



Ontario Energy Board Commission de l'énergie de l'Ontario

DECISION AND ORDER

EB-2018-0316

Independent Electricity System Operator (in its capacity as the Smart Metering Entity)

**Application for approval to provide access to certain non-personal
data to third parties at market prices**

BEFORE: Michael Janigan
Presiding Member

Lynne Anderson
Member

October 24, 2019

1 INTRODUCTION

The Independent Electricity System Operator (IESO), in its capacity as the Smart Metering Entity (SME), filed an application with the Ontario Energy Board (OEB) on December 4, 2018 under sections 74 and 78 of the *Ontario Energy Board Act, 1998* (OEB Act) seeking approval to amend its licence to enable it to provide access to certain non-personal data about electricity usage to third parties at market prices.

None of the four intervenors who made submissions in this case – three of them representing ratepayers, the other distributors – supported the SME’s application. The intervenors’ main concerns related to the protection of customer privacy and the very notion of charging market prices for the data.

In view of those concerns, the OEB has decided not to approve the application as filed. At this time, the OEB is not persuaded that there is sufficient information to conclude that making the data available using the SME’s proposed approach is in the public interest. Although, as the OEB has noted in previous decisions, there are benefits to making the data available to third parties, there are also risks. The SME must therefore proceed cautiously. For the reasons that follow, the OEB is of the view that more work needs to be done on developing a framework for providing third party access. To be clear, nothing in this decision prevents the SME from proceeding with its plan to make certain highly aggregated reports publicly available online at no charge. It is only the SME’s proposal to charge third parties for more customized reports that is not approved.

2 PROCESS

A Notice of Hearing was issued on January 9, 2019. On January 25, 2019, the OEB issued Procedural Order No. 1, which addressed requests for intervenor status and cost eligibility. The following parties were granted intervenor status:

- Building Owners and Managers Association (BOMA)
- Consumers Council of Canada (CCC)
- Electricity Distributors Association (EDA)
- Ontario Power Generation Inc. (OPG)¹
- Vulnerable Energy Consumers Coalition (VECC)

BOMA, CCC, and VECC were found eligible to apply for an award of costs in this proceeding.

Procedural Order No. 1 also made provision for submissions on the issues list, written interrogatories, and a settlement conference.

The settlement conference did not result in a settlement. In Procedural Order No. 2, the OEB, noting that none of the parties requested an oral hearing, invited written submissions on the application.

¹ OPG did not participate in the settlement conference or make written submissions.

3 ANALYSIS

3.1 Background

In 2007, a regulation was made under the *Electricity Act, 1998* designating the IESO as the SME.² The SME manages the Meter Data Management Repository (MDM/R), which contains the electricity consumption data used by electricity distributors to bill customers. The SME cannot operate without a licence from the OEB,³ and cannot charge fees without an order of the OEB.⁴

Section 53.8 of the *Electricity Act, 1998* establishes that the objects of the SME:

include, in addition to any other objects or business activities, the following:

1. To plan and implement and, on an ongoing basis, oversee, administer and deliver any part of the smart metering initiative as required by regulation under this or any Act or directive made pursuant to sections 28.3 or 28.4 of the *Ontario Energy Board Act, 1998*, and, if so authorized, to have the exclusive authority to conduct these activities.

2. To collect and manage and to facilitate the collection and management of information and data and to store the information and data related to the metering of consumers' consumption or use of electricity in Ontario, including data collected from distributors and, if so authorized, to have the exclusive authority to collect, manage and store the data.

3. To establish, to own or lease and to operate one or more databases to facilitate collecting, managing, storing and retrieving smart metering data.

4. To provide and promote non-discriminatory access, on appropriate terms and subject to any conditions in its licence relating to the protection of privacy, by distributors, retailers, the IESO and other persons,

i. to the information and data referred to in paragraph 2, and

² O. Reg. 393/07.

³ OEB Act, s. 57.

⁴ OEB Act, s. 78(2.1).

