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Debra A. Howland Executive Director New Hampshire Public Utilities Commission 21 South Fruit Street, Suite 10 Concord, NH 03301-2429

**RE:** Docket No. IR 20-004, Investigation into Rate Design Standards for Electric Vehicle Charging Stations and Electric Vehicle Time of Day Rates

Initial Comments of Eversource Energy

#### Director Howland:

On January 16, 2020 the New Hampshire Public Utilities Commission ("Commission") issued an order of notice commencing an investigation into rate design standards for electric vehicle charging stations and electric vehicle time of day rates in New Hampshire under the above numbered docket.

In that order of notice the Commission made the state's electric distribution utilities, including Public Service Company of New Hampshire d/b/a Eversource Energy ("Eversource"), mandatory parties to the proceeding and provided parties until February 20, 2020 to file written comments with the Commission.

By this submission Eversource provides its initial submission in this investigation consistent with the order of notice. If there are any questions or additional information is needed, please do not hesitate to contact me.

Thank you,

Jessica A. Chiavara

Counsel, Eversource Energy

cc: Service List

## THE STATE OF NEW HAMPSHIRE before the PUBLIC UTILITIES COMMISSION

#### **ELECTRIC DISTRIBUTION UTILITIES**

Investigation into Rate Design Standards for Electric Vehicle Charging Stations and Electric Vehicle Time of Day Rates

Docket No. IR 20-004 COMMENTS ON JANUARY 10, 2020 STAFF RECOMMENDATION BY PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY

#### **INTRODUCTION**

Following a January 10, 2020 memorandum with recommendations ("Memo") from its staff ("Staff"), the New Hampshire Public Utilities Commission ("Commission") issued an Order of Notice in the instant proceeding to determine "whether certain rate design standards for electric companies and public service companies should be implemented for electric vehicle charging stations." Order of Notice at 1. The Memo and Order of Notice both seek to establish the purview and parameters by which the Commission will implement the mandate of SB 575-FN (codified at RSA 236:133) that was passed on August 11, 2018, and "requires the Commission to determine, within two years of its effective date, whether certain rate design standards for electric companies and public service companies should be implemented for electric vehicle charging stations. . . . [and] whether to implement electric vehicle time of day rates for residential and commercial customers." Order of Notice at 1.

The Memo recommended numerous elements for investigation and determination for developing, planning, understanding, and implementing an Electric Vehicle ("EV") rate design that advances "energy conservation, optimal and efficient use of facilities and resources by

[utilities], and equitable rates for electric customers." Order of Notice at 1. At the time of its submission, Staff also recommended that stakeholders provide written comments responding to the issues enumerated in the Memo, and the Commission granted that request in the Order of Notice for this docket.

Public Service Company of New Hampshire d/b/a Eversource Energy ("Eversource" or the "Company") provides below its initial responsive comments to the list of Staff's recommended issues for investigation with its comments arranged in the order presented in the Memo. Eversource appreciates the investigative approach by Staff and the Commission so that rates for the Company's EV customers may be properly implemented, if the Commission decides such implementation is in the public interest, so that a conclusive determination can be made "determining whether it is appropriate to implement any such rate design standards for electric distribution companies with respect to electric vehicle charging stations and electric vehicles. . . . [and] what rate design standards for electric companies and public service companies, if implemented for electric vehicle charging stations, are consistent with the New Hampshire Energy Policy" (Order of Notice at 2-3) defined in RSA Chapters 374 and 378.

#### RATE DESIGN STANDARDS FOR EV CHARGING STATIONS

#### 1. Role of Definitions for proffered EV rate design

The definitions provided by Staff in its discussion of Rate Design Standards for EV Charging Stations, as well as working definitions employed by all New Hampshire utility companies such as Eversource that apply to existing rate structures (see Current Offerings, below) provide a useful framework of definitions for categories of service for purposes of investigating and developing EV standards. The context in which terms apply are important, particularly when

considering standards for rate design and their application to rates for total customer requirements (i.e., that include electric vehicles along with all other uses) in contrast to service limited to an electric vehicle. Development and application of standards should take into account other services a customer may receive (e.g., net metering), and the way in which they apply for distribution, energy supply (both default service and third party) and transmission service.

