

2023 SUBMISSION

EB-2022-0318

ONTARIO ENERGY BOARD

IN THE MATTER OF subsection 25 (1) of the *Electricity Act, 1998*;

AND IN THE MATTER OF a submission by the Independent Electricity System Operator to the Ontario Energy Board for the review of its proposed expenditure and revenue requirements for the fiscal year 2023 and the fees it proposes to charge during the fiscal year 2023.

2023 SUBMISSION FOR REVIEW

1. The Independent Electricity System Operator (IESO) submitted its 2023-2025 Business Plan to the Minister of Energy (Minister) for approval pursuant to subsection 24 (1) of the *Electricity Act, 1998* as amended (Act) and the IESO received a letter from the Minister approving the 2023-2025 Business Plan and budget for 2023.
2. The IESO hereby submits to the Ontario Energy Board (OEB) its proposed 2023 expenditure and revenue requirements and the fees it proposes to charge in 2023 pursuant to subsection 25 (1) of the Act (2023 Revenue Requirement Submission).
3. The IESO proposes a 2023 revenue requirement of \$208.4 million.
4. The current IESO interim usage fees of \$1.3329/MWh for domestic customers and \$1.0126/MWh for export customers were made effective January 1, 2023 by a December 13, 2022 OEB Decision on Interim Fees (EB-2022-0318), and remain interim until final fees are approved by the OEB.
5. Pursuant to subsection 25 (1) of the Act, the IESO is seeking the following approvals from the OEB:
 - a. Approval of the proposed 2023 revenue requirement of \$208.4 million.

- b. Approval of the proposed IESO usage fees of \$1.3845/MWh for domestic customers and \$1.0945/MWh for export customers to be paid effective January 1, 2023.
 - c. Approval of the proposed 2023 capital expenditure envelope of \$86 million for capital projects.
 - d. Approval to retain \$15 million as an operating reserve in the Forecast Variance Deferral Account (FVDA).
 - e. Approval to rebate \$8.7 million, which is the year-end balance in the FVDA, above the requested \$15 million operating reserve, to market participants. The IESO will rebate the surplus to market participants proportionate to the fees collected in 2022. The rebates will be provided in the next billing cycle following the month in which OEB approval is received.
 - f. Approval to charge (or rebate) market participants the difference between the 2023 IESO usage fees approved by the OEB and the interim usage fees they paid, if any, based on their proportionate quantity of energy withdrawn until the end of the month in which OEB approval is received for the 2023 usage fees. Any such charges (or rebates) will be provided in the next billing cycle following the month in which OEB approval is received.
 - g. Approval to rely on and use the information provided to the IESO by Local Distribution Companies (LDCs) on the amount of embedded generation in their service territory under O. Reg. 429/04 in calculating the total usage fee to be billed to each LDC each billing period.
 - h. All necessary interim orders, orders and directions, pursuant to the *Ontario Energy Board Act, 1998* and the OEB's Rules of Practice and Procedure, as may be necessary in relation to this 2023 Revenue Requirement Submission.
6. The IESO proposes that the OEB review of the 2023 Revenue Requirement Submission proceed by way of a written hearing.

- 1 7. The IESO intends to submit its 2022 Audited Financial Statements, as well as any
2 supplementary evidence, to the OEB and all intervenors once they become available.
- 3 8. The IESO may amend its pre-filed evidence from time to time, prior to and during the
4 course of the OEB proceeding. Furthermore, the IESO may seek to have additional
5 meetings with OEB Staff and intervenors in order to identify and address any further
6 issues arising from this 2023 Revenue Requirement Submission, with a view to an early
7 settlement and disposition of this proceeding.
- 8 9. The IESO requests a copy of all documents filed with the OEB by each party to this
9 proceeding, be served on the IESO and the IESO's counsel in this proceeding as follows:

