers will be best served if New Hampshire's EV charging market supports multiple business models, generates new jobs, and encourages innovation and competition in equipment and networks services; and*
- *New Hampshire's Volkswagen Beneficiary Mitigation Plan provides funding for the support of EVSE development within the state; and*
- *Electric utilities have proposed a "make ready" program for New Hampshire that could provide streamlined interconnection and behind the meter investment by the utilities;*

The EV Commission therefore requests that:

- *The Office of Strategic Initiatives (OSI), working with the electric utilities and the NH Department of Environmental Services (NHDES), develop a request for proposals (RFP) utilizing the VW settlement funds to spur private sector investment in DCFC, combined with Level 2 charging; and*
- *The RFP should strive to result in adequate EVSE along the priority travel corridors presented by NHDES and the Department of Transportation at the Commission's January 2019 meeting to alleviate range anxiety; and*
- *The RFP should be released in a timely manner with the goal of having EVSE in place on those corridors by the end of 2020; and*
- *The fully regulated electric utilities work with the Public Utilities Commission and EVSE industry stakeholders to design and obtain approval for a "make ready" program for New Hampshire that is designed to work both in conjunction with the RFP and beyond; and*
- *OSI, in collaboration with the EV commission and NHDES, and in consideration of the results of the pending NH Department of Business and Economic Affairs statewide infrastructure plan, work to develop further initiatives for the remaining EVSE fund balance, such as: providing EVSE for state electric vehicles, a statewide Level 2 charging solicitation, EVSE to support fleet electrification, workplace electrification, or other similar efforts.*

October 4, 2019 - Tom Frantz from the New Hampshire Public Utilities Commission (PUC) discussed the PUC role in regulating public utilities that are considered natural monopolies and that are vested with public interest. The PUC ensures that “costs are known and reasonable” and that costs are appropriately reflected in rates. The issue of demand charges was discussed and Mr. Frantz indicated that one option would be for the utilities to propose a separate customer and rate class for EV charging infrastructure, a step that should be done during a utility rate case. Time of use pricing can also impact demand at peak times.

OSI and DES continue work to develop the RFP for use of VW Trust funds in support of a DCFC network in NH and anticipate release of the RFP in the near future.

November 22, 2019 – The 2019 Annual Report of the EV Commission was approved by members.

An overview of a Request for Proposals (RFP) for Direct Current Fast Charging (DCFC) infrastructure on specified major corridors in New Hampshire, released 11/22/2019, was presented by Sen. Watters, Matthew Mailloux and Rebecca Ohler. The RFP is proposing to pay for 80% of eligible costs, including equipment, onsite electrical, connectors, on-site signage, shipping and freight, construction costs, administrative costs relative to the construction cost and does not include electrical utility upgrades, upkeep and on-going maintenance, real estate, building, or parking facilities. There was significant discussion regarding the details of the RFP.

It was agreed that the Commission would turn its focus to Level 2 charging and perhaps make a recommendation to OSI that the next RFP focus on Level 2 charging. Members were asked to make recommendations regarding businesses and trade organization that should be invited to discuss Level 2 needs with the Commission.

There was discussion regarding the use of federal Congestion Mitigation and Air Quality funds to be put toward corridor studies in New Hampshire, inclusive of an EV charging needs analysis. The meeting closed with a brief Legislative update, which included a potential bill relative to restricting EV charging parking spaces to EVs, and a filed Legislative Service Request relative to the adoption of the California Low Emission Vehicle and Zero Emission Vehicle (LEV ZEV) mandate by New Hampshire.

January 24, 2020 - Colin Lentz, Strafford Regional Planning Commission (SPRC) provided a perspective of regional planning commissions regarding state support for development of EV charging infrastructure. Colin presented two handouts; a pamphlet on what the regional planning commissions (RPCs) do and an analysis of home to work trips to identify density areas that might indicate good locations for charging. This analysis was completed by SRPC and shared with Electrify America by NHDES hoping to attract EVSE investment in NH by Electrify America. NH communities are eager to implement local charging options. Colin also noted that the RPCs were a conduit for information between the state and the municipalities. Senator Watters noted that based on his conversations there are many businesses and communities that would like to host Level 2 stations.

Daniel Gatti, Union of Concerned Citizens, requested to speak on Level 2 charging, and more specifically about the regional Transportation and Climate Initiative (TCI). He stated that the program would not only assist in

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reducing air emissions in the region, but would also provide a consistent funding source for transportation initiatives.

Senator Watters explained that TCI proposes a cap and trade policy, similar to the Regional Greenhouse Gas Initiative (RGGI). TCI would result in a 5-17 cent per gallon increase in transportation fuels, resulting in a funding source for states to use as they see fit. Senator Watters asked for analysis to be sent to him on the details of TCI and explained that NH adopting a program like TCI would result in larger investments in zero-emission vehicles. Matthew Mailloux (OSI) noted that Governor Sununu has declined to have NH participate in TCI and provided information following the meeting on the TCI initiative and those resources are included in the minutes.

The Commission had additional discussion regarding Level 2 charging and how VW Settlement funds should be used to support Level 2 charging in New Hampshire. There was broad ranging discussion of Level 2 options for state, municipal and workplace charging, including use of a rebate model to support projects. NH Electric Coop has a rebate program in place. Their program does not require the chargers to be networked and offers 50 percent of installed cost up to \$2500 per port (though none have cost that much). There was additional discussion on programs in neighboring states, with incentives ranging from \$5,000 to \$8,000 per Level 2 port. Due to restrictions on state agencies (other than the PUC) running rebate programs there was discussion of contracting a third party to run a Level 2 rebate program for the state using the VW funds.

State agency workplace charging was discussed and NHDES shared that it been selected for a Congestion Mitigation and Air Quality grant from DOT that will be used for workplace charging at 29 Hazen Drive (Dept of Health and Human Services and NHDES offices), 21 S. Fruit Street (PUC) and public charging in Franconia Notch. The timing of a contract with DOT for this grant is uncertain.

A legislative update included discussion of HB 1620 relative to electric vehicle parking spaces; relative to the adoption of California LEV/ZEV; SB 610 relative to a commission to evaluate NH's participation in the Transportation and Climate Initiative; and HB 1649 relative to a road usage fee that would increase EV registration fees.

March 6, 2020 - An update of the DCFC RFP was provided. Three proposals were received, none of which qualified. A listening session is scheduled for March 10th, which will inform OSI whether the existing RFP needs to be revised or completely rewritten.

The primary topic for this meeting was making recommendations from the Commission on the structure of a competitive solicitation for VW funds for Level 2 charging. The Commission members provided input on a potential municipal and/or workplace Level 2 charging solicitation, including matters such as minimum criteria (population, traffic volumes, number of parking spaces or employees, proximity to attractions, etc.), eligible applicants (municipalities, private sector, state/regional/local agencies), the appropriate level of funding to offer, and the funding mechanism. Recommendations were wide-ranging and no consensus was reached on Commission recommendations to OSI or a Level 2 solicitation.

OSI noted that the intent was to do a small Level 2 pilot project prior to developing a broader Level 2 solicitation.

There was discussion on PUC docket IR 20-004 in response to HB 575 (2018) directing PUC to address a number of EV-related electric rate structure issues. A technical session was held with three Commission members, Eversource, Unitil and ChargePoint, filing comments. PUC staff commented that all comments are under review and an Order will be issued by August 11, 2020 in compliance with SB 575 (2018).

April, May and June meetings – cancelled due to COVID

July 24, 2020 – this meeting and all subsequent meetings were held virtually.

Kari Thurman, District Director and Oliver Edelson, Legislative Aide for Congressman Pappas provided an overview of HR2 “The Moving Forward Act” with FAST Act embedded, which was recently passed by the House. The bill increases the cap on the number of vehicles eligible for a federal tax credit from the current 200,000 units to 600,000 units; establishes a new tax credit for the purchase of used EVs; and provides incentives for federal agencies to purchase EVs, including buses and postal trucks. The bill also seeks to increase publicly available EVSE by: making public EVSE available at all post offices by 2026; increasing funding for EVSE and allowing EVSE along interstate highways at rest areas and park & rides; updating building codes and providing technical assistance installation of EVSE at multi-family buildings and businesses; providing \$1.4 billion for publically available EVSE; and establishing an EVSE rebate program up to 75% of the installation cost.

Peter Clark, Special Assistant for Projects & Policy for Senator Shaheen discussed the Transportation Innovation Guaranteeing Emission Reduction through Energy Efficiency (TIGER-EE) Act, led by Senator Shaheen, which will be introduced in the next few weeks. The bill was spurred by the fact that greenhouse gas (GHG) emissions from the transportation sector have surpassed the electric power sector and are the single largest source of GHG emissions in the country. The bill would create a \$300 million competitive infrastructure grant program within the Department of Transportation (DOT) to fund innovative projects that promote energy efficiency while meeting significant transportation needs. Potential use of funds is broad to provide some flexibility for DOT in awarding projects, and could support construction and expansion of electric charging and hydrogen stations, port infrastructure, passenger and freight rail, and communications projects. There is a rural state set aside to ensure that no less than 20% of funds to be allocated to projects in rural areas such as NH.

Elaine O’Grady, Policy & Program Director for Clean Transportation Policy with the Northeast States for Coordinated Air Use Management, (NESCAUM), provided an overview of the Medium-Heavy Duty Zero Emission Vehicle Memorandum of Understanding (MHD ZEV MOU). Fifteen states plus Washington DC signed the MHD ZEV MOU on July 14, 2020 to accelerate electrification of trucks and buses. These states represent almost 50 percent of the US economy and 40 percent of all goods movement in the US. The MOU builds on the success of 2013 light-duty MOU for ZEVs. It calls for 30% of new truck/bus sales to be zero emissions by 2030 and 100% by 2050. Though NH is not a signatory, NHDES participates in the discussions with “observer state” status.

Becky Ohler, NHDES, provided information regarding an opportunity to provide input to Electrify America regarding their Cycle 3 investment plan. Electrify America (EA) is the wholly owned VW subsidiary tasked with investing approximately \$2 billion in EV supporting infrastructure across the country. They are doing this in four 30 month cycles and are currently accepting input for their Cycle 3 investments (January 2022-June 2024). EA is reaching out to states during planning period for input, basically offering states the opportunity to make the case as to why EA should invest in their state. Anyone can submit comments to EA on their website.

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Matthew Mailloux, OSI, provided an update on VW funding. Approximately 42 percent of VW funds have been allocated or committed to date. The settlement has a 10-year window and we are only a couple of years into it, so we are doing well. There are three projects of note for the Commission:

- Green Street Lot request for proposals (RFP) for publicly accessible charging in downtown Concord closed on July 14th. Five responses were received and will be reviewed and scored in the next couple of weeks.
- Statewide Direct Current Fast Charging RFP – despite COVID, OSI, DES and DOIT are reimagining what this model could look like, factoring in stakeholder feedback and learning from states that have had successful solicitations. While they are working to release an RFP they recognize concern with federal tax credits (30CITC) that might be expiring at the end of the year and OSI is looking to Congress to extend the tax credits.
- Electric school buses – we are working to re-envision how that might be moved forward to procure those types of buses in the near future, but no definitive plans at the moment.

Chairman Watters noted that as we approach the conclusion of this Commission our remaining time should focus on recommendations for public policy that will support adoption and use of EVs over the long term.

