

# Elson Advocacy

June 14, 2023

**BY RESS**

**Nancy Marconi**

Registrar

Ontario Energy Board

2300 Yonge Street, Suite 2700, P.O. Box 2319

Toronto, Ontario M4P 1E4

Dear Ms. Marconi:

**Re: EB-2023-0071 – Electric Vehicle Integration (EVI)  
Electric Delivery Rates for Electric Vehicle (EV) Charging Report and  
Invitation to Stakeholder Meeting**

I am writing on behalf of Environmental Defence to provide written comments on the *Electric Delivery Rates for Electric Vehicle Charging* report prepared for the OEB by Power Advisory. Environmental Defence strongly supports this initiative. It is responsive to directions from the Minister of Energy to “consider distribution rates for EV charging (including demand charges)”<sup>1</sup> and also to the economic imperative to facilitate electric vehicle (“EV”) charging expansion in Ontario, lest we get left behind as other more favourable jurisdictions surge ahead of us.

As detailed below, Environmental Defence requests that the OEB:

1. Adjust the rules governing connection charges for electric vehicle charging stations to increase fairness and decrease burdens on EV charging provider customers;
2. Maximize the costs allocated to co-incident peak demand charges or, alternatively, a design as closely approximating co-incident peak demand charges as possible;
3. Minimize the costs allocated to fixed monthly charges; and
4. Ensure the rate design accounts for the fact that many high-speed chargers will have the greatest consumption and demand on the weekends when demand on distribution systems is lower.

When considering the below comments, it is important to recognise that EVs represent an important opportunity to reduce distribution charges by increasing the load factor. Synapse Energy Economics has studied this effect in California. It concluded that “EV drivers in PG&E’s, SCE’s, and SDG&E’s service territories have contributed approximately \$1.7 billion

---

<sup>1</sup> Letter of Direction from the Minister of Energy, October 21, 2022 p. 3.

more in revenues than associated costs, driving rates down for all customers.”<sup>2</sup> EVs should be treated as an opportunity to be capitalized on, not a threat nor an industry seeking subsidies.

### **Mitigate distribution system connection costs**

Environmental Defence requests that the OEB adjust the rules governing connection charges for electric vehicle charging stations to increase fairness and decrease burdens on EV charging provider customers. These are likely the most important distribution charges levied on charging providers but do not appear to have been considered. They are important for two reasons. First, they can be adjusted in ways that facilitate the expansion of EV charging. Second, they must be considered to ensure that changes to ongoing distribution rates do not cause an offsetting increase in upfront connection charges.

In particular, we propose the following adjustments:

- **Set a longer revenue horizon for offsetting connection costs:** Under the normal DSC rules, customer capital contributions are reduced by the forecast revenue that the customer will pay for up to 25 years.<sup>3</sup> However, the application of this rule is inconsistent across Ontario. Also, most LDCs apply significantly less than the full 25-year offset. To improve consistency and lower up-front costs, the OEB should set a presumed horizon (e.g. 25 years), which would apply unless the LDC had specific evidence showing that a shorter year would be more appropriate.

The risks this poses for existing customers are small. Once charging infrastructure is in place, it is highly likely that the distribution infrastructure will remain used and useful and the distribution charges will be paid. By all estimates, the demand for EV charging is set to increase dramatically. This is not like a mine or a speculative business. Although the risk is not zero, that is never the case, and assuming some risk would be consistent with the Ministry’s objectives.

- **Remove the revenue forecast deposit:** Under the normal DSC rules, a charging provider must pay 100% of the capital contribution *and* also provide a deposit to cover the remaining capital cost, which is repaid over five years as the revenue forecast comes to fruition.<sup>4</sup> This deposit should also be waived for EV charging provider customers. There is no equivalent deposit with respect to gas connections. Furthermore, the deposit could be particularly problematic and unfair for charging providers because their volumes in the early years are expected to be low at first and increase over time.

By making these adjustments, the OEB could lower the upfront distribution costs for charging providers and reduce the unfairness of basing the connection costs on lower revenue levels achieved in the first five years.

---

<sup>2</sup> Synapse Energy Economics, *Electric Vehicles Are Driving Electric Rates Down*, October 2022 ([link](#)).

<sup>3</sup> Distribution System Code s. 3.2.4 and Appendix B.

<sup>4</sup> Distribution System Code s. 3.2.20. Although the connection deposit can be provided by way of other means such as a line of credit (s. 3.2.25), this still significantly impacts the overall financing available to a developer.

