VECC INTERROGATORY 12

Issue 5.0 – Commitments from Previous OEB Decisions

5-VECC-12

INTERROGATORY

Reference:

- Exhibit G-1-2, Attachment 1, page 7, Table 1
- Exhibit D-1-2, page 1, Table 13

Preamble:

Question(s):

a) Please explain why the Budget amounts shown for 2023-2025 in Table 1 of the Elenchus -OM&A Work Program Review are different than the Board approved amounts for those years shown in Table 13.

RESPONSE

a) The Elenchus report was prepared to investigate and demonstrate a potential OM&A work-program reporting structure. The amounts presented in the report are based on the IESO's original 2023-2025 budget approved in EB-2022-0318. In response to the Government of Ontario's Powering Ontario's Growth Implementation Directive, the IESO was required to undertake additional planning, procurement and system development activities, which required additional funding. These additional costs are included in the OEB approved amounts in EB-2024-0004, shown in Table 13, but not in the Elenchus report amounts.

VECC INTERROGATORY 13

Issue 5.1 – Has the IESO responded appropriately to outstanding OEB directions from previous proceedings?

5-VECC-13

INTERROGATORY

Reference:

- Exhibit G-1-2, Attachment 1, page 34 & 35

Preamble:

Question(s):

a) Please update the tables shown at pages 34 and 35 of the Elenchus -OM&A Work Program Review ("IESO OM&A – Work Program Reporting" and "Work Program Relative Size") to include each year 2026 through 2028.

RESPONSE

a) See Exhibit G-1-1, Attachment 2, page 5 of 6, Table 43: Forecast 2026-2028 Spending ($ millions) on an Illustrative Work Program Basis, for the updated "IESO OM&A – Work Program Reporting" table shown on page 34 of the Elenchus – OM&A Work Program Review.

See Table 1 below for the updated "Work Program Relative Size" table shown on page 35 of the Elenchus – OM&A Work Program Review.

Table 1: IESO OM&A – Work Program Relative Size for 2026-2028

(% of Total Expenses)*	**Budget**	**Budget**	**Budget**
Work Program	**2026**	**2027**	**2028**
1 Executive Leadership	7.3%	7.6%	7.8%
2 System Operations - Control Room	5.0%	5.1%	5.0%
3 System Operations - Market Forecasts	2.3%	2.6%	2.7%
4 Market Settlements & Data Management	3.4%	3.4%	3.3%
5 Market Governance & Compliance	5.5%	5.6%	5.6%
6 Market Development & Planning	8.4%	8.3%	8.3%
7 Market Management	7.1%	7.8%	8.2%
8 Demand Side Management	6.7%	6.6%	6.6%
9 Sector and Community Engagement	5.6%	6.1%	6.1%
10 IT Management	21.6%	21.5%	21.7%
11.1 Human Resources	2.6%	2.6%	2.6%
11.2 Legal and Regulatory Affairs	5.3%	5.1%	5.1%
11.3 Facilities	3.3%	3.0%	3.0%
11.4 Finance	6.3%	5.9%	6.1%
12 Corporate Adjustments	-0.6%	-0.7%	-0.9%
Total OM&A Expenses	**89.9%**	**90.6%**	**91.2%**
Interest, Amortization and Registration Fees	10.1%	9.4%	8.8%
Amortization	*12.0%*	*11.9%*	*11.7%*
Interest	*-1.7%*	*-2.5%*	*-2.8%*
Registration Fees	*-0.2%*	*-0.1%*	*-0.1%*
Clean Energy Credit Sales	*0.0%*	*0.0%*	*0.0%*
Total Expenses	**100.0%**	**100.0%**	**100.0%**
*Note: Numbers may not add due to rounding			

SEC INTERROGATORY 23

Issue 5.1: Has the IESO responded appropriately to outstanding OEB directions from previous proceedings?

5-SEC-23

INTERROGATORY

Reference:

- Exhibit G-1-1, page 5

Preamble:

Question(s):

With respect to the Midgard Consulting review of the IESO's planning and procurement process, please provide a table that shows the Midgard recommendation, and the IESO response, and the status of the implementation of the recommendation.

RESPONSE

See Table 1 below.

Table 1: Midgard Recommendations, IESO Responses and Implementation Status

Recommendation	IESO Response	Status
1. Implement Effective Load Carrying Capability ("ELCC") (or other industry standard equivalent) resource capacity contribution analysis and specification methodology across its planning and procurement processes.	The IESO is considering implementing Effective Load Carrying Capability ("ELCC") across its planning and procurement processes and will examine, as part of its business planning process for the 2026 – 2028 period, the associated resourcing, costs, and potential funding sources required to implement this recommendation.	**Completed** - Resource Planning's Business Plan for the 2026-2028 period included resourcing to evaluate and implement ELCC, in support of capacity accreditation for the IESO's procurement processes.