August 28, 2020 - Brianna Brand and Melissa Erlander with Clean Energy NH provided a presentation entitled Expanding EV Charging in the North Country: Insights from North of the Notch. The presentation noted how the economy of the North Country differs from the southern part of the state, with an average income of just 61% of the statewide average, and a 4.5 percent population decline in the past decade. This region is actively promoting recreation tourism and is working to revitalize town centers in order to attract visitors. A lengthy discussion followed regarding the North Country's tourism base and how EV charging could provide some level of economic relief to this part of the state because it would attract more visitors.

Brian Buckley, Elizabeth Nixon and Kurt Demmer, NH Public Utilities Commission, discussed the results of PUC docket IR 20-004, which was opened in response to Senate Bill 575 (2018) that directed the PUC to look at Rate Design standards relative to EV charging, including cost of service, prohibition of declining block rates, time of day rates, seasonal rates, interruptible rates, load management techniques, and demand charges. The corresponding Order 26,394 was released on August 18, 2020.

The goal is to capture latent ratepayer value. One mechanism is to even out demand for electricity across each 24-hour period, reducing peak load both through efficiency and by shifting that load to low load periods. This can create a downward pressure on rates by spreading kW demand over more kW hours. In addition, certain areas of the grid have more headroom for new load than others. If EVSE is located in an area with little spare capacity and there are not appropriate price signals to limit charging during high usage periods, then costs of that charging session can become very expensive. This can be avoided by sending the right price signals to EV drivers and that can be done through rate design.

In summary, Order No. 26,394 states that declining block rates and interruptible rates are not appropriate mechanisms to apply to EV charging; that demand charges may be appropriate in certain circumstances, but are not an absolute necessity; that cost of service is an appropriate mechanism for determining rates for EVSE; and that that seasonal rates and time of day/time of use rates can be effective ways to manage load from EVSE. The

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PUC will open a new docket specifically to consider these last two rate options, but no timeline for such docket has been established.

The Commission had a general conversation regarding how to continue the work of this Commission after its expiration on October 31, 2020. There was agreement to pursue analysis of DMV data to provide more information on EV adoption rates around the state.

There was general discussion regarding how to build upon the work of this Commission. One area of agreement was the need to evaluate NH vehicle registration data to determine the rate of EV adoption in various parts of the state. NHDES has done some analysis of this in the past, but does not have the resources to do more at the moment. The electric utilities offered to assist.

OSI was not available to provide a VW funding update, but NHDES noted that a spreadsheet of all funded projects using the VW funds is being developed and will be posted on the OSI website soon.

September 25, 2020 – The format and content of the final report, due November 1, 2020 was discussed. The remainder of the meeting was primarily regarding recommendations that should be made in the final report and it was proposed that they be grouped according to recommendation for legislation/budget; actions by state government; and general recommendations. The ideas proffered at this meeting are to be discussed more fully at the final meeting for inclusion in the November 1, 2020 final report.

The existing NH Transportation Council (*RSA:238-A:2*) *was identified as the most likely legislative body to carry on the work of this Commission post November 2020.*

October 23, 2020 – the final meeting of the Electric Vehicle Charging Stations Infrastructure Commission resulted in the list of recommendations that are incorporated into the EV Commission report dated November 1, 2020.

Regular Meeting, Electric Vehicle Charging Stations Infrastructure Commission

November 22, 2019

Senator Watters opened the meeting at 11:05 AM

Introductions

Commission members present: Senator David Watters; Representative George Sykes; Representative Steven Smith; Gary LeMay (Drive Electric NH); Rebecca Ohler (NHDES); Carleton Simpson (Unitil); Dan Bennett (NHADA); Matthew Mailloux (OSI);

Public present: Brianna Brand (Clean Energy NH); Renay Allen (Exeter Energy Committee); Simon Thompson (Sheehan Phinney Capitol Group); Sanford Crittenden (ChargePoint); Hannah Popovitch (NHIAC); Marc Brown (Auto Alliance); Terence Pfaff (Legislative Branch); Brian Moran

Senator Watters welcomed everyone to the meeting of the Electric Vehicle Charging Infrastructure Stations Infrastructure Commission.

Approval of October Minutes

Gary Lemay moved to approve the meeting minutes and Rep. Sykes seconded. The minutes were unanimously approved.

Review and Approval of SB 517 Commission Annual Report

Senator Watters summarized the annual report and asked for any comments or discussion. A commission member asked if it was available online and was told that once it was finalized it would be posted. Matthew Mailloux moved to accept the report and Carlton Simpson seconded. The commission unanimously voted to approve the report.

Discussion of New Hampshire VW Environmental Mitigation Trust Direct Current Fast Charging Infrastructure Request for Proposals (RFP#NH-VW-2019-03)

Senator Watters presented the New Hampshire Volkswagen Environmental Mitigation Trust Direct Current Fast Charging Infrastructure Request for Proposal (RFP), which is located at [this link](#). Matthew stated that although this was not released as quickly as some hoped, OSI and NHDES are happy with the product and believe it is a workable RFP and looking forward to seeing applications.

Becky Ohler reviewed portions of the RFP with an open discussion. On page 4 is a schedule of events, including a webinar on December 6th at 1 PM and proposal due date of January 24, 2022 by 4 PM. Senator Watters asked for the webinar announcement to go out to the committee. Becky explained that the RFP just came out this morning, but will be broadcast to many contact lists today. Becky stated that with the due date in January, the hope is that a contract would be completed and presented to Governor and Council in one of the April meetings

On page 9 of the RFP are the priority routes. OSI is committing approximately \$2 million for this project and understands that doing all the corridors with that amount of funding would not be possible, so priority corridors were determined. The RFP gives the applicants the leeway to submit multiple locations on the corridors if they find that it is needed; however, they are required to serve the entirety of the targeted corridor. The RFP requires that Direct Current Fast Charging (DCFC) and Level 2 be installed at each location. Specified that the DCFC should be 150 Kilowatts and Level 2 be 9.6 kilowatts; however, if a lower power is needed there is potential for this with acceptable justification.

Commission members asked for clarification on the number and type of chargers. It was explained that 2 DCFC chargers, each equipped with both Chademo and SAE plugs, and one Level 2 with two plugs would be required.

24-hours a day operation would be required; however, the State is willing to entertain a different schedule if it is justified. It was clarified that the chargers need to be available 24-hours, not necessarily the business.

A commission member asked about signage. It was explained that the applicant needs to work with DOT for signage on the corridor and there are requirements for onsite signage. The Corridor signage, the applicant is not responsible for paying for, but they are responsible for cost of on-site signage.

A key element to the RFP is that the applicant will be the owner of the equipment. This will prevent abandoning sites by a third party that does not have a contract with the State.

A commission member asked about contractual arrangement with the utilities providing the power. It was explained that part of application requires that the applicant discuss with the utility to ensure that they fully understand their responsibility and what the utility will be responsible for. Attachment C in RFP requires this to be outlined and utilities assisted with designing this form.

The chargers are required to be networked so that potential users will be able to see what the status of the chargers are the site. Additionally, this will provide reporting data to better understand the use of the chargers.

It is the hope of NHDES and OSI that the applicants will incorporate some amount of future proofing in their application. A commission member asked if future proofing would include adding more chargers at a later date. It was stated that yes, that would be some future proofing that would be helpful, especially in higher trafficked areas; however, it is not a requirement

A commission member asked about the relationship between this system and the Tesla system. There will be on connection or relationship as Tesla sites are proprietary and only available for use by Tesla's which these sites are required to be universal and can be used by any vehicle with the technology.

A commission member asked if OSI and NHDES expect multiple vendors to be awarded the contract. It was explained that the RFP is for one single applicant. This was to make sure that all the areas targeted get covered. A commission member stated that this limits the type of players available to apply and it was agreed that was correct, additionally, it was explained that applicants can have multiple partners but that the State will only be contracting with a single entity.

A commission member asked what about if a community was interested in a high speed charging station. It was stated that OSI and NHDES will work on figuring out how communities can make sure the potential applicants are aware of their interest.

A commission member asked if the sites are required to go on the DOE website. Becky stated that yes, they will be required to be listed on the DOE website for public charging stations. She stated that she is not sure it is in the RFP, but it will likely be in the contract.

The RFP requires an operation and maintenance of at least 97% up time based on 24-hour operation. NESCAUM suggested 99%, but other states said 99% is too high and 97% seems reasonable based on the other states experience. Pricing and payment must be easy to see and understand before the customer starts charging. Additionally, the RFP requires multiple methods of payment and requires at least credit card tap or chip reader. In compliance with SB 575 the sites can be a networked charger, but they can't exclude anyone who is not in the network; however, they can have a separate pricing for in-network as long as it is clearly stated. The RFP is requiring that the sites have 24-hour support via phone. There are data capture requirements with data reporting quarterly, and semi-annual reports on maintenance. Additionally, the RFP requires monthly reporting until all the stations are up and running. A minimum of four stations operational by November 1, 2020 and all stations June 1, 2021.

A commission member stated that it was mentioned that seven or eight sites would be covered, but they can have more correct. It was stated that was correct.

The RFP is proposing to pay for 80% of eligible costs, including equipment, onsite electrical, connectors, on-site signage, shipping and freight, construction costs, administrative costs relative to the construction cost and does not include electrical utility upgrades, upkeep and on-going maintenance, real estate, building, or parking facilities. Application is required to say where the cost share is coming from and disclose any grants or funding are coming from

It was then stated that a Level 2 RFP will be coming next and that will be much more open to many applicants.

Senator Watters suggested that the next topic that we might take up would be Level 2 and VW funding for that. He stated that some Regional Planning Commissions (RPCs) have put in a request to GACIT that the CMAQ flex spending be put towards corridor studies and EV charging analysis included in that. Senator Watters stated that there is an opportunity to see what businesses and municipalities are interested, as well as, an opportunity to recommend that the next VW RFP be for Level 2. Senator

Watters also suggested that the remaining priorities developed in a previous meeting be revisited at the next meeting as well.

A commission member stated that he was excited to move forward with Level 2 options. He also stated that the State has worked hard to get the DCFAST RFP out so quickly, which is great. However, it is one piece of the puzzle and getting Level 2 broadly dispersed throughout communities is a great subject for discussion next year.

Representative Sykes state that the City of Lebanon has made a policy decision to start buying EVs. And he continued to say communities have the ability to start policies for the environment. He continued to state that the single busiest bus route in the state is Advance transit in Lebanon and that they have received an electric vehicle bus grant and it will be put on that route.

Another commission member suggested that some trade organizations be looped into the discussion of Level 2 as well. Senator Watters agreed and said that there was an opportunity to have some of these organizations come to talk to the commission. Becky Ohler suggested that commission members reach out to her concerning organizations or topics for upcoming meetings. A commission member also suggested that Becky follow up with Peter King from BIA and a commission member for his thoughts. Representative Sykes said he would like to see the commission brainstorm on what the state can do to encourage municipalities to get on the wagon to further this electrification agenda.

Legislative update:

Representative Sykes stated that there was an LSR out that would allow non-electric vehicles to be ticketed for parking in electric spaces

Becky stated that Rep Williams –has an LSR to adopt LEV/ZEV in New Hampshire. We have invited some expertise to discuss with NHADA and Reps to talk about what it would entail. Dan stated that there are many questions from NHADA on how to make this possible without incentives.