Independent Electricity System Operator	Mr. George Dimitropoulos Senior Advisor, Regulatory Affairs T: (647) 528-8654 E: regulatoryaffairs@ieso.ca
Stikeman Elliott LLP	Mr. Patrick Duffy Stikeman Elliott LLP 5300 Commerce Court West 199 Bay Street Toronto Ontario M5L 1B9 Canada T: (416) 869-5257 E: pduffy@stikeman.com

10 DATED at Toronto, Ontario, this 29th day of March 2023

11 INDEPENDENT ELECTRICITY SYSTEM OPERATOR

12 

13 By its counsel in this proceeding

14 Patrick Duffy

2024 SUBMISSION

EB-2022-0318

ONTARIO ENERGY BOARD

IN THE MATTER OF subsection 25 (1) of the *Electricity Act, 1998*;

AND IN THE MATTER OF a submission by the Independent Electricity System Operator to the Ontario Energy Board for the review of its proposed expenditure and revenue requirements for the fiscal year 2024 and the fees it proposes to charge during the fiscal year 2024.

2024 SUBMISSION FOR REVIEW

1. The Independent Electricity System Operator (IESO) submitted its 2023-2025 Business Plan to the Minister of Energy (Minister) for approval pursuant to subsection 24 (1) of the *Electricity Act, 1998* as amended (Act) and the IESO received a letter from the Minister approving the 2023-2025 Business Plan and budget for 2024.
2. The IESO hereby submits to the Ontario Energy Board (OEB) its proposed 2024 expenditure and revenue requirements and the fees it proposes to charge in 2024 pursuant to subsection 25 (1) of the Act (2024 Revenue Requirement Submission).
3. The IESO proposes a 2024 revenue requirement of \$218.4 million.
4. Pursuant to subsection 25 (1) of the Act, the IESO is seeking the following approvals from the OEB:
 - a. Approval of the proposed 2024 revenue requirement of \$218.4 million.
 - b. Approval of the proposed IESO usage fees of \$1.4203/MWh for domestic customers and \$1.2545/MWh for export customers to be paid effective January 1, 2024.
 - c. Approval of the proposed 2024 capital expenditure envelope of \$75.9 million for capital projects.

d. Approval to retain \$15 million as an operating reserve in the Forecast Variance Deferral Account (FVDA).

e. Approval to rely on and use the information provided to the IESO by Local Distribution Companies (LDCs) on the amount of embedded generation in their service territory under O. Reg. 429/04 in calculating the total usage fee to be billed to each LDC each billing period.

f. All necessary interim orders, orders and directions, pursuant to the *Ontario Energy Board Act, 1998* and the OEB's Rules of Practice and Procedure, as may be necessary in relation to this 2024 Revenue Requirement Submission.

5. The IESO proposes that the OEB review of the 2024 Revenue Requirement Submission proceed by way of a written hearing.

6. The IESO may amend its pre-filed evidence from time to time, prior to and during the course of the OEB proceeding. Furthermore, the IESO may seek to have additional meetings with OEB Staff and intervenors in order to identify and address any further issues arising from this 2024 Revenue Requirement Submission, with a view to an early settlement and disposition of this proceeding.

DATED at Toronto, Ontario, this 29th day of March 2023

INDEPENDENT ELECTRICITY SYSTEM OPERATOR



By its counsel in this proceeding

Patrick Duffy

2025 SUBMISSION

EB-2022-0318

ONTARIO ENERGY BOARD

IN THE MATTER OF subsection 25 (1) of the *Electricity Act, 1998*;

AND IN THE MATTER OF a submission by the Independent Electricity System Operator to the Ontario Energy Board for the review of its proposed expenditure and revenue requirements for the fiscal year 2025 and the fees it proposes to charge during the fiscal year 2025.