Recommendation	IESO Response	Status
2. Develop an implementation plan for integrating Value of Lost Load ("VoLL") into its planning and procurement processes.	VoLL is a metric that can be applied in estimating the benefit of investments aimed at improving reliability and is one of many ways to quantify the value of reliability. Established reliability standards and planning criteria in North America and for Ontario are by-and-large deterministic and typically result in a power system designed to perform reliably. IESO understands that VoLL can be complementary to analysis done for established reliability standards and planning criteria, and will explore the applicability and possible use-cases for VoLL (or similar reliability-based metrics) in a power system planning context, and if applicable, will examine the associated costs and implementation timelines against the expected rate-payer value.	**Completed** - Value of lost load (VoLL) is utilized by the IESO when assessing the economic impact of policies or events that would cause significant loss of load, result in system adequacy criteria not being met, and cannot be mitigated through additional investment in the electricity grid. For example, the IESO used VoLL to calculate the economic impact of the first draft of the Clean Electricity Regulation, which the IESO determined could not be accommodated through infrastructure investment and therefore would result in significant lost load. Furthermore, the IESO uses VoLL as a parameter in its economic capacity expansion modelling efforts to provide the model with an extreme, high cost alternative to building sufficient resources to meet system demand.
3. Implement least regrets planning in the Annual Planning Outlook ("APO") to address both the primary load forecast scenario and the portfolio of scenarios IESO evaluates.	The IESO implements "least regrets" planning and procurement in the APO through the capacity auction minimum target threshold and forward guidance for future auctions, and through the Long-Term RFP procurements for energy and capacity whereby targets can be adjusted between procurement windows depending on results from preceding windows and evolving system needs. IESO will examine least regrets actions that could be conducted to incorporate additional scenarios in future IESO assessments in order to provide appropriate risk-	**Completed** - Least regrets planning and procurement actions were implemented in the 2026 APO, which was released in March 2026, and included: • the capacity auction minimum target threshold and forward guidance for future auctions out to 2030; and • preliminary targets for Windows 2, 3 and 4 of the Long-Term 2 RFP for energy and capacity resources While these actions were based on the reference forecast scenario, the 2026 APO included high and low forecast scenarios that were assessed and used to inform the set of least regrets planning and procurement actions.

Recommendation	IESO Response	Status
	adjusted advice to the Government of Ontario.	Going forward, the 2027 APO and future iterations of the report will continue to include multiple forecast scenarios that inform the least regrets actions.
4. Evaluate implementing Renewable Energy Zones in Ontario.	IESO will examine least regrets planning undertaken in other jurisdictions towards pre-emptive identification and development of necessary transmission capabilities to areas that could have high potential for development of new electricity generation projects.	**Deferred** – Further assessment is required before a decision is made on whether to proceed with the recommendation.
5. Adopt expanded scenario planning to address less probable but credible long-term risks and uncertainties that may require near term actions to preserve real optionality should those risk or uncertainties ultimately materialize.	The IESO conducts planning and procurement processes annually, and near- and long-term risks are regularly updated and incorporated, where possible. IESO's economic assessments consider a broad range of potential events and scenarios to provide risk-adjusted advice to the government. IESO will evaluate the feasibility and cost of including additional events and scenarios in its assessments.	**Completed** - In addition to the reference forecast scenario, the 2026 APO included two additional scenarios (high and low) to incorporate less probable but credible long-term risks and uncertainties. Risks were evaluated and updated at the time of APO development and incorporated into the analysis were possible. Section 7 of the 2026 APO discusses the risks that were considered in analysis.
6. Quantify, Track and document cumulative planning process uncertainties, modeling variabilities and output accuracy ranges in its planning and procurement processes and communicate that	IESO will consider how it can better articulate, and where possible quantify, planning uncertainties, modelling variabilities, and accuracy ranges to stakeholders beyond the explanations historically provided in the APO, APO modules and	**Completed** - In 2025, the IESO released a series of technical papers exploring specific areas of supply and demand uncertainty. The three demand-side technical papers focused on large step loads, space heating and electric vehicles. See the IESO[1] Demand Research webpage for more information[2].