#### 2. Current Offerings of Eversource

Please see the below tabs placed into a larger grid framework that illustrates the Company's current tariffs for each rate design for which current information was requested in the Staff Memo.

	Time of Day	Demand Charges	Block Rates
Rate R	N/A	N/A	N/A
Rate R OTOD	Yes - On-Peak 7AM – 8PM weekdays, excl. holidays	N/A	N/A
Rate R Uncontrolled Water Heating	N/A	N/A	N/A
Rate R LCS	Yes – Radio controlled option, or 10/11 hour	N/A	N/A
Rate G	N/A	Yes > 5kW	Yes – 1 <sup>st</sup> 500 kWh; Next 1,000 kWh; All additional kWh
Rate G OTOD	Yes - On-Peak 7AM – 8PM weekdays, excl. holidays	Yes - per kW	N/A
Rate G Uncontrolled Water Heating	N/A	N/A	N/A
Rate G Space Heating	N/A	N/A	N/A
Rate G LCS	Yes – Radio controlled option, or 10/11 hour	N/A	N/A
Rate GV	N/A	Yes – 1 <sup>st</sup> 100 kW; All additional kW	Yes – 1 <sup>st</sup> 200,000 kWh; All additional kWh
Rate GV – Rate B < 115 kV	N/A	Yes – per kW	N/A
Rate GV – Rate B >115 kV	N/A	N/A	N/A

Rate GV Space Heating	N/A	N/A	N/A
Rate LG	Yes - On-Peak 7AM – 8PM weekdays, excl. holidays	Yes – per kVa	N/A
Rate LG – Rate B <115 kV	N/A	Yes – per kVa	N/A
Rate LG – Rate B >115 kV	N/A	N/A	N/A

#### 3. Alignment with Commission standards

In the same format as Section 2 above, Eversource assesses alignment of issues raised in the Staff Memo with the Commission's established rate design principles of efficiency, equity, simplicity, continuity, and revenue sufficiency, below:

Standard/Principle	Efficiency	Equity	Simplicity	Continuity	Revenue Sufficiency
Cost of Service	High	High	Moderate	Moderate	High
Prohibition of Declining Block Rates	Moderate	Moderate	Moderate	High	Moderate
Time of Day Rates	High	Moderate	Moderate	Low	Moderate
Seasonal Rates	High	Low	Low	Low	Moderate
Interruptible Rates	High	Moderate	Low	Moderate	Low
Load Management Techniques	Very High	High	Low	Low	Moderate
Demand Charges	High	High	Moderate	Low	Moderate

#### 4. Costs and Benefits of Memo Issues

Eversource has identified below an initial assessment of costs and benefits foreseeably associated with adopting any of the standards listed in the Memo.

Standard	Costs	Benefits
Cost of Service	Significant variations in TOU pricing	More efficient pricing; Better use of
		the grid
Prohibition of	Potentially lower sales for the utility	Conservation of energy; increased EE;
Declining Block		better energy consumption decision
Rates		making

Time of Day Rates	More uncertainty, or additional planning	More efficient pricing; Better use of
	needed	the grid
Seasonal Rates	A little more uncertainty, or more planning	More efficient pricing; Better use of
	needed	the grid
Interruptible Rates	Load curtailment; high cost for violation	Better use of grid; load curtailment
		when needed
Load Management	More planning	Better use of the grid
Techniques	5.7	
Demand Charges	Informational needs; uncertainty	More efficient use of the grid.