2025 SUBMISSION FOR REVIEW

1. The Independent Electricity System Operator (IESO) submitted its 2023-2025 Business Plan to the Minister of Energy (Minister) for approval pursuant to subsection 24 (1) of the *Electricity Act, 1998* as amended (Act) and the IESO received a letter from the Minister approving the 2023-2025 Business Plan and budget for 2025.
2. The IESO hereby submits to the Ontario Energy Board (OEB) its proposed 2025 expenditure and revenue requirements and the fees it proposes to charge in 2025 pursuant to subsection 25 (1) of the Act (2025 Revenue Requirement Submission).
3. The IESO proposes a 2025 revenue requirement of \$229.7 million.
4. Pursuant to subsection 25 (1) of the Act, the IESO is seeking the following approvals from the OEB:
 - a. Approval of the proposed 2025 revenue requirement of \$229.7 million.
 - b. Approval of the proposed IESO usage fees of \$1.4492/MWh for domestic customers and \$1.4398/MWh for export customers to be paid effective January 1, 2025.
 - c. Approval of the proposed 2025 capital expenditure envelope of \$58.2 million for capital projects.

d. Approval to retain \$15 million as an operating reserve in the Forecast Variance Deferral Account (FVDA).

e. Approval to rely on and use the information provided to the IESO by Local Distribution Companies (LDCs) on the amount of embedded generation in their service territory under O. Reg. 429/04 in calculating the total usage fee to be billed to each LDC each billing period.

f. All necessary interim orders, orders and directions, pursuant to the *Ontario Energy Board Act, 1998* and the OEB's Rules of Practice and Procedure, as may be necessary in relation to this 2025 Revenue Requirement Submission.

5. The IESO proposes that the OEB review of the 2025 Revenue Requirement Submission proceed by way of a written hearing.

6. The IESO may amend its pre-filed evidence from time to time, prior to and during the course of the OEB proceeding. Furthermore, the IESO may seek to have additional meetings with OEB Staff and intervenors in order to identify and address any further issues arising from this 2025 Revenue Requirement Submission, with a view to an early settlement and disposition of this proceeding.

DATED at Toronto, Ontario, this 29th day of March 2023

INDEPENDENT ELECTRICITY SYSTEM OPERATOR



By its counsel in this proceeding

Patrick Duffy

EXECUTIVE SUMMARY

Introduction

The Independent Electricity System Operator (IESO) is a not-for-profit, non-taxable corporation established pursuant to Part II of the *Electricity Act, 1998* (Act). As set out in the Act, the IESO operates pursuant to a licence (EI-2013-0066) granted by the Ontario Energy Board (OEB).

The IESO's mandate is contained in the Act and associated Ontario regulations.

The IESO ensures the reliability of the province's power system on behalf of all Ontarians, leveraging its expertise and purposeful engagement to advance energy policy that cost effectively achieves this goal. As part of its mandate, the IESO operates Ontario's electricity grid in real-time, governs electricity markets, prepares for the future to ensure electricity will be available when and where it is needed, and helps inform the decisions that will be critical to shaping the future of the sector.

The revenue requirements and capital spending to carry out the IESO's mandate are included in the IESO's 2023-2025 Business Plan (Business Plan), which was submitted to the Minister of Energy (Minister) for approval on September 1, 2022 (see Exhibit B-1-1 – IESO's Letter to the Minister Requesting Approval of 2023-2025 Business Plan, and Exhibit B-1-2 – 2023-2025 Business Plan). The Minister approved the Business Plan and the IESO's proposed revenue requirements and expenditures for 2023, 2024 and 2025 on February 15, 2023 (See Exhibit B-1-3 Minister's Letter Approving the IESO's 2023-2025 Business Plan). The 2023-2025 Business Plan is the first business plan to be approved following the establishment of a three-year approval cycle with the Minister.

