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By Email, Courier and RESS

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Dear Ms. Walli:

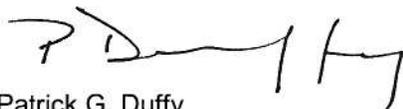
**Re: Smart Meter Entity Annual Cost and Variance Account Report for 2018
(EB-2017-0290)**

On behalf of the Independent Electricity System Operator ("**IESO**") in its capacity as the Smart Metering Entity ("**SME**"), we are providing the Ontario Energy Board with the SME's Annual Cost and Variance Account Report for the year ended December 31, 2018. The report was filed through the Board's RESS portal on May 31, 2019.

By copy of this letter, we are providing a copy of the report to all Parties to EB-2017-0290 and Board Staff.

We trust the foregoing is satisfactory. If you have any questions, please contact the undersigned at the address above.

Yours truly,



Patrick G. Duffy

PD/pd
Enclosure

cc. Sorana Ionescu, *IESO*
Adrian Pye, *IESO*
Michael Bell, *OEB*
Registered Intervenors for EB-2017-0290

2018 Smart Metering Entity (“SME”) Annual Cost and Variance Account Report

The following Annual Cost and Variance Report provides an overview of the SME’s financial status as of the end of 2018, which is the first year of the 2018 – 2022 operating budget as approved in the OEB’s March 1, 2018 decision on the SME’s Smart Metering Charge (“SMC”) application, OEB file # EB-2017-0290 (the “SMC Application”).

More specifically, the 2018 Report provides:

1. **Operational Background**
2. **2018 Financials**
 - a) **Financial Results** – for the fiscal year ending 2018, the SME’s high level budgeted and actual revenue and the budgeted and actual costs. (**Table 1: 2018 Revenues and Expenses Compared to 2018 Budget**)
 - b) **SME Revenues** – provides the collected revenue for the fiscal year ending 2018.
 - c) **SME Expenses** – provides further details and variance explanations for the SME budget and an update on the MDM/R upgrade project and the costs compared to budget. (**Table 2: 2018 Expenses Compared to 2018 Budget**)
3. **SME Debt** – provides the balance of the outstanding SME debt at the start and end of 2018 and the plans to recover the debt amount in the four years remaining in the Ontario Energy Board (“OEB”) approved five year operating budget period of 2018 - 2022.
4. **Service Level Credit Balance Account** – provides the outstanding service level credit (“SLC”) account balance. Payments are made into the SLC account when there are failures in the delivery of certain services from a major vendor of services to the SME.
5. **SME Balancing Variance Account (“BVA”)**– provides the total of the SME’s annual revenues, expenses, outstanding debt and the Service Level Credits Account balances in the form of the Sample Report set out by section 5 of the Accounting Order. (**Table 3: SME Variance Account Report** and **Table 4: SME Balancing Variance Account Reconciliation to SME Statement of Financial Position**)
6. **Appendices** – **SME Statement of Financial Position** as of December 31, 2018 (**Table 5**) and **2018 SME Financial Report Reconciliation to IESO Audited Financial Statements** (**Table 6**).
7. **Terms & Definitions**

1. Operational Background

As set out in the *Electricity Act, 1998* – O.Reg. 393/07, the IESO is designated as the SME. The SME maintains and operates Ontario’s centralized meter data management repository (“MDM/R”) under licence issued by the OEB.

The MDM/R is the province’s central platform for smart meter data and processes all electricity consumption data that is used for residential and small general service customers (<50kW) billing by Ontario’s local distribution companies (“LDCs”). This central model avoids the need for Ontario’s 60+ LDCs to invest in duplicative non-uniform infrastructure and ensures consistent, rigorous data processing regardless of the LDCs different metering technologies.

The MDM/R was built following the foundational principles of *Privacy by Design* as established by the Information and Privacy Commissioner of Ontario (“IPC”) so that the data collected, stored and managed in the MDM/R complies with stringent industry protocols that ensure encrypted data is securely transmitted over the internet. The MDM/R also has a disaster recovery facility at a geographically separate location that will resume all MDM/R functions should a business interruption occur.

The MDM/R has grown over time into one of the largest shared service and transactional systems in the world, reliably supporting the LDCs as home to 200 billion centralized records and adding 120 million records every day.