### RESIDENTIAL AND COMMERCIAL TIME OF DAY RATES FOR ELECTRIC VEHICLE CHARGING

#### 1. Alignment with Commission principles

Eversource notes that an EV time of day rate, whether as part of the overall rate for a home or business or as a separate, dedicated EV rate, could encourage a shift in usage or reduction in peak load that results in more optimal and efficient use of facilities and resources. Such a rate may also encourage energy conservation and support other Commission energy policy principles. The extent to which such rate design is reflective of costs for distribution, transmission and energy supply services, is understandable by the customer and provides pricing customers may respond to are important considerations in determining the degree of alignment with such principles.

While the Company's current time of day rates have at the time of their development been designed to align with the Commission's rate design principles of efficiency, equity, simplicity, continuity and revenue sufficiency, a closer review of those rates with EV rate design goals and objectives and development of standards can serve to highlight which changes to rates will foster these principles even further.

Given the early stages of EV deployment, it may be beneficial to offer and review service to EVs under current rates, and to consider an initial, optional rate against which to gauge alignment with the Commission's rate design principles, the cost to achieve goals consistent with

standards, and to inform potential, subsequent rate changes. Beginning with a new separate rate class may not result in equitable rates or revenue sufficiency without first having time, and therefore data, to inform the creation of such a rate class.

#### 2. Potential impacts on application to distribution, energy supply, and transmission

The Company believes it is appropriate, at least initially, to structure time of day rates for EVs consistent with the Company's prevailing time of day rate options. Those rates include on and off-peak pricing for Distribution and Transmission. For the energy supply rates, Eversource supports a direct line of sight on a time-varying basis between the cost of energy supply and the prices customers see. However, the Default Service procured by the Company on behalf of customers does not have an on and off-peak rate, nor do suppliers offer on and off-peak pricing. Therefore, it would not be appropriate from a cost of service perspective to set a price differential for Default Service.

Regardless, and also because of these conditions, the Company would recommend a review and comparison of its rates with that of its Connecticut affiliate to gain insight into rate design for these components of service, among its residential and commercial rate classes.

# 3. Adequacy of current and proposed rate offerings to an EV rate design structure Eversource references its response to Section 2, "Current offerings of Eversource" on pages 3 and 4, above. For additional insight the Company has put together a summary of the how each of the above are affected by the type of chargers generally available today.

	Home charging	Level 2 public and	Direct Current Fast
		workplace charging	Charging ("DCFC")
Cost of	Currently the cost to	Currently the cost of	Same as for level 2. While
service	provide service for home	providing service for public	cost of service data is limited
	charging of electric vehicles	and workplace charging of	for these and other charging
	is included as part of the	Level 2 electric vehicles is	stations in the Company's
	cost of service to the entire	included as part of the cost	service area, the Company

		THUL ADDITIONAL.	i in applicable.
Interruptible	Not applicable.	Not applicable.	Not applicable.
		components of service.	
		seasonality of rates for other	
		customers. There is no	
		large general service	
		general service customers, and monthly for medium and	
		energy service to small	
		change semi-annually for	
	of service.	as a standalone service –	
	rates for other components	public charging facility, or	
	There is no seasonality of	includes a workplace or	
	year for competitive supply.	service to a business that	
	change at other times of the	provided as part of general	
rates	semi-annually or may	Level 2 service - whether	
Seasonal	Energy service rates change	Energy service rates for	Same as Level 2.
		service customers.	
		and transmission) general	
	WALL WALLSTON	rates) and large (distribution	
	and amendment)	for medium (transmission	
	transmission components of service. (Subject to review	small general service customers, and are standard	
	ADDRESS	are available optionally for	
	Applies to both the distribution and	service. Time of Day rates	
	residential customers.	provided as a separate	
	home charging, for	of overall service or	
rates	entire service inclusive of	charging is included as a part	
Time of day	Available as an option for	Applicable whether Level 2	Same as Level 2.
		separate service.	<u> </u>
		customers or is applied as a	
		and large general service	
		in service to small, medium	
		where charging is included	
		components of service,	
		distribution and transmission	
		included in rates for the	
block rates	Company's distribution rate	and/or demand rates are	Sume us Devel 2
Declining	Not reflected in the	Declining block energy	Same as Level 2
			facilities.
			part of service or for service dedicated to such charging
			designing rates, whether as
			of costs for purposes of
			and inform future allocations
	and energy supply)		to evaluate cost of service
	distribution, transmission	may be placed in service.	would be in a better position
	all components of service:	where such charging stations	facilities are installed and
	may be located (applies to	general service classes,	information as charging

