



November 10, 2017

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

Re: Independent Electricity System Operator (IESO)  
2017 Revenue Requirement, Expenditures and Fees Application  
AMPCO's Final Submissions  
Board File No. EB-2017-0150

Dear Ms. Walli:

In accordance with Procedural Order No. 3 dated October 13, 2017, attached please find AMPCO's written submissions in respect of the two unsettled issues.

Please do not hesitate to contact me if you have any questions or require further information.

Sincerely yours,

*(ORIGINAL SIGNED BY)*

Colin Anderson  
President  
Association of Major Power Consumers in Ontario

Copy to: IESO

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Application for Approval of 2017 Revenue Requirement, Expenditures and Fees**

**AMPCO Submissions**

On April 21, 2017, pursuant to subsection 25 (1) of the Electricity Act, 1998, the Independent Electricity System Operator (“IESO”) filed with the Ontario Energy Board (“OEB”) an Application for review and approval of its proposed 2017 expenditure and revenue requirement and the fees that it proposes to charge in 2017.

In accordance with the OEB’s Procedural Order No. 2, a settlement conference was held on September 14 and 15, 2017. A settlement was reached between the IESO and participating intervenors on all but the following two issues on the approved issues list:

**Issue 4.4: Should the IESO establish a separate Market Renewal Program Deferral Account?**

**Issue 5.1: Is the IESO’s proposed Regulatory Scorecard appropriate?**

A settlement proposal was filed with the OEB on October 3, 2017. OEB staff filed a written submission supporting the settlement proposal on October 10, 2017. After receiving clarification on certain aspects of the settlement proposal as requested, on October 31, 2017, the OEB issued Procedural Order No. 5, accepting the settlement proposal as filed and further clarified.

Accordingly, AMPCO makes written submissions on the above two remaining issues as follows.

**Issue 4.4: Should the IESO establish a separate Market Renewal Program Deferral Account?**

AMPCO filed submissions in support of Energy Probe’s request to add Issue 4.4 to the Issues List. Given the scale and significance of the Market Renewal Program (MRP), AMPCO agreed with Energy Probe that it is not appropriate to mix MRP costs in with the general operating and capital costs given the scale and significance of the MRP.

The IESO’s MRP is a multi-year project with total implementation costs estimated in the range of \$200 to \$300 million<sup>1</sup> spanning a decade or longer timeframe.

The IESO characterizes Market Renewal as a major undertaking both for the IESO and for Ontario’s electricity sector, and it represents the most significant enhancement of Ontario’s market since it first opened in 2002.<sup>2</sup> The MRP is not just one of the many projects the IESO undertakes; the planned capital for this one project significantly exceeds the IESO’s core operations base capital budget beginning in 2019.

In AMPCO’s view, the impact of the MRP on the IESO is similar to the impact of OPG’s Darlington Refurbishment Program on OPG. Both are megaprojects that represent the most significant initiative

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<sup>1</sup> A-3-1 Page 11

<sup>2</sup> 2016 Annual Report A-3-1, Page 10

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ever undertaken by either organization in terms of cost, scope and profile. In other words, MRP is the IESO's version of Darlington Refurbishment. Given the sheer magnitude of the MRP, a new separate account to track only MRP costs makes sense and is in the best interest of customers. AMPCO submits a variance account is appropriate as it tracks the difference between the forecast cost of a project or program, which has been included in rates, and the actual cost.

If the MRP does not warrant such regulatory treatment, AMPCO struggles to understand just what size of a project *would* necessitate a separate variance account treatment.

The evidence indicates the MRP will engage a wide range of stakeholders, external resources and business units across the IESO, and will require incremental temporary resources.<sup>3</sup> The IESO and stakeholders are cognizant that given the scope and expectations of the MRP that it requires a robust project management plan.<sup>4</sup> AMPCO submits a good project management plan must allow for a clear and transparent view and tracking of MRP costs and resources and provide for a prudence review of any cost overruns. A separate MRP variance account meets these objectives. MRP costs should be subject to a higher level of regulatory review.