Public Comment:

Renay Allen from Exeter stated that there is a 45-minute video online on the unveiling of the Ford Mustang and it discusses the Ford charging system.

Next meeting on January 24th at 11 AM

Gary LeMay made a motion to adjourn. Carleton Simpson seconded. The meeting was adjourned at 12:13

Regular Meeting, Electric Vehicle Charging Stations Infrastructure Commission

January 24, 2020

Senator Watters opened the meeting at 11:05 AM

Introductions

Commission members present: Senator David Watters; Representative George Sykes; Representative Steven Smith; Gary LeMay (Drive Electric NH); Rebecca Ohler (NHDES); Carleton Simpson (Unitil); Dan Bennett (NHADA); Matthew Mailloux (OSI); Stanford Crittenden (Chargepoint); Dave Rodrigue (NHDOT); Peter King (BIA);

Public present: Brianna Brand (CENH); Marc Brown (Auto Alliance); Brian Moran (NECSEMA); Daniel Gatti (USC); Tim White (NHDES); Elizabeth Strachan (NHDES); Colin Lentz (SRPC); Rich Parsons (RYP); Brad Pernaw (GSH); Liz Nixon (NHPUC); Mary Ewell (Monadnock Energy Hub); Rusty McLear (GSH); Steve Russell (resident)

Senator Watters welcomed everyone to the meeting of the Electric Vehicle Charging Infrastructure Stations Infrastructure Commission.

Approval of November Minutes

Gary Lemay moved to approve the November 22, 2019 meeting minutes and Matthew Mailloux seconded. The minutes were unanimously approved. Peter King abstained.

Senator Watters stated that he was hoping for an update on the status of the DC Fast Charger Request for Proposal, but that unfortunately it doesn't close until four o'clock today. He asked Matt and Becky if they could send out an update to the group after it closes. Becky stated that they could report on how many responses were received.

Colin Lentz, Strafford Regional Planning Commission (SRPC) – the perspective of regional planning commissions regarding state support for development of EV charging infrastructure

Colin presented two handouts; a pamphlet on what the regional planning commissions (RPCs) do and an analysis of home to work trips to identify density areas that might indicate good locations for charging. This analysis was completed by SRPC and shared with Electrify America by NHDES hoping to attract EVSE investment in NH by Electrify America.

Colin gave a synopsis of what the RPCs do including planning assistance, data collection, circuit riding, etc. for the municipalities in their region. Colin went on to explain that areas with a population of 50,000 or more are additionally represented by a Metropolitan Planning Organization (MPO) to assist in transportation decisions. They address all transportation issues and in recent years the topic of alternative fuels and electric vehicles has increasingly become an area of interest for communities. The communities in the SRPC area as well as other regions thorough out the state are eager to begin

implementing local charging options. Colin stated that Durham and Dover have started to provide some charging options and that SRPC is hoping to get involved more in assisting with getting information to the state. Representative Smith asked if there was currently a map to show how one would get from one location in the state to another and charging along the way. Colin said he doesn't believe there is, but that would be something that the RPCS could coordinate together. Additionally, Colin stated that while keeping in mind that most people charge at home and at destinations (such as employment, or health care) and that the goal is to have it possible for more residents to feel comfortable using EVs as their day to day vehicle. Colin also stated that the RPCs were a conduit for information between the state and the municipalities. Senator Watters agreed and said that the RFP for DC Fast Charging was directed to major corridors, but as we turn to level 2 charging and more local roads, this suggests that the RPCs are ready to go and have done a lot of the research already. A commission member asked if the analysis presented went as far as to contact the hosts. Colin indicated that no, the analysis was done to provide others options to then contact locations and discuss their willingness to host a charging station. Colin also indicated that RPCs have modeling tools such as the Travel Demand Model that looks at the transpiration network and demand on the network and pairing this technology with entities looking to determine viable locations was something RPCs could do.

Senator Watters stated that based on conversations he has had with entities, such as C and J, there are many employers and businesses ready to host Level 2 charging at their sites. He indicated that with a little Volkswagen funding the Level 2 charging could really move on. Becky Ohler explained that the analysis done by the RPCs was presented to Electrify America during their research for their Phase 2 rollout of charging. She went on to state that it wasn't too soon to present updated information to Electrify America as they plan for their Phase 3 rollout.

Gary Lemay asked if Colin was aware if the other RPCS were ready to move on this. Colin stated that although they haven't sat down and spoken specifically about it, they have spoken about the need for charging and he believes that all the commissions are ready to provide information and analysis. He went on to state that each region would be able to speak to the concerns of their specific region (i.e. the concerns about charging in the Strafford region would be quite different than the concerns of the North Country).

Daniel Gatti, Union of Concerned Citizens to speak on Level 2 Charging (not on the agenda)

Daniel Gatti stated that he has been working with the New England and Mid-Atlantic States on the Transportation and Climate Initiative (TCI). He stated that the program would not only assist in reducing air emissions in the region, but would also provide a consistent funding source for transportation initiatives.

Senator Watters asked where TCI was in their initiative and Daniel stated that a draft Memorandum of Understanding was released in December and states are taking comments on it. The MOU lays out the modeling results from several difference stringency scenarios and shows pollution reductions along with economics and health gains.

Senator Watters explained that TCI proposes a cap and trade policy, similar to the Regional Greenhouse Gas Initiative (RGGI). TCI would result in a 5-17 cent per gallon increase in transportation fuels, resulting in a funding source for states to use as they see fit. Senator Watters asked for analysis to be sent to him on the details of TCI and explained that NH adopting a program like TCI would result in larger investments in zero-emission vehicles.

Matthew Mailloux, noting that this topic was not on the agenda for this meeting, requested he be allowed to provide information on this topic from OSI for inclusion in the minutes. Senator Watters said that would be appropriate. Following the meeting Mr. Mailloux provided the following links:

New Hampshire Office of the Governor Press Release: New Hampshire Declines to Participate In the Transportation Climate Initiative" (Dec 17, 2019) <https://www.governor.nh.gov/news-media/press-2019/20191217-climate-initiative.htm>

The Middletown Press: "Lamont backs away from clean-air gas tax" (Jan 7, 2020) <https://www.middletownpress.com/middletown/article/Lamont-backs-away-from-clean-air-gas-tax-14957106.php>

The Boston Herald: "Vermont governor knocks TCI climate compact gas fee" (Jan 9, 2020) <https://www.bostonherald.com/2020/01/09/vermont-governor-knocks-tci-climate-compact-gas-fee/>

New Hampshire Union Leader: "Support dwindles for regional Transportation Climate Initiative" (Jan 11, 2020) https://www.unionleader.com/news/environment/support-dwindles-for-regional-transportation-climate-initiative/article_a7b89de3-3db7-5770-9c29-7cbd5fb45a48.html

New Hampshire Union Leader: "Transportation and Climate Initiative: Caution lights are flashing" (Jan 11, 2020) https://www.unionleader.com/news/business/columns/transportation-and-climate-initiative-caution-lights-are-flashing/article_63d69a39-34da-5c22-ae22-b44981a7ff45.html

The Boston Globe: "Mills becomes latest governor to express concern about regional fuel pact" (Jan 13, 2020) <https://www.bostonglobe.com/business/2020/01/13/mills-becomes-latest-governor-express-concern-about-regional-fuel-pact/iDCi2sEF96GTWYmKCZvqRL/story.html>

Commission Discussion – Level 2 charging infrastructure – discussion of if and how VW funds should be used to support Level 2 charging in New Hampshire.

Senator Watters asked where the Volkswagen funding for charging stood. Matthew stated that the DC Fast Charging RFP set aside up to \$2 million of the \$4.6 million of the Volkswagen funding that is allowed to be spent on light duty zero emission vehicle supply equipment, leaving about \$2.5 million for other charging projects. Some potential options for this money would be Level 2 infrastructure

throughout the state and supporting adoption of (by providing the chargers) electric vehicles in state government fleets.

Senator Watters stated that he thought the options would be work place charging, municipalities, and state fleet. Additionally, he stated that if they were to be prioritized, the municipalities and state fleet are ready, but that the work place charging may be a heavier lift, especially considering that work place charging may have other funding opportunities.

Becky stated that from what she has seen with other state's programs the Level 2 charging is about \$5,000-6,000 per charger and that most are doing that as a rebate program. This may be tough in New Hampshire as agencies cannot do rebate programs (NH Public Utilities Commission is the exception). It would be difficult to do each charger as a separate contract. Gary Lemay stated that New Hampshire Electric Co-op has been running a very simple program that offers 50% of installed cost at \$2,500 per charging port. Gary stated no one has spent \$5,000 on a charger yet, though they were not networked chargers. Stanford Crittenden stated that ChargePoint could provide detailed information on what other states have done, but he thought that Pennsylvania had done \$5,000 for a single port and \$10,000 for a dual port charger; Maine did \$5,000 per dual port charger, but that program did not move the needle much; Massachusetts fell in the middle with \$8,000 per port. He also noted that L2 chargers should be Energy Star certified.

Carleton asked Gary how they run their program. Gary stated that they run it similar to the NHSaves rebate, but do it internally. Peter King suggested that NHSaves might be able to administer. Gary said it might be able to, but that it would need to go through PUC and that may take some time. Becky noted that an option could be for a third party to administer the money for a Level 2 rebate program. Some commission members commented on the additional administration costs that might take and that would decrease the amount actually spent on chargers. Carleton asked if all the chargers would need to be for public use according to the Volkswagen decree? Senator Watters stated that regardless if it was in the decree or not, New Hampshire legislation says that any chargers installed with the use of public funds must be open to the public.

Public Comment:

Steve Russell, recently retired Massachusetts alternative transportation program coordinator for the Massachusetts Department of Energy Resources and resident of New Hampshire, stated he was available to talk about his experience. He stated that he thinks Level 2 Charging should be encouraged, especially in destination locations like hotels and restaurants. Steve indicated that the Chamber of Commerce in municipalities would be a good spot to start. He stated that it is important to make sure all the public chargers have a contact number where issues can be reported, especially once the warranty period is done. He said that encouraging municipal fleets to adopt is a good idea and providing Level 2 for the municipal vehicles that have to travel to Concord on a regular basis is a good way to start. He was heavily involved in an EV school bus pilot and is available to speak to anyone considering this option. He added that school buses driving kids to sporting events can charge at Level 2 charging if available.

Representative Smith asked about how the Level 2 charging stations can make any money if one or two cars sit on them for eight hours. Steve indicated there were ways to incentivize people to move their cars after a few hours with increased rates, but also agreed that we will need large volumes of charging stations.

Sen. Watters requested more detailed information on the following at the next meeting:

- Structure and focus of a VW-funded Level 2 charging program
- State agency workplace charging
- 10 Year Plan – Dave Rodrigue noted that the 10 Year Plan submitted by the Governor to the Legislature in January focuses on infrastructure and does not include any funding for EVSE.

Sen. Watters noted that state agency workplace charging should be a focus. Becky Ohler shared that NHDES has been selected for a Congestion Mitigation and Air Quality grant from DOT that will be used for workplace charging at 29 Hazen Drive (NHDES and Public Health offices), 21 S. Fruit Street (PUC) and public charging in Franconia Notch. The timing of a contract with DOT for this grant is uncertain.