The services provided by the MDM/R are delivered by an Operational Service Provider (“OSP”), a competitively procured vendor who is responsible for the day to day operations and service level obligations to the LDCs.

- The contract with the OSP was renewed in Q1 2018 following extensive negotiations initiated in 2017 and includes favorable clauses including provisions for a major system upgrade (the “EnergyIP (“EIP”) MDM/R 8.x¹ upgrade”). The MDM/R 8.6 upgrade is a significant refresh of the hardware and application software that powers the MDM/R. This refresh replaces the existing hardware that was installed in 2012 and will upgrade the required software.

Other key vendor support services to the MDM/R operations include:

- providing the meter data management solution, the SME uses to support the LDC’s billing process and the EIP 8.6 MDM/R upgrade code maintenance and support,

¹ MDM/R 8.x was the release name in the EB-2017-0290 submission. This has since been established as MDM/R 8.6.

- providing support and maintenance for the environment and licences required by the SME to operate software which supports the EIP 8.6 MDM/R upgrade,
- providing software licences, maintenance and support services for the IT Service Management Platform used by the SME to serve the LDCs, and
- providing support for the database technology platform on which the MDM/R DataMart, a replica data store of the MDM/R designed for analytics by the SME and LDCs, is built on.

This Annual Cost Variance Account report is provided to the OEB as identified in the original SMC Decision and Order, March 28, 2013, the Accounting Order issued May 14, 2013 and subsequent Decision and Orders issued by the OEB and presents a financial picture of the SME operations as of December 31, 2018, which is the first year of the SME's approved 2018-2022 operating budget.

Overall, the SME's 2018 financial situation is favorable, some highlights are:

- \$1.8 million lower costs for the SME's operation and administration of which \$1.2 million is attributed to software support and maintenance,
- \$1.5 million lower costs in Changes & Initiatives, and
- \$3 million in savings were related to the EIP 8.6 MDM/R upgrade. These were achieved through contract negotiations with the OSP and other vendors which concluded late in Q1 2018. Additionally, the project did not require the use of contingencies included in the budget. \$2.6 million in Energy IP 8.6 costs were deferred beyond 2018 as a result of projects starting in Q2 versus Q1.

More information about the provincial Smart Metering Initiative and the MDM/R is available on the IESO/SME website (<http://www.ieso.ca/sector-participants/smart-metering-entity>), the Ontario Energy Board website (<https://www.oeb.ca>), and the Ministry of Energy, Northern Development and Mines website (<https://www.mndm.gov.on.ca/en>).

2. 2018 Financials

a) Financial Results:

For the year 2018 the SME had a \$1.2 million operating deficit compared to a budgeted operating deficit of \$11.6 million. This lower costs of \$10.4 million results from a combination of higher than budgeted revenues (by \$1.1 million) and lower than budgeted expenses (by \$9.3 million).

Table 1: 2018 Revenues and Expenses Compared to 2018 Budget

(\$ millions)	2018		
	Actual	Budget	Variance
Total SME Revenue	34.5	33.4	1.1
Total SME Expenses	35.7	45.0	(9.3)
Total SME Operating Deficit	(1.2)	(11.6)	10.4

Additional variance details can be found below.

b) Total SME Revenue

SME revenues collected in 2018 were \$34.5 million, which is \$1.1 million higher than the budgeted amount of \$33.4 million which was included in the SME's SMC application. This is due to a higher number of actual meters registered, compared to estimated².

² Estimated meter count is from the Yearbook of Electricity Distributors published by the Ontario Energy Board in August 2017. This is available at: <https://www.oeb.ca/utility-performance-and-monitoring/natural-gas-and-electricity-utility-yearbooks>

c) Total SME Expenses

The table below outlines the SME's 2018 Expenses and variances against its 2018 budget.

