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April 8, 2019

Ms. Judith C. Whitney, Clerk  
Vermont Public Utility Commission  
112 State Street, Drawer 20  
Montpelier, VT 05620

Re: Case 18 – 2660  
Information responses relative to incentives, education and safety standards

Dear Ms. Whitney;

At the request of the Vermont Public Utility Commission (“Commission”), the City of Burlington Electric Department (“BED”) and Vermont Public Power Supply Authority (“VPPSA”) submit the following information responses relative to the above-captioned issues. Specifically, this filing responds to the 6 questions included in the Commission’s Order of March 22, 2019 that were directed at Vermont’s distribution utilities.

- 1. What incentives do you currently have in place to encourage ownership and/or use of EVs in their respective service territories? This response should include any incentives for the purchase of EVs and EVSE such as Level 2 home chargers, as well as any rate structures in place to encourage home charging.***

As noted in earlier filings and in our Tier III Plan update<sup>1</sup>, BED has been implementing a series of transportation related programs to encourage EV ownership and usage. As of March 31, 2019, BED has offered the following incentives and residential rate structures.

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<sup>1</sup> Filed with the Commission on December 7, 2018.



		Current 2019 Incentives		Updated 2019 Incentives	
Residential Level 2 EVSE incentive	AEV	\$1,200	\$1,800	\$1,200	\$1,800
	PHEV	\$600	\$600	\$1,000	\$1,500
	Residential EV Rate \$/kWh	\$	-	\$	0.08
	Residential EV Rate \$/kWh	\$	-	\$	0.08
<i>Low to moderate income households =</i>					

With respect to the residential EV rate structure, BED provides a rate credit of approximately \$0.06/kWh to participating EV owners who install a pre-approved level 2 home charger. BED also provides a \$400 incentive toward the installation cost of an approved home charger. Program participants must register their charging device with BED, connect it to their in-home WIFI and, importantly, charge their EV between 10:00 PM and 11:59AM. By charging their vehicle during the designated hours, customers pay approximately \$0.08/kWh, which is equivalent to \$0.60 per gallon of gas. If EV owners charge outside of the designated hours, their credit is eliminated for the billing period.

In addition to the above, BED has also begun to implement a level 2 electric vehicle charger incentive program for commercial customers. Under this program, BED will provide an incentive equal to 20 percent of the installation cost up to a \$1,000 per 2-port EVSE pedestal. Although several customers have inquired about this program, BED has not issued any EVSE incentives thus far. BED is, however, working with commercial customers to submit VW grant applications by April 30<sup>th</sup> to the State’s Inter-Agency committee responsible for administering VW funds. If customers are awarded funds to install eligible EVSE, BED’s incentives can be applied toward the installation costs of the equipment. In addition to assisting its customers with completing VW grants, BED is also in the process of completing its own grant applications for up to seven publicly available chargers at five new locations in the City.



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The VPPSA utilities provide the following incentives toward the purchase or lease of new electric vehicles:

	2019	
	Market Rate Income Households	Low to moderate income Households
AEV	\$800	\$1,000
PHEV	\$400	\$600

- 2. How does your company fund the various incentives offered to your customers? Please include in your response any matching-funds programs in which your company participates.**

The Tier III programs of all distribution utilities are ultimately funded through ratepayers, pursuant to 30 V.S.A. §8005. In addition to ratepayer funds, BED and VPPSA are collaborating with Nissan North America and participating in their so – called “Fleet-tail” program. As a Nissan North America partner, customers of BED and the VPPSA members are able to take advantage of Nissan’s rebates on 2019 Leafs (\$5,000) and 2019 Leaf PLUS (\$2,500) models. Such incentives are in addition to BED’s and VPPSA’s Tier III incentives – shown above – as well as the federal income tax credit (\$7,500).

With respect to BED’s residential EV Rate discount program, the discount provided to customers for charging their vehicles during the required 10PM and 11:59 AM hours is designed to recover the average marginal cost of power, estimated implementation costs (hardware or software), plus a contribution toward BED’s fixed costs.

- 3. What have been the customer participation rates in responding to these incentives, including the purchase of new EVs, the installation of Level 2 home chargers, and participation in any EV-specific rate offerings?**



The table below highlights the number of vehicles for which BED has provided a financial incentive. Incentives are limited to one per household (or business).

	2017	2018	1Q2019
EV	33	16	5
PHEV	2	10	5
<b>Total</b>	<b>35</b>	<b>26</b>	<b>10</b>

Of the 33 EV customers who received a BED incentive in 2017, 16 customers purchased a 2017 Nissan Leaf. These customers also received a \$10,000 rebate from Nissan North America. In 2018, Nissan North America reduced the incentive for current model vehicles to \$5,000. Although changes in big ticket purchases from one year to the next are influenced by a host of factors, BED believes that Nissan North America’s decision to reduce its rebate by 50 percent had a significant impact on program participation in 2018. This reduction is indicative of how incentives influence purchasing decisions. What the table appears to demonstrate is that price really matters to BED’s customers and that high incentives are needed in the short term to increase the price competitiveness of EVs relative to traditional vehicles. Since BED commenced EV program operations in 2017, BED has issued enhanced incentives to three moderate to low income households.