Legislative update:

HB 1620 - Representative Sykes stated that they were working on revising some language that would allow a fine for non-electric vehicles parking in spaces designated for electric vehicle charging. The language started with a \$250 fine similar to the fine for parking in a handicap space, but that it was likely to be dropped down. Also, similar to the handicap parking space regulations, it would be for any parking space in the public way which includes parking lots open to the public. Steve Russell indicated that some towns in Massachusetts have included language that allows for the car to be towed if it is there for a certain amount of time.

HB 1444 - Representative McWilliams' bill would have New Hampshire join the California LEV/ZEV program. The hearing is at 2:15 on February 5th.

SB 610 - asks to form a commission to look at the TCI initiative; however, due to the Governor's position on TCI, it will likely be changed to a legislative committee instead. The bill asks that the body looking into it weigh the cost benefit to being in or being out of the regional program if it goes forward. The hearing for this bill is February 18th at 1 PM.

Senator Watters stated that there was a lot of things going on legislatively in other states and it might be a good idea for the commission to look at that as well. Especially what Massachusetts is doing on climate and energy with major investments into clean energy and transportation initiatives. They are not only looking at TCI, but also the idea of carbon pricing as well. It is worth keeping an eye on what the other states are doing since it will have an impact on New Hampshire.

Peter King added that HB1649 will impose a fee for electric vehicles. Peter stated he was in favor of this because the gas tax revenue is dropping as gas tax is going to the wayside. Representative Smith stated

that is was called the road toll and not the gas tax. He agreed that something needed to be done, but needed to make sure that it continued to receive fees from the tourists using the roads as well. Becky asked if any states tacked on a road toll when charging? Stanford stated that he had not seen that yet. Senator Watters stated that there was a lot of logic to charging a road toll while charging a vehicle.

Next meeting on March 6th at 11 AM

Senator Watters asked if the commission could gather information for next meeting on different programs. Additionally, he asked if OSI and NHDES could give some thought to how to proceed with the Volkswagen funding. Is there a way that seems right for NH and makes it easier? Maybe focus first on municipalities?

David Rodrigue made a motion to adjourn. Peter King seconded. The meeting was adjourned at 12:10

Regular Meeting, Electric Vehicle Charging Stations Infrastructure Commission – MINUTES

March 6, 2020

Representative George Sykes opened the meeting at 11:04 AM

Introductions

Commission members present: Senator David Watters; Representative George Sykes; Gary Lemay (Drive Electric NH); Rebecca Ohler (NHDES); Carleton Simpson (Unitil); Dan Bennett (NHADA); Lisa Cota-Robles (OSI); Chris Nihan for Kevin Miller (ChargePoint); Dave Rodrigue (NHDOT); Kevin Boughan (Eversource)

Public present: Brianna Brand (CENH); Madeleine Mineau (CENH); Brian Moran (NECSEMA); Liz Nixon (NHPUC); Mary Ewell (Monadnock Energy Hub); Bruce Clendenning (TNC); Jamie Burnett; Donna Gamache (Eversource); Pete O'Connor (Plug in America)

Approval of January Minutes

Carleton Simpson moved to approve the January 24, 2020 meeting minutes and Gary Lemay seconded. The minutes were unanimously approved.

VW Funding Update

DC Fast Charging Request for Proposals (RFP) – RFP was released for DCFC on priority corridors. Three proposals were received, none of which met minimum requirements. DES/OSI are having conversations with interested parties and released a Request for Information (RFI). A public meeting is scheduled for March 10th to discuss prospective applicant's issues with the RFP and written comments can be submitted until 03/16. The RFI will inform whether the existing RFP needs to be revised or completely rewritten. The goal is to spend just enough without giving more than is needed and DES and OSI are looking forward to taking feedback, learning from it and hoping for a successful 2nd round. One key problem area that was noted was that the RFP anticipated the electric utilities would be providing some funding toward behind the meter investments, which did not occur. In addition, network and infrastructure costs on the utility side of the meter and how to cover those costs needs to be evaluated. We will be looking for information and feedback on that issue through the RFI.

It was asked if another RFP is issued and there are still no qualifying proposals, what happens to VW money? Becky responded that the Governor is fully committed to using the funds for charging infrastructure.

Level 2 Charging RFP

Becky Ohler – At last meeting it was agreed that next task of Commission is to discuss and consider how the state should utilize VW funding to support Level 2 charger installations. Today's meeting will be used to get input from this group on key aspects of a solicitation, outlined on the attached handout. Today's feedback will be used in the design of a competitive solicitation for Level 2 charging.

Senator Watters noted that the Commission is hoping to have an RFP out for Level 2 charging in June so that we can demonstrate by the end of this year that both of these things are being addressed.

The handout lists a number of considerations specific to municipal and workplace Level 2 charging. The purpose of this conversation is to hear input from the Commission relative to the structure of a competitive solicitation. Using the handout as a basis, there was general discussion and the following comments and recommendations were made:

- Instead of establishing minimum criteria an RFP should use the scoring system to select the best projects. For example, a smaller municipality that is not close to a corridor, but has significant number of visitors may be as good a site as a town located on a major corridor.
- The process and the scoring should be transparent and easy for communities to negotiate. Smaller communities may not score as well on the competitive side, but it should not be impossible for them to get funding.
- Desire is for chargers that are funded to get used. It was noted that availability of charging could attract additional visitors.
- Gary Lemay – NHEC has been doing this for 5 years. They created a handout of a data sheet on L2 that any commercial member can use. He can share that with DES. They installed 10-12 chargers a year ago and just bumped up incentive to spur more uptake. He suggests taking half a million dollars or \$300k and with basic minimum requirements and see how much interest there is. NHEC targeted hotels and destinations. Ski areas are starting to come on board. Minimum requirements were that it's in a visible location, easy access and they pre-approved each location (maybe utilities can do that). They were worried they were going to be overprescribed, but it hasn't happened yet. The NHEC program is for non-networked "dumb" chargers. Smart chargers require internet connection, etc. - \$200-\$400 per year for the network service and other costs.
- Chris Nihan noted that while he understands that the cost of network charging is more expensive there is value in only funding networked chargers. In his EV travel experience he has found some non-networked chargers not working or simply not there. It's a huge inconvenience trying to charge with Level 1. It causes negative conversation and impressions. Networked chargers are important. He also noted that ski resorts are a great spot (cold – batteries lose more range), as well as health care facilities and schools.
- Senator Watters noted that we should look at our largest population centers (e.g. Manchester & Concord) and see if we can get something there and also at intermodal transportation centers. Due to federal restrictions we can't currently locate chargers at federally funded sites such as park and rides, train stations, and bus stations, but others may be willing to install. We know people park their cars there.
- Pete O'Connor stated he doesn't think Level 2 needs to be corridor based, it should be destination based. He thought more funding should be provided for municipally sponsored charging, and less for commercial interests such as hotels. He countered the need to be networked, noting that "dumb" chargers show up on the charging apps, you just can't tell if they're in use.
- Carleton Simpson – dwell time should be considered when determining EVSE locations
- The suggestion was made to keep it simple and offer 30% of installation up to \$30k for municipal sites. Level 2 applications require less information and can, therefore, be shorter. The EVSE provider will provide the information to the municipality that is needed for an

application. Alternatively, the amount of match provided could be included as a scoring criteria to incentive significant match.

- Town meeting timeframes were also noted – the state should provide a long enough timeframe for installation to allow towns that need such approval to participate.
- Some concern was expressed for using VW funds (public money) to support workplace (private) charging. Perhaps some could be used, but most should be used for full access public charging.
- As a counter point, Dan Bennet noted that purchasing an EV is more attractive if you can charge at work.
- Carleton Simpson said that recent research reflects 13-15% of charging occurs at workplaces and 8-10% at publicly available spots. He agreed with concern of providing businesses money to install, but thinks it's worthwhile to offer incentives to workplaces in addition to municipalities.
- Sen Watters noted we likely won't have much demand initially. If cities are interested, they can find money, but towns will have to go through town meeting. What we can do is put program out, keep percentages consistent with what's in the settlement, but not use all the money right away. When another round is released, could be an opportunity to adjust.
- Any size employer should be eligible for funding, but can limit the number of chargers. NHEC allows 2 chargers per location per year.
- "Publicly available" needs to be clearly defined. Rep Sykes suggested using the definition of "public way" as defined in NH RSA.

It was asked whether recipients of L2 funding would be able to charge a fee. The answer was yes, they could still charge for charging. The main requirement is that they be publicly available.

It was asked if the State was planning to have a Request for Information prior to release of a Level 2 RFP. The response was that it was not anticipated, but not ruled out.

Sen. Watters asked OSI what the next steps are. Lisa Cote-Robles responded that OSI plans to do a pilot project to get something in the ground as soon as possible. This was inspired by bill which was for EVSE at the General Court to support legislature and senators. Becky noted that the funded chargers will be publicly available.

Senator Watters requested an update at the next meeting, noting that it's important that whatever you bring to the public has the recommendation of this commission. He suggested the Commission might want to vote to approve the expenditure – this commission needs to have some action on it.

Lisa noted that OSI would be reluctant to commit to a timeline.

Sen. Watters said that by April we should know how fast the slow charge is going or how slow the fast charge is going. He also noted that new HD EV trucks are being announced, in particular sanitation trucks, and he would appreciate an update on what is happening on school buses and refuse. In MA a company will lease an electric bus at same cost as lease for diesel.

Other Items

Jessica Wilcox provided information about the June Green Your Fleet! event at the NH Motor Speedway.

Rep. Sykes provided an update on previously discussed bills. The parking bill (provides for a fine for a non-EV parking in EV designated parking spots) is in Ways and Means. There are some issues concerning how the fines would be distributed and used.

Carleton Simpson - Docket at PUC (IR 20-004) in response to HB 575 (2018) directing PUC to address a number of EV-related electric rate structure issues. A technical session was held last week – Unitil, Eversource and ChargePoint filed comments. Unitil comments support availability of suite of time of use (time varying) rate for EV charging for residential and commercial customers. They also offered comments supporting the concept of utility investment in “make ready” efforts. Utilities would want rate recovery similar to other states (e.g., MA) for such expenditures. They support rate cases as the appropriate forum for those decision to be made.

Kevin Boughan said that Eversource provided similar comments and talked about what is in Eversource’s rate case, including a “make ready” proposal.

Liz Nixon, PUC, noted that staff is reviewing all comments and will be making a recommendation to the Commission so that an Order can be issued by August 11, 2020, in compliance with the requirements of SB 575.

Next meeting on April 24th at 11 AM

Gary Lemay made a motion to adjourn. Representative Sykes seconded. The meeting was adjourned at 12:37 PM.