- ii. to the telecommunication system that permits the Smart Metering Entity to transfer data about the consumption or use of electricity to and from its databases, including access to its telecommunication equipment, systems and technology and associated equipment, systems and technologies.
5. To own or to lease and to operate equipment, systems and technology, including telecommunication equipment, systems and technology that permit the Smart Metering Entity to transfer data about the consumption or use of electricity to and from its databases, including owning, leasing or operating such equipment, systems and technology and associated equipment, systems and technologies, directly or indirectly, including through one or more subsidiaries, if the Smart Metering Entity is a corporation.
6. To engage in such competitive procurement activities as are necessary to fulfil its objects or business activities.
7. To procure, as and when necessary, meters, metering equipment, systems and technology and any associated equipment, systems and technologies on behalf of distributors, as an agent or otherwise, directly or indirectly, including through one or more subsidiaries, if the Smart Metering Entity is a corporation.
- 8. To recover, through just and reasonable rates, the costs and an appropriate return approved by the Board associated with the conduct of its activities.**
9. To undertake any other objects that are prescribed by regulation. [Emphasis added.]

The SME's licence includes a condition echoing the requirement in the *Electricity Act, 1998* to provide non-discriminatory access to the consumption data managed by the IESO:

6. Non-Discriminatory Access

6.1 The Licensee shall provide and promote non-discriminatory access by Distributors, Retailers, the IESO, and other persons to the Licensee's:

- (a) information and data related to the metering of consumers' consumption or use of electricity in Ontario, including data collected from Distributors; and

(b) telecommunication system that permits the Licensee to transfer data about the consumption or use of electricity to and from its databases...

In its January 26, 2016 order extending the SME's licence to December 31, 2016, the OEB expressed concerns about the SME's progress in fulfilling its mandate to "provide and promote" third party access to the data it manages. The OEB noted that the "SME has yet to achieve the value inherent in a single provincial repository of electricity consumption data from over 4 million smart meters."⁵ Such data "would support many activities at the provincial or regional level including, among others: the design of conservation and demand management programs, the assessment of the effectiveness of time of use pricing, the design of distribution rates and time of use prices, and the regional planning of transmission and distribution systems."⁶ Moreover, "there are potentially much greater benefits to consumers from this consumption data, in particular by making non-personal information available to third parties to assist them in developing new innovative products and services that will enhance customer choice and control."⁷

The OEB ordered the SME to collect the following information from distributors associated with each meter (modified where necessary to render it non-personal information), beginning January 1, 2017: the postal code, the distributor rate class, the commodity rate class, and occupant change data. The OEB further ordered the SME to prepare "an implementation plan with respect to third party access to this enhanced SME data, including an assessment of the cost implications."⁸

Accordingly, the SME included an implementation plan with its next licence renewal application, later that year. The OEB noted that the SME had "established a working group which included a broad selection of LDCs across the province and representatives from the Ministry of Energy, EDA, the IESO and the OEB," and commended the working group on the progress that had been made since the January 26, 2016 order.⁹ The OEB also noted that the SME had, on the advice of the Information and Privacy Commissioner of Ontario, engaged a privacy consultant to conduct a risk assessment. The implementation plan included a commitment to file a detailed costing analysis with the next SME fee application in 2017. The OEB was "overall satisfied with the SME's implementation plan."¹⁰

⁵ Order, January 26, 2016 (EB-2015-0297), p. 2.

⁶ *Ibid.*, p. 2.

⁷ *Ibid.*, p. 2.

⁸ *Ibid.*, p. 4.

⁹ Decision and Order, November 24, 2016 (EB-2016-0284), pp. 5 and 6.

¹⁰ *Ibid.*, p. 1.

The SME's 2017 rate application (for January 1, 2018 to December 31, 2021 rates) included evidence on the status of the implementation plan. The SME explained that it was collecting the enhanced data as required by the OEB, with nearly 100% compliance by electricity distributors. It further outlined the steps it planned to take to continue developing a framework for third party access to the data, including further stakeholder consultations and the implementation of pilot projects. The SME advised that it "intends to make a submission to the Board in 2018 with a proposed model for third party access to data in the MDM/R, which may include monetizing this access."¹¹ The OEB approved a settlement in that proceeding, without commenting specifically on the SME's plans for third party access.¹²

3.2 The Current Application

The current application fulfills the SME's commitment in its last rate case to propose a model for third party access.