Three-Year Revenue Requirement Submission

With the Minister's approval of the IESO's Business Plan, the IESO has filed its revenue requirement, expenditures and fees submission for each fiscal year covered by the Business Plan, i.e., 2023, 2024 and 2025, as part of a three-year filing to the OEB. A separate submission for each fiscal year has been filed for review by the OEB pursuant to Section 25(1) of the Act, which provides that:

1 *The IESO shall, at least 60 days before the beginning of each fiscal year, submit its*
2 *proposed expenditure and revenue requirements for the fiscal year and the fees it*
3 *proposes to charge during the fiscal year to the Board for review, but shall not do so*
4 *until after the Minister approves the IESO's proposed business plan for the fiscal year.*

5 A three-year approval cycle was supported by intervenors in the settlement agreement included
6 in the OEB's Decision on the IESO's 2022 Revenue Requirement Submission (EB-2022-0002).
7 The IESO's three-year filing lays the groundwork for increased regulatory efficiency and reduced
8 regulatory burden on the OEB and intervenors, compared to a single-year filing submitted each
9 fiscal year.

10 As part of its three-year filing, the IESO has provided historical OEB-approved data dating back
11 to 2019 to support its three-years of revenue requirements with variance explanations that
12 identify causal factors that drove material differences from approved expenditures. The
13 evidence submitted as part of the submission includes material and relevant facts pertaining to
14 operations and capital projects to facilitate the assessment of the IESO's expenditures, revenue
15 requirements and usage fees as appropriate. This also includes discussion of specific programs,
16 initiatives and results that would be helpful to the OEB and intervenors in their review of the
17 application.

18 **Revenue Requirements and Usage Fees**

19 The IESO's 2023-2025 Business Plan sets out the IESO's revenue requirements and associated
20 operations, maintenance and administration and capital spending needed to maintain its critical
21 responsibilities in 2023, 2024 and 2025 and deliver on its refreshed Corporate Strategy¹. To
22 fully prepare the sector for the future and ensure Ontarians' electricity needs are met, the IESO
23 must invest in people and systems. As a result, the IESO is proposing increases to its budget to
24 ensure it can continue to meet Ontarians' expectations of an affordable, sustainable, resilient
25 and reliable power system. To deliver on this plan, the IESO has a revenue requirement of

¹ The IESO refreshed its Corporate Strategy in 2022 as a result of the increasing pace and scope of change in the sector to ensure that the organization is well positioned to meet Ontarian's needs and expectations.

\$208.4 million in 2023, \$218.4 million in 2024, and \$229.7 million in 2025. These figures represent increases of 5.0%², 4.8%³, and 5.2%⁴ year over year.

The IESO has identified and leveraged efficiencies in several areas to mitigate impacts of its revenue requirements to Ontario ratepayers. The IESO anticipates an increase in new contracted facilities over the next three years to meet electricity system needs. Through the Reliable Integration fee, IESO expenses associated with activities undertaken to connect new facilities are offset by fees paid by the project proponent and thus impacts to Ontario ratepayers are reduced. Further development of systems to track contracts, automate contract settlements, and introduce processes for streamlining energy efficiency contract approvals have also yielded operational efficiencies. Furthermore, the IESO continues to realize efficiencies by examining its long-term office space needs.

The IESO's revenue requirements translate into the following proposed usage fees for domestic and export customers in 2023, 2024 and 2025 respectively:

- Proposed 2023 usage fees of \$1.3845/MWh for domestic customers (including embedded generation) and \$1.0945/MWh for export customers effective January 1, 2023;
- Proposed 2024 usage fees of \$1.4203/MWh for domestic customers (including embedded generation) and \$1.2545/MWh for export customers effective January 1, 2024; and,
- Proposed 2025 usage fees of \$1.4492/MWh for domestic customers (including embedded generation) and \$1.4398/MWh for export customers effective January 1, 2025.

For more information, please see Exhibit C-1-1 Revenue Requirement and Usage Fee Methodology, and Exhibit C-2-1 2023-2025 Revenue Requirements and Usage Fees.

² 2023 revenue requirement compared to 2022 actual revenue requirement

³ 2024 revenue requirement compared to 2023 revenue requirement

⁴ 2025 revenue requirement compared to 2024 revenue requirement

Operations, Maintenance and Administration (OM&A) Expenditures

The IESO's OM&A budget funds business units and initiatives that ensure the reliability of Ontario's power system through operating the electricity grid, governing electricity markets, ensuring the future availability of electricity when and where it is needed, and helping inform decisions that will be critical to shape the future of the sector.