In its Argument-in-Chief (AIC), the IESO indicates it has established a separate cost centre for the MRP project and will be tracking and reporting costs of staff and external resources against planned costs and resources, and any variance from the forecasted MRP costs would be captured in the IESO's existing Forecast Variance Deferral Account ("FVDA") in which the IESO typically seeks annual disposition or recovery of any year-end balance.<sup>5</sup> Given the scope, size, cost, impact, importance, complexity and evolving nature of the MRP, AMPCO submits this approach is not the best mechanism to track MRP costs because the existing FVDA retains an operating reserve and annual clearance of the account includes other variances related to revenues and expenses. The MRP warrants its own separate account that would appropriately segregate and track MRP costs.

AMPCO submits this is a better approach than the IESO's plan to have a separate cost centre for the MRP tracked through the existing FVDA as this approach limits transparency and regulatory oversight. MRP cost variances should not be rolled into the IESO's existing FVDA and mixed in with other expense variances.

IESO Application Specifics

The IESO began initial work on the MRP in 2016. In February 2017, the IESO's 2017 to 2019 Business Plan was revised and resubmitted to include resourcing for the MRP as shown in the table below. In the

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<sup>3</sup> A-2-2, Page 11

<sup>4</sup> B1-1-1 Page 8

<sup>5</sup> AIC Page 3

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Business Plan the IESO proposed a 4% increase in its 2017 usage fees relative to its initial Business Plan submission to support the MRP work.

As per the Business Plan, the MRP operational budget is \$12 million in 2017 and there is no planned spending on capital. MRP capital commences in 2018. In 2019, incremental MRP capital is almost double the core operations capital budget. These budget amounts illustrate the scale of the MRP.

**Table 1: Near-Term MRP Costs 2017-2019**

	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Market Renewal Expenses <sup>6</sup>	0.0	<b>12.0</b>	<b>14.0</b>	<b>6.0</b>
Incremental FTEs – Market Renewal	0	25	25	75
Market Renewal Capital	0.0	<b>0.0</b>	<b>20.0</b>	<b>40.0</b>
Core Operations Capital	23.8	25.0	25.0	23.2

On October 3, 2017 the IESO filed updated evidence showing an updated forecast for 2017 MRP costs of \$8 million, a reduction of \$4 million as compared to the 2017 MRP operational budget of \$12 million. The updated evidence does not provide a rationale for the variance. The IESO forecasts to spend only 67% of the MRP budget in 2017. AMPCO submits this variance is significant and underscores the cost uncertainty and potential variances and the need for a new account to track only MRP costs that allows for a proper review of the variance drivers and prudence of expenditures. AMPCO submits the IESO should be required to adhere to the same cost scrutiny as other regulated entities. If the MRP evidence had not been updated, the IESO would have retained the \$4 million MRP underspend instead of returning it to customers as agreed to in the approved Settlement Proposal.<sup>7</sup>

**FVDA Background**

The FVDA is used to record variances between the IESO's revenues and actual costs and the Board has typically approved the retention of an operating reserve in the account for unexpected operating expenses. In this application, the IESO sought approval to continue to retain an operating reserve of \$10 million in the FVDA, and return the 2016 year-end balance above the \$10 million operating reserve to customers.

The IESO further clarified in evidence that the purpose of the operating reserve is to respond to the potential volatility in spending due to unplanned work activities that may emerge and be material in

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<sup>6</sup> A-2-2, Page 13

<sup>7</sup> S1-1-1 Page 15

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scope and beyond the control of management.<sup>8</sup> In 2017, the Board approved a reduction in the operating reserve in the FVDA from \$10 million to \$6 million<sup>9</sup>, to account for the \$4 million MRP underspend referenced above. AMPCO submits this approach is appropriate for 2017 given that the MRP was an emerging priority in 2017<sup>10</sup> as reflected in the revised 2017-2019 Business Plan. However, in 2018 and beyond the MRP does not fit with the above stated purpose of the FVDA. The MRP cannot be considered an “unplanned work activity that is beyond the control of management” and as such, it is not appropriate for MRP cost variances to interact with the variances and operating reserve retained in the FVDA. The MRP requires its own variance account.

