

Electric Delivery Rates for Electric Vehicle Charging Report – Feedback

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General Feedback:

The Atmospheric Fund (TAF) supports the introduction of new delivery rates for the specified types of EV charging applications (fleets and public DCFC). The proposed alternative rates are effective solutions for the challenges identified. TOU demand charges for commercial EV Fleets incentivizes charging during off peak hours - which is feasible for many fleet customers - and more accurately reflects the true costs of those customers to the electricity system. Low Load Factor Rates for public DCFC are an effective means of encouraging faster roll out of urgently needed public DCFC infrastructure during the early stages of the EV transition, while automatically adjusting over time as individual sites reach higher levels of utilization.

Furthermore, during the stakeholder meeting a suggestion was brought forth regarding the implementation of temporary government subsidies. It is strongly advised that the Provincial Government refrains from granting temporary subsidies for private DCFC deployment unless they are made available to the public as well.

Should implementation of alternative EV delivery rates be optional or mandatory for individual LDCs?

It is important for implementation of alternative rates to be mandatory for LDCs, in order to ensure EV charging is deployed equitably where it is needed and not based on the decisions of individual LDCs. Standardization also helps to provide predictability within the industry. It may be reasonable to have a phase in period where it is optional for a period of time, followed by a deadline once it becomes mandatory. This would allow the LDCs that are capable and interested to move faster, while allowing others more time to implement the necessary changes in billing systems.

Are there other non-rate solutions to the challenges identified that should be considered such as optimization of overall energy use, load control programs or investments in distributed energy resources?

The report considered three non-rate solutions to the challenges identified. Of those three solutions, we recommend further investigating investments in to distributed energy resources (DERs) as a supplementary solution to the rate solutions proposed in the report.

Utilizing DERs to support EV charging infrastructure has been successful in California. <u>Electrify America recently unveiled</u> it's first battery energy storage system (BESS) and solar canopy in California to support 12 public DCFC stations. They are now looking to expand this solution to medium-duty and heavy-duty electric fleet customers.

<u>The IEA highlights that</u> integrating BESS with local renewable energy and a smart charging system can help to lower grid connection and electricity procurement expenses. Part of the reason is due to reduced transmission losses associated with using a BESS compared to drawing power directly from the energy grid.

Furthermore, BESS can shift charging to times when electricity is less costly and more abundant, changing electricity usage from a high peak rate to a less costly off-peak rate. This study affirms that BESS can mitigate demand charges, while photovoltaic systems can reduce energy charges. When applied synergistically, these solutions can reduce costs for both LDC's and consumers.

The issue, as mentioned in the report, is that this option may only be accessible to large commercial EV fleets, with the upfront cost being a barrier to implementation. As such it is recommended that DERs be investigated further as a supplement to the rate solutions proposed in this report, rather than an alternative approach altogether.

Sincerely yours,

Bryan Purcell

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About The Atmospheric Fund

The Atmospheric Fund (TAF) is a regional climate agency that invests in low-carbon solutions for the Greater Toronto and Hamilton Area (GTHA) and helps scale them up for broad implementation. Please note that the views expressed in this submission do not necessarily represent those of the City of Toronto or other GTHA stakeholders. We are experienced leaders and collaborate with stakeholders in the private, public and non-profit sectors who have ideas and opportunities for reducing carbon emissions. Supported by endowment funds, we advance the most promising concepts by investing, providing grants, influencing policies and running programs. We're particularly interested in ideas that offer benefits in addition to carbon reduction such as improving people's health, creating local jobs, boosting urban resiliency, and contributing to a fair society. Learn more at taf.ca