In 2023, OM&A expenses are budgeted to increase by \$10.3 million from 2022 actual results to a total of \$197.3 million, primarily driven by incremental expenses for initiatives necessary to enable the IESO to play a critical role in driving and guiding the energy transformation.

In 2024, OM&A expenses are budgeted to increase by \$9.3 million from the 2023 budget to a total of \$206.6 million, primarily driven by the transition to post-Market Renewal Program (MRP) integration functions and services, and to ensure resource acquisition to meet system needs by 2026.

In 2025, OM&A expenses are budgeted to increase by \$5.3 million from the 2024 budget, to a total of \$211.9 million, primarily driven by actuarial projected pension and Other Post-Employment Benefits liability costs and additional investments mainly to support the transition to post-MRP (see Exhibit D-1-1 OM&A Overview, and Exhibit D-1-2 OM&A Business Unit Detail).

Staffing and Compensation

As an organization of knowledge workers, the IESO's staff are critical to carrying out the IESO's Business Plan. For 2023, the IESO has budgeted an average of 914 full-time equivalents (FTEs) to deliver on key initiatives that are critical to maintaining its core operations, to support the transformation of the electricity sector, and to support the MRP. For 2024, the IESO has a budget of an average of 926 FTEs due to additional staff required to support energy procurements and prepare for the new market functions and services resulting from the MRP. Finally, for 2025, the budget is planned to decline to an average of 900 FTEs as MRP staff conclude their temporary employments.

The IESO will continue to build a robust candidate pool to support recruitment of new employees by demonstrating IESO's reputation as an employer of choice by promoting IESO

1 awards (e.g., the IESO GTA Top Employer Award), using LinkedIn to profile employees and
2 their stories and to share job postings, workforce planning initiatives, recruiting from top
3 academic institutions, expanding partnerships with educational institutions and leveraging
4 search firms where appropriate. In 2022, the IESO's recruitment efforts resulted in an increase
5 of 25 FTEs compared to 2021, representing the highest single-year staffing increase over the
6 past three years. The IESO will continue to build on its capabilities through the actions
7 identified above as it hires new staff over the planning period as per the Business Plan.

8 The IESO continues to implement initiatives and safeguards to ensure compensation, benefits
9 and pension plans are cost effective. At the same time the IESO strives to offer a competitive
10 employee value proposition for recruitment and retention of employees with the skills and
11 competencies needed to deliver on the IESO's unique mandate.

12 Budgeted compensation expenses are based on Bill 124, a provincial law affecting wages for
13 Society and Power Worker Union employees by limiting economic salary increases over the
14 corresponding moderation periods. Bill 124 was struck down by the Ontario Superior Court of
15 Justice on November 29, 2022; however, the Ontario government filed an appeal in response
16 and Bill 124 remains in effect (See Exhibit D-1-3 Staffing and Compensation for additional
17 information).

18 **Capital Expenditures**

19 The IESO's business planning process establishes an appropriate capital envelope for capital
20 projects (See Exhibit E-1-2 – Capital Expenditure Planning Process Overview). Many of the
21 projects span multiple years, and the IESO works within the OEB-approved capital expenditure
22 envelope and prioritizes projects to support IESO's core strategies and to maintain the current
23 capabilities of the business.

24 For 2023-2025, in addition to delivering a number of core business projects which will allow the
25 IESO to maintain critical services, improve efficiency and meet regulatory compliance
26 obligations the IESO is continuing to deliver a significant number of strategic initiatives with the
27 aim of: driving business transformation (with projects such as the Replacement of Settlement
28 Systems, Data Excellence Program, Enabling Grid Transformation Program, Space Needs
29 Program, and Human Resource Workforce Planning and Analytics Project); ensuring system

1 reliability (with projects such as the Resource Adequacy Program, Enabling Resources Program,
2 and Dynamic Limits in Real-Time Project) and enabling competition and advancing sector
3 leadership through addressing Market Surveillance Panel recommendations. Through its core
4 business projects, the IESO will continue to ensure reliability by upgrading and replacing core
5 applications, infrastructure and cybersecurity tools.

