



Via ERO Online Submission

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Ministry of Energy, Conservation and Renewable Energy Division, Renewables Policy Unit
77 Grenville Street., 5th Floor
Toronto, ON
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Attention: Joshua Frame

Subject: Collection, management and improved utilization of smart metering data for behind-the-meter distributed energy resources (ERO # 019-6521)

Hydro Ottawa Limited (“Hydro Ottawa” or “the Utility”) appreciates the opportunity to submit feedback on the Ministry of Energy’s (“Ministry”) proposal to enable the Independent Electricity System Operator’s (“IESO”) Smart Metering Entity (“SME”) to collect, process, manage and improve utilization of bi-directional smart metering data through the province’s Meter Data Management/Repository (“MDM/R”).

Hydro Ottawa is a Local Distribution Company (“LDC”) serving approximately 353,000 customers in the City of Ottawa and the Village of Casselman. Hydro Ottawa is committed to delivering value across the customer experience by providing reliable, safe and responsive services to its customers.

Bi-directional smart meters measure both the amount of electricity a customer consumes from the grid and the amount of electricity a customer sends back to the grid from generation or energy storage systems installed behind a customer’s meter. The Ministry’s proposal would enable the SME to collect and manage bi-directional data from Ontario’s smart meters to support billing and settlement of customers with behind-the-meter distributed energy resources (for example, net-metered customers with ground or rooftop solar panels). The Ministry indicates that its proposal could also help to facilitate customer choice and opportunities for innovation and integration of customers-sited distribution energy resources in Ontario’s electricity sector.

Hydro Ottawa is supportive of the provincial government’s mandate to continually enhance reliability, resiliency and customer choice, and believes that all customers, including bi-directional smart metered customers, should be able to avail themselves to whichever rate plan they choose. Furthermore, the Utility agrees with the Ministry that these amendments would improve the availability of energy data by enabling access to a more comprehensive and streamlined smart metering data set that could be used to facilitate advanced analytics, system planning, forecast modeling, policy development, and assessment of new pricing models. However, the changes contemplated in the Ministry’s proposal pose some technical challenges,



which are outlined below. Hydro Ottawa therefore suggests careful consideration of the issues associated with implementing changes and updates to LDC customer information system (“CIS”), metering and billing practices.

As with many LDCs, Hydro Ottawa has designed its systems to allow for electricity consumption data to integrate with the MDM/R. There are comprehensive processes in place to ensure that data is captured, measured and processed meticulously through the MDM/R to ultimately allow for accurate billing for its customers. To date, the SME has not processed generation data through the MDM/R. For LDCs to accommodate this change, considerable updates would be required, such as the creation of new framing structures and meter configurations to allow for the data to flow properly between CIS systems and the MDM/R. These updates are significant, and in many cases require costly development by third-party vendors, and furthermore require rigorous and time-consuming testing prior to full deployment.

It is understood that the SME has been working on a proof of concept of limited scope with only one LDC in the province. Hydro Ottawa encourages this work to continue in a more comprehensive manner to properly scope the effort required to ensure that accurate billing quantities for bi-directional smart metered customers are created in the MDM/R for all LDCs.

Currently, Hydro Ottawa is unable to offer standard Time-of-Use (“TOU”) rates to bi-directional smart metered customers, as previous guidance from the Ministry indicated that a cost-benefit analysis would be undertaken to determine whether these investments should be made.¹ At that time, the Ministry acknowledged that significant investments would be required by the SME and LDCs to implement TOU rates for net metered customers, and no formal direction has since been provided to the industry. Hydro Ottawa therefore encourages the Ministry to ensure analysis is undertaken that considers resourcing constraints, associated costs and appropriate implementation lead times for all parties.

It should be noted that LDCs are currently working on implementing complex changes to their billing infrastructure systems to accommodate critical and mandatory regulatory projects at this time: namely Green Button and the new Ultra-Low Overnight (“ULO”) TOU rate plan. These competing initiatives require the same resources that would be needed for the development, configuration and testing involved to implement CIS and billing system changes required to deploy the processing of bi-directional smart metering data through the MDM/R.

To date, the SME has not processed bi-directional data through the MDM/R and thus there are some considerations to be contemplated prior to implementation. Firstly, it should be carefully considered how generation data is validated through the validating, estimating and editing process (“VEE”) if this data is to be used for settlement and billing purposes. A generation hourly profile can vastly differ from a consumption load profile, and thus this should be

¹ Ministry of Energy, *Webinar on Potential Updates to Ontario’s Net Metering Program: Third-Party Ownership and Virtual Net Metering*, Summary of Participant FAQs, January 12, 2017, p. 1.



examined fully prior to implementation. Secondly, generation is subject to different tax treatment than electricity consumption. Hydro Ottawa encourages the Ministry to ensure that if the SME is to implement a process for collecting and managing bi-directional smart metering data through the MDM/R, LDCs receive the data in a manner that will allow for proper tax application on customer bills. Lastly, as with any data that flows through the MDM/R, any risks associated with the security and privacy of customer data should be scrutinized prior to implementation.

Hydro Ottawa anticipates that it will take approximately 12 months to design, build, test and implement the necessary CIS and integrated system upgrades once the full MDM/R technical specifications are finalized. The cost of the implementation and associated upgrades is estimated to be a minimum of \$500K for vendor and internal resourcing requirements. The Utility upholds that LDCs should be afforded a reasonable opportunity to recover prudently incurred costs associated with implementation.

Finally, if new rate plans are contemplated in the future, Hydro Ottawa encourages that the MDM/R be the consistent and main data repository, and be capable of accommodating a new rate plan prior to requiring LDCs to offer such services to their customers. Therefore, it is recommended that if the SME is unable to accommodate billing of a new rate plan, LDCs should not be mandated to make unique system changes individually that will likely result in temporary duplicative systems or manual processes that may eventually be replaced by the MDM/R. Such scenarios are inefficient and associated costs for duplicative systems are ultimately borne by ratepayers.

Hydro Ottawa appreciates the opportunity to provide comments on the Ministry's proposal to enable the IESO's SME to collect, process, manage and improve utilization of bi-directional smart metering data through the MDM/R. The Utility reiterates that it fundamentally agrees with providing rate choice to all customers on the Regulated Price Plan, including bi-directional smart metered customers, as this aligns with the Ministry's commitment to enable customers to make choices when it comes to their own energy use.

Sincerely,

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