Status of EV Charging Infrastructure Grant Programs

- 1. DES/OSI Direct Current Fast Charger Request for Proposals update**
- 2. Request for Information for DCFC solicitation – meeting March 10, 2 p.m. at NHDES, written comments due March 16**
- 3. List of interested site hosts posted on OSI website**
- 4. Municipal Level 2 Charging**
 - **All municipalities or focus on priority corridor areas?**
 - **Competitive or first come/first serve?**
 - **Minimum criteria?**
 - **Population**
 - **Traffic volumes**
 - **# of parking spaces**
 - **Documented demand**
 - **Other (e.g. # of downtown businesses, attractions, etc.)**
 - **Eligible applicants?**
 - **Municipalities**
 - **Private sector**
 - **Other (e.g. regional planning commissions, non-profits, etc.)**
 - **Appropriate level of funding to offer?**
 - **Percent of project cost**
 - **Fixed amount per site/charger/connector**
 - **Funding mechanism?**
 - **Grants, rebates, other**

5. Workplace Level 2 Charging

- **Competitive or first come/first serve?**
- **Minimum criteria?**
 - **Number of employees**
 - **Existing infrastructure – pro or con?**
 - **# of parking spaces**
 - **EV incentive program**
- **Eligible applicants?**
 - **Company/host**
 - **Private sector**
 - **Other**
- **Appropriate level of funding to offer?**
 - **Percent of project cost**
 - **Fixed amount per site/charger/connector**
- **Funding mechanism?**
 - **Grants, rebates, other**

Regular Meeting, Electric Vehicle Charging Stations Infrastructure Commission – MINUTES

July 24, 2020

Senator David Watters opened the meeting at 11:02 AM and read the “Right to Know” provision regarding abiding by the Governor’s Emergency Order Update regarding providing public access to the meeting and additional access by video and other electronic means.

Introductions

Commission members present: Senator David Watters; Richard Bailey (DOS), Representative George Sykes; Gary Lemay (Drive Electric NH); Rebecca Ohler (NHDES); Carleton Simpson (Unitil); Dan Bennett (NHADA); Matthew Mailloux (NHOSI); Kevin Miller (ChargePoint); Dave Rodrigue (NHDOT); Kevin Boughan (Eversource); Peter King (BIA); *Representative Steven Smith – unable to make it*

Public present: Elaine O’Grady (NESCAUM); Liz Nixon (PUC); Donna Gamache (Eversource); Rep. Lee Oxenham; Linda Coleman; Bradley Greenland; Jessica Wilcox (NHDES/GSCCC); Timothy White (NHDES)

Approval of March Minutes

Senator David Watters moved to approve the March 6, 2020 meeting minutes and Rep. George Sykes seconded. The minutes were unanimously approved.

Federal Legislation Relative to EVs

House Legislation – Kari Thurman, District Director and Oliver Edelson, Legislative Aide for Congressman Pappas

The House passed HR2 “The Moving Forward Act” with FAST Act embedded – investing in infrastructure that is “smarter, safer and made to last”, which includes electric vehicles (EV) and charging equipment (aka electric vehicle supply equipment, EVSE). Two key areas of investment were discussed:

- Manufacture of Zero Emission Vehicles (electric and hydrogen fuel cell) – this section would increase the cap on the number of vehicles eligible for a federal tax credit from the current 200,000 units to 600,000 units to spur sales of ZEVs to help manufacturers and prospective buyers; establish a new tax credit for the purchase of used EVs to enhance the lifecycle; and provide incentives for federal agencies to purchase EVs, including buses and postal trucks.
- Expansion of publicly available EVSE – public EVSE would be available at all post offices by 2026; the number of designated EV Corridors would be increased; funding for EVSE would be increased and EVSE would be allowed along interstate highways at rest areas and park & rides; updates building codes and provides technical assistance to provide for EVSE at multi-family buildings and businesses; provides \$1.4 billion for publically available EVSE; and established an EVSE rebate program up to 75% of the installation cost.

Discussion followed the presentation and several questions were asked. In the notes below “A” indicates the presenter’s answer.

G. Lemay – Is there a timeframe for Senate consideration of this bill and what are the chances it will pass the Senate and become law?

A: FAST Act expires soon and we expect action, but can't guess on timeline or path forward. This is top priority for House Democrats and those on the transportation and infrastructure committees.

K. Miller – will HR2 or FAST Act items be tied to or included in a coronavirus aid package?

A: HR 2 is directly tied to rebuilding the economy. Expanding EVSE creates jobs. Some provisions of Moving Forward Act may get lumped into a coronavirus aid bill.

Senator Watters – please expand on the Post Office EVSE proposal, what types of chargers and is there language or guidance in the bill regarding public access to those chargers?

A: This section of the bill is less defined. The deadline is 2026, but the exact technology required is not specified. Technology may change in 6 years. He can provide more information later. Senator Watters noted that depending on the language there may be a need for state action to enable federal investments.

Senator Watters – any requirements for state funding match to access the federal funds?

A: He is not sure on match requirements, but noted that the Federal funding would be to expand state capabilities by providing both funding and technical assistance. It provides up to \$2 billion for state energy plan updates to include EV charging in state energy plans (Section 33338). Senator Watters asked that he share this language with the Clerk to distribute to the Commission members.

Senator Watters asked NHADA how auto dealers/industry are doing?

D. Bennett – there are concerns regarding inventory regarding both new products and parts. NH dealers made it through the past few months better than other states because the Governor of NH made sales an essential service, our showrooms were allowed to remain open. Some are reporting a better May than prior to Covid. On the other side of the coin, the first thing vehicle manufacturers did was to delay EV production. It will impact availability, and \$2 gasoline prices doesn't help move these vehicles.

M. Mailloux – pre-pandemic there seemed to be a shift away from private vehicle transportation and more towards shared mobility model. Any thoughts on whether the pandemic will shift this move and what state and local governments can do to prepare?

A: We don't know how Covid will impact society in this aspect or whether there will be a long-term shift. It will become more clear as we find our way out of the pandemic, but there is a policy need to understand autonomous and shifts in transportation systems to better prepare for both hurdles and benefits.

R. Ohler – in past stimulus acts there has been a lot of focus on funding shovel ready projects, which could be difficult for EV charging if timeframe is too short. Permitting can take time and matching funds might not be readily available. Will there be a focus on shovel ready projects?

A: Doesn't believe that there will be those expectations with HR2 because it's a moving forward act and not a Coronavirus emergency funding bill.

R. Ohler – does the bill contemplate increasing gas tax?

A: Not sure, but don't think there are any decrees on that.

K. Miller – there are sections in HR2 that look at expanding vehicle miles traveled pilots as a funding mechanism to ensure more equitable road funding. He also noted that the presence of rebates in the

bill will likely spur the more shovel ready projects, but other types of incentives will enable multiple times frames for project development.

Senator Watters – we have a separate commission on autonomous vehicles. He also noted that the recently signed MHD ZEV MOU might have some implications that can inform HR2 in that it shows the direction that the states are moving.

Senate Legislation – Peter Clark, Special Assistant for Projects & Policy (Senator Shaheen)

The Transportation Innovation Guaranteeing Emission Reduction through Energy Efficiency (TIGER-EE) Act, led by Senator Shaheen, has not been introduced yet, but should be in the next few weeks. The bill attempts to get at the issue that the transportation sector has surpassed the electric power sector as the greatest source of greenhouse gas (GHG) emissions. We also seen decreases in overall energy efficiency of the transportation sector. This is modeled after the Transportation Investment Generating Economic Recovery (TIGER) program which is now called the Better Utilizing Investment to Leverage Developments, or BUILD program. This Bill will improve the energy efficiency of the U.S. transportation sector, modernize aging infrastructure, reduce harmful pollution and boost America's competitiveness in the global marketplace. Specifically, the legislation would create a \$300 million competitive infrastructure grant program within the Department of Transportation (DOT) to fund innovative projects that promote energy efficiency while meeting significant transportation needs. Applications would be reviewed as to how the project improves energy efficiency, economic and environmental sustainability. It encourages non-federal contributions. Potential use of funds is broad to provide some flexibility for DOT in awarding projects, and could support construction and expansion of electric charging and hydrogen stations, port infrastructure, passenger and freight rail, and communications projects. There is a rural state set aside to ensure that no less than 20% of funds to be allocated to projects in rural areas such as NH.

D. Bennett – is there any opportunity for a vehicle marketplace incentive in the legislation?

A: He can pass the comment on to the legislative team.

Senator Watters - you referenced public entities that deal with infrastructure. Does it include regulated utilities?

A: The intent is to ensure that it's flexible so that it's not limited to states and local governments, but to all stakeholders with a stake in infrastructure projects.

R. Ohler: NHDES provided feedback on the bill earlier this week and our thanks to NESCAUM for their expert review and the following recommendations: the estimated amount of fuel reduction should be part of the application/reporting requirements; add airport ground service equipment as eligible; and include in evaluation how use of funds would have beneficial impact on low income and environmental justice communities.

Senator Watters - glad to see the inclusion of hydrogen – our commission includes that as well – expressed thoughts on offshore wind and the project in Maine. He requested a link to the bill when it's introduced and asked that Becky share it with the commission.

Peter will send final text to the commission

Medium-Heavy Duty Zero Emission Vehicle Memorandum of Understanding (MHD ZEV MOU) – Elaine O'Grady, Policy & Program Director for Clean Transportation Policy (NESCAUM) – see slide presentation at <https://www.des.nh.gov/organization/divisions/air/tsb/tps/msp/documents/20200724-nescaum-presentation.pdf>

Though emissions from light duty vehicles are decreasing overall, emissions from medium and heavy duty (MHD) vehicles such as trucks and buses are increasing as e-commerce expands. Heavy duty vehicles are the second largest source of oxide of nitrogen emissions that contribute to ground level ozone even though they only represent 4 percent of the vehicles on the road.

Fifteen states plus Washington DC signed the MHD ZEV MOU on July 14, 2020 to accelerate electrification of trucks and buses. These states represent almost 50 percent of the US economy and 40 percent of all goods movement in the US. The MOU builds on the success of 2013 light-duty MOU for ZEVs. It calls for 30% of new truck/bus sales to be zero emissions by 2030 and 100% by 2050.

The MOU outlines the development of an action plan. The plan will include measures designed to benefit low income communities and communities of color that are historically burdened with higher levels of pollution generated by this class of vehicles. The action plan will include incentives, adoption of CA's Advanced Clean Trucks regulation, utility action, and other steps to be taken to achieve the goals. Stakeholder outreach to utilities, EVSE providers, trucking companies, and other stakeholders is occurring now. A draft plan is anticipated in January 2021, and a final plan by early summer 2021.

K. Miller – In NH, PUC is looking at beneficial rate design. How important is that for MD & HD Truck in meeting the charging needs?

A: The states are planning outreach to utilities to get their input into such questions, but the initial thinking is that it might not be as important for MHD fleet charging due to the high utilization rate, but might be necessary to support long haul and trucking corridors.

M. Mailloux – Looking at the participating states, this effort is very coastal. How will this plan succeed given such a large portion of the country is not included?

A: The signatory states are hoping additional states will sign on, but most truck traffic is not cross-country, it is regional (e.g. last mile delivery). The regional delivery is where the states will focus on in early stages to meet 2030 goals, but to get to 2050 we will need to engage more states.

Senator Watters - a 2019 bill to transition the state fleet to electric (note bill is Senate Bill 275 in the 2019 session. This bill passed the House and Senate and was vetoed by the Governor). During the legislative process there was good discussion that resulted in a good bill. What are you hearing from the trucking industry?

A: The industry is supportive of marketing enabling actions like incentives, fleet purchases, and outreach to fleet managers, but not as responsive to mandates requiring sales so there has been a mixed reaction. The MOU does not require participating states to adopt California's MHD ZEV standards, but some state will. It will also make economic sense for some fleets to transition to EVs.

Senator Watters - where does the market stand, what models are available?

A: Over 70 bus/truck models available today with many announcements about more coming as well as large purchases from big companies. Some industry leaders are not the traditional trucking companies so, just as it is with light duty EVs, there are new companies entering the market with a focus on the development of electric trucks and buses in addition to the more traditional manufacturers (e.g. Daimler). CA did a lot of analysis on availability of models and total cost of ownership.

