



SEPTEMBER 15, 2026

Technical Panel Education: Adjustments to the Intertie Offer Guarantee (IOG)

Independent Electricity System Operator (IESO)

Agenda

- Background
- Intertie Offer Guarantee (IOG) Overview
- Changes:
 - Conditional IOG based on System Adequacy Needs
 - Real-Time Energy Lost Cost Make-Whole Payment (MWP) Eligibility
 - Intertie Congestion Methodology
- Next Steps and Feedback

Background

- The Intertie Offer Guarantee (IOG) was introduced in 2002 to ensure importers receive at least their offer price if real-time prices fall below that level, supporting continued participation and reliable supply
- In the renewed market, import transactions can be settled on day-ahead prices. Importers continue to be eligible for an IOG in real-time
- The IOG shields importers from PD-1 to real-time price risk and is recovered through ratepayer uplift
- In September 2024, the MSP recommended that the IESO review the benefits and costs of continuing the real time IOG after MRP was deployed, and provide a recommendation on whether they should be maintained, modified, or discontinued
- The IESO regularly reviews market outcomes including IOG payment trends, and in conjunction with the MSP recommendations, committed to reviewing the effectiveness of the IOG payment framework

Overview of the Intertie Offer Guarantee

- Imports scheduled in Pre-Dispatch (scheduled after the Day-Ahead Market or DAM) become binding one hour before RT (PD-1) and are settled at the RT price
- The IOG ensures that these incremental import transactions scheduled post-DAM may be compensated for their as-offered costs if the RT price drops below their offer
- The IOG is uniquely provided to imports given the intended reliability benefit
 - Like imports, export transactions are also fixed at PD-1, but are not eligible for IOGs as they do not contribute to ensuring adequate supply into Ontario, a key principle behind the current IOG design (MM 5.5)

Is the IOG meeting its intended purpose?

Purpose of IOG:

- To ensure an adequate supply of energy into Ontario and reduce price risk, energy traders participating with a boundary entity resource may be eligible to receive a single real-time intertie offer guarantee payment (RT_IOG)
 - Market Manual 5.5, section 2.18

Current IOG Payment Scenarios

Today all of these are paid under an IOG

SCENARIO 1: IOG

Price Risk and Ensuring
Adequate Supply

The import has been
scheduled economically
in PD, and the RT LMP
drops below the PD
offer

SCENARIO 2: Lost Cost MWP

Manual out-of-
market actions
taken for reliability

Scheduling
pass/pricing pass
differences

Import has been scheduled
uneconomically in PD resulting in a **lost
cost** for the import transaction

Does Scenario 1 meet the Purpose of an IOG?

Price Risk and
Ensuring Adequate
Supply

For IOG payments that occur under Scenario 1:

The majority of payments occurred in the absence of an adequacy need, suggesting that the corresponding IOG payments did not result in an incremental reliability benefit

Solution:

Implement a conditional IOG, under which imports are eligible for an IOG only when there is an inadequate level of supply in Ontario*

*Examples are found in the Appendix.

Scenario 1: Rationale for Change

Price Risk and
Ensuring Adequate
Supply

The IOG is intended to ensure an adequate supply of energy into Ontario and reduce an importers' price risk

- The current IOG compensates importers even when they aren't serving a significant adequacy benefit in real-time
- Imports should be supported when they provide reliability and adequacy benefits, but ratepayers should not pay a premium to insulate import transactions against market price movements outside of system adequacy events

Scenario 1 Solution: Conditional IOG

Implement a conditional IOG, under which imports are eligible for an IOG only when there is an inadequate level of supply in Ontario

Conditions:

1. Declaration of a Conservative Operating State or Emergency Operating State; and/or
2. Issuance of an Energy Emergency Alert (EEA) Levels 1, 2, or 3

These conditions are based on the Energy Operating State Control Actions (EOSCA) list in MM 7.1

*During all other instances imports will **only** be eligible for LC MWP*

Does Scenario 2 meet the Purpose of an IOG?

