Regular Meeting, Electric Vehicle Charging Stations Infrastructure Commission

October 4, 2019

Meeting presentations and minutes are available at
https://www.des.nh.gov/organization/divisions/air/tsb/tps/msp/sb517.htm

Senator Watters opened the meeting at 11:04 a.m.

Introductions

Commission members present: Senator David Watters; Representative George Sykes; Representative Steven Smith; Peter King (BIA), Richard Bailey, Jr. (NHDOS); Rebecca Ohler (NHDES); Carleton Simpson (Unitil); Gary LeMay (Drive Electric NH); David Rodrigue (NHDOT); Kevin Miller (ChargePoint); Pete King (GeoSyntec); Kevin Boughan (Eversource); and Dan Bennett (NHADA).

Public present: Tom Frantz (PUC); Liz Niellson (PUC); Jessica Wilcox (NHDES); Simon Thompson (Sheehan Phinney Capitol Group); Drew Drummond (Greenlots); Brad Pernaw (Granite State Hospitality); Barry Woods (Revision Energy); Ellen Hawes (Acadia Center); Rusty McLear (Granite State Hospitality); Drew Drummond (Greenlots); Chris Nihan (ChargePoint); and Sanford Crittenden (ChargePoint)

Senator Watters welcomed everyone to the meeting of the Electric Vehicle Charging Infrastructure Stations Infrastructure Commission. Senator Watters provided two handouts (Article: NYC says electric cars are now the cheapest option for its fleet, and a white paper evaluating the business case of hosting a Level 2 charging station in New York State).

Approval of June Minutes

Kevin Miller moved to approve the meeting minutes and Gary LeMay Seconded. The minutes were unanimously approved.

Presentation from Tom Frantz (PUC)

Tom Frantz from the New Hampshire Public Utilities Commission (PUC) gave an overview of electric utility ratemaking, and stated that the views presented represent his opinions and are not the views of the Commission or its members.

The PUC regulates public utilities because they are considered natural monopolies and have a public interest purpose. The PUC regulates rates associated with distribution, but do not regulate transmission or generation. There are legal standards for regulating rates under which the PUC balances the interests of the utility/shareholders and its customers. The PUC allows the utilities to earn a return on their investments through the rate. The addition of new technology and companies in the market create changes that make regulating more complex.

The PUC must determine how best to reflect cost causation principles in rate design and rely on five key regulatory concepts:

- Safe and reliable service;
- Rates are just and reasonable;
- Prudent investment and management;
- Assets are used and useful; and
- Costs are known and measurable.

The PUC does not regulate the five municipalities that buy their power off the market, distribute it, price it, and take care of their own lines (e.g. Wolfeboro, New Hampton, etc.). The New Hampshire Electric Co-operation (NHEC) used to be a regulated entity however, the Cooperative membership voted to get out of PUC regulation and now NHEC is under minimal regulation by the PUC.

Tom reviewed key steps and principles in setting rates, as well as the cost studies that rates are based upon. The PUC is interested in the distribution portion of those costs, whether they are fixed or variable, customer or demand related, etc. There are many different aspects defining a good rate design and they are discussed at the PUC hearing when a rate is proposed.

Tom presented an overview of the Eversource rate case and provided the definitions for "demand." He clarified that system planners and engineers have to design the system to meet peak loads. The impact of how these demand related costs are reflected and recovered, impacts rate design. Examples of this are demand charges and time-of-use pricing.

A copy of the presentation is on the SB517 Commission webpage and the whitepaper can be found here: Overview of Electric Utility Rulemaking

Commission member questions and responses:

- Would time-of-use pricing to have an impact on the demand of Electric Vehicle Supply Equipment? Tom answered yes, because studies show pricing alone can shave peak load by anywhere from 5-40%; however, the question remains whether it is sustainable. It depends on many factors, but you can see differences in demand depending on those rate designs.
- Will a customer be allowed to charge batteries at low cost and sell back at peak, or if it is just consumption. Another PUC representative in attendance explained that batteries will automatically charge overnight during low cost and discharge during peak period to either offset the battery owner's load or to give back to the grid.
- Tom mentioned in his presentation that New Hampshire has a poor rate structure currently and it can do better. Who has the power to fix this? Tom replied "all of us;" the utilities, and interveners in PUC proceedings.