Senator Watters - though NH is not a signer, can we participate in conversation

R. Ohler – yes, NHDES has been an active “observer state” for the light duty ZEV Action Plan and will engage in the MHD ZEV process and discussions as well.

D. Rodrigue – based on DOT studies (have been looking at CNG, EV and Hydrogen market for heavy fleet for many years) the concern when discussing MD & HD fleet is the rate at which you can transfer the energy that these large trucks need to do their jobs. You can transfer a lot of energy quickly using petroleum products, but that's more difficult with electricity. This equipment works 24/7 in rural areas and must use energy for heat as well as for operating. The transfer of energy and the rate at which you can do that is a significant issue.

A: Thank you for flagging that issue. One "relief valve" is that the 30% target is across all truck classes, but for each class in recognition that some vehicle classes (e.g. school buses, medium duty delivery vehicles, etc.) will be more suited for electrification sooner than others.

Electrify America – Becky Ohler, NHDES.

Electrify America (EA) is the wholly owned VW subsidiary tasked with investing approximately \$2 billion in EV supporting infrastructure across the country. They are doing this in four 30 month cycles and are currently accepting input for their Cycle 3 investments (January 2022-June 2024). EA is reaching out to states during planning period for input, basically offering states the opportunity to make the case as to why EA should invest in their state. Anyone can submit comments to EA on their website.

NESCAUM submitted comments that included a recommendation that EA focus investments in ZEV states. The job for NH is to sell ourselves and make the case why EA should also invest in NH. NHDES is crafting our comments to focus on the positive aspects for investing in NH, including the fact that we are surrounded by ZEV states and Quebec, all of whom are strongly promoting EV purchases. Many of them vacation in NH and having available infrastructure here will help with sales in those states as well as spur sales within the state.

NHDES reached out to various entities for input and got a lot of feedback about what NH hasn't done or what we're lacking. We feel that we will be more successful if we focus on what we are doing in support of EV. For example, we've been active in FHWA alternative fuel corridor designations and have 3 EV "signage ready" and 9 "pending" corridor designations. We have also created a list of willing site hosts that is publicly available, the Dept. of Business and Economic Affairs commissioned a study relative to EV infrastructure investment, our Granite State Clean Cities Coalition and other partners have been doing great work with events (e.g. Green Your Fleet!, Electric Vehicle Relay, Drive Change, Drive Electric, and many other events); HB 1444 adopting CALEV in NH passed the House, but was subsequently tabled due to COVID. We will also be providing updates to data such as traffic counts to help identify high utilization areas. We'll highlight several communities who have adopted ZEV friendly policies, and will include information regarding utility support such as NH Electric Coop's rebate programs, and will be reaching out to Unitil, Eversource and LU for language that we can include.

Senator Watters – how can we make the best case for NH for inclusion? It's hard to get over the hump of not being a ZEV state, but regardless, NH is committed to moving forward. He asked that Becky and Matt could draft a letter that he and Rep. Sykes could sign in support of the submission and in recognition of the good work being done in NH. People that are moving here to live are coming here from ZEV states with their EVs. He recommended also getting a letter from Governor Sununu saying that NH wants to move forward and requesting that we be included in this next round. Matt Mailloux said he would be happy to bring that up with the Governor.

VW Funding Update - Matt Mailloux – Approximately 42 percent of VW funds have been allocated or committed to date. The settlement has a 10-year window and we are only a couple of years into it, so we are doing well. There are three projects of note for the Commission:

- Green Street Lot request for proposals (RFP) for publicly accessible charging in downtown Concord closed on July 14th. We received 5 responses and will be reviewing and scoring those in the next couple of weeks.
- Statewide Direct Current Fast Charging RFP – despite COVID, OSI, DES and DOIT are reimagining what this model could look like, factoring in stakeholder feedback and learning from states that have had successful solicitations. We are working to release an RFP in the coming weeks, but recognize concern with federal tax credits (30CITC) that might be expiring at the end of the year. We are looking to Congress to extend the tax credits.
- Electric school buses – we are working to re-envision how that might be moved forward to procure those types of buses in the near future, but no definitive plans at the moment.

K. Miller – are you still planning to release the framework in the coming weeks or will you delay due to expiring tax credits?

A: OSI is not imposing any delay in regards to tax credits. The initial plan was that projects could be built and established to use those credits, but recognizing that at this point in the year, it may not be possible to complete in time. We are looking to the federal government to see if these credits may be extended, but we are not adjusting our timeline based upon what it does. We are hoping that expiration dates will be adjusted to reflect the impacts of COVID.

Senator Watters – when will it be out? Could it be out before deadline for Cycle 3 comments so that we can refer to it?

A: We are still working to finalize those last details – no specific timeline.

Senator Watters – with air quality issues, electric school buses are important now more than ever, especially in our inner city areas.

A: We understand from our first round that more outreach to school districts and collaboration with DOE may help it be more successful. We also need to look at time of year that it's released.

G. Lemay- Requested that OSI/DES provide detailed information on how VW funds have been spent to date.

Planning for November 2020 Commission Report

Becky Ohler reminded the Commission that we will need to submit a report by November 1st and we should start to think about what we want to say in that report. The first report simply described the contents of our meetings to date, but as the final report of the Commission, wrapping up 2 years' worth of work, this report should provide some direction and recommendations.

Senator Watters noted that we did a lot of information gathering and accomplished a lot to inform policy issues. He had intended to put in legislation to extend the work of this commission but it did not make it into the omnibus bills that passed. It might be useful to have a commission that looks more broadly at transportation issues. This is an election year so the opportunity to think about bills is Nov/Dec/Jan

R. Bailey agreed with broadening the scope and topics of any future commission and that a more diverse commission could really help things get done. He noted that 3 committees exist, the autonomous vehicle committee, the traffic safety committee, and the transportation committee. The latter is fairly diverse, but related and 2/3 of people on this committee would be eligible to be on that committee.

Senator Watters noted that the focus of this commission on VW funding has been good and at this point perhaps the focus should be more on policy. If legislation is passed and signed, it drives budgets and implementation.

Public Comment

Jessica Wilcox – NHDES – GSCCC/DENH providing a webinar at the end of the month on electric school buses.

Representative Oxenham thanked commission for their work

Next meeting on August 28th at 11 AM

Senator Watters made a motion to adjourn. David Rodrigue seconded. The meeting was adjourned at 12:57 PM.

Regular Meeting, Electric Vehicle Charging Stations Infrastructure Commission – DRAFT MINUTES

August 28, 2020

Due to the COVID-19 pandemic, the General Court is conducting legislative activities remotely. Senator Watters opened the meeting by reading the Right to Know notice for this remote meeting as specified by Emergency Executive Order 12.

Following an overview of the meeting platform and how it functions Senator Watters called the meeting to order at 11:23 a.m..

Commission members present: Senator Watters; Rep. George Sykes; Richard Bailey (DOS); Gary Lemay (Drive Electric NH); Rebecca Ohler (NHDES); Carleton Simpson (Unitil); Dan Bennett (NHADA); Matthew Mailloux (OSI); Kevin Miller (ChargePoint); Kevin Boughan (Eversource); Peter King (BIA); Dave Rodrigue (DOT)

Members absent: Rep. Steven Smith

Public present: Brianna Brand, Melissa Elander & Kelly Buchanan (Clean Energy NH); Liz Nixon (PUC); Donna Gamache (Eversource); Jessica Wilcox (NHDES/GSCCC); Timothy White (NHDES); Annie Gilleo (Greenlots); Bruce Clendenning (The Nature Conservancy); Brian Buckley (PUC); Carol Miller (BEA); Meg King (NHDES – technical support); Pete O’Conner (PIA); James Penfold (EV LaunchPad); Alyssa Moodie (NHDES); Kurt Demmer(PUC); Jon Shaer (NECSEMA)

Approval of July Minutes

Kevin Miller moved to approve and Carleton Simpson seconded. Gary LeMay requested that the July minutes reflect the request he made during the July 24 meeting for detailed information on where the VW money was being spent. Amendment accepted by Kevin Miller and Carleton Simpson seconded the amendment. The amended minutes were approved unanimously.

Presentation by CENH – Brianna Brand & Melissa Elander

Expanding EV Charging in the North Country: Insights from North of the Notch – reference PowerPoint Presentation

Brianna Brand opened the presentation and provided general background about Clean Energy New Hampshire (CENH) which included helping to found the Drive Electric New Hampshire (DENH) Coalition to accelerate the adoption of electric vehicles (EV) and increase awareness through education and outreach, which has a seat on SB517 Commission.

The North Country population has decreased by 4.5 percent in the last 10 years. The average income of NC residents is just 61% of the statewide average. This region is actively promoting recreation tourism and is working to revitalize town centers in order to attract visitors. Through the North Country

Initiative, Melissa Elander, the North Country Energy Circuit Rider employed by CENH, helps school districts and municipalities in Coos County to complete energy efficiency (EE) and renewable energy (RE) projects. She provided an overview of her work in the North Country: promoting funding, grant writing, assist in developing and issuing RFPs, providing technical assistance (energy concierge for municipalities), and connecting municipalities to incentives and contractors. Expanding availability of EV charging in this region would complement the work the municipalities are already doing. A copy of the presentation is available at <https://www.des.nh.gov/organization/divisions/air/tsb/tps/msp/sb517.htm>.

In Coos County \$239 million was spent on travel in 2017, and \$15 million in state taxes were generated from travel spending. There is no access to universal DC fast charging in the North Country and limited public level 2 charging. To date the state Requests for Proposals (RFP) have not addressed the need. The northernmost Tesla only supercharger is in Lincoln.

Distance between Gorham and Colebrook is 56 miles, but if Coos county had a EV charging network they may be able to attract more Canadian visitors, which is very close. The northern region of VT has 79 public access Level 2 stations, compared with 3 in northern NH. Ideally there would be EVSE all along route 3 & 2 to create a network. Towns in northern Grafton county are doing a good job of attracting young people. There's an opportunity for this to spread to Coos through EV charging.

Representative Sykes was identified as official Chair since Senator Watters had a spotty internet connection. The floor was opened to questions from the commission members regarding the presentation.

Senator Watters – given inability for commission and state to get funding out, there may be funding in the FAST Act for charging and the “Moving Forward Act” certainly has funding for charging. Are there any other alternatives?

Melissa responded that there is a USDA Rural Development program that is used to stimulate rural businesses and they did express interest at one point in accepting applications for EVSE if a strong connection can be made that this will support local businesses.

Gary Lemay shared that LaPerle's IGA is interested in installing DCFC if they can get support and also noted that NHEC can provide \$2500 for Level 2 chargers.

North Country (NC) municipalities are aware of potential VW funds and want to move forward, but don't want to put in EVSE if a rebate/grant program opens up and they lose out on access to that. Most communities would be looking at level 2 if they don't have funding assistance

Kevin Miller – is the intended use case to attract people to “stay and play” for an hour or 2? If so, this is best suited for L2, not DCFC.

Matthew Mailloux – as the State looks forward towards a L2 statewide program whether it be grants or rebates or a combination, the challenge is that there are certain areas of the state that would have more utilization and can make a better use case. Should there be a separate North Country program?

Melissa – don't see a reason for the NC to be its own program but L2 chargers are most appropriate type for the area and she thinks it's worth looking at multiple routes in the NC. It could be included in statewide initiative, but asked that they take a comprehensive look at more routes in the NC.

