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December 16, 2024

**By Email and RESS**

File No.: 1019261078

Ontario Energy Board  
2300 Yonge Street, 27th Floor  
Toronto, ON M4P 1E4

Attention: Nancy Marconi, Registrar

Dear Ms. Marconi:

**Re: Independent Electricity System Operator, in its Capacity as the Smart Metering Entity  
("SME")  
Application to provide access to de-identified electricity consumption data to third parties  
that are Canadian Governmental Entities  
OEB File No. EB-2021-0292**

In its Decision and Order dated March 24, 2022, the Board approved a Settlement Proposal in which the SME agreed to undertake an assessment of the Third Party Access ("**TPA**") program with the benefit of two full years of experience with the program and to report on its findings by no later than April 30, 2025.

On behalf of the SME, we enclose a copy of a report dated December 13, 2024 that satisfies this commitment. For the reasons detailed in the report, the SME may seek Board approval to expand the TPA program beyond the currently approved parties in a future application to the Board.

Yours truly,



Patrick G. Duffy

PGD/sb

Enclosure

cc. All Intervenors to EB-2021-0292



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# Smart Metering Entity (SME)

Assessment of Expanding Third Party Access to SME Data  
Beyond Currently Approved Parties

EB-2021-0292



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# 1. Introduction

On March 24, 2022, the Ontario Energy Board (the "OEB") issued its [Decision and Order](#) ("Decision") in the EB-2021-0292 proceeding granting the Smart Metering Entity (the "SME") approval to expand third party access ("TPA") to de-identified smart meter data beyond the OEB and the Independent Electricity System Operator (the "IESO"), to Canadian Governmental Entities ("CGEs")<sup>1</sup>.

The Decision approved a Settlement Proposal in which the SME agreed to undertake an assessment of the TPA program with the benefit of the SME's experience in providing access to CGEs and to report on its findings by no later than April 30, 2025, as part of its 2024 Annual Cost and Variance Account Report. The SME agreed to include in its report, at a minimum:

- an assessment of expanding TPA to other non-commercial entities<sup>2</sup> and, in the event the SME is not proposing to expand access, an explanation of its rationale for not doing so; and
- an assessment of implementing an option for customers to opt out of providing TPA to their data held by the SME, including seeking input from local distribution companies ("LDCs") on the feasibility of implementing this option.

The Decision indicated the OEB's preference that the SME file the results of its assessment earlier than the established deadline.

This letter report ("Report") presents the results of the SME's assessment of expanding TPA beyond currently approved parties. As further described in this Report, the SME has concluded:

1. There is strong market interest in SME data and expanding TPA will provide benefits to both SME ratepayers and energy sector participants.
2. Expanding TPA to SME data is unlikely to create any incremental risks to consumers, local LDCs, the SME or the IESO.
3. Based on the input received from LDCs, it is not practical to implement a TPA opt-out option for customers.

On the basis of its findings, the SME may seek OEB approval to expand TPA beyond currently approved parties through a future application. Such an application would be consistent with the objects of the

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<sup>1</sup> The Decision defines CGE's as: "Federal and provincial governments, including ministries, agencies, boards, commissions, tribunals and wholly-owned corporations, or in the case of non-share capital corporations, where such corporations are controlled by a federal or provincial governments, as well as municipalities (or regional governments), universities, school boards, hospitals and First Nations. First Nations means a "council of the band" as that term is defined in subsection 2(1) of the Indian Act (Canada). "Canadian Governmental Entities" does not include private sector entities, publicly traded companies, individual doctors, professors, or government officials and all those entities that do not fall in one of the categories outlined above."

<sup>2</sup> The SME agreed to assess expanding TPA to SME data to, at a minimum, other "non-commercial entities". The SME expanded this minimum requirement to include a variety of non-governmental entities, to ensure a comprehensive assessment was completed.

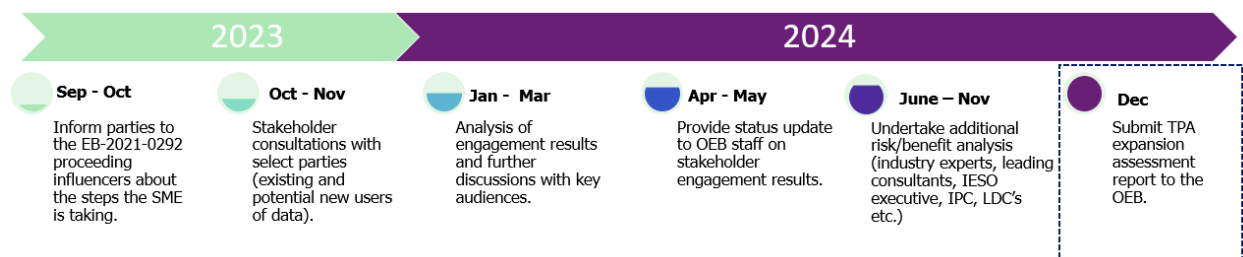
SME as outlined in the [\*Electricity Act, 1998\*](#), which include, among other things, to provide and promote non-discriminatory access by distributors, retailers, the IESO and other persons to SME data.