In discussion, the following points were made:

- SB575 (2018) requires: "The public utilities commission shall: a) Within two years, consider and determine whether it is appropriate to implement any of the following rate design standards for

electric companies and public services companies: 1) Cost of service; 2) Prohibition of declining block rates: 3) Time of day rates; 4) Seasonal rates; 5) Interruptible rates; 6) Load management techniques; and 7) Demand charges …". It was asked if there should be a separate docket to address these considerations or if they should be addressed as dockets come up. Tom responded that it would be better to address the underlying costs of rate design in a rate case, as it is a more efficient process. He advised that the PUC will be doing that and that they had already looked at the embedded and marginal cost of service studies in Liberty Utilities and Eversource rate cases.

- There continued to be a discussion of demand charges. A commission member pointed out that existing demand based rates were structured to high load factor and low load factor. Tom responded that the original design was to capture system costs associated with meeting the peaks. The commission member questioned whether it was appropriate to delineate those costs if DCFC are not adding to coincident peak. Currently they are treated the same and that has been identified as a key barrier. The commission member further inquired if time-of-use charges could help mitigate the issue. Tom felt they would.
- A member of the audience stated that rolling EV rate design into general rate design docket may be difficult because there are a lot of variables with DCFC that are different from a typical electric appliance. Tom stated that if they are that different they should perhaps be in a different rate class and that if load studies and attributes of EV charging indicate that it's a different type of electricity consumption it also indicates DCFC may warrant its own rate class.
- A commission member asked if the PUC had looked at battery storage with EV chargers as a way to mitigate demand. Tom stated that they have looked more at solar and EV batteries. It was suggested that solar and batteries combined may work to avoid those charges. Tom said that the PUC tries to reflect actual costs and customers will find cost effective ways to reduce demand.
- A commission member asked if the PUC could operate in a way to encourage the growth of new technology? Whether there was a potential for a temporary setting aside of the basic premise of demand charges, and using the existing distribution system, more EV chargers could drive down the rates of everyone over time. Whether a public interest case existed to make an exception for demand charges in the early years since there would be a long term impact for all? Tom stated that the rate must reflect the underlying costs and that there are long established ways of making rates and even with gray areas, a case would have to be made before the PUC.
- A commission member asked if with regards to the two cases currently before the PUC, have the utilities requested cost recovery for expenses to provide wiring to DCFC as is proposed under the VW Settlement plan? Another PUC representative in attendance stated that Liberty Utility has proposed same rate structure for EVs as their battery storage proposal.
- A commission member asked if time-of-use was considered in either of the rate cases and Tom stated that yes, time-of-use is in the Eversource rate case. A member of the audience stated that time-of-use rates with regards to DCFC might not be the effective because the vehicle owners will not be able to effectively delay charging if they are low.
- A commission member asked if it were possible to set a rate on DCFC rather than setting an overall rate on demand charges. Another commission member questioned if that would require legislative

action. Tom replied that interruptible rates have existed in the past, and that another possibility is having a different customer rate class.