Manual out-of-market actions taken for reliability	Scheduling pass/pricing pass differences
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For IOG payments that occur under Scenario 2:

These payments do not meet the purpose of an IOG, but do meet the purpose of a Lost Cost MWP (MM 5.5 section 2.7)

Solution:

Enable Import transactions to be eligible for RT ELC MWP and no longer receive an IOG



Scenario 2: Real-Time Energy Lost Cost (ELC) MWP Eligibility for Imports

Scenario 2: Rationale for Change

Manual out-of-market actions taken for reliability	Scheduling pass/pricing pass differences
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- All other market participants receive a RT ELC MWP under these same conditions
- Applying RT ELC MWP to imports ensures consistent and transparent compensation across resources

Scenario 2 Solution: ELC MWP Eligibility for Imports

Import transactions to be eligible for RT ELC MWP

Scenario	Uneconomic Schedule Reason	Current Charge Type	Future Charge Type
An import transaction is scheduled uneconomically in PD, causing an implied lost cost	Manual action taken for reliability	1927 (IOG)	1900 (ELC MWP)
	Scheduling Pass to Pricing Pass differences		

Example 1: IOG vs ELC Payments

Offer Price	Offer Quantity
\$150	100MW

PD LMP	RT LMP
\$20	\$100

RT Schedule	LC EOP
100MW	0MW

Manual MIN constraint

Economic schedule based on PD LMP



IOG Calculation – **Current**

$$\begin{aligned}
 &= -1 \times (\text{RT Operating Profit}) \\
 &= -1 \times ((100 - 150) \times 100) \\
 &= -1 \times (-5,000) \\
 &= \$5,000
 \end{aligned}$$

Net profit/loss after IOG= \$0

ELC Calculation – **Future**

$$\begin{aligned}
 &= -1 \times (\text{RT Operating Profit}) - (\text{EOP Operating Profit}) \\
 &= -1 \times [((100 - 150) \times 100) - ((100 - 150) \times 0)] \\
 &= -1 \times (-5,000) \\
 &= \$5,000
 \end{aligned}$$

Net profit/loss after ELC= \$0

Example 2: System Adequacy with ELC MWP & IOG in the same interval

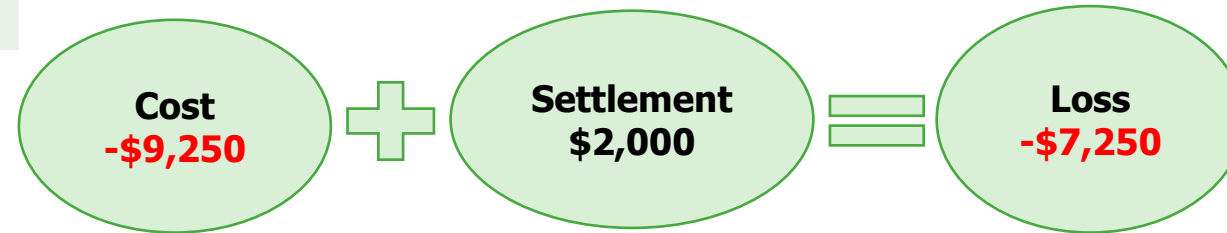
EEA/COS Declared - Imports are IOG eligible

Offer Price	Offer Quantity
\$35	50MW
\$150	100MW

PD LMP	RT LMP
\$50	\$20

Manual MIN Constraint

RT Schedule	LC EOP
100MW	50MW



Economic schedule based on PD LMP

IOG Calculation

$$\begin{aligned}
 &= -1 \times ((20 - 35) \times 50) \\
 &= -1 \times (-750) \\
 &= \$750
 \end{aligned}$$

IOG will only cover the losses on the first 50 MW that were economically scheduled in PD

ELC Calculation

$$\begin{aligned}
 &= -1 \times \{ [((20 - 35) \times 50) + ((20 - 150) \times 50)] - ((20 - 35) \times 50) \} \\
 &= -1 \times (-7250) - (-750) \\
 &= \$6500
 \end{aligned}$$

ELC will cover the losses on the remaining 50 MW that were manually constrained on in PD

Net profit/loss after ELC & IOG= \$0

Example 3: Normal Conditions with ELC MWP & No IOG

Normal day - Imports are IOG ineligible

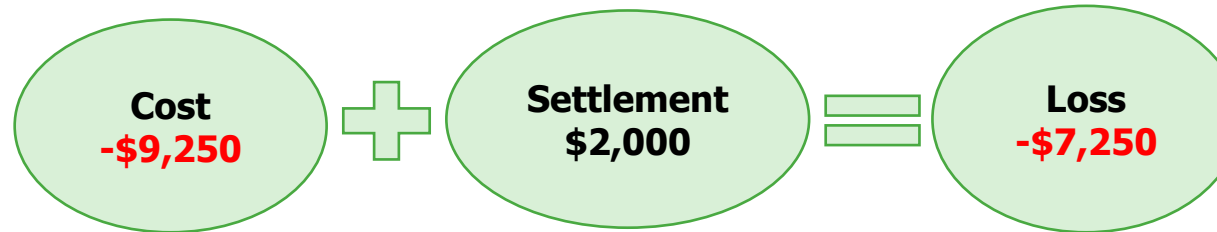
Offer Price	Offer Quantity
\$35	50MW
\$150	100MW