Table 2: 2018 Expenses Compared to 2018 Budget

(\$ millions)	2018		
	Actual	Budget	Variance
Compensation & Benefits	2.8	3.5	(0.7)
Professional & Consulting	15.7	15.3	0.4
Operating & Administration	5.0	6.8	(1.8)
MDM/R Changes & Initiatives	0.5	2.0	(1.5)
Financing Costs	0.1	0.2	(0.1)
MDM/R 8.x Upgrade	11.6	17.2	(5.6)
Total SME Expenses	35.7	45	(9.3)

Total SME expenses were \$35.7 million for the year which is \$9.3 million lower than budgeted. The following is a summary and explanation of material variances:

- Compensation & Benefits expenses were \$2.8 million for the year which is \$0.7 million lower than budgeted. These savings resulted from an average 2.0 FTE vacancies in 2018, lower overtime, student costs and lower expenses for IESO support functions. There were no deferred costs under Compensation & Benefits.
- Professional & Consulting expenses were \$15.7 million for the year which is \$0.4 million higher than budgeted. This resulted from the cost of an additional systems environment within the MDM/R to support the transition, testing and data migration to the MDM/R 8.6 upgrade.
- Operating & Administration expenses were \$5.0 million for the year, which is \$1.8 million lower than budgeted.
 - \$1.0 million of reduced costs were savings attained through discounts negotiated on software maintenance contracts, a contingency budget that was not utilized.
 - \$0.6 million of reduced costs were accumulated savings resulting from spending being less than the budgeted amounts in multiple areas, including: rent, subscriptions, change requests, the SME's DataMart, administrative expenses and staff training and travel.

- \$0.2 million of reduced costs were deferred costs as the negotiations described above resulted in a 3-month delay in the effective date of a contract with a vendor from Q1 2018 to Q2 2018.
- MDM/R Changes & Initiatives were \$0.5 million for the year, which is \$1.5 million lower than budgeted and are deferred costs. These include the final costs related to the MDM/R Upgrade which was required to extend the life of the current MDM/R version until the MDM/R 8.6 upgrade is completed. These deferred costs resulted from a number of projects that were budgeted to begin in 2018 having been deferred to 2019 or beyond, due to refocus of key resources to the MDM/R 8.6 upgrade, the later than expected filing of the Third Party Access program to the OEB and no advances on potential projects such as the integration of Commercial & Industrial meters in the MDM/R and the OEB Rate Design (GS 10 – 50kW Customer Class) assessment.
- Financing costs were lower as a result of the total interest charges applied.
- The total cost for the MDM/R 8.6 Upgrade was \$11.6 million for the year which is \$5.6 million lower than budgeted.
 - \$3 million in savings resulted from a combination of reduced costs through vendor contract negotiations.
 - \$2.6 million of costs were deferred due to the subsequent deferral of software purchases and vendor resource costs resulting from the negotiations mentioned above.
- In Summary the \$9.3 million in variance is the result of:
 - \$5.4 million in savings,
 - \$4.3 million of deferred costs, and
 - \$0.4 million of increased expenses.

3. SME Debt

The SME's debt was \$5.8 million on January 1, 2018, the beginning of the new budget period, and this amount represents \$6.2 million related to the remaining unfunded start-up costs of the SME and the service level credit ("SLC") balance of \$0.4 million. The Smart Metering debt at the beginning of the SMC collection period in 2013 was \$100.1 million.

The SME's debt on December 31, 2018 was \$6.9 million. This includes the 2018 operating deficit of \$1.2 million and the December 31, 2018 SLC balance of \$0.4 million. This debt is planned to be recovered over the remaining budget period to December 31, 2022 as approved in the SMC Application decision.

4. Service Level Credit Balance

The SMC Application decision approved the clearance of the December 31, 2017 balance of negative \$0.4 million in the SLC Account. As there were no failures in service by the OSP in 2018 no additional funds were added to the SLC Account in 2018.

Note, the SLC balance was rebated to the LDC's in the March 31, 2019 Settlement invoice according to the 2013-2015 Yearbook of Electricity Distributors published by the OEB.

5. SME Balancing Variance Account ("BVA")

The BVA is a summary statement of the SME's balance sheet and the December 31, 2018 BVA balance is negative \$7.4 million. This is the result of the SME debt of \$5.8 million, the 2018 operational deficit of \$1.2 million and the outstanding December 31, 2018 SLC balance of \$0.4 million as shown in Table 3 below.