## 2. Scope of Assessment and Related Findings

This Report focuses on the results of the SME’s assessment of expanding TPA beyond currently approved parties. Information on the existing TPA program, the SME data available through it and how the SME ensures data privacy and security is available here: [SME TPA Program](#).

Figure 1 illustrates the components of the multifaceted assessment undertaken by the SME over the past 18 months to evaluate the benefits and potential risks of expanding TPA access to SME data. As applicable, these components are further described in Sections 2.1 and 2.2, respectively.

**Figure 1: Components of the Multi-Faceted Assessment**



### 2.1 Benefits of Expanding Third Party Access (TPA)

The SME completed its benefits assessment by 1.) identifying the opportunities provided by expanded access, and 2.) considering the potential value of these opportunities to the energy sector and SME ratepayers. The benefits assessment was facilitated through two distinct processes:

1. Stakeholder Consultations
2. Expert Consultant Assessment

#### 2.1.1 Stakeholder Consultations

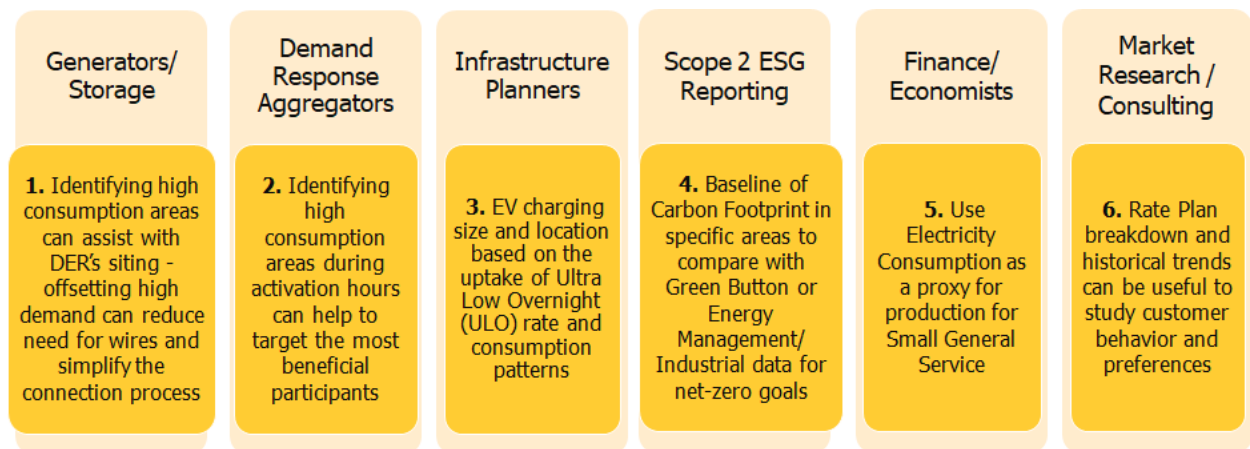
In October and November 2023, the SME conducted four stakeholder engagement sessions with a cross-section of industry stakeholders, including, but not limited to, utilities, consultants and sector participants (e.g., distributed energy resource/demand response/battery storage companies and generators).<sup>3</sup> During these sessions, the SME collected feedback from participants on the perceived value of gaining access to the SME data. Key observations from these sessions follow:

- A total of 112 attendees from 87 unique organizations attended.
- 93% of responding attendees indicated that they were either very interested or somewhat interested in gaining access to SME data.

<sup>3</sup> The SME consulted with OEB staff and certain intervenors to the EB-2021-0292 proceeding before launching the engagement sessions.

- To facilitate discussion, the SME presented and tested the efficacy of the data use cases shown in Figure 2 with participants. All use cases received positive response, with use cases 2, 3 and 1 receiving the highest interest, respectively.

**Figure 2: Use Cases Tested**



- Participants also volunteered additional use cases where SME data could prove beneficial, including, but not limited to, developing accurate Ontario demand models, forecasting load, leveraging smart meter data for population modeling, informing microgrid planning and resilience strategies, and utilizing SME data to support the design and evaluation of energy efficiency initiatives.

Session participants were highly engaged, provided constructive suggestions and, overall, indicated a high level of interest in gaining access to SME data.

Further information on the SME's engagement efforts are available here: [IESO Third Party Access Stakeholder Engagement](#).

### 2.1.2 Expert Consultant Assessment

The SME engaged Accenture to conduct an assessment of the opportunities of expanding TPA to SME data.

Accenture responded to the following questions through a combination of primary and secondary research that included, as examples, interviews, the consideration of market trends, observations from the SME's stakeholder consultation sessions, and current SME data use cases:

1. Can expanding TPA to SME data spur new business opportunities within Ontario?
2. Can expanding TPA to SME data spur competition in the energy market?
3. Can expanding TPA to SME data help the IESO maintain business relevance within the Ontario market and beyond as a leader?