The SME asks for an order under sections 74, 78(2.1), 78(3.0.1), 78(3.0.2) and 78(3.0.3) of the OEB Act:

- (a) authorizing the SME to charge market price for third party access to the data;
- (b) any reference to "market price" in this application means the service provided by the SME through a competitive market-based model where prices will be set based on what the market is prepared to pay;
- (c) approving the establishment of a new sub-account, the Benefits Account, under the Balancing Variance Account ("BVA") to track the net revenue generated from third party access; and
- (d) amending the SME's licence to allow the SME to:
 - (i) provide access to the data to any person who meets the terms of access established by the SME and enters into a Data Use Agreement ("DUA") with the SME; and
 - (ii) annually report the net revenue generated by third party access accumulated in the Benefits Account, a sub-account of the BVA.¹³

¹¹ EB-2017-0290, Exhibit C, Tab 1, Schedule 1, p. 7.

¹² Decision and Order, March 1, 2018 (EB-2017-0290).

¹³ Application, Exhibit A, Tab 1, Schedule 1, para. 6.

The SME proposes three types of offerings:

Public Offerings would be made available free of charge through a publicly accessible website. They would comprise “highly aggregated products”, such as monthly, seasonal or quarterly consumption data aggregated by postal district (i.e., the first digit of the postal code). Anyone wishing to view these products would need to agree to certain terms and conditions.

Standard Private Offerings would be “pre-designed extracts based on popular data requests”. Examples include “Hourly or daily consumption data aggregated by 6, 5, 4 or 3 digit Postal Code at the municipal level, specifying the Distributor Rate Class and Commodity Rate Class,” and “Visualization, such as choropleth maps, displaying consumption data by sectors for a given time period.”¹⁴ These would be made available for a charge, based on the market price. Anyone buying the product would need to sign a Data Use Agreement.

Custom Private Offerings would be products specifically tailored to meet the third party’s request. These too would be sold at the market price, and would require a Data Use Agreement.

The SME explained that the market price charged for the latter two types of offerings would “ensure full cost recovery of all costs related to data extraction and additional analysis, as required, from the third parties, such that the SME’s ratepayers will not subsidize TPA [third party access].”¹⁵ The goal, however, is not merely to break even – it is to collect whatever price the market will bear. Any net revenue from third party access would be used to offset the SME’s regulated revenue requirement, resulting in a lower Smart Metering Charge.

The SME argued that this approach would “create a new value stream to benefit ratepayers”.¹⁶ In response to the suggestion by some intervenors that the prices for third party access be set by the OEB, the SME submitted, “A regulated price would send the wrong signal and deter innovation.”¹⁷

The SME emphasized that the data to be offered to third parties is not personal information: it is “de-identified” such that it does not reveal anything about a particular consumer. Nevertheless, the SME acknowledged that “the risk of re-identification is not

¹⁴ Application, Exhibit B, Tab 2, Schedule 1, p. 2 (internal footnote omitted).

¹⁵ Application, Exhibit B, Tab 3, Schedule 1, p. 1.

¹⁶ SME Argument in Chief, para. 22.

¹⁷ SME Reply, para. 14.

zero”.¹⁸ The SME provided evidence on the measures it has taken or would take to minimize this risk, including working with a privacy consultant, abiding by the Information and Privacy Commissioner of Ontario’s guidelines for de-identification, requiring the third party to sign a Data Use Agreement, and establishing an Ethics Review Committee to evaluate any requests for data that raise ethical concerns.

The SME also provided evidence on the stakeholder engagement efforts it had undertaken on the third party access. These efforts included the establishment of a Data Strategy Advisory Council (DSAC) specifically to provide input on the third party access initiative, as well as broader consultations through the IESO’s Stakeholder Advisory Committee and two public webinars. In response to criticism from BOMA that the DSAC did not include consumer representatives, the SME noted that it had put out a call for nominations to DSAC but no consumer representatives volunteered. In 2018 the SME conducted several pilot projects or “test cases” “to test the processes, policies, and procedures to provide TPA [third party access] and understand the value proposition of the data request based on ‘real life’ examples in a controlled, transparent, and representative environment.”¹⁹

3.3 Positions of the Parties

None of the intervenors supported the application as filed. OEB staff, on the other hand, did support the application, subject to certain changes to the SME’s proposed wording for the licence amendments, which were generally accepted by the SME in its reply argument.