This proposal is consistent with the principle that LDC's be made whole for the connection infrastructure they build. As noted above, the risk of stranded assets is very low. In any event, if LDC's end up with additional costs as a result of this proposal, or with a discrepancy in actual versus forecast costs, this can be dealt with in its next rebasing case.

This proposal is also consistent with the principle that the beneficiary pays. The EV charging provider customer will still be responsible for paying for the infrastructure in part through an up-front contribution and in part through ongoing rates. If there is a concern about treating these customers differently from other customers, the OEB could make these special rules applicable for, say, 5 or 10 years, subject to a re-evaluation of their appropriateness.

### **Expand co-incident peak demand charges (and derivatives thereof)**

With respect to ongoing distribution rates for EV charging provider customers, Environmental Defence recommends that the design focus as much as possible on co-incident peak demand charges or, alternatively, a design as closely approximating co-incident peak demand charges as possible, such as the time-of-use peak demand charge that has been proposed. These kinds of charges are fairer, reflect cost causality better than the existing design, and promote more efficient behaviour.

Some stakeholders oppose distinct rates for EV charging provider customers. Although we disagree that this is a problem, the concern can be addressed by moving all commercial and industrial customers to co-incident peak demand charges (or a close approximation). This would be consistent with an excellent 2016 Board Staff report recommending that such a step be taken. The benefits would be significant, including the following:

- **Lower costs:** Coincident peak demand charges would lower electricity bills by rewarding customers who shift their electricity usage in a way that reduces costs for electricity distributors. Current rate designs do not reflect the importance of coincident peak demand on the distribution system. Instead, the variable charges are based on usage (kWh) or non-coincident peak demand (kW).<sup>5</sup> There is no incentive to optimize usage in a way that would reduce the system-wide coincident peak demand and thus reduce distribution costs. As stated by Staff in 2016, "a price that does not differentiate between demand that drives cost and demand that does not, fails to align the interests of the customer and the distributor."<sup>6</sup> In 2016, Board Staff noted as follows:

While the size of system investment required is driven by the peak demand, customers also consume power at other "off-peak" times. Considered from the economic standpoint, off-peak demand is a co-product of the primary product and can be 'sold' at reduced prices as an additional source of revenue while peak capacity draws the primary revenue. Lower off-peak prices will encourage

---

<sup>5</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 6.

<sup>6</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 6.

customers to make better use of existing distribution system assets and reduce the need for new capacity expansion.<sup>7</sup>

- **Promote fairness:** The current rate design overcharges customers for non-coincident peak demand and undercharges for coincident peak demand.<sup>8</sup> Customers with relatively lower coincident peak demand subsidize those with relatively higher coincident peak demand (other things being equal). Customers who reduce system costs by reducing their coincident peak demand do not receive any reward for the benefits they provide. All of these aspects of the current rate design are unfair.

This is also contrary to the principle of cost causality. Again, distribution investments are largely a function of peak demand on the distribution system because infrastructure must be built to be capable of handling that peak demand. Customers who avoid the peak periods should be rewarded for decreasing system needs and costs. That is not happening.

Staff described the issue as follows in 2016:

Current OEB staff thinking is that the underlying rate design should ... reward the active customer for reducing one of the primary cost drivers i.e. peak capacity. Reducing peak capacity will lower the distributor's investment needs to meet peak capacity and save money over time. Building this driver into the rates will align the interests of the customer and the distributor. The expectation is that **a rate design that addresses underlying cost drivers will lead to each customer paying their fair share of the system.**<sup>9</sup>

- **Responsive to stakeholders:** When Board Staff proposed co-incident peak demand charges for commercial and industrial customers, they received positive feedback from most stakeholders.<sup>10</sup>

Furthermore, co-incident peak demand charges are not too complex to implement. Indeed, coincident peak charges have been successfully implemented in many jurisdictions in North America.<sup>11</sup> If they are successful elsewhere, they can be successful in Ontario.

Finally, customers increasingly have new options to shift usage through smart equipment and storage. The rate designs created today will be in place for many years as these technologies improve and grow. Those customers who have trouble shifting demand today will have more options in the future. Although this will not happen overnight, efficient rate designs give vendors

<sup>7</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 6.

<sup>8</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 6-7.

<sup>9</sup> EB-2015-0043, Staff Discussion Paper, March 31, 2016, p. 12.