PD LMP	RT LMP
\$50	\$20

RT Schedule	LC EOP
100MW	50MW

Manual MIN Constraint

Economic schedule based
on PD LMP



ELC Calculation

$$\begin{aligned} &= -1 \times \{ [((20 - 35) \times 50) + ((20 - 150) \times 50)] - \\ &\quad ((20 - 35) \times 50) \} \\ &= -1 \times (-7250) - (-750) \\ &= \$6500 \end{aligned}$$

Net profit/loss after ELC = ~~-\$750~~

Imports are only eligible for coverage on the losses incurred from the manual action. ELC will not cover price risk



Update Intertie Congestion Methodology

Current Intertie Congestion Methodology

IBP = Intertie Border Price
ICP = Intertie Congestion Price
LMP = Locational Marginal Price

- There are 3 different congestion methodologies used to calculate the Intertie settlement price (Import, Export, and No congestion)
- The import-congestion methodology for energy and OR is dynamic as shown below
- Rationale for current methodology: Imports are sheltered from the downside risk with the IOG. Enabling the ability to also capture the upside benefits of congestion pricing creates an unfair advantage

Intertie Settlement Price Logic

Current Methodology	Import Congestion	Export Congestion	No Congestion
	Min (PD-1 LMP, RT IBP)	RT IBP + PD ICP	RT IBP

Rationale for Changing Intertie Congestion Methodology

- Restores balanced risk-reward incentives for imports when ineligible for IOG
- By removing the downside risk coverage through IOG (conditionally), it is fair to revise the import congestion methodology to enable imports to capture the upsides of the RT LMP
- Price signals in the RTM should provide clear incentives for resources to adjust output

Solution: Update Intertie Congestion Methodology

Enable imports to capture upside of the RT LMP

Intertie Settlement Price Logic

Current Dynamic Method	Import Congestion	Export Congestion	No Congestion
	Min (PD-1 LMP, RT IBP)	RT IBP + PD ICP	RT IBP
Future Static Method	RT IBP + PD ICP		

IBP = Intertie Border Price
ICP = Intertie Congestion Price
LMP = Locational Marginal Price

Example: Import Congestion Methodology

Same for both current and future

Offer Price	Offer Quantity	RT Schedule
\$35	50MW	50MW

Import Congestion in PD-1

PD LMP	RT IBP
PD IBP + PD ICP = PD LMP \$100+ (-\$25) = \$75	\$200

Current Methodology (Import Congestion)

RT ISP (RT LMP)
MIN (PD LMP, RT IBP) \$75

$$\begin{array}{c} \text{Cost} \\ -\$1,750 \end{array} + \begin{array}{c} \text{Settlement} \\ \$3,750 \end{array} = \begin{array}{c} \text{Gain} \\ \$2,000 \end{array}$$

Import Congestion in PD-1

PD LMP	RT IBP
PD IBP + PD ICP = PD LMP \$100+ (-\$25) = \$75	\$200

Future Methodology (Import/Export/No Congestion)

RT ISP (RT LMP)
RT IBP + PD ICP \$175

$$\begin{array}{c} \text{Cost} \\ -\$1,750 \end{array} + \begin{array}{c} \text{Settlement} \\ \$8,750 \end{array} = \begin{array}{c} \text{Gain} \\ \$7,000 \end{array}$$

With the future congestion methodology this Import transaction will gain **\$5,000** more from the RT settlement compared to the current methodology



Next Steps and Feedback

Summary of Changes

Description	Market Rule Change	Market Manual Change
Conditional IOG based on System Adequacy Needs	Chapter 9 Section 3.6	Charge Types & Equations CT 1900 & 1927 Market Manual 5.5 Market Manual 4.3 Market Manual 7.1
Real-Time Energy LC MWP Eligibility	Chapter 9 Section 3.5.4 & 3.5.8	
Update Intertie Congestion Methodology	Chapter 7 Appendix Section 11.3.2 & 11.4.2	

Summary of Stakeholder Feedback – August 18

- The IESO held a public engagement session on August 18th to introduce the initiative and rationale for adjustments. Feedback at the session included the following:
 - Requests for additional details on the impact assessment.
 - Requests for further information on the timing and visibility of IOG eligibility notifications.
 - Feedback that the proposed implementation timeline is too short.
- Stakeholders were given until September 4th to submit written comments on the August 18th presentation.