- A member of the public asked if anyone has done a study to determine how many EVs would need to charge at night to make our nighttime peaks look like they do during the day? A commission member answered that a study of EV adoption shows all types of charging will only have a 1% increase on total demand over a certain number of years. Another commission member added that it would take many years and likely wouldn't contribute to load because you are spreading out charging over all hours of the day.
- A commission member inquired if anyone had done a projection on the capability of adding workplace charging capacity now. Tom advised that the ISO takes a look at that, but the utilities need to consider it. There was additional discussion about prohibitive pricing and potential solutions with solar generation and grid modernization.
- A commission member asked if the demand charge issue, with regards to EVs, is a long term issue or a short term one? For instance, if someone installed DCFC and had 2-3 EVs charging at same time that would trip over and cause a $1,500 demand charge. The site host can't absorb that cost and it's a barrier, but if there were a lot of EVs charging, they could spread that cost over more vehicles. Another commission member agreed that in many use cases, it's not a permanent problem however, if you want DCFC in areas that aren't used regularly there will still be a problem and suggested that one way to bridge the divide would be having a higher kwh rate for how much energy you consume or putting a limit or cap. A commissioner asked is the intent of demand charges about the cost of generation or is it a transmission issue where it costs more to get that power to a particular location through the grid? Tom replied that power for default service comes in at a flat rate per kilowatt hour, so there's no demand charge for those customers, there is demand charge on distribution and transmission.
- Senator Watters asked what the status of the current rate cases at the PUC was and Tom said they are still in discovery, and that the next step would be technical sessions with testimony in December.

<u>OSI Update on EVSE Request for Proposal provided by Becky Ohler</u>

"Over the past several weeks OSI an DES have continued to make progress toward releasing the RFP that this committee has helped inform and craft. We appreciate the patience of stakeholders during this critical period. The work going on behind the scenes will lead to a more effective and more successful solicitation based on feedback from similar initiatives in other states. We have rolled in best practices that were not originally contemplated, but will ensure that the final product will set the state for a streamlined DCFC corridor. We look forward to releasing the RFP expeditiously in the coming weeks."

Discussion:

- Senator Watters stated that it's important to get this Request for Proposals (RFP) right and asked if the goal was still to be implemented at end of 2020. Becky stated that was still the goal and they are getting close to releasing the RFP.

- Senator Watters began a discussion about policies from Washington and potential funding for electric vehicles in the next ten-year highway plan. He added that Strafford Regional Planning Commission has done some work on corridor planning with regards to Level 2 charging. Senator Watters suggested that Congestion Mitigation and Air Quality funds be used for charging infrastructure. The Senator asked if anything else had come forward.
- Becky stated that in regards to CMAQ funding, NHDES partnered with other state agencies to propose a project for level 2 public, workplace, and fleet charging at state sites, including at Hazen Drive, the PUC offices, and at either Flume or Cannon. She is hoping to hear that the project will get funded and will give experience in how to set up a state wide contract to ensure that costs are incurred by users since the state can't incur those costs.
- Kevin Miller stated that the clean corridors bill included DCFC. He advised that the "IRC 30D EV tax credit" expired and that there is work in Washington to reopen that tax credit.
- Representative Sykes said that Dartmouth College Tufts School of Business is looking for a research project on transportation issues, and this could be an opportunity to take advantage of free research from some bright people.
- Dan Bennet stated that there are two LSRs about transportation, including an LSR to repeal the safety inspection program but leave the emissions program intact, as well as an LSR for New Hampshire to join the CA emission standards.
- Senator Watters stated that TCI has put out a draft set of principles on the potential for a cap and trade program on transportation with the intent to have a Memorandum of Understanding by December, with states signing on in March. The senator stated that this would be a legislative decision on whether New Hampshire would join, but that it might spur the adoption of EVs. Becky Ohler stated that NH has been part of TCI since 2010 and had signed the original declaration of intent that greenhouse gas is problem and must be addressed regionally. The current work on the cap and invest program started last December when eight states signed on to a statement to spend a year designing the program that would cap emissions from the on-road transportation sector (on road gasoline and diesel fuel). Similar to the Regional Greenhouse Gas Initiative, allowances would be allocated to states and auctioned through a regional auction. The details are being worked out. The investment portion of the cap and invest is the key point and would need to be considered if NH were to join.
- Senator Watters added that a vehicle miles traveled bill is being further studied and heard interest from Governor's office in supporting it.
- Discussion ensued about the future focus of the commission and Senator Watters expressed the importance of this information gathering phase, but that his intent is to turn to some of the other duties of the commission.

Next meeting on October 25th at 11 am

Motion to adjourn: G. LeMay made the first motion to adjourn. D. Rodgique seconded. The meeting was adjourned at 12:49