Load Management techniques	Outside of tariff	Outside of tariff	Outside of tariff
Demand charges	Not applicable	Applicable whether as part of load or separate service to Level 2 chargers; Charges may be either block rates or time differentiated, as noted above.	Same as Level 2.

#### 4. Metering, communication, and billing incremental cost implications for Eversource

If a new rate is developed for EV time of day rates, additional costs will be incurred. Those additional costs would relate to changes to the billing system, potential meter changes and new processes required of the Company. Without knowing the complete design of such a future rate (on and off-peak periods, types of on and off-peak rates, etc.), the Company is not able to provide a cost estimate with these comments. An initial, opt-in rate design predicated on current systems and equipment, and employing a simple, two-part fixed structure are recommended at this time, and would likely be a much more feasible option.

#### 5. Possible effects of improvements to load factor

The Company would be interested in further discussions regarding flexible load requirements in this context, and in conjunction with load management approaches. For new EV load, time of day offerings, and in many cases where a demand charge structure is employed, greater efficiency in utilization of the system through improvements in load factor, and avoidance of new capacity for both delivery and the energy market, could result.

#### 6. Customer engagement strategies to maximize EV rate design adoption

Multiple customer engagement strategies could be deployed to encourage customers to utilize time of day rate offerings. A primary avenue for engagement is through the charger original equipment manufacturer ("OEM"). The Company has relationships with multiple

manufacturers as part of its affiliate's existing Connected Solutions demand reduction program in Massachusetts. In that program emails and in-app notifications are sent by the manufacturer to customers who already own electric vehicle chargers. Direct communication from the manufacturer is a successful way to interact with the group of customers who are most likely to participate. This same method of communication could be used to notify customers about the availability of time of day rates.

In addition to direct communication through charger manufacturers the Company could include information on the eversource.com website, where resources are already featured for customers interested in electric vehicles. See: <a href="https://www.eversource.com/content/ema-c/residential/save-money-energy/explore-alternatives/electric-vehicles">https://www.eversource.com/content/ema-c/residential/save-money-energy/explore-alternatives/electric-vehicles</a>.

Partnerships with electric vehicle manufacturers and dealerships would also be an effective way to provide information on time of day rate offerings to customers. The New Hampshire Energy Efficiency programs have existing relationships with the NH Automobile Dealers Association and many of the dealerships in the state.

#### 7. Suggested appropriate regulatory venue for EV rate design

As indicated above, current on and off-peak pricing is available for EVs. If separate rates are established for EVs only, the Company believes a separate docket may be necessary, but is neutral as to whether it is through a rate case or a state-wide docket.

#### 8. Eversource's role in implementation and execution

Utilities are uniquely positioned to enable strategic electrification as part of larger investments in grid modernization capabilities, specifically investments in electric vehicle charging infrastructure. Utility investments in charging infrastructure can address the limited availability of public charging stations, the upfront cost of charging infrastructure, and a lack of

consumer awareness about electric vehicles. Through such investments, utilities can accelerate charging infrastructure deployment enabling greater EV adoption, which has the long-term potential to provide customer benefits through increased system utilization and load factor improvement. The Company recognizes the importance of minimizing distribution system costs and that electric vehicle infrastructure has to align the interests of stakeholders, the State, drivers, communities, site hosts, and utilities, and that some level of customer-supported investment in Electric Vehicle Supply Equipment ("EVSE") is consistent with expected long-term benefits of policies supporting EV adoption.