<sup>10</sup> EB-2015-0043, AMPCO Comments, May 27, 2016, p. 2 & 4; APPRO Comments, May 27, 2016, p. 5 & 11; BOMA Comments, May 27, 2016, p. 7; CFIB Comments, May 27, 2016, p. 8; CanSIA Comments, May 27, 2016, p. 4; ESO Comments, May 27, 2016, p. 7; IESO Comments, May 27, 2016, p. 2; LPMA Comments, May 27, 2016, p. 7; SEC Comments, May 27, 2016, p. 9.

<sup>11</sup> Pacific Gas and Electric Company, *Revisions to Electric Rate Schedules E-19 and E-20 in Compliance with Decision 14-12-080*, February 2, 2015; Consolidated Edison Company of New York, Inc., *Schedule For Electricity Service* ([https://www.coned.com/\\_external/cerates/documents/elecPSC10/electric-tariff.pdf](https://www.coned.com/_external/cerates/documents/elecPSC10/electric-tariff.pdf)); Arizona Public Service Electric Company, *Rate Schedule E-32 L*; Public Service Electric and Gas Company, *Tariff for Electric Service*.

an opportunity to pitch and sell new products to commercial and industrial consumers. For example, behind-the-meter energy storage applications can offer customers the ability to respond to price signals without changing their consumption patterns. The energy storage application can charge during off-peak hours and discharge during on-peak hours to reduce strain on the distribution system. The cycling of a behind-the-meter energy storage application can operate independently of the customer's consumption pattern. In other words, the response to distribution price signals and a customer's consumption needs can be mutually exclusive. Also, "smart" equipment can remove inconvenience. Customers do not need to understand or worry about co-incident peak demand charges – their smart equipment does.

### **Minimize fixed monthly charges**

When the OEB finalizes any rate design, we recommend that it minimize the costs allocated to fixed monthly charges and maximize those allocated to co-incident peak demand charges. As it currently stands, most LDCs are able to charge their commercial and industrial customers fixed charges that are far higher than the ceiling established by the OEB because their fixed charges have been grandfathered in.<sup>12</sup> It is important to consider that context when addressing the fixed/demand charge split for any new design.

Minimizing fixed charges can bring about positive benefits:

1. **Increase Fairness:** Moving costs from fixed to variable rates will increase fairness and consistency with cost causality by preventing lower-demand customers from being overcharged and by linking charges to the actual drivers of distribution costs.
2. **Lower Energy Bills:** Moving costs from fixed to variable rates would also incentivize positive customer behaviour such as greater energy efficiency, shifting load off the peak, and pursuit of distributed energy resources. These will lower peak demand, which drives distribution, transmission, and generation capacity costs. Over time, this will lower total system costs and lower energy bills.
3. **Lower Carbon Emissions:** Greater efficiency and load shifting will lower carbon emissions by reducing Ontario's reliance on gas peaking plants.

Finally, we note that it is important to send appropriate price signals to EV charging providers. These customers do have opportunities to shift their load from peak times. For instance, FreeWire Technologies sells a high-speed charger that includes a built-in battery to minimize the peak draw.<sup>13</sup>

Co-incident peak demand changes (and designs derived therefrom) incentivize positive customer behaviour such as shifting load off the peak, installing distributed energy, and implementing

---

<sup>12</sup> For details on the ceiling see: EB-2005-0317, *Board Directions on Cost Allocation Methodology For Electricity Distributors*, Cost Allocation Review, September 29, 2006, p. 3 & p. 104-105 ([link](#)); see also EB-2019-0261, *Decision and Order*.

<sup>13</sup> <https://freewiretech.com/>

energy efficiency, which in turn would make the system more efficient, lower costs, and contribute to lower electricity bills.

### **Account for weekend-heavy demand**

Environmental Defence recommends that the rate design account for the fact that many high-speed chargers will have the greatest consumption and demand on the weekends when the demand on distribution systems is lower. This should be reflected in the rate design to ensure cost causality.

### **Conclusion**

In conclusion, we note that some stakeholders oppose different or special treatment for EV charging provider customers. However, this position conflicts with the directions that the Ministry has provided the OEB and with the Ontario Government's strong support for EVs as a driver for jobs and economic development. It is also inconsistent with the reality that EVs can lower distribution rates for all customers by increasing the load factor. Environmental Defence strongly supports all of the OEB's efforts to facilitate EV adoption, including revisions to distribution charges to better support EV charging providers through this proceeding.

Yours truly,



Kent Elson