Other Considerations

The IESO further states in its AIC that establishing this variance account would create administrative burden while providing no discernible benefit.<sup>11</sup> AMPCO disagrees with this position. The key benefit of a new MRP account is the additional regulatory oversight and transparency it provides allowing for increased scrutiny of any cost overages.

If the IESO can create a cost centre to track MRP costs, AMPCO sees no reason why the IESO cannot easily align it with a new MRP variance account. The IESO has not provided any compelling reasons why this would create an administrative burden.

Summary

In summary, AMPCO submits given the size, cost and profile of the MRP, the Board should approve the establishment of a separate MRP variance account for the duration of the project.

The account is required, useful, meaningful and offers advantages over the IESO proposal as it provides better regulatory oversight and transparency of MRP costs.

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<sup>8</sup> B1-1- P9

<sup>9</sup> S-1-1 Page 15

<sup>10</sup> A-2-2, Page 11

<sup>11</sup> AIC Page 4

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**Issue 5.1: Is the IESO's proposed Regulatory Scorecard appropriate?**

AMPCO's submissions on the proposed Regulatory Scorecard are focussed on the MRP.

The IESO indicates it agrees with the conclusion in the Elenchus Report that the MRP merits tracking in the scorecard. The IESO agrees that tracking and reporting on the progress of this Project against the schedule and budget will assist parties to more clearly understand how it is progressing.<sup>12</sup>

The proposed IESO Regulatory Scorecard includes a Project Performance Category with the proposed measure "Market Renewal Project proceeding according to the schedule and budget". The target beyond 2019 is "yes".<sup>13</sup>

AMPCO agrees the MRP merits tracking in the scorecard. However, AMPCO submits that the measure proposed to track progress of the MRP against the schedule and budget measure is meaningless. A "yes" or "no" response does not provide the needed details to understand how the project is tracking against schedule and budget. The IESO indicates Risks related to Market Renewal will continue to evolve over the lifecycle of the project and will include stakeholder, resourcing, integration and implementation risks.<sup>14</sup> Integration risk will require organization-wide changes. Implementation risk includes managing project scope, costs and schedules.<sup>15</sup> In order for the IESO to effectively mitigate implementation risks related to scope, schedule and budget, better scorecard metrics for the MRP are required.

AMPCO submits that Earned Value Metrics (EVM) would be more appropriate for a project of the MRP's size, cost and profile.

EVM is a standard project management technique for quantifying and measuring project progress and performance. It not only compares actual costs against budgets, but also allows for continuous analysis of progress achieved against plan throughout the project timeline and across individual tasks forming part of a work component. In other words, the project "earns" progress as work steps are completed, thus allowing management to implement strategies should the project track "off-plan".<sup>16</sup>

In order to conduct EVM analysis, three components are needed: (1) the Planned Value to be earned, (2) the Earned Value (physical progress percent complete against budgeted value), and (3) Actual Cost (from finance/accounting or contractor invoices and accruals).

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<sup>12</sup> C-1-1 Page 3 Updated June 30, 2017