Table 3: SME Balancing Variance Account

SME BVA (\$ millions)	2018	2019	2020	2021	2022
Balance (as of Jan 1)	(5.8)				
Total SME Revenue	34.5				
Total SME Expenses	(35.7)				
Service Level Credits	(0.4)				
SME BVA (as of Dec 31)	(7.4)	-	-	-	-

Table 4: SME BVA Reconciliation to SME Statement of Financial Position

(\$ millions)	2018	2017
SME BVA	(7.4)	(6.2)
Change in short-term prepaid expenses	0.1	
Service level credit account balance	0.4	0.4
Net Debt	(6.9)	(5.8)

6. Appendices

Table 5: SME Statement of Financial Position

(in \$ millions)	Dec 31, 2018	Restated Dec 31, 2017	Previously Reported Dec 31, 2017
LIABILITIES			
Accounts payable & accrued liabilities	2.1	0.8	0.8
Debt	4.8	5.0	6.9
TOTAL LIABILITIES	6.9	5.8	7.7
NET DEBT*	(6.9)	(5.8)	(7.7)
NON-FINANCIAL ASSETS			
Meter Data Management/Repository (MDM/R)	13.1	6.0	6.0
Short-term prepaid expenses	0.8	0.7	0.7
TOTAL NON-FINANCIAL ASSETS	13.9	6.7	6.7
TOTAL ACCUMULATED SURPLUS / (DEFICIT)**	7.0	0.9	(0.9)

*the SME debt was restated as a result of the restatement of accumulated surplus in the December 31, 2017 financial statements

**the accumulated deficit position at the end of December 31, 2017 was restated to \$0.9 million (previously reported as negative \$0.9 million)

Table 6: 2018 SME Financial Report Reconciliation to IESO Audited Financial Statements

SME Financial Report Reconciliation to IESO Audited Financial Systems	
(\$ millions)	
Smart metering charge - actual revenue	34.5
Smart metering charge - annual report	34.5
Amount to reconcile	0
Smart metering expenses - actual expenses	35.7
Smart metering expenses - annual report	28.4
Amount to reconcile	7.3
Total amount to reconcile	7.3
Add: capital spend in MDM/R	11.8
Less: amortization	(4.5)
Total reconciled	7.3

7. Terms & Definitions

“**BVA**” is an OEB approved variance account which consolidates and tracks the total of the year end balances of outstanding debt, revenues, expenses and the SLC Balance.

Change Request means a technical change to the MDM/R system, operating manuals or Terms of Service. These are usually made at the request of one or more LDCs.

“**IESO**” means the Independent Electricity System Operator. The IESO is the operator of Ontario’s high voltage electricity system and ensures there is enough power to keep the lights on, today and into the future.

“**MDM/R**” means the Meter Data Management and Repository. The MDM/R is the province’s central platform for smart meter data and processes all electricity consumption data that is used for residential and small general service customers (<50kW) billing by Ontario’s local distribution companies (“LDCs”).

“**OEB**” means the Ontario Energy Board. The OEB is Ontario’s independent energy regulator and makes decisions and rules to ensure that consumers are treated fairly and that the energy sector is reliable and sustainable.

“**OSP**” means the Operational Service Provider for the MDM/R. The MDM/R is operated by an MDM/R Operational Service Provider and the OSP is responsible for meeting and/or exceeding the requirements for the on-going operation and maintenance of the MDM/R.

“**SMC**” means the Smart Metering Charge. The OEB approved SMC of \$0.57 per smart meter per month is paid by residential and small commercial customers with smart meters.

“**SLC**” **Balance** means the penalties that are charged to the OSP if the OSP fails to deliver on certain services. To ensure the optimal operation of the MDM/R, the OSP must consistently meet all service level operating requirements for the MDM/R. In the event that a service level target is missed, the Operational Service Provider applies a service level credit.

“**SME**” means the Smart Metering Entity. The IESO is designated as the Smart Metering Entity by Ontario Regulation 393/07. The SME manages the MDM/R is the province’s central platform for smart meter data and processes all electricity consumption data that is used for residential and small general service customers (<50kW) billing by Ontario’s local distribution companies (“LDCs”).

SME Debt means the current balance of the SME’s outstanding debt. The current balance of debt includes historic debt incurred during the MDM/R build phase period, which occurred prior to a

smart meter charge being set. The historic debt was \$100.1 million in 2013 when the initial Smart Meter Charge was approved by the OEB and first began to be collected.