[2] IESO Demand Research webpage: https://www.ieso.ca/Sector-Participants/Planning-and-Forecasting/Demand-Research

Recommendation	IESO Response	Status
information to stakeholders.	supporting documents, and engagement materials. IESO is exploring introducing additional scenarios in future assessments to more explicitly explore the impacts of different major sources of demand and supply uncertainty. Additionally, IESO plans to publish a series of white papers in 2025 detailing demand uncertainties with specific major end uses.	
7. Document IESO's planning and procurement processes and communicate this documentation to IESO staff and external stakeholders.	IESO's public facing documents such as the APO and previous publications of the Annual Acquisition Report (AAR) provide a clear and transparent explanation of IESO's planning and procurement processes, including how system needs are identified, how procurement targets are determined and how resource procurement is executed. IESO notes Midgard's observation that there is potential for further improving the understanding of IESO's overall planning and procurement process among IESO staff.	**No action required**
8. Document IESO's continuous improvement processes including the metrics or performance goals used to track and evaluate areas of improvement, and communicate this documentation to IESO	IESO regularly engages with stakeholders through the Resource Adequacy engagement and the annual information and engagement sessions on the APO. Through these engagements, IESO solicits feedback on the planning and procurement processes and transparently documents responses to ensure continual improvement.	**No action required**

Recommendation	IESO Response	Status
staff and external stakeholders.	IESO notes Midgard's observation that IESO has limited internal documentation on a formal continuous improvement process for IESO's planning and procurement processes.	

SEC INTERROGATORY 24

Issue 5.1: Has the IESO responded appropriately to outstanding OEB directions from previous proceedings?

5-SEC-24

INTERROGATORY

Reference:

- Exhibit G-1-1, page 5

Preamble:

Question(s):

With respect to the IESO commitment regarding Market and Planning Data, please provide what specific changes the IESO has made to the availability of market and planning data since the commitment was made, and what specific further changes it plans during the 2026 to 2028 period.

RESPONSE

As committed, the IESO held the Market and Planning Data Engagement, which concluded in September 2024.[1]..

As part of that process, the IESO reviewed stakeholder data requests and categorized them into groups. These included data already publicly available, data not currently available but potentially available in the future, data that is commercially sensitive or confidential, and data the IESO does not currently have. With respect to data already publicly available, the IESO observed that much of the data stakeholders requested is already published and accessible

[1] IESO Market and Planning Data Engagement webpage: https://www.ieso.ca/Sector-Participants/Engagement-Initiatives/Engagements/IESO-Market-and-Planning-Data-Engagement

through IESO's existing platforms. The IESO published a document with links to these publicly available datasets for ease of access.

In addition, certain datasets were made public, for example, following the launch of the renewed market in May 2025 an enhanced Market Data page was launched making certain additional data sets public e.g. Adequacy3 report now contains forecast data on a zonal granularity, the addition of DAM Pass 1 LMPs as a published set of values, the RT Ontario Zonal Price report to align with other five-minute reports, a refinement of the Adequacy3 report to break out storage as its own fuel type and how much it was scheduled in DAM, a refinement of the Customer Energy Summary report to outline more clearly the demand values associated with ICI GA uplift allocation calculations.

As IESO initiatives and processes continue to evolve, the IESO will assess whether associated data sets can be made available.

SEC INTERROGATORY 25

Issue 5.1: Has the IESO responded appropriately to outstanding OEB directions from previous proceedings?

5-SEC-25

INTERROGATORY

Reference:

- Exhibit G-1-1

Preamble:

Question(s):

With respect to reporting spending on a majority activity or initiative basis:

a) [Attachment 1, p.16-30] Please provide the IESO's view on Elenchus' categorization/classification of IESO operations in work programs.
b) [Attachment 1, p. 4-5] Does Elenchus or any other ISO/RTOs surveyed have their budgets approved by the regulator, like is required for the IESO? Is Elenchus or IESO aware if any of the other ISO/RTO's surveyed have their budgets approved by a regulator, like the IESO. If so, please provide details.
c) [Attachment 2, p. 3-6] Please provide a single table that combines Tables 42 and 43.

RESPONSE

a) While the IESO can map its activities to the work program classifications proposed by Elenchus, it believes its existing business unit and division-based planning and reporting structure provides a more meaningful view of operations, costs, and accountability.

As discussed in Exhibit G-1-1, Attachment 2, the IESO is managed, resourced, and held accountable through its business units, with costs directly assigned to those areas. This structure provides greater operational and financial granularity, supports year-over-year comparability, and aligns with how management plans, monitors, and evaluates organizational performance.

In contrast, the Elenchus work program model aggregates multiple business units, divisions, and functions into broader activity categories, reducing the level of detail available. Accordingly, the IESO continues to view its current reporting framework as the most meaningful and cost-effective representation of its operations, cost drivers, and accountability for regulatory purposes.

b) The Elenchus report included a high-level jurisdictional scan to compare the reporting of OM&A expenditures in the IESO revenue requirement application with ISOs/RTOs in other jurisdictions. Neither the Elenchus report nor the IESO's understanding from that report provide sufficient information to determine if any of the surveyed ISOs/RTOs have their budgets approved by a regulator in the same manner as the IESO.

c) See Table 1 below.

