



Tuesday, March 29, 2022

Matthew Edwards
Conservation and Energy Efficiency Branch
Ontario Ministry of Energy
77 Grenville Street, 5th floor
Toronto, ON M7A 2C1
Canada

via email: matthew.edwards@ontario.ca

Re: ERO Notice # 019-5054: Proposal to Enable a New Voluntary Enhanced Time-of-Use Rate Including Consideration of a New Ultra-Low Overnight Price

Dear Mr. Edwards,

Thank you for the chance to respond to the Government of Ontario's important consultation on the evolution of rate structures governing the sale of electricity in the province.

Electric Mobility Canada (EMC) welcomes this proposed enhancement to the Consumer Choice framework for residential consumers and small businesses. By creating a new time-of-use electricity rate plan—which would include the development of an option for consumers to avail themselves of a new, ultra-low overnight price for power (to be paired with a higher on-peak rate)—the Ministry of Energy is taking a bold step into the future by facilitating the integration of provincial energy and transportation systems.

EMC strongly endorses the recent ministerial direction¹ (dated Nov. 16, 2021) to the Ontario Energy Board (OEB) to examine the design of a voluntary ultra-low overnight time-of-use (TOU) rate. The adoption of such a rate structure on an opt-in basis would carry benefits for customers (ratepayers), utilities, grid efficiency, and the environment. It would empower different actors within the electricity system (both providers and users, as well as the system operator) to anticipate and prepare for increased electrification—a phenomenon that is already well underway in the global transportation sector, but which must be nurtured if Ontario is to take full advantage of the industrial, environmental, and economic opportunity it represents.

To that end, the proposed rate structure would support the decarbonization of the economy by providing a potential benefit to electric vehicle (EV) users, who would not only be incentivized to charge their EVs overnight—helping to shift demand to off-peak hours—but who would also be empowered to maximize the fuel, cost, and emissions savings associated with EV ownership relative to conventional internal-combustion-engine vehicles. By promoting a shift in demand to off-peak hours and potentially reducing peak demand, the proposed rate design would help individual ratepayers save money, while also enhancing overall grid efficiency by increasing asset utilization and reducing the system costs of new

¹ <https://www.oeb.ca/sites/default/files/Letter-from-the-Minister-of-Energy-2021-732-20211116.pdf>

procurement (whether for transmission, generation, and distribution). Mitigating the need for new infrastructure would, in turn, reduce costs for all ratepayers. Finally, by prompting EV drivers to proactively manage their charging schedule, the rate revision would also tend to maximize the greenhouse gas emissions reduction benefits of EVs driven in Ontario, given that nighttime provincial power is generally cheaper, more available, and largely derived from non-emitting sources.

In short, EMC accepts and validates the Ministry’s contention that an ultra-low overnight TOU rate structure would enhance consumer choice, boost system efficiency, facilitate the electrification of different end-use sectors (especially transport—the province’s highest-emitting economic sector), and support provincial and national goals to reduce emissions and address climate change. The proposed revision to the OEB’s Regulated Price Plan represents a clear opportunity to leverage one of Ontario’s prime competitive advantages, namely its reliable and very low-carbon electricity supply, to bolster EV deployment and reaffirm support for the development of an electric automotive industry.

EMC’s membership intends to give further consideration to the suite of issues raised as part of the current consultation. For now, we offer the following non-comprehensive set of responses to select questions posed by the Ministry.

1. System and environmental perspective of optional rate

- a. *To what extent could a new optional province-wide enhanced TOU pricing plan help shift RPP electricity demand to lower-demand, overnight periods for activities such as EV charging?*
 - As indicated by the Regulated Price Plan Pilot Meta-Analysis submitted to the OEB, pilot project data suggests there is potential for strong behavioural responses to the proposed overnight rate, with demand from midnight to 6am increasing by 45% in summer and by 73% in winter. These increases in nighttime demand also corresponded to demand reductions of 8–10% during the on-peak and mid-peak periods.² EMC encourages the Ministry and the OEB to investigate how an enhanced overnight TOU rate (including greater price differentials between on- and off-peak periods) could build on these findings to enable more load-shifting activity.
- c. *How might government, its agencies and partners make use of the best available information, for example consumption data and EV ownership figures, to understand and forecast charging demand and profiles to inform a new rate design that ensures full cost recovery?*
 - EMC echoes the recommendation of The Atmospheric Fund (TAF) that the Government of Ontario should ensure that customers with net meters are allowed and legally empowered to participate in the optional TOU rate structure. Some net-metered customers have experience default switching by their utility to tiered rates, which prevents these customers from accessing the benefits of the new enhanced TOU rates. Government, the OEB, and the

² <https://www.oeb.ca/sites/default/files/report-RPP-Pilot-Meta-Analysis-20211110.pdf#page=23>

system operator should collaborate to ensure that interested ratepayers are not excluded from program participation and that data-collection practices are developed in collaboration with 'prosumers' and other entities best-placed to provide valuable data on (EV) energy consumption.