6 For 2023, the IESO's capital budget is \$86 million, including \$35 million for the IESO core
7 project portfolio and \$51 million for the MRP. In 2024, the IESO's capital budget is \$75.9
8 million, including an IESO core project portfolio of \$43.6 million and an MRP budget of \$32.3
9 million. For 2025, the IESO's capital budget is \$58.2 million, made up of a core IESO capital
10 portfolio of \$43.6 million, and an MRP budget of \$14.6 million (See Exhibit E-2-1 – Capital
11 Budget Overview and Progress on Capital Projects and Exhibit E-2-1 Attachment 1 – Capital
12 Projects (Appendix 2-AA)).

13 **Market Renewal Program**

14 The MRP is modernizing Ontario's electricity markets to deliver an efficient marketplace that will
15 support the electricity grid of the future. Efficient operation of existing resources and effective
16 integration of new resource types is dependent on the foundational improvements MRP will
17 deliver – including prices that reflect costs in the different regions across the province and
18 significantly improved optimization of resource scheduling and dispatch.

19 In August 2022, the IESO's Board of Directors approved a revised project schedule which
20 included a revised in-service date of May 2025, and a forecast budget of \$233 million. The IESO
21 is confident this schedule is achievable as many of the previous uncertainties have been
22 addressed through completion of business requirements and vendor validation of timelines to
23 complete system development and testing. Further, the revised schedule provides stakeholders
24 with additional time to complete their own readiness activities. To enhance transparency on the
25 project's status, the IESO now posts a quarterly update tracking progress to the forecast
26 schedule and budget. The project is on track to meet the revised schedule.

27 Operating activities reflected in the 2023-2025 planning period include the drafting of Market
28 Rules, Market Manuals and Internal Manuals, change management activities, and training and

documentation. Capital activities reflected in the planning period include the completion of business requirements, vendor costs for the dispatch scheduling and optimization tool (See Exhibit G-2-1 – Market Renewal Program Cost Report).

Forecast Variance and Deferral Account

In the OEB's Decision (EB-2019-0002) on the IESO's 2019 Revenue Requirement Submission, the IESO received approval to retain an operating reserve of \$10 million. The balance of the operating reserve is recorded in the Forecast Variance Deferral Account (FVDA). The IESO is requesting an increase of \$5 million to retain an operating reserve of \$15 million over the three-year planning and approval period. This proposed increase recognizes the potential for additional unplanned events that may be material in scope and cost, given the scope and complexity of IESO's mandate, and the expected transformation of the sector over the 2023-2025 Business Plan. As the IESO looks forward to the 2023-2025 planning period, the IESO believes that a \$15 million FVDA balance will be a reasonable and adequate reserve against the uncertainties and impacts referred to above (See Exhibit F-1-1 – Forecast Variance Deferral Account).

2023-2025 REVENUE REQUIREMENTS AND USAGE FEES

This exhibit presents the 2023-2025 Revenue Requirements and domestic and export usage fees that were determined using the methodology outlined in Exhibit C-1-1 Revenue Requirement and Usage Fee Methodology.

2023-2025 Revenue Requirements

The IESO is requesting a 2023 revenue requirement of \$208.4 million, compared to \$201.5 million in 2022. In 2024 and 2025, the IESO is requesting a revenue requirement of \$218.4 million and \$229.7 million, respectively. The IESO's revenue requirements will allow the IESO to invest in the people, tools and processes that underpin the reliable and cost-effective provision of electricity in the province and will ensure that Ontarians' expectations of an efficient and resilient electricity system continue to be met. The IESO's revenue requirements are provided in Table 1 below, and are further described in Exhibit B-1-2 2023-2025 Business Plan, Exhibit D-1-1 OM&A Overview and Exhibit D-1-2 Business Unit Detail, and attachments.