Table 1: Historical (2023-2025) and Forecast (2026-2028) spending ($ millions) on an Illustrative Work Program Basis

Work Program	2023 OEB Approved*	2023 Actual*	2024 OEB Approved*	2024 Actual*	2025 OEB Approved*	2025 Actual*	Budget 2026	Budget 2027	Budget 2028
1 Executive Leadership	14.4	16.1	15.6	17.4	16.3	20.2	23.0	26.0	27.2
2 System Operations - Control Room	11.7	13.1	13.0	15.0	13.2	15.2	15.5	17.2	17.3
3 System Operations - Market Forecasts	4.4	5.0	4.3	5.3	4.8	7.4	7.3	8.9	9.4
4 Market Settlements & Data Management	5.5	5.5	5.9	6.3	6.4	8.4	10.5	11.4	11.5
5 Market Governance & Compliance	12.3	11.1	13.2	11.8	15.3	14.5	17.1	18.9	19.2
6 Market Development & Planning	23.8	22.9	24.8	24.9	23.0	30.2	25.9	28.1	28.7

Work Program	2023 OEB Approved*	2023 Actual*	2024 OEB Approved*	2024 Actual*	2025 OEB Approved*	2025 Actual*	Budget 2026	Budget 2027	Budget 2028
7 Market Management	14.7	16.0	15.7	17.7	16.6	19.6	22.0	26.5	28.2
8 Demand Side Management	13.6	14.1	16.3	18.5	14.6	21.0	20.8	22.2	22.8
9 Sector and Community Engagement	10.5	9.5	11.8	12.0	13.5	15.3	17.4	20.7	21.2
10 IT Management	43.8	45.5	46.3	51.1	48.4	61.6	67.1	72.9	74.9
11.1 Human Resources	6.2	6.5	6.4	7.4	6.4	8.4	8.2	8.9	9.0
11.2 Legal and Regulatory Affairs	12.7	11.5	13.8	13.7	14.1	14.1	16.4	17.3	17.6
11.3 Facilities	10.0	10.5	10.2	11.1	10.2	10.1	10.1	10.2	10.3
11.4 Finance	13.2	14.7	13.5	15.8	14.8	16.3	19.4	20.0	21.2
12 Corporate Adjustments	0.7	17.5	0.6	3.5	(0.1)	1.7	(2.2)	(2.6)	(3.3)
Total OM&A Expenses	**197.3**	**219.4**	**211.1**	**231.5**	**217.3**	**264.0**	**278.5**	**306.6**	**315.3**
Interest, Amortization and Registration Fees	11.1	(1.2)	11.8	2.4	17.8	22.2	31.4	31.7	30.3
Amortization	23.1	20.6	22.0	23.3	27.0	32.4	37.1	40.4	40.3
Interest	(11.5)	(20.6)	(9.7)	(21.0)	(9.2)	(8.2)	(5.2)	(8.4)	(9.7)
Registration Fees	(0.5)	(1.1)	(0.5)	0.0	-	(2.0)	(0.5)	(0.3)	(0.3)
Clean Energy Credit Sales	-	-	-	-	-	(0.1)	-	-	-
Total Expenses	**208.4**	**218.2**	**222.9**	**233.9**	**235.1**	**286.2**	**309.9**	**338.3**	**345.6**

* OEB Approved and Actual results from 2023 to 2025 have been restated where applicable to reflect organizational structure changes which the IESO implemented during the business planning period:

- The Reliability Assurance function within the Reliability Assurance and Operational Assessments division of the Markets and Reliability business unit was transferred to Power System Development (formerly Planning, Conservation and Resource Adequacy), business unit
- The Compliance Assurance function was transferred to the Market Rules and Regulatory Affairs division of the Legal Resources and Corporate Governance business unit.
- The Operational Assessments and Emergency Preparedness function within the Reliability Assurance and Operational Assessments division was not impacted by the change described immediately above, the division was subsequently renamed to Operational Effectiveness, Operability and Transformation.

- The Innovation, Research and Development division within Corporate Relations, Engagement and Strategy (formerly Corporate Relations, Stakeholder Engagement and Innovation) was reorganized, resulting in the transfer of three teams to Power System Development (Sector Partnerships, Advanced Technology Research, and Sustainability and Climate Policy Integration).
- The System and Sector Development team from the Innovation, Research and Development division was transferred to the Wholesale Market Development division within the Markets and Reliability business unit.
- The Settlements division within the Corporate Services business unit was transferred to Markets and Reliability alongside a new Market Readiness and Customer Experience team (facilitated through a transfer of staff resources from Corporate Relations, Engagement and Strategy) and amalgamated with the pre-existing Wholesale Market Development division alongside the System and Sector Development team to form the consolidated Market, Settlements and Sector Development division.