Kevin Miller – the unmet and unseen demand that was just described is really helpful as OSI considers what would be an appropriate mechanism – for example a rebate structure allows ability to be responsive to demand – an L2 charger is an amenity provided to EV drivers – although usage is important, it's not the only important point to installing EVSE (such as economic benefit).

Pete O'Conner – EVSE increases adoption because it allows EV drivers to know that they can drive anywhere – lynchpin stations have a value that is not reflected in utilization

Matt Mailloux – should the state focus on low usage sites that the “free market” won't build, or look at sites that can achieve profitability via high utilization? We are trying to decipher what the states roll should be in accomplishing both sides of the charging network.

Rep Sykes – concerned when we talk about profitability of EVSE. This is infrastructure and we don't expect, for example, bridges to make money.

Kevin Miller - Look at full value proposition. It is very difficult to analyze each site as you can't really evaluate the monetary benefit to the region of the dollars spent while at local businesses while the car owner is charging. A grocery store's return on investment is providing EVSE amenity to attract a visitor who might be offered a decreased charging rate to spend money in their store.

Melissa (CENH) – NC communities are not looking at EVSE as a source of profit, but entirely to bring folks into town, to park and stay for a few hours.

Gary Lemay – NHEC has experience in helping members install EVSE as an amenity and not as profit maker. The chargers are metered and usage determined on an annual basis.

Pete King – brings perspective of an EV driver. He has no problem driving east/west in NH, but hasn't ventured farther north than Plymouth because he is afraid of being stranded. He would like to see move EVSE north of the Notch. He has been approached many times by Canadian drivers who want to chat about EVs. If there was a convenient spot with EV chargers it would spur tourism (post-COVID). This would be a great use of funds, to diversify where the chargers are located.

Senate Bill 575 (2018) – Results of PUC Docket IR 20-004 – Order No. 26,394

Brian Buckley, Elizabeth Nixon and Kurt Demmer, NH Public Utilities Commission, discussed the results of PUC docket IR 20-004, which was opened in response to Senate Bill 575 (2018) that directed the PUC to look at Rate Design standards relative to EV charging, including cost of service, prohibition of declining block rates, time of day rates, seasonal rates, interruptible rates, load management techniques, and demand charges. The PUC opened docket IR 20-004 in January of this year. Order 26,394 was released on August 18, 2020. Brian Buckley, Liz Nixon and Kurt Demmer from PUC provided an overview of Staff recommendations under this docket and the final Order from the Commission. A copy of the presentation is available [here](#).

SB575 (2018) directed the PUC to look at Rate Design standards including cost of service, prohibition of declining block rates, time of day rates, seasonal rates, interruptible rates, load management techniques, and demand charges.

Rate Design Goals – goal is to capture latent ratepayer value. Looking at a picture of ISO New England load – peak load only occurs for a very few hours during the summer – other hours reflect very little utilization rate of the grid – If we can fill in the white underutilized area, it can create a downward pressure on rates by spreading kW demand over more kW hours.

Certain areas of the grid have more headroom for new load than others. If siting an EVSE in a place that doesn't have the headroom and you're not sending the right price signals to the driver to charge at certain times, then costs of that charging session can become very expensive. This can be avoided by sending the right price signals to EV drivers and that can be done through rate design.

Summary of Order No. 26,394 which was issued about a week and a half ago – looks at rate design standards:

- Cost of service – appropriate for EVSE
- Prohibition of declining block rates, etc.) – Block rates viewed as inappropriate because they shift costs on others and run counter to conservation, but block rates are not outright prohibited. They are not appropriate for separately metered EV charging, but may be appropriate for facilities that already operate under declining block rates.
- Seasonal Rates – appropriate for EVSE
- Interruptible Rates – inappropriate
- Demand Charges – may be appropriate for EVSE, but not an absolute necessity – referenced example from Maine
- Time of Day (use) Rates (TOU) – appropriate for EVSE – focused on separately metered TOU. Many EVSE have an imbedded meter in them and PUC wants to look into use of these meters as an alternative to separate metering

Next steps for this Docket – PUC will open a new docket to specifically consider EVSE TOU proposals and are currently working with interveners to develop a timeline for proposals in 2 parts: 1) residential – L2 2) High demand draw – DCFC. There is not a defined timeline for this new docket.

Pete King – You mentioned that Eversource has a TOU pricing – they have a variable peak pricing but it's not appropriate to EV drivers.

Brian Buckley – yes, they have a TOU for residential and commercial customers, but the period is 12 hours on peak and 12 hours off peak and the rate differential is very small. Only about 40 of their 5000 residential customers participate. He agreed that it's not ideal for an EV customer.

Gary LeMay – NHEC offers an off peak rate for EVSE for residential – e.g., 8 cents for off peak hours – totally price driven signal – if they charge during the day they pay the higher price – there are starting to be high voltage EVSE with battery storage built in that will help mitigate demand and peak time issues – so industry is changing

Commission discussion – avenues for continuation of our work.

Commission members agreed that the work of the Commission is important, that information that has been presented is useful, and that the necessary work is not yet completed. Some examples of need for continued work included the need to provide further input on the use of the VW funds and the need to better understand EV adoption rates in New Hampshire.

The DMV has vehicle data by town. NHDES has worked with the data for several years to determine number and general location of EVs and annual growth rates (no personally identifying information is shared by DMV). It is difficult data to work with because there is a lot of it, it requires some level of decoding of the Vehicle Identification Number (VIN), and not all of the data is accurate. Given current staffing shortages NHDES is not able to do this work currently. There was substantial discussion about the type of data available and what would be useful for both electric utility planning as well as policy.

Carleton Simpson noted that Bloomberg has done some analysis, but there's not a lot of data for NH in terms of where the vehicles are located or where they travel, but it does indicate that NH is outpacing EV adoption relative to the rest of the EV market, but it would be great to test that hypothesis.

Rep Sykes discussed the NEW HAMPSHIRE TRANSPORTATION COUNCIL, which does not expire. Its purview includes studying methods of implementing new transportation technologies throughout NH and they are tasked with making recommendations to the appropriate state agency or committee of the general court. They have also been talking about whether there is more legislative work that needs to be done. Is this an area that we want to continue to talk about?

There was general agreement that we should explore how this Council could help continue the work of the EV Commission. Rep Sykes will contact Chair of that committee and see how this committee can provide information/education to them.

November report – call for volunteers to help draft

Becky Ohler, EV Commission clerk, requested help from 1 or 2 members from the commission in drafting the final report of the Commission. Gary LeMay, Pete King and Carleton Simpson all volunteered

VW Funding Update

Matt Mailloux with OSI was unable to attend so Becky Ohler provided an update. Five proposals were received for Level 2 charging at the downtown Concord Green Street parking lot and OSI, DES and DAS (which owns the lot) are in the process of evaluating proposals and requesting additional information.

Relative to reissuing a DCFC solicitation it was asked if the state should wait to learn if federal tax credits will be available or extended. There seemed to be agreement that the state should move forward.

There have been on-going expenditures of VW funds for vehicle replacement projects, primarily state vehicles at this point, with most of the funding for the state vehicle replacement under contract. There have also been a number of municipal vehicle replacements, some in conjunction with EPA's Diesel Emission Reduction Act program (DERA), which is implemented by NHDES. One of the provisions of DERA is that if a state matches their base award, they get a 50% bonus. Both last year and this year we have used VW funds to match our federal DERA allocation. These funds cannot be used for EVSE and have primarily been for vehicle replacement, including a school bus project in Manchester where older diesel buses were replaced with new propane buses. OSI is in the process of putting together a sheet that identifies all of the projects funded and that should be up on the OSI website soon.

Legislative Update

Rep Sykes – no Legislative update – it's been a challenging process introducing legislation and getting votes. It's not clear where we're going moving forward. The next meeting will be a veto override session in Durham with Covid restrictions in place. There is no clear sense of when gov't will open up to in person public meetings and the legislature is trying to expand virtual meetings.

Public Comment

Rep Sykes opened up the floor to public comment – none

Next meeting for September 25th – note time change at 12 instead of 11

Rep Sykes asked for a motion to adjourn. Rebecca Ohler moved, Dave Rodrigue seconded and the motion approved. The meeting was adjourned at 1:12 PM.

Regular Meeting, Electric Vehicle Charging Stations Infrastructure Commission – MINUTES

September 25, 2020

Webinar Logistics –

At 12:03 PM, Senator Watters welcomed everyone to the meeting with a reminder that the meeting was being recorded. SW provided opening housekeeping and disclosures. Roll call.

Representative Sykes chaired the meeting, as Senator Watters would not be able to participate for the entire meeting.

Introductions

Commission members present: Senator David Watters; Representative Steve Smith; Matthew Mailloux (OSI); Richard Bailey (DOS); Kevin Boughan (Eversource); Peter King (BIA); Gary Lemay (Drive Electric NH); Kevin Miller (ChargePoint); Dave Rodrigue (NHDOT); Rebecca Ohler (NHDES); Dan Bennett (NHADA); Carleton Simpson (Unitil)

Public present: Brian Buckley, Elizabeth Nixon and Kurt Demmer (NH Public Utilities Commission); James Penfold, EV Launchpad; Kelly Buchanan and Brianna Brand (Clean Energy NH); Barry Woods (Revision Energy); Jessica Wilcox and Timothy White (NHDES); Donna Gamache (Eversource); Pete O'Connor (Plug in America); Bruce Clendenning (The Nature Conservancy); William Craig

Approval of August Minutes

Senator Watters moved to approve the August 28, 2020 meeting minutes with the proviso that additional formatting edits will be made – Gary Lemay moved and Dave Rodrigue seconded. The minutes were approved unanimously.

Discussion of EV Commission Recommendations from the Commission

Sen. Watters introduced the first item on the agenda, noting that the Commission's Final Report is due on November 1st. The body of the report will mirror the previous annual report with a summary of each of the meetings since November 2019. It will provide an executive summary of the Commission's recommendations and then a fuller explanation of those recommendations, including a discussion of the primary entity (i.e. a state agency, the legislature, the executive branch) that should take the lead on a given recommendation. The final report will also include recommendations to the New Hampshire Transportation Council¹, which has been identified as an existing and non-lapsing forum best suited to continue the work of the EV Commission.

Sen. Watters asked for a review of the Congestion Mitigation and Air Quality (CMAQ) funding announcement and the status of VW funds.

¹ Established via House Bill 267 (2018) in Revised Statutes Annotated 238-A:2

Becky Ohler stated that NHDES applied for the federal CMAQ funds in partnership with OSI who committed VW funds for the 20 percent match, to install Level 2 charging at 3 state-owned properties: 29 Hazen Drive (houses DHHS and NHDES and in easy walking distance of several other state agency buildings), the PUC at 21 S. Fruit Street, and a northern location to be determined, but likely either the Flume or Cannon Mtn. The total project about is approximately \$233,000 and will support the installation of three dual port chargers at each location. At 29 Hazen Drive the chargers will support future state fleet EVs via overnight charging, and during the day the chargers will be available to the general public including state employees. The final contract has not yet been awarded by NHDOT.

Matt Mailloux has been working for the GOPHER and doesn't have much to update regarding VW funds. Becky noted that a scoring team is evaluating the proposals received for L2 at the Green Street Parking lot. State statute requires that all information regarding grant awards remain confidential until it is presented to the Governor and Executive Council for approval.