With respect to BED’s residential EV rate discount program, 9 households are participating in the program as of March 31, 2019.

The table below highlights the number of vehicles for which VPPSA has provided a financial incentive.

	2018	1Q2019
EV	11	1
PHEV	23	0
<b>Total</b>	<b>34</b>	<b>1</b>



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Pursuant to 30 V.S.A. §8005, VPPSA commenced EV operations on behalf of its members in 2018. Since then, 35 incentives have been issued. Of the total, VPPSA provided enhanced incentives to four low to moderate income households.

- 4. Please provide specific examples of distribution-utility-sponsored programs from other states designed to encourage the purchase or lease of EVs of which you are aware, including how those programs are funded. If possible, please note those utility programs that have been most successful at increasing the deployment of EVs.*

BED and VPPSA are aware that a large body of literature exists describing programs in other states that are designed to encourage EV adoption. We have invested time reviewing and researching this literature but have not prepared summary documents. That time has been well spent in our view and has informed our program design decisions. We are not however in a position to offer an opinion as to whether the other States' programs that we have reviewed are entirely applicable to Vermont. Some elements of other States' program may be relevant to Vermont, others may not. Generally speaking, we believe that programs designed to increase the price competitiveness of EVs are more successful. Such program design elements include but are not limited to high upfront point-of-sale incentives, feebates, and sales tax exemptions.

- 5. What efforts have you made with respect to conveying the benefits of transportation electrification to your customers, including environmental benefits, lower maintenance and fuel costs, and lower costs for ratepayers generally? Please describe any plans to engage in educational activities regarding transportation electrification. Please include descriptions of information outreach such as information on your website, direct mailings to customers, bill stuffers, and promotional events.*

Although we are collaborating with each other, BED and VPPSA are independently pursuing multi-prong approaches to educating customers on the



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potential benefits of EV ownership. For product specific information, VPPSA and BED web browsers may be redirected to Drive Electric Vermont's website. On Drive Electric Vermont's website, customers can learn more about the mileage range of various vehicles, their battery size, MSRP, and the cost savings associated with driving electric. BED and VPPSA team members also actively participate in Drive Electric Vermont stakeholder group meetings. This group has been established to share information, build capacity among other community leaders and spread the word about EV related programs and benefits.

On a regular basis, BED team members leverage social media to issue new products, announce public events and offer special promotions. Media channels include BED's Facebook account, twitter, online blogs, FrontPorch Forum and [www.Burlingtonelectric.com](http://www.Burlingtonelectric.com). BED's website also includes a downloadable rebate form that customers can complete and send in to claim their rebate check. Bill stuffers and bill notices are issued occasionally to remind customers of BED's programs and incentives.

VPPSA works with its member utilities to convey the benefits of EV's to their respective customers through several channels. VPPSA utilities have notified customers of EV and PHEV incentives via bill stuffers. This bill stuffer is a two-sided advertisement. One side includes information about the environmental and financial benefits of driving electric; the opposing page includes a rebate form for customers to complete and send to VPPSA to claim their rebate. VPPSA also includes EV-related information on its website for those customers who are researching EVs.

In October, 2018, Swanton Electric Department and VPPSA hosted an electric vehicle drive event in Swanton in conjunction with Public Power Week events. During the week-long event, a local Chevrolet dealer provided potential customers with the opportunity to test drive a Chevy Bolt. Also, Drive Electric Vermont representatives were available for part of the week to address any additional questions customers and visitors had during the event.



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Both BED and VPPSA are committed to helping Vermonters learn more about EV's and to assist them with transitioning to all-electric vehicles when it makes sense for customers to do so. Accordingly, BED and VPPSA will continue to participate in statewide and local events, such as public power week, that promote EV adoption.

*6. What pace of EV adoption and EVSE deployment is needed for Vermont to achieve the goals of the State's Comprehensive Energy Plan and its greenhouse gas reduction goals? How can Vermont's utilities assist in meeting those goals, and what level of effort and investment is required to meet them? What can the PUC do or change to help in meeting those goals? Are you aware of the type of incentive, the level of incentive, or any approaches (such as marketing and sales information) that have proven to motivate a substantial shift to buying EVs, in Vermont or elsewhere?*

Determining the specific pace of EV adoption and EVSE deployment that would be needed for Vermont to achieve its greenhouse gas reduction goal by 2050 would be a large task for BED and VPPSA to undertake in a proceeding like this one. Also, we believe that making such a determination for the State is not within our purview as electric distribution utilities. However, we believe that the current pace of EV adoption and EVSE deployment is too tepid to reach the State's goal and that more needs to be done at the State level to increase that pace. Although, BED and VPPSA are actively assisting the State to achieve its CEP goals, as described above, there is only so much we can legally do given the current alternative compliance payment restrictions under 30 V.S.A. § 8005.