Next Steps

Timing	Engagement Activity
August 18, 2026	Public Engagement Session #1 • Introduce the initiative and adjustments
September 4, 2026	Deadline for External Feedback (written)
September 15, 2026	Technical Panel - Education
September 16, 2026	Public Engagement Session #2 and response to Feedback • Present red-lined draft market rule amendments
October 13, 2026	Technical Panel – Vote to Post for broader sector feedback
November 10, 2026	Technical Panel – Vote to Recommend to IESO Board
January 2027	Target Implementation



Thank You

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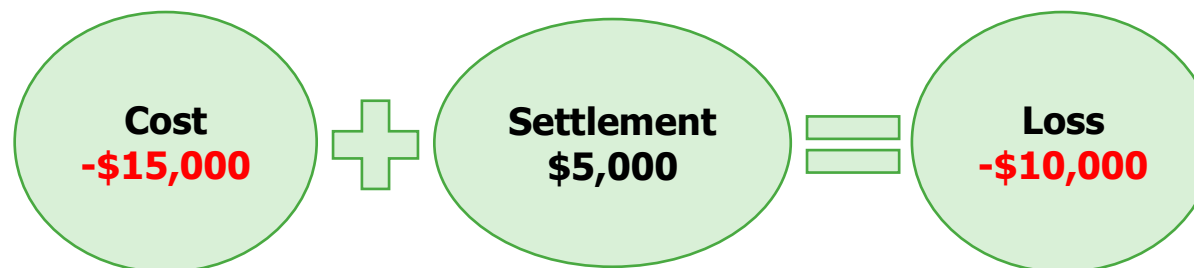
linkedin.com/company/IESO

Appendix

Example 1: IOG Current* Method

*Currently IOG is paid regardless of an adequacy need being present in RT

Offer Price	Offer Quantity	PD LMP	RT LMP	RT Schedule
\$150	100MW	\$200	\$50	100MW



IOG Calculation

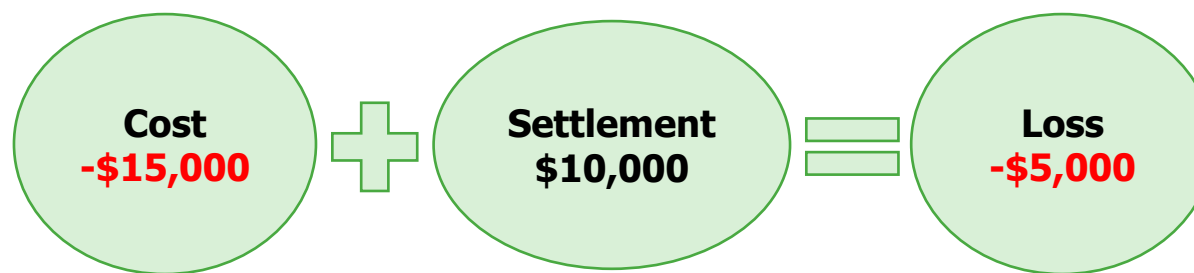
$$\begin{aligned} &= -1 \times (\text{RT Operating Profit}) \\ &= -1 \times ((50 - 150) \times 100) \\ &= -1 \times (-10,000) \\ &= \$10,000 \end{aligned}$$

Net profit/loss after IOG= \$0

With the LMP dropping as low as it has in this example it is sending the signal that there is not a need for this Import. Currently the IOG does not account for this and will pay the premium every time.

Example 2: IOG Future Method - Conditional

Offer Price	Offer Quantity	PD LMP	RT LMP	RT Schedule
\$150	100MW	\$200	\$100	100MW



Normal day no Adequacy need - Imports are IOG ineligible

No IOG will be calculated

Net profit/loss after IOG= -\$5,000

In the absence of a system adequacy need, importers assume the RT price risk associated with their transactions. Those wishing to avoid this exposure can secure their position through participation in the Day-Ahead Market

System Adequacy Need Declared - Imports are IOG eligible

IOG Calculation

$$\begin{aligned}
 &= -1 \times ((100 - 150) \times 100) \\
 &= -1 \times (-5,000) \\
 &= \$5,000
 \end{aligned}$$

Net profit/loss after IOG= \$0