Broadly, the intervenors expressed three types of concerns: concerns regarding the protection of privacy, concerns regarding market pricing, and concerns regarding the consultation undertaken by the SME.

Privacy

VECC argued that, although the SME has taken reasonable steps to address privacy and security, “notwithstanding this effort, it is nearly impossible to delink the data from its address source and to guarantee that re-identification does not occur.”²⁰ VECC expressed the concern that electricity data would be used for targeted marketing, and warned of a “consumer backlash” from ratepayers who are “largely unaware of the potential for their meter data to be collected and sold to non-utilities for marketing or

¹⁸ Exhibit B, Tab 1, Schedule 1, p. 1.

¹⁹ SME Argument in Chief, para. 15.

²⁰ VECC submission, p. 8.

other purposes.”²¹ VECC further suggested that consumers’ expectations about data management and privacy have “changed significantly since the early 2000s when the notion of the SME and the collection of meter data was first contemplated.”²² It argued that, “even if not required by law, explicit consent of consumers should be required for access to their data.”²³

CCC expressed similar concerns about the risk of re-identification, the need for consumer consent, and the potential for misuse of the data. CCC said it “accepts that there may be benefits to consumers of providing TPA [third party access], but believes that a measured approach is appropriate until the OEB is convinced the interests of consumers can be sufficiently protected.”²⁴

VECC, CCC and BOMA all noted that the SME proposed to provide data by postal code where the postal code contained as few as three addresses. Those intervenors suggested that this presented an unacceptably high risk of re-identification.

The EDA submitted that “the SME has not taken adequate steps to appropriately protect consumers’ information”, suggesting that the SME had not done enough to lower the risk of re-identification.²⁵ The EDA further argued that the consent of customers is required for their consumption data to be sold.

Although it did not intervene in this proceeding, Hydro One Networks Inc. filed a letter of comment in which it urged the SME to develop a strategy for responding to complaints regarding third party access:

Hydro One’s main concern is that the data obtained by third parties could be published in such a way that could inadvertently lead to “energy shaming” of a particular community or customer rate class. In one recent example, data was provided to a third party as part of a pilot project and they were able to clearly map out older subdivisions that were using more electricity than newer, more energy sufficient [sic] subdivisions. They were also able to map out where energy consumption was higher in richer communities that included larger homes. Hydro One received several complaints from customers who were affected by this situation. In general, there has been a tendency for Hydro One to receive

²¹ VECC submission, p. 9.

²² VECC submission, p. 9.

²³ VECC submission, p. 11.

²⁴ CCC submission, p. 6.

²⁵ EDA submission, p. 4.

complaints from customers in relation to social benchmarking studies that rely on energy usage data.²⁶

Several intervenors pointed to Hydro One's letter as evidence that consumer resistance to the third party access initiative is more than merely hypothetical.

Market Pricing

BOMA objected to the SME's proposal to charge market prices. Rather, BOMA argued that the SME should charge for Standard Private Offerings and Custom Private Offerings on a cost-recovery basis. BOMA explained that, "as a customer representative, BOMA appreciates the SME's objective to provide net revenues from selling the data to customers at market rates, this approach raises several problems, which, in BOMA's view, outweigh any future net revenue benefits that might accrue to smart meter charge payers, which BOMA predicts would, in any event, be minimal."²⁷ One such problem, according to BOMA, is that, since the SME is a monopoly provider of the data, its negotiations with customers for third party access "will be difficult, and will lead to claims of discrimination or abuse from the entities paying higher amounts."²⁸

The EDA also argued that the SME should charge no more than what is necessary to recover its own costs of providing the data.

VECC took issue with the SME's use of the term "market prices", arguing that in reality there is no market for the data, since the SME is the only one who can provide it. In VECC's view, "More accurately what is being sought for approval is a form of 'negotiated prices.' Prices negotiated by a monopoly should be subject to some form of regulation."²⁹ VECC proposed that "the model that should be adopted by the Board and applied to the SME should be similar to that regulation it uses for contract services in natural gas. Under that regime range rates and a form of contract are approved by the regulator."³⁰

Consultation

VECC argued that there has been insufficient stakeholdering with consumers – the consultations undertaken by the SME with consumer advocates, utilities, and privacy experts were merely the first step.

²⁶ Hydro One letter of comment, March 7, 2019, p. 2.