Table 1: IESO's Revenue Requirements (\$ millions)

	2019 OEB Approved	2020 OEB Approved	2021 OEB Approved	2022 OEB Approved	2023 Budget	2024 Budget	2025 Budget
Revenue Requirement	190.8	188.6	191.8	201.5	208.4	218.4	229.7

The IESO has identified and leveraged efficiencies in several areas to mitigate impacts of its revenue requirements to Ontario ratepayers. The IESO anticipates an increase in new contracted facilities over the next three years to meet electricity system needs. Through the Reliable Integration fee, IESO expenses associated with activities undertaken to connect new facilities are offset by fees paid by the project proponent and thus impacts to Ontario ratepayers are reduced (see Exhibit C-3-1 Funding Sources for more details). Further development of systems to track contracts, automate contract settlements, and introduce processes for streamlining energy efficiency contract approvals have also yielded operational efficiencies. Furthermore, the IESO continues to realize efficiencies by examining its long-term office space needs.

Revenue Requirement Risks

The IESO's revenue requirements (and thus its revenues and operating expenses) are forecast based on the best information available when the Business Plan is developed and the experience of IESO staff. The IESO's revenue requirements include risks associated with forecast uncertainty (e.g., exchange rate, interest rates, change in total demand, etc.) and the IESO strives to reduce uncertainty in the inputs to make the resulting Business Plan as robust as possible. As the Business Plan is developed, some of the potential risks to the IESO may be anticipated but not quantifiable, while others are simply not known.

Along with the risks to the revenue requirement noted above, the IESO also faces several key strategic and operational risks in achieving the organization's strategic objectives. For a list of these key risks, see Appendix 2 of Exhibit B-1-2 2023-2025 Business Plan.

Charge Determinants Used to Calculate the Usage Fees

The charge determinants used to calculate domestic usage fees are the most recent forecast of withdrawals in 2023, 2024 and 2025 for use in Ontario, less estimated losses, plus generation embedded in local distribution networks. These values are shown in Exhibit C-2-1 Attachment 1 – Actual Load and Forecast Volumes.

Allocation of Line Losses to Domestic and Export Customer Classes

In Tables 2-4 below, the IESO presents the line losses allocated to the domestic and export customer classes in 2023, 2024 and 2025 based on their proportion of the total forecast energy withdrawals respectively. Energy from embedded generation is not transmitted through the IESO-Controlled Grid and, as such, does not yield transmission losses. For this reason, energy from embedded generation is not factored into the allocation of line losses to domestic customers.

Table 2: Forecast of 2023 Losses per Customer Class

Customer Class	Demand, not including losses (TWh)	Total energy volume, not including losses (TWh)	Proportion of total energy volume, not including losses	Total losses (TWh)	Resulting associated losses (TWh)
Domestic	135.8	149.1	91%	3.0	2.7
Export	13.3		9%		0.3

Total 2023 transmission losses are forecast to be 3.0 TWh. Domestic customers are allocated 91% of these losses, which amounts to 2.7 TWh, and export customers are allocated 9%, which amounts to 0.3 TWh.

Table 3: Forecast of 2024 Losses per Customer Class

Customer Class	Demand, not including losses (TWh)	Total energy volume, not including losses (TWh)	Proportion of total energy volume, not including losses	Total losses (TWh)	Resulting associated losses (TWh)
Domestic	140.1	150.3	93%	3.1	2.9
Export	10.2		7%		0.2

Total 2024 transmission losses are forecast to be 3.1 TWh. Domestic customers are allocated 93% of these losses, which amounts to 2.9 TWh, and export customers are allocated 7%, which amounts to 0.2 TWh.