2. Customer perspective of optional rate

- c. *How might an increased electricity price during periods of high demand and a lower electricity price during periods of lower demand help to remove barriers to households or small businesses in adopting EVs or other clean technologies? What impact might it have?*
- After several years of experimenting with load-shifting while operating on TOU rates, Ontarians are sophisticated electricity consumers, and EV owners are no exception. The new proposed ultra-low overnight TOU pricing plan will shift demand, offer greater consumer choice, and provide customers with significant savings on their energy costs.
 - Data generated through OEB-commissioned pilot programs to test new pricing structures (e.g., the overnight rate piloted by Alectra Utilities), along with experience in other jurisdictions, supports the contention that innovative incentive rates can achieve beneficial results across a range of criteria.
 - According to the RPP Pilot Meta-Analysis, customers on an ultra-low overnight rate plan found significant savings on their electricity costs, up to 9% or \$6.30 per month.³ Participants on this price plan increased their consumption in the overnight ultra-low off-peak period and they reduced their consumption significantly during peak hours.
 - Using off-peak power, which is largely non-emitting in Ontario, increases the benefit of electrifying transportation as a GHG-reduction measure. At the same time, this use of the resource also supports the economically efficient consumption of surplus electricity in Ontario.
 - The certification/finalization of an ultra-low pricing structure sends an important market signal that is likely to prompt both public and private investment in much-needed EV charging infrastructure, the deployment of which will in turn help to lower barriers to household EV adoption.
- d. *What factors would be important to encourage consumers to opt into the new optional enhanced TOU rate plan?*
- A comprehensive public education campaign, collaboratively developed and deployed by Local Distribution Companies (LDCs), the Ministry of Energy, and other relevant stakeholders, should accompany the introduction of this ultra-low overnight rate,.
 - EMC supports the finding of the RPP Pilot Meta-Analysis, which argued that "The potential effect on consumer engagement of signaling to consumers the

³ <https://www.oeb.ca/sites/default/files/report-RPP-Pilot-Meta-Analysis-20211110.pdf#page=106>

value of their engagement by meeting this expectation [of ensuring the availability of an energy-monitoring application] could be considerable. Likewise, the improved ability to monitor and harness consumer engagement via one or more apps could substantially help improve aggregate consumer price response and energy efficiency achievement.”⁴ In short, the new rate structure should be developed and deployed in tandem with the digital tools that would enable potential adopters to better manage their household load and take advantage of the overnight price differential.

3. Additional electricity sector opportunities

c. *How could distribution costs for larger customers billed on a demand basis be changed to support activities such as EV charging? How could this be accomplished while mitigating any impact to other electricity customers?*

- Demand charges are the single most significant impediment in the business case for the deployment public fast charging infrastructure (also known as Level 3 or DC fast chargers) in Ontario. For this reason, EMC joins other stakeholders in calling on the Ministry and the OEB to directly address the issue posed by demand charges in the economics of EV charging. Reducing the burden of demand charges, or offering temporary exemptions from them (as Quebec and BC have done), would go a long way toward addressing the economic barriers to fast-charger deployment. This measure and the subsequent deployment of public L3 charging stations would significantly address the range anxiety concern that persists in customer research.

EMC is grateful for the opportunity to provide input to the government on this important regulatory (and possibly legislative) matter. As noted above, our members intend to give further consideration to some of the issues not explicitly treated in this submission. In the meantime, we look forward to remaining engaged with the Ministry of Energy throughout any subsequent stages of this consultation. Please do not hesitate to reach out should you wish to discuss this submission, or other related aspects of the ongoing transition to electric modes of transport.

Sincerely,

Bora Plumptre
Director of Research
Electric Mobility Canada

⁴ <https://www.oeb.ca/sites/default/files/report-RPP-Pilot-Meta-Analysis-20211110.pdf#page=134>



About Electric Mobility Canada

Electric Mobility Canada is a national membership-based not-for-profit organization dedicated exclusively to the advancement of electric mobility as an exciting and promising opportunity to fight climate change and air pollution while stimulating the Canadian economy. EMC's mission is to strategically accelerate the transition to electric mobility across Canada.

Established in 2006, EMC is one the very first electric mobility associations in the world. It represents multiple organizations working to electrify transportation across Canada. Members representing more than 70 billion dollars a year in revenue include vehicle manufacturers, utilities, charging infrastructure manufacturers, charging suppliers and networks, technology companies, mining companies, fleet managers, unions, cities, universities, dealer associations, NGOs and EV owners associations. They are located in every region of Canada, from BC to Atlantic Canada and are involved in EV-related industries, from light-, to medium- to heavy-duty and from off-road to marine to micro-mobility, and from infrastructure to research.