²⁷ BOMA submission, p. 7.

²⁸ BOMA submission, p. 7.

²⁹ VECC submission, p. 5.

³⁰ VECC submission, p. 6.

BOMA argued that “the SME’s stakeholder engagement efforts to date, while extensive and made in good faith, were deficient in that the Data Strategy Advisory Group did not include representatives of customer groups”.³¹

Hydro One noted that the “SME has not indicated how it intends to broadly communicate its plan for providing third party access to the MDM/R data with electricity consumers”, and urged the OEB to require the SME to prepare a “customer outreach strategy”.³²

Similarly, the EDA argued that customers are not aware that their consumption data would be sold.

3.4 Findings

The OEB agrees with OEB staff that:

the current application is not about whether the SME should make electricity consumption and use data available to third parties. It is required to do so, by the terms of the *Electricity Act, 1998* and its licence. The issue, rather, is how the SME should make such data available. In particular, how should the SME recover its costs for providing the data...? And how should the SME ensure the protection of privacy in connection with the release of the data? [Emphasis in original.]

As a starting point, no one objected to the SME’s proposal to make Public Offerings available online at no charge. As these products would comprise highly aggregated data, they do not raise the same concerns about privacy as more tailored products. The OEB agrees that the SME should move forward with the Public Offerings. The OEB is of the view that the SME is already authorized to do so – the SME’s licence says that it “may disclose information regarding Distributors, consumers, Retailers, or any other person where the information has been sufficiently de-identified such that the Distributors’, consumers’, Retailers’, or other person’s particular information cannot reasonably be identified.”³³ No licence amendment or other approval is required for the SME to proceed with making these Public Offerings available. Any costs to the SME in preparing such products would be considered part of its normal business operations and recovered through the Smart Metering Charge paid by distributors and ultimately passed through to all consumers with a smart meter.

³¹ BOMA submission, p. 8.

³² Hydro One letter of comment, p. 1.

³³ SME Licence (ES-2016-0284), s. 9.3.

The OEB is also of the view that the SME is already authorized to provide the enhanced MDM/R data to the OEB or to the IESO in order to assist them in fulfilling their statutory mandates.³⁴ As noted above, the OEB's January 26, 2016 order stressed that the enhanced data would help with the "design of conservation and demand management programs, the assessment of the effectiveness of time of use pricing, the design of distribution rates and time of use prices, and the regional planning of transmission and distribution systems."³⁵ The OEB leads initiatives for the design of rates and prices, and the IESO coordinates regional planning and is responsible for the development of CDM programs funded through the global adjustment. It is therefore critical that both the IESO and OEB have access to de-identified customer consumption data for these functions. In view of the non-commercial, public interest in such access, it should continue to be provided at no charge. Like the Public Offerings, the cost of responding to requests for data from the OEB or the IESO will continue to be recovered through the Smart Metering Charge.

The controversial aspects of the SME's application relate to its plans to charge for Standard Private Offerings and Custom Private Offerings.

In the January 26, 2016 order, the OEB noted that making the enhanced data available to third parties could assist them in developing new innovative products and services that will enhance customer choice and control. While this is still an important goal, the importance of ensuring this is done in a way that is consistent with customer expectations, and that protects customer information, is paramount.

As OEB staff noted in its submission, the courts have found that individuals have a reasonable expectation of privacy in respect of their meter consumption data, albeit a "significantly attenuated" one.³⁶ In addition, some commercial consumers may have a legitimate competitive interest in keeping such data confidential. The SME stressed in its application that the enhanced data is not personal information, but rather will be de-identified. The intervenors, on the other hand, seized on the SME's acknowledgement that the risk of re-identification cannot be ruled out.

While continuing to affirm the January 26, 2016 order's goal of creating new value for consumers, the OEB is of the view that, in light of the concerns expressed by stakeholders in this proceeding, the SME should proceed cautiously with third party

³⁴ The SME's Licence requires it to provide "such information as the [OEB] may require from time to time" (s. 8.1). The Licence also provides that the SME may disclose consumer information where such information "is required to be disclosed... for purposes related to billing, settlement, market operations, and other statutory objects of the IESO" (s. 9.2).

³⁵ Order, January 26, 2016 (EB-2015-0297), p. 2.