<sup>13</sup> C-1-1 Attachment #1 Page 42 Updated June 30, 2017

<sup>14</sup> A-2-2, Page 25

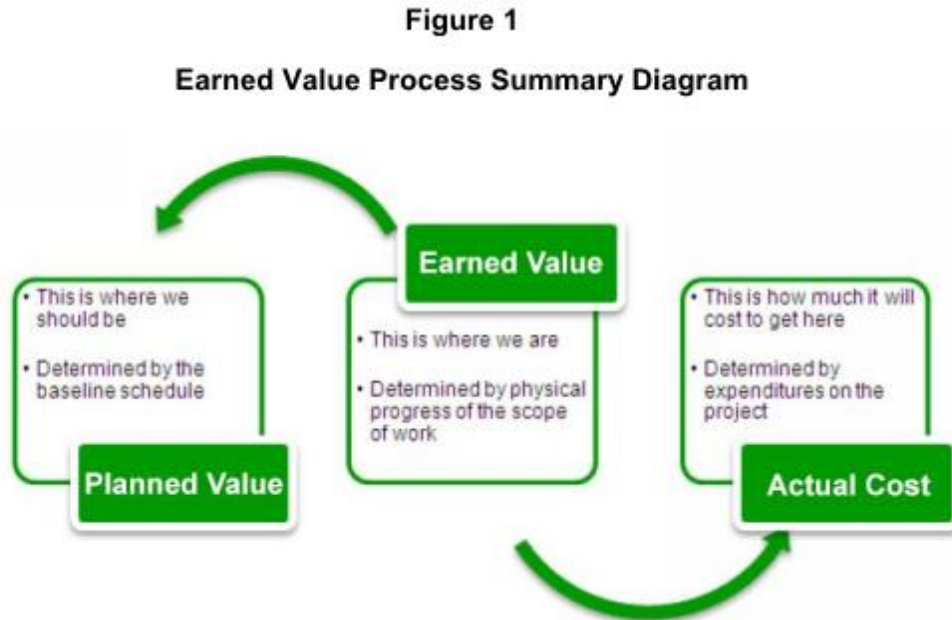
<sup>15</sup> B1-1-1 P11

<sup>16</sup> EB-2016-0152 D2-2-9 Page 7

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The EVM process is shown in Figure 1 below.<sup>17</sup>



OPG utilizes EVM for its significant projects.<sup>18</sup> Below please find evidence from OPG's EB-2016-0152 application that further explains the elements of EVM.

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<sup>17</sup> EB-2016-0152 D2-2-9 Page 7

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Cost performance is measured using standard industry metrics at the program, project, and functional levels. The means by which these standard earned value metrics are calculated, and the significance of the resulting values, is demonstrated through the following scenario. In the scenario, assume that there are four valves that were to have been installed by the current date and that each has a budget or planned value of \$1,000, for a total budget of \$4,000. As of the current date, only three of the valves have been installed and the total amount spent has been \$2,500. The cost of installing the fourth valve, based on experience installing the first three, is forecast to be \$800. The standard earned value metrics would be as follows:

- *Schedule Performance Index ("SPI")* is a measure of progress achieved compared to planned progress ( $SPI = \text{Earned Value} / \text{Planned Value}$ ). An SPI of 1.0 indicates that the project has completed all planned work. A value of less than 1.0 indicates that all work that was supposed to have been completed has not been completed. A value of greater than 1.0 indicates that work planned for the future has been advanced. Using the above scenario, the SPI would be  $\$3,000 / \$4,000$  or 0.75, which indicates that the project is behind schedule.
- *Cost Performance Index ("CPI")* is a measure of the value of work completed compared to actual cost incurred ( $CPI = \text{Earned Value} / \text{Actual Cost}$ ). If the work was completed or 'earned' at the same cost as planned, the CPI would be 1.0. If the cost of the work was higher than planned, CPI will be less than 1.0 and if the work has been completed for less than the planned cost the CPI will be greater than 1.0. Using the above scenario, the CPI would be  $\$3,000 / \$2,500$  or 1.2, which indicates that the project is being executed more economically than had been planned.
- *Cost Variance* is the difference between the budgeted value of work performed and the actual cost of that work ( $\text{Cost Variance} = \text{Earned Value} - \text{Actual Cost}$ ). For example, the Cost Variance is  $\$3,000 - \$2,500$ , or a favourable variance of +\$500.
- *Schedule Variance* is the difference between the budgeted value of work planned and the actual cost of work performed ( $\text{Schedule Variance} = \text{Planned Value} - \text{Earned Value}$ ). For example, the Schedule Variance is  $\$4,000 - \$3,000$ , or an unfavourable - \$1,000.



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AMPCO submits the Board should require the IESO to develop EVM for its MRP that includes a Schedule Performance Index and a Cost Performance Index to better facilitate quantifying and measuring MRP progress and performance.