Following its research, Accenture organized the identified opportunities under the below listed seven key themes. The key themes are ordered based on their likelihood of occurrence and potential value they provide to SME ratepayers.

1. Energy efficiency & conservation
2. Operational & infrastructure management
3. Innovation & technological advancement
4. Compliance & regulatory
5. Stakeholder engagement & satisfaction
6. Market dynamics & competition
7. Financial & economic

Accenture concluded its assessment by stating “[d]ata-driven findings from SME consumption data can unlock new energy efficiency programs, spur new competition and business across the province, and ultimately serve the best interests of Ontarians as it relates to their energy usage and insights that can be developed from an aggregated load forecasting level”.

## **2.2 Third Party Access (TPA) Expansion Risk Assessment**

The SME engaged Accenture and Privacy Analytics Inc. independently to identify and analyze any risks to data privacy and electric grid security associated with expanding TPA to SME data, including risks associated with use of artificial intelligence (AI).

Combined, the studies concluded that expanding TPA to SME data is not expected to create incremental risk to customers, LDCs or the IESO.

### **2.2.1 Accenture**

Accenture undertook a comprehensive assessment of the risks of expanded TPA to SME data from three perspectives: grid security, market manipulation and de-anonymization. The assessment leveraged, among other resources, global power and utilities industry specialists, AI and generative AI advisors, and research teams.

Accenture’s investigations resulted in a finding that from all three perspectives incremental risk was “unlikely” to occur, and concluded its assessment by stating “...expanding TPA to SME data beyond Canadian Governmental Entities does not appear to result in any scenarios that would likely increase the existing overall risk profile of the IESO or SME. Rather, it appears that the expansion of TPA to SME data would yield many positive opportunities in the market that may benefit Ontario ratepayers.”



### 2.2.2 Privacy Analytics Inc. (PA)

PA's analysis focused on assessing the effectiveness of the SME's current data security and privacy protections in defending SME data against growing AI threats.<sup>4</sup> Based on its assessment, PA assigned the SME an "AI Risk Determination" score of "Low", stating "given the de-identification methods employed by the IESO SME to manage risks from sharing aggregated data, the risk from AI systems in using this data is low". The de-identification methods utilized by the SME, and upon which PA's conclusion was based, are described here: [SME TPA Program](#).

Four tiers of AI Risk Determination exist; Low, Medium-Low, Medium-High, and High. While the SME's Low score represents the best possible result, the SME continuously works to ensure it maintains privacy protections consistent with prevailing best practice.

### 2.3 Market Interest in SME Data

Access to SME data by CGEs was officially launched on October 13, 2022. To date, market interest in SME data has been strong even with the narrow eligibility requirements and limited offer visibility (TPA is only advertised on the IESO's website).

The SME's [Annual Cost and Variance Account Report for 2023](#) detailed the 17 TPA requests it had received from 15 different entities since launch. Since the filing of the 2023 Report in May 2024, the SME has received an additional nine TPA requests from six different entities, illustrating the continued strong market interest for SME data.<sup>5</sup>

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<sup>4</sup> PA's analysis was informed by the [OECD AI Framework for the Classification of AI Systems](#) and [NIST AI Risk Management Framework](#)

<sup>5</sup> The additional nine requests were made by municipalities, LDCs, an electricity generator and universities/university students.

### 3. Feasibility of TPA Opt-Out

The SME addressed the feasibility of an TPA opt-out option through consultations with both the Meter Data and Management Repository (MDM/R) Technical Panel and the MDMD/R Steering Committee (SSC). Technical Panel<sup>6</sup> and SSC<sup>7</sup> membership is exclusive to LDCs.

LDCs provided the following feedback on the opt-out option during consultations:

- Medium and larger LDCs could facilitate opt-outs through an electronic customer election process (i.e., without human interaction) through modifications to their Customer Information Systems (CIS).
  - These LDCs have categorized the opt-out modification as a “mid-size change/non-emergency” and could take 24-months or longer to implement.
- Some smaller LDCs indicated that no simple implementation option exists, due to limitations with their current CISs.
  - These LDCs would prefer/require a manual process to implement the opt-out option.
- The OEB would be required to approve implementation cost recovery mechanisms.
- LDCs expressed concerns over potential customer confusion with existing opt-outs for other LDC programs currently in market.
- Customer communications would be required for managing any opt-out option. implications.

For the above reasons, LDCs expressed a strong preference that a TPA opt-out option not be implemented.

Based on the input received from LDCs, the SME has concluded that it is not practical to implement a TPA opt-out option for customers.

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<sup>6</sup> MDM/R Technical Panel members at the time of consultation: Toronto Hydro, Elexicon Energy, Halton Hills Hydro, Alectra Utilities, Hydro One, Hydro Ottawa, Fortis Ontario, Milton Hydro, Waterloo North Hydro, Energy Plus.

<sup>7</sup> SSC members at the time of consultation: Synergy North, Alectra Utilities, Hydro One, Hydro Ottawa, Elexicon, Burlington Hydro, London Hydro, Orangeville Hydro, Toronto Hydro.

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