1 **Table 4: Forecast of 2025 Losses per Customer Class**

Customer Class	Demand, not including losses (TWh)	Total energy volume, not including losses (TWh)	Proportion of total energy volume, not including losses	Total losses (TWh)	Resulting associated losses (TWh)
Domestic	145.4	154	94%	3.2	3.0
Export	8.6		6%		0.2

2

3 Total 2025 transmission losses are forecast to be 3.2 TWh. Domestic customers are allocated
4 94% of these losses, which amounts to 3.0 TWh, and export customers are allocated 6%,
5 which amounts to 0.2 TWh.

6 **Allocation of Energy Volumes to Domestic and Export Customer Classes**

7 In Tables 5-7 below, the IESO presents the energy volumes allocated to the domestic and
8 export customer classes in 2023, 2024 and 2025, respectively, factoring in embedded
9 generation and allocated line losses as appropriate.

Table 5: Calculation of Associated Energy Volumes for 2023 Usage Fees

	Domestic (TWh)	Export (TWh)
Demand forecast	135.8	13.3
Embedded generation	7.0	
Domestic transmission losses	-2.7	
Exports transmission losses		-0.3
Energy Volumes	140.1	13
Total Energy Volume	153.2¹	

Table 6: Calculation of Associated Energy Volumes for 2024 Usage Fees

	Domestic (TWh)	Export (TWh)
Demand forecast	140.1	10.2
Embedded generation	7.7	
Domestic transmission losses	-2.9	
Exports transmission losses		-0.2
Energy Volumes	144.9	10
Total Energy Volume	154.9	

Table 7: Calculation of Associated Energy Volumes for 2025 Usage Fees

	Domestic (TWh)	Export (TWh)
Demand forecast	145.4	8.6
Embedded generation	7.7	
Domestic transmission losses	-3.0	
Exports transmission losses		-0.2
Energy Volumes	150.1	8.4
Total Energy Volume	158.6	

¹ All total energy volumes are rounded to the nearest tenth decimal place.

Usage Fees

The domestic and export usage fees for 2023, 2024 and 2025, respectively, are presented in Tables 8-10 below. These usage fees were calculated for the IESO by Elenchus Research Associates Inc. (Elenchus) using a model that allocates costs in the Business Plan between the domestic and export customer classes and uses the charge determinants described in the previous sections. See also Exhibit C-1-1 Revenue Requirement and Usage Fee Methodology for additional details on the Elenchus model.

Table 8: 2023 IESO Domestic and Export Usage Fees as Calculated by Elenchus

	Usage Fee
Domestic	\$1.3845/MWh
Export	\$1.0945/MWh

Table 9: 2024 IESO Domestic and Export Usage Fees as Calculated by Elenchus

	Usage Fee
Domestic	\$1.4203/MWh
Export	\$1.2545/MWh

Table 10: 2025 IESO Domestic and Export Usage Fees as Calculated by Elenchus

	Usage Fee
Domestic	\$1.4492/MWh
Export	\$1.4398/MWh

Implementation of the 2023 Usage Fees

On December 5, 2022, the IESO filed a letter with the OEB to request that the IESO's 2022 usage fees be made interim from January 1, 2023, until the end of the month in which the IESO receives OEB approval of its 2023 usage fees. On December 13, 2022, the IESO received OEB approval that the 2022 usage fees will be in effect as interim fees until final 2023 usage fees are approved by the OEB.

1 The IESO requests approval of a domestic usage fee of \$1.3845/MWh and export usage fee of
2 \$1.0945/MWh to be paid commencing January 1, 2023. Once OEB has approved the IESO's
3 2023 usage fees, the IESO proposes to charge (or rebate) market participants the difference
4 between the 2023 IESO usage fees approved by the OEB and the interim usage fees they paid
5 on the approved effective date, if any, based on their proportionate quantity of energy
6 withdrawn until the end of the month in which OEB approval is received for the 2023 usage
7 fees. Any such charges (or rebates) will be provided in the next billing cycle following the
8 month in which OEB approval is received.