



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

March 3, 2023

Thank you for the opportunity to provide comment on the 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).

The Canadian Renewable Energy Association (CanREA) strongly supports this proposal, and we concur with the Ministry's view that it would enable greater consumer choice with respect to access to Time-of-Use price plans such as the new Ultra-Low Overnight Price Plan; improve the energy data available to system planners and forecasters as well as policymakers; and facilitate innovation and support distributed energy resources integration within Ontario's electricity system.

Today the overwhelming majority of Ontario's current and prospective net metering customers have no access to Time of Use rates as a direct consequence of the SME's inability to collect and manage bi-directional data from Ontario's smart meters. While a small number of LDCs have implemented ad-hoc solutions to settle their net metering customers on a TOU basis, it is CanREA's understanding that these solutions would be extremely difficult to scale for larger LDCs.

Enabling the SME to collect and manage bi-directional smart metering data is an essential step toward ensuring fair valuation for customer-sited renewable generation, both today and with a view to the future as uptake of these technologies increases and Ontario's electricity system continues to evolve.

The 2022 IESO-commissioned study on Ontario's Distributed Energy Resources (DER) Potential, undertaken by Dunsky/Power Advisory, found that DERs can and should make a greater contribution to meeting Ontario's resource adequacy needs.

The study recommendations notably highlighted the importance of ensuring fair valuation of exported electricity from solar net metering customers, including the following specific recommendations:

- Ensuring that solar net metering customers are able to access Time of Use rates, so that solar generation exported to the grid is fairly compensated at summer daytime peak rates; and
- Providing more options for Behind-the-Meter battery storage (Residential, Commercial and Industrial) to contribute to meeting system peaks, through market participation, IESO procurements, and access to enhanced Time of Use rates.¹

¹ Ontario's Distributed Energy Resources (DER) Potential Study - Volume I: Results & Recommendations (Sept. 28, 2022) – Available from: <https://www.ieso.ca/en/Sector-Participants/Engagement-Initiatives/Engagements/DER-Potential-Study>

At present, with Ontario’s system peak demand heavily driven by demand for cooling during the summer months, access to a cost-reflective pricing options would greatly improve the economic incentive for consumers to adopt net-metered solar PV. CanREA’s analysis indicates that approximately 70% of annual solar PV production in Ontario occurs during weekday Peak and Mid-Peak hours, primarily during the summer:

Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Winter	0%	0%	0%	0%	0%	0%	0%	1%	1%	2%	3%	3%	3%	3%	3%	2%	1%	0%	0%	0%	0%	0%	0%	0%
	OFF PEAK						PEAK						MID-PEAK						PEAK		OFF PEAK			
Summer	0%	0%	0%	0%	0%	0%	1%	2%	4%	5%	6%	6%	6%	6%	5%	4%	3%	1%	0%	0%	0%	0%	0%	0%
	OFF PEAK						MID-PEAK						PEAK						MID-PEAK		OFF PEAK			

Under the 2022 RPP TOU rates, the volume-weighted annual average value of solar PV generation would have been \$0.113 per kWh, approximately 30% higher than the \$0.087 per kWh Tier 1 rate.

CanREA is confident that any move toward greater cost-reflectivity in electricity pricing will encourage more efficient use of the existing electricity system including through the deployment of solar PV as well as electric vehicle and stationary battery storage technologies behind customers’ meters. Technologies that lower peak grid demand and increase local generation reduce line losses, long-term transmission costs, and related infrastructure investments, enabling significant, long-term savings for the benefit of all Ontario ratepayers.

This proposed change to the SME regulation would play a key role in enabling these savings.

CanREA looks forward to further engagement with Ministry, OEB and IESO staff as well as other stakeholders to support the successful implementation of these regulatory changes.

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