In our view, doing "more" to stimulate the EV and EVSE markets means that existing programs would need to be expanded to include a bevy of implementation strategies. At a high level, these strategies could include at least the following:

- Higher upfront customer incentives;
- Auto dealership incentives and/or commissions;
- Increased consumer marketing;
- Auto dealership training and marketing;



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- Widely distributing objective and robust educational resources; and,
- Online tools that would allow for comparative shopping between traditional vehicles and EV's.

To effectively implement these strategies, the State needs to help Vermont's various stakeholders to collaborate with each other and develop a multisector comprehensive approach to transition the market away from traditional vehicles. Although the State does not need to lead the effort, it could provide the necessary financial resources to further develop the mutually supporting systems and infrastructure necessary to affect change. Such a system and infrastructure does not need to be created anew, however. Drive Electric Vermont is Vermont's EV support system. Although it is currently underfunded and in need of additional State support, it is fully capable of becoming the change agent that the State needs to achieve its climate goals.

We appreciate the Commission's willingness to evaluate the options it may be able to pursue within its authority to further promote EV adoption and EVSE deployment. During the process of evaluating such options, BED and VPPSA recommend that it remain dispassionate and vigilant. At the same time, the Commission will also need to be flexible in its approach to regulating utility-owned EVSE as it is unlikely that a prescriptive approach would foster a market transformation.

As the Commission knows, several claims have been advanced over the course of this proceeding. Some of those claims were unsubstantiated. Several participants in this proceeding have claimed that less regulation will spur competition and that a competitive market will, in turn, yield consumer benefits. Despite their desire for less regulation, the same participants also seek regulatory relief. These same participants argue in favor of a so – called demand charge holiday as a means to foster investment in high – capacity EV chargers. These participants further argue that without such relief the idea of competitive EVSE services will wither. As noted in previous filings and at workshops, Vermont's utilities are not currently afforded a similar demand charge holiday from ISO-NE, nor do we expect to earn one in the foreseeable future. As a





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consequence of this fact, BED and VPPSA request that the Commission support our efforts to develop with the other participants in this proceeding alternatives to an outright demand charge holiday. In our view, pursuing and possibly adopting policies based on unsubstantiated claims in the name of competition may not necessarily lead to actual consumer benefits but would instead lead to cost shifting to other ratepayers.

Irrespective of how the transportation market evolves, the Commission will need to strike a delicate balance. On the one hand, the Commission will need to ensure that consumer protections remain robust, even though it is unclear at this time how such protections will remain enforceable under the Commission's legislative recommendations. On the other hand, the Commission needs to support the State's CEP goals. Supporting such goals essentially means that it needs to embrace innovation and creative approaches in order to attract investment. To ensure consumer protections remain intact, we recommend that the Commission remain vigilant and fully assess how nonutility EVSE station owners will charge EV drivers for their services and whether such service offerings are sufficiently transparent so that consumers can make informed decisions. The Commission may also want to review the forecasted timelines for deploying EVSE throughout the state by nonutility EVSE station owners, especially in rural areas. Additionally, we believe that a periodic review of the rates for public charging in less developed areas should be undertaken by the Commission as such EVSE stations are installed.

But we also recommend that the Commission refrain from adopting rules and regulations that are overly prescriptive. In order to quickly respond to changing market conditions, all EVSE station owners, including Vermont's utilities, will need additional flexibility to design programs and price structures to compete in an ever-changing environment. Such flexibility will allow distribution utilities, in concert with the Commission and the DPS, to control the pace of EVSE deployment. What concerns BED and VPPSA the most is a repeat of past public policies that prescriptively mandate goals without providing each utility a reasonable off ramp from a high cost policy when it is warranted. It is important for BED and VPPSA to note that EV adoption will be driven largely by factors beyond the State's control. For example, the American Public Power



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Association (and other organizations) predicts that dozens of new EV models, including SUV and Crossover models popular in Vermont, will be available over the next decade. Thus, technological changes and price reductions will hasten the transition to cleaner modes of transportation in time. Accordingly, the Commission should be wary of adopting policies in the name of competition, such as a demand charge holiday, that could unfairly impose high short term costs on current ratepayers without also providing stakeholders the opportunity to adapt as market conditions evolve.

BED and VPPSA appreciate the opportunity to provide this feedback to the Commission in the above referenced proceeding. Should you have any additional questions or concerns, please feel free to contact us directly.

Sincerely,

Thomas Lyle  
Programs and Policy  
Burlington Electric Department

Melissa Bailey  
Legislative & Regulatory Affairs  
Vermont Public Power Supply Authority