³⁶ OEB staff submission, p. 11, citing *R. v. Orlandis-Habsburgo*, 2017 ONCA 649 at para. 134.

access. The OEB agrees with CCC that “a measured approach is appropriate”. The OEB’s overarching concern is to ensure that consumers are well informed concerning the data collection process and are protected from any disclosure that enables access to their personal identifiable data obtained from their meter.

While the OEB acknowledges the efforts of the SME to address these privacy concerns and to consult with stakeholders, it is of the view that a more comprehensive consumer engagement process should take place. As the intervenors have pointed out, it is not clear from the evidence that consumers support the notion that consumption data (even if de-identified) should be offered for sale to third parties.

For these reasons, the OEB will not approve the SME’s application as filed (although, as noted, the SME may proceed with making the Public Offerings available). The SME is directed to develop a revised proposal for third party access after further consultation with consumers, and to submit a new application to the OEB by the end of 2021. This application, which could be combined with an application for the renewal of the SME’s licence or with the next Smart Metering Charge application, or could be a standalone application, should include at least the following elements:

- The application should summarize the SME’s consultation with consumers including what it heard from consumers about the notion of selling de-identified consumption data.
- A marketing plan should be developed to ascertain the demand for this data, its potential use and what third parties are prepared to pay. The plan should address pricing to ensure reasonably priced access by commercial and non-commercial users. Such a plan might also inform both the likely success of the self-funding access model coupled with the size of the commercial and non-commercial demand.
- The SME should propose a protocol for receiving and dealing with consumer complaints regarding the release of the data. The OEB notes that the SME has proposed an Ethics Committee which could address any issues associated with the potential use of the data by a purchaser.
- The application should consider how to inform consumers of the fact that de-identified information will be released to third parties.
- The SME should seek approval of the basic terms of any Data Use Agreement with third parties. While recognizing that Data Use Agreements may need to be tailored to match the specific circumstances surrounding any particular release of

data, the OEB's view is that there should be certain generic protections built into such agreements.

In summary, the OEB would like the SME to proceed cautiously given the concerns expressed. As the SME noted, this application raised novel issues.³⁷ Although the OEB recognizes all the work the SME has done since the January 26, 2016 order, it agrees with the intervenors that there is still more work to do.

³⁷ SME reply, para. 3.

4 ORDER

THE ONTARIO ENERGY BOARD ORDERS THAT:

1. The SME shall proceed to make the Public Offerings available.
2. The SME is directed to file a new application for a framework for third party access by the end of 2021, with the elements set out in this Decision.
3. A decision regarding cost awards will be issued at a later date. Intervenors shall file with the OEB and forward to the SME their respective cost claims by **November 7, 2019**. Cost claims must be prepared in accordance with the OEB's *Practice Direction on Cost Awards*.
4. The SME will have until **November 14, 2019** to object to any aspect of the cost claims. One copy of the objection must be filed with the OEB and one copy must be served on the party against whose claim the objection is being made.
5. Any party whose cost claim was objected to will have until **November 21, 2019** to make a reply submission as to why the cost claim should be allowed. One copy of the submission must be filed with the OEB and one copy must be served on the SME.
6. The SME shall pay the OEB's costs of and incidental to this proceeding upon receipt of the OEB's invoice.

All filings to the OEB must quote the file number **EB-2018-0316** and be made electronically in searchable/unrestricted PDF format through the OEB's web portal at <https://www.pes.ontarioenergyboard.ca/eservice/>. Two paper copies must also be filed. Filings must clearly state the sender's name, postal address and telephone number, fax number and e-mail address. Parties must use the document naming conventions and document submission standards outlined in the RESS Document Guideline found at <https://www.oeb.ca/industry>. If the web portal is not available, parties may email their documents to the address below.

All communications should be directed to the attention of the Board Secretary at the address below, and be received no later than 4:45 p.m. on the required date.

With respect to distribution lists for all electronic correspondence and materials related to this proceeding, parties must include the Case Manager, Michael Bell at Michael.Bell@oeb.ca and OEB Counsel, Ian Richler Ian.Richler@oeb.ca.

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DATED at Toronto, October 24, 2019

ONTARIO ENERGY BOARD

Original Signed By

Christine E. Long
Registrar and Board Secretary