The role of utilities in publicly available EVSE deployment in New Hampshire should be addressed in two specific cases: 1) the opportunity to effectuate the directive from the Office of Strategic Initiatives ("OSI") to deploy a DC Fast Charging corridor as allowed under Category 9 of the Volkswagen Settlement Agreement, and 2) the deployment of EVSE (both DC Fast Chargers and Level 2 chargers) more generally.

Volkswagen Settlement Agreement Deployment

On October 2, 2017, the Department of Justice and Volkswagen signed a \$15 billion settlement, a portion of which – \$2.9 billion – will be held by the Mitigation Trust shared among the U.S. states, based on the number of violating vehicles registered in each. New Hampshire's share is \$30,914,841.09.

The New Hampshire Beneficiary Mitigation Plan (the "Plan") proposes that approximately \$4.6 million (15 percent) of New Hampshire's allocation will be used for the acquisition, installation, operation and maintenance of EVSE as allowed under Category 9 of the Settlement Agreement. The Plan observes that:

With the decreasing costs and increased availability of EVs, this provision of the Mitigation Trust offers New Hampshire a unique opportunity to invest in the future and ensure New Hampshire remains a destination for travelers from across the Northeast and Canada. Decisions on the location and type of charging infrastructure in the state will consider investments and programs in neighboring states and provinces and investments made by Electrify America pursuant to Appendix C of the Settlement Agreement. Collaboration with in-state stakeholders in determining where, how and when to invest is prudent. Investment decisions may take into consideration recommendations from the EV Infrastructure Commission established by Senate Bill 517. State investments should seek to leverage private sector funding and must occur in a manner that will allow for broad access to users and incorporation of technological advances in EV charging infrastructure.

New Hampshire Beneficiary Mitigation Plan at 13 (available at:

https://www.nh.gov/osi/energy/programs/documents/beneficiary-mitigation-plan.pdf). On November 22, 2019, the New Hampshire Department of Environmental Services ("NHDES") serving as solicitor on behalf of the OSI, released the "New Hampshire VW Environmental Mitigation Trust Direct Current Fast Charging Infrastructure Request for Proposals" (RFP # NH-VW-2019-03). The RFP is for a qualified Applicant to provide a strategic network of EVSE and associated operations, maintenance and management services along specified corridors in New Hampshire, installing and operating EVSE including both DCFC and Level 2 chargers. The intent of this component of the Plan is to significantly expand New Hampshire's network of travel corridor EV charging stations by providing funding for the charging stations themselves — an upfront cost that can range from \$75,000 to \$100,000 per 150 kW DCFC port ("Reducing EV Charging Infrastructure Costs", Rocky Mountain Institute, December 2019).

Utility investment is necessary to help effectuate this directive from OSI. Though the capital cost of the charging stations may be offset by the Plan's funds, site hosts or installers and operators of this EVSE will still face a significant cost burden. The supporting infrastructure

(from the utility service to the stub-out of the charging station) can be a considerable capital cost for an individual site owner to bear and is a major barrier to DC fast charger installation. Those costs are impacted by distance to 3-phase power, current price of copper wire, amount of underground conduit needed, civil site work, and other issues. Vaults and pad mount transformers may be included in some or all locations. While costs are highly site dependent, grid upgrade costs and supporting infrastructure costs can be up to 80% of the project capital for a given site (*RMI*, *Reducing EV Charging Infrastructure Costs*). Without utility investment in the supporting infrastructure, the state is unlikely to see a robust and effective response to that particular RFP.