Sen. Watters – asked if there would be a change in DCFC RFP status prior to next meeting – Becky advised likely not – Sen. Watters acknowledged that that info may impact recommendations being made – Sen. Watters opened the floor to comments

Is there any info available on why the RFP was not awarded?

Response: none of the proposal submitted were complete and did not meet the minimum criteria. This was, as was learned in subsequent listening sessions, in large part due to the requirement for a single owner/operator for multiple locations.

Does the State have the funds from VW in state held accounts?

Response: No, the funds are primarily held by the Trustee of the VW Trust (where they accrue interest). Funding is provided to recipients as reimbursement. The exception to this is the funds used to match the DERA State Clean Diesel Grant Program, which were provided in advance and are in an account managed by NHDES. Those funds are utilized as NHDES reimburses DERA recipients for project expenditures. The use of VW funds to match the DERA funds resulted in a 50% federal bonus.

It was noted that the interest accrued on NH's allocation should be used for EV chargers.

Response: under the terms of the Trust a state may use 15 percent of their funds for EVSE. To the extent that the interest payments increase NH's allocation, 15 percent of that increase could go toward EVSE.

There was further discussion on whether the EV Commission's report would strongly recommend to the Legislature or Transportation Council that they continue to stay focused on a DCFC infrastructure RFP process. Sen. Watters noted that we are hearing that that should be a strong recommendation.

a. Recommendations for Legislation/State Budget

- funding (\$500,000) should be allocated for Level 2 charging infrastructure in an easy to access program such as a rebate versus grant or contract to reduce administrative expenses. Perhaps this needs to be managed by other than a state agency.
- a rebate focused approach could reduce overhead and administrative component – there were a lot of ideas part of the discussion on financial incentives – e.g., construction codes/energy codes – consider that range of policy proposals
- do we want to make a recommendation related to what utilities can recover in rates through an inclusion of EV charging rebates in the systems' benefits charge package – what do people think about that condition/that direction
- State building codes should include a requirement for new construction to be made EV-ready.
- the state vehicle fleet should have a target date to reach a goal of all zero emission vehicles and should be based on availability and a total cost of ownership evaluation.
- new construction at any state-owned building (liquor stores, etc.) should, at a minimum, be built to accommodate the future addition of EVSE. A renewable energy requirement was also mentioned here.
- State agency buildings with more than X employees must provide workplace charging (employees must pay the cost of the electricity)
- construction of schools should also include EVSE. This could be tied to school aid funding.
- installation of EVSE and acquisition of EVs by state agencies should be factored into to numerous programs beyond just the state budget, including CMAQ, the 10 Year State Transportation Plan, the General Fund and Capital budget.
- recent changes to RSA 21-I:19 relative to state energy management provides for the costs savings from energy efficiency to remain available for additional efficiency measures. A similar requirement enabling savings from EV to be reinvested into additional vehicles, rather than reverting to the General Fund, could be considered.
- Any requirement for state acquisition and operation of EV and EVSE should include funds for the staff necessary to implement the requirement, including continued operation and maintenance of the facilities.
- Rep. Majors "Road Usage Fee" bill will be reintroduced this session. Should some of the additional funds be put toward EVSE build-out?
- there was general discussion of the role of the electric utility in EVSE buildout, including "make-ready" programs to reduce EVSE installation costs. It was noted that there is some consideration of this in PUC dockets that are currently open. Kevin Boughan noted he would discuss internally and provide some language for consideration in the final report. Carleton Simpson also noted that Unitil also wants to see more charging in the state and has studied programs in other states. There is potential for legislation in this area.

b. Recommendations for Actions by State Government

- the Office of Strategic Initiatives and Dept. of Environmental Services should focus VW Settlement funds on Direct Current Fast Charging infrastructure development initially, but don't lose sight of the need for Level 2 as well.
- the state should distribute at least \$100,000 in the next year for EVSE.
- Agency vehicle purchases should include EVs where feasible

c. General Recommendations/Ideas to Include in the Final Report

- State agencies are encouraged to implement the findings of this Commission.
- It was noted that Rep. Major's Road Usage Fee only impacts vehicles registered in NH. A fee on public charging stations could be considered as this would collect from out of state EVs as well.
- Sen. Watters noted that commission reports and recommendations live on and can provide information for years ahead - look at what CA did with banning fossil fuel powered vehicles by 2035 and the MD-HD ZEV MOU. There's also continuing activity around the Transportation and Climate Initiative. These are areas where most of the states around us and some of the western states are setting forward goals. Last year's bill to adopt California's Low Emission Vehicle standard didn't continue due to COVID. We may want to consider recommendations regarding participation in some of these agreements.

Commission members and guests were requested to submit additional ideas to Senator Watters' legislative aide, Jennifer Gallagher. There was further general discussion about how any legislation will be handled in the upcoming session due to in person meeting limitations.

There was a discussion of state agency members voting on the recommendations. Sen. Watters noted that state agencies don't need to take a position on the recommendations. He further noted he is likely to introduce a bill asking the state fleet to move in a certain direction. With all the new models coming out it might be useful to revisit requirements for state vehicle purchases to consider the total cost of useful life.

Rep. Smith noted that he could not support a directive for state agencies to transition to EVs or a ban on non-EVs because there is a lot of work that needs to be done to support that. When there is turnover in the fleet ask the state agencies to do a cost comparison between conventional, hybrid, electric.

Discussion regarding whether other existing committees/commissions can or should continue the work of the EV Commission

There was general discussion about the Transportation Council being asked to continue the work, and help to implement the recommendations of the EV Commission. After our report is approved Sen.

Watters and Rep Smith can present it to the council. It may make sense to amend the language in the statute to explicitly say that this is under their purview.

Sen. Watters asked that Commission members send any additional recommendations to Jennifer Galligher.

Legislative Update

Rep. Smith – Regarding Rep. Majors Road Usage Fee bill – everyone agrees that EVs needs to pay the road toll – his recommendation only hits NH vehicles. We want tourists/people who don't live here to help pay for our roads and could consider a fee on public charging stations to pay the road toll –

Sen. Watters noted that there is discussion among both parties about how we're going to be able to legislate when the next session starts – the Senate has capacity in terms of the platform, but it's more difficult for the House and its committees. Part of the discussion is how to reduce legislation coming in – considering various committee omnibuses and joint house/senate hearings. There will be very little appetite for committees or study commissions.

Public Comment

The following additional comments/recommendations were proposed by Barry Woods with Revision Energy:

1. extend the tenure of the EV Commission to continue its work.
2. Transportation electrification will happen with or without the support and participation of NH. If NH doesn't "get with it" our economy will be impacted.
3. COVID "bandwidth" issues are real, but if the state makes this a priority then it will happen. Don't let perfection be the enemy of the good, just get the money (VW) out.
4. Additional staff resources are needed to collect more data on EV usage.
5. Mandate electric utility make-ready programs for both DCFC and Level 2.
6. NH should consider adopting California's ZEV mandate as all other Northeast states have done.
7. Consumer education should be strongly supported and funded.
8. Don't accept the slow pace of the distribution of VW funding, make it happen.

Next and final meeting is scheduled for October 23rd at 11 AM.

Rebecca Ohler made a motion to adjourn, Dave Rodrigue seconded. The clerk called the closing roll. The meeting was adjourned at 1:37 PM.

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Regular Meeting, Electric Vehicle Charging Stations Infrastructure Commission - MINUTES

October 23, 2020

Due to the COVID-19 pandemic, the General Court is conducting legislative activities remotely. Senator Watters opened the meeting by reading the Right to Know notice for this remote meeting as specified by Emergency Executive Order 12.

At 11:02 AM, Senator Watters welcomed everyone to the meeting with a reminder that the meeting was being recorded. Housekeeping and Right-to-Know disclosures were made.

Introductions

Commission members present: Senator Watters; Representative George Sykes; Richard Bailey (DOS); Gary Lemay (Drive Electric NH); Rebecca Ohler (NHDES); Carleton Simpson (Unitil); Dan Bennett (NHADA); Matthew Mailloux (NHOSI); Kevin Miller (ChargePoint); Kevin Boughan (Eversource); Peter King (BIA); Dave Rodrigue (NHDOT)

Public attendees – Barry Woods (Revision Energy), Jessica Wilcox and Timothy White (NHDES); Jonathan Shaer (NECSEMA); Kyle Baker; Randy Bryan; Steve Russell; Sue Darling; Donna Gamache (Eversource); Bruce Clendenning (The Nature Conservancy); Karen Soucy; Kelly Buchanan (Clean Energy NH); Liz Nixon (PUC); Pete O'Connor (Plug in America)

Senator Watters moved to approve the September 25, 2020 meeting minutes Carleton Simpson seconded. The minutes were approved unanimously.

Sen. Watters introduced the main item on the agenda, to review the draft Final Report of the Commission. He noted that a brief final meeting will be held on October 30th for a vote on the final report.

Rebecca Ohler, Clerk, reviewed the format of the report. Commission members offered numerous edits and refinements to the draft document which were captured via on-screen editing of the report by the Clerk.

There was a brief discussion of "next steps" and how the Commission's work may be carried on by the Transportation Council. Senator Watters indicated he would follow up with the Council's chair.

A final meeting is scheduled for October 30th at noon for a vote on the final report.

Dave Rodrigue made a motion to adjourn, Gary Lemay seconded. The meeting was adjourned at 12:35 PM.



Final Meeting, Electric Vehicle Charging Stations Infrastructure Commission - Minutes

October 30, 2020

At 12:06 PM, Senator Watters welcomed everyone to the meeting with a reminder that the meeting was being recorded and provided opening housekeeping and Right-to-Know disclosures.

The roll was called. Commission members present: Senator Watters;), Representative George Sykes; Rep. Steve Smith; Matthew Mailloux (NHOSI); Kevin Boughan (Eversource); Peter King (BIA); Gary Lemay (Drive Electric NH); Kevin Miller (ChargePoint); Dave Rodrigue (NHDOT); Rebecca Ohler (NHDES); Dan Bennett (NHADA); Carleton Simpson (Unitil)

Members Absent: Richard Bailey (DOS) (excused)

Public attendees – Jessica Wilcox (NHDES), Tim White (NHDES), Karen Soucy

Approval of October 23 Minutes

Senator Watters moved to approve the October 23, 2020 meeting minutes and Rep. George Sykes seconded. The minutes were approved unanimously.

Approval of the final report of the EV Commission

Senator Watters made some brief comments on the good work of the Commission and opened the floor for any final comments on the draft report. There were no additional comments.

Rep. George Sykes moved to approve the final report and Dave Rodrigue seconded. The final report was approved unanimously.

Senator Watters thanked everyone for their work on the Commission. He noted that the Commission has done a lot of good work and has provided a solid report and set of recommendations to help move New Hampshire forward in support of electric vehicles.

Peter King thanked Senator Watters for his leadership and Becky Ohler for pulling two years of material concisely into the final report.

Senator Watters opened the floor to public comment. No public attendees chose to comment.

Kevin Miller moved to adjourn and Senator Watters seconded. Becky Ohler called the closing roll. Matt Mailloux had dropped off the call. The meeting was adjourned at 12:26 PM.

No vote will be taken to approve these minutes as the EV Commission has concluded. I hereby attest to the accuracy of these minutes as a true representation of this meeting. – Rebecca Ohler, Clerk