Utility involvement for site selection for such deployments is also critical to minimizing costs to the distribution system. The utility can determine if there is sufficient capacity at a location and help find locations that would not need extensive upgrades. Eversource is prepared to support efficient and effective expansion of DCFC along travel corridors, by assisting with site selection, and installing infrastructure, to support deployment of charging infrastructure, particularly where additional charging infrastructure is needed to fill gaps in travel corridors.

#### EVSE Deployment More Generally

The Company has identified various factors that impact the rate of EV adoption in the State and throughout the country:

- Limited availability of public charging stations
- Cost of charging infrastructure
- Lack of consumer awareness of available EVs, their operation and features, and their lifetime economic and environmental benefits
- Upfront purchase price of electric vehicles
- Variety of available vehicle models
- Time required to charge a vehicle

The lack of infrastructure is a critical barrier that needs to be addressed. According to the Natural Resource Defense Council's "Driving Out Pollution: How Utilities Can Accelerate the Market for Electric Vehicles" report, "Market research shows that consumers' top four reasons for rejecting EVs were all related to lack of infrastructure or range." Baumhefner, M., Bull, P. and Hwang R. Driving Out Pollution: How Utilities Can Accelerate the Market for Electric Vehicles, June 2016. Survey analysis by the National Renewable Energy Laboratory ("NREL") shows that the lack of infrastructure for alternative-fuel vehicles is as much of a barrier to adoption as incremental vehicle price. *See* Malaina, M., Y.Sun, and A. Brooker, "Vehicle Attributes and Alternative Fuel Station Availability Metrics for Consumer Preference Modeling," NREL Transportation Center, presented at Energy Commission Workshops, Sacramento, California, March 19, 2015.

Washington State commissioned a study that found "charging station business models that rely solely on direct revenue from EV charging services currently are not financially feasible" and that viable business models must "capture other types of business value in addition to selling electricity." Nigro, N. and Frades, M. Business Models for Financially Sustainable EV Charging Networks, Center for Climate and Energy Solutions, March 2015.

Utility investment in charging infrastructure lowers the investment barriers faced by private investment in EV charging infrastructure, leverages and expands the opportunity for private investment to own the charging stations themselves, while at the same time facilitating the development of the overall EV market.

Through solutions like funding supporting charging infrastructure, leveraging our expertise designing, building, and maintaining electrical distribution infrastructure, the Company believes it can help support EV charging and serve as a platform for third party innovation and

forward- thinking pilots designed to advance EV adoption in areas with additional market barriers.

In Massachusetts, in November 2017, the Company's affiliate was approved (in DPU Case No. 17-05) to invest \$45 million and has begun to implement the make-ready model to install, own and operate the infrastructure to support up to 3,500 Level 2 and DCFC charging ports at approximately 400 customer sites. The utility investment is in infrastructure beyond the meter up to the charging station, specifically for the service panel and the associated conduit and conductor necessary to connect each piece of equipment. But the utility does not own the charging stations themselves.

Since inception, the program has received over 650 applications, signed contracts for 290 customer sites, and installed charging infrastructure at over 130 sites. These are installations made possible by the Company's affiliate's investment and are responsible for almost all of the growth in EV charging infrastructure in the Company's affiliate's Massachusetts service territory since the investment's approval.

Key to the early successes in deployment of charging infrastructure is the market-driven approach for site host selection. This approach means that a site host's business proposition will help determine site selection. Through its affiliate, Eversource has gained valuable experience in all aspects of installing infrastructure to support EV charging. These aspects include but are not limited to: detailed and streamlined scope of work for behind the meter contractors, coordination of scheduling to minimize installation time, development of cost-effective engineering assessment, procurement efficiencies for utility-side infrastructure, development of cost-effective switchgear enclosure, and development of guidelines for site selection to minimize infrastructure

costs. The Company expects to continue learning and streamlining costs as that program continues.

EVSE deployment has the long-term potential to provide customer benefits through increased system utilization and load factor improvement. In this way, utility funding for EVSE infrastructure is conceptually similar to the Company's dedication to efficiency investments: short term costs that lead to longer term savings for all customers in excess of those costs.

In sum, utilities are well positioned to support EVSE deployment. Eversource is committed specifically to ensuring support of an EV fast charging corridor as described in the RFP # NH-VW-2019-03 as cost effectively as possible by leveraging the VW Settlement Funds to offset costs for the chargers themselves and through practical common-sense confines around the parameters of site construction and selection to ensure selected sites would not be unduly costly. The Company overall is ready to support EVSE deployment more generally and effectively in New Hampshire.

#### 9. Additional pertinent information for structuring EV charging rates

Rate structures are not the only mechanism that can produce desired EV charging behavior. Enrolling connected EV chargers into a utility managed EV charging program can have many of the same benefits of an EV rate such as encouraging charging during off-peak hours and helping to improve grid load factor. Managed EV charging through a utility program likely warrants its own discussion as it is possibly a viable alternative or complement to EV rates.

In a utility run managed charging program, the utility has two strategies at its disposal to help manage EV charging. First, the utility can temporarily throttle down the rate of charging. For example, if a car was plugged into a charger and was charging by using 7 kW of demand, the utility could temporarily throttle that charging demand to 1 kW during times of grid constraint.

Secondly, the utility could push a charging schedule to a charger. This strategy enables a customer to plug in their car like normal, but charging does not commence until the designated time outlined in the schedule. For example, a customer could come home at 5 p.m., plug in their car, but it would not start charging until 1 a.m. It would also likely be possible to stagger the schedules so not every vehicle comes on at the same time, 1 a.m. for instance, which may cause its own set of issues. Recognizing that customers may occasionally have special circumstances that would not allow them to participate in a scheduled program, the Company would offer customers the ability to opt-out of a limited number of events.

In exchange for participation in a managed charging program, the utility could pay the customer an incentive. There are no punitive repercussions as part of this program design; that is, the customer has the opportunity to earn money without the possibility of being penalized and losing money. The overarching goal is to minimize customer "operational interference" and automate the process to the largest extent practicable.

Managed charging is a strategy that can be implemented today and is currently being implemented as a demonstration project in Massachusetts. The minimum technical requirements for participation are a wi-fi or cellular enabled Level 2 charger. Managed charging does not require new or separate metering, participation and energy usage can be determined from data collected through the EV charger itself. Typical data fields that can be tracked through the charger include:

- Device (#)
- External ID (#)
- Event ID (#)
- Period Beginning (date/time)
- Participating (# of minutes)
- Offline (# of minutes)
- Opted Out (# of minutes)
- Pending Dispatch (# of minutes)

- Charging Session (Y/N)
- Energy Consumption (kWh)
- Avg Power (kW)
- Peak Power (kW)

No new rate structures are required or need approval as this is an incentive-based program and could be run out of the energy efficiency department. The Company expects to propose managed EV as part of the 2021-2023 Three Year Energy Efficiency Plan.

The Company is already working with one major EV charger manufacturer to integrate into its distributed energy resource management system (DERMS) with the capability to control chargers today. Integration with additional major EV charger manufacturers are currently underway. In the short term, a managed charging program can be run without direct integration into a DERMS. However, the Company would want to see a longer-term vision for integration so that all chargers, regardless of type/manufacturer, could be controlled from a single point, subject to obtaining appropriate customer authorizations.

#### CONCLUSION

Eversource welcomes this opportunity to provide initial content to serve the Staff's recommended investigation into designing an EV rate structure, which the Commission is using to accomplish the legislative imperative of SB 575-FN. If implemented properly, and in line with the objectives and characteristics outlined by Staff and embodied by the Commission's energy policy objectives, New Hampshire could benefit on multiple energy policy fronts.

Eversource recommends that the Commission's investigation focus on the most effective and productive means to support the initial findings, further define the scope of the rate design, and that the Commission begin to describe the process for creating an EV rate that supports those objectives.