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Technical Panel Education: Changes to the Establishment and Publication of Market Parameters

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Why We Are Here

In September 2025, the IESO proposed to remove a legacy requirement that the IESO Board directly set certain technical parameters used in the calculation engines.

On June 18, 2026, the IESO presented a revised proposal to address initial stakeholder feedback regarding a perceived loss of governance and IESO Board oversight.

Following the June engagement stakeholders provided further feedback and the IESO is in the process of developing its response.

The revised proposal hardcodes the values for the maximum market clearing price, maximum operating reserve price, settlement floor price, and floor prices for variable generation and flexible nuclear generation in the market rules; constraint violation penalties (CVP) will remain in the market manual and not require IESO Board approval.

What We Heard from Stakeholders – Sept 2025

Summary of Views Expressed by Participants:

- Technical expertise is not a prerequisite for effective governance - oversight, transparency and accountability are;
- Stakeholder engagement cannot replace governance, especially for parameters that materially impact market outcomes, settlements, and operational tools like the dispatch and scheduling optimizer (DSO);
- Concern that stakeholder comments could be ignored if oversight and governance is removed;
- Recommendation that the IESO's Technical Panel/market rule amendment process be used to revise and approve market parameters; provides a defined, transparent and accountable process for all stakeholders.

What We Heard from Stakeholders – July 2026

Summary of Views Expressed by Participants:

- Support for moving foundational market parameters into the Market Rules to enhance transparency, governance, and oversight of future changes.
- Recommendation to apply the same governance approach to Constraint Violation Penalties (CVPs).
- Request for greater clarity on parameter classification, governance rationale, and how future changes would be reviewed, approved, and communicated.

The feedback from OPG and the Ontario Rivers Alliance is available on the engagement webpage. The IESO's response will be posted on the webpage prior to the Technical Panel's vote to post.

Proposal – Foundational Parameters

The IESO's proposed alternative solution is to specify the values of the following foundational market parameters within the market rules:

- Maximum market clearing price (MMCP): $2,000/MWh;

- Maximum operating reserve price (MORP): $2,000/MWh;

- Settlement floor price: -$100/MWh; and

- Floor prices for variable generation: -$3/MWh and -$15/MWh and flexible nuclear generation: -$5/MWh.

Proposal – Foundational Parameters (cont'd)

- With these market parameters hardcoded within the market rules, any changes to such parameters will flow through the following change processes as a market rule amendment:
  - Stakeholder Engagement;
  - Technical Panel; and
  - IESO Board approval.

Constraint Violation Penalties – Proposal

Future changes to CVPs will be determined by IESO management and maintained in the market manuals.

Moving forward CVPs will not be set by the IESO Board.

CVPs are operational parameters designed to manage the risk to system reliability and market outcomes, distinct from the foundational parameters. They are most appropriately established and maintained by IESO management through the market manuals.

Any changes to CVPs will follow the established market manual change process (via the IESO's Baseline Management process).

This approach provides transparency for any future changes while enabling timely updates to parameters that guide real-time operational decision-making and reliability prioritization.

Background - Constraint Violation Penalties

- Constraint violation penalties are required to manage the risk to system reliability.
- Situations can occur where the calculation engine is unable to determine a schedule that meets demand while respecting all required system and resource constraints. When this occurs, the calculation engine will violate a constraint(s) to find a solution.
- In today's market, each system constraint has an associated "constraint violation penalty" (CVP) price associated with violating that constraint - MM 4.3 App.A.
- The ordering of CVP prices from lower to higher signals the sequence in which the IESO will violate system constraints, and sets a clear priority of constraint violations, based on their relative impact to system reliability.

CVP Background Materials Available Here:

Constraint Violation Penalties - November 2019 - MRP Education

Single Schedule Market High Level Design

Proposed Market Rule Amendments

Chapter 7

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1.6 IESO Authorities and Obligations Regarding the Operation of the IESO-Administered Markets

1.6.1 The following parameters of the *day-ahead market calculation engine*, *pre-dispatch calculation engine* and *real-time calculation engine* shall be as specified from time to time by the *IESO ~~Board~~*:

1.6.1.1 the *maximum market clearing price* shall be $2,000/MWh;

1.6.1.2 the *maximum operating reserve price* shall be $2,000/MWh;

1.6.1.3 the constraint violation penalties as specified in the applicable *market manual*; and

1.6.1.4 the *settlement floor price* for *energy* shall be -$100/MWh.

1.6.2 The *IESO ~~Board~~* shall establish floor prices of -$3/MWh and -$15/MWh for *energy offers* from a *registered market participant* associated with a *variable generation resource* and a floor price of -$5/MWh for *energy offers* from a *generation resource* that has a component classified as *flexible nuclear generation*, in accordance with the applicable *market manual*.

Next Steps

- July 2026 – IESO response to stakeholder feedback received from the June 18, 2026 stakeholder engagement.
- September 15, 2026 – TP vote to post.
- October 13, 2026 – TP vote to recommend.
- December 10, 2026 – IESO Board consideration of rule amendments.
- March 2027 – Effective date aligned with Baseline 57.0 publication

Appendix

Applicable Market Manual Content

Market Manual 4.3: Operation of the Real-Time Market

- Appendix A: Constraint Violation Penalty Curves
- Appendix C: Settlement Floor Price

Market Manual 4.1: Submitting Dispatch Data in the Physical Markets

- Section 2.1.1.1: Resource Specific Requirements (Offer Floors – Variable Generation and Flexible Nuclear)

Please note that the IESO is not proposing any changes to the market manuals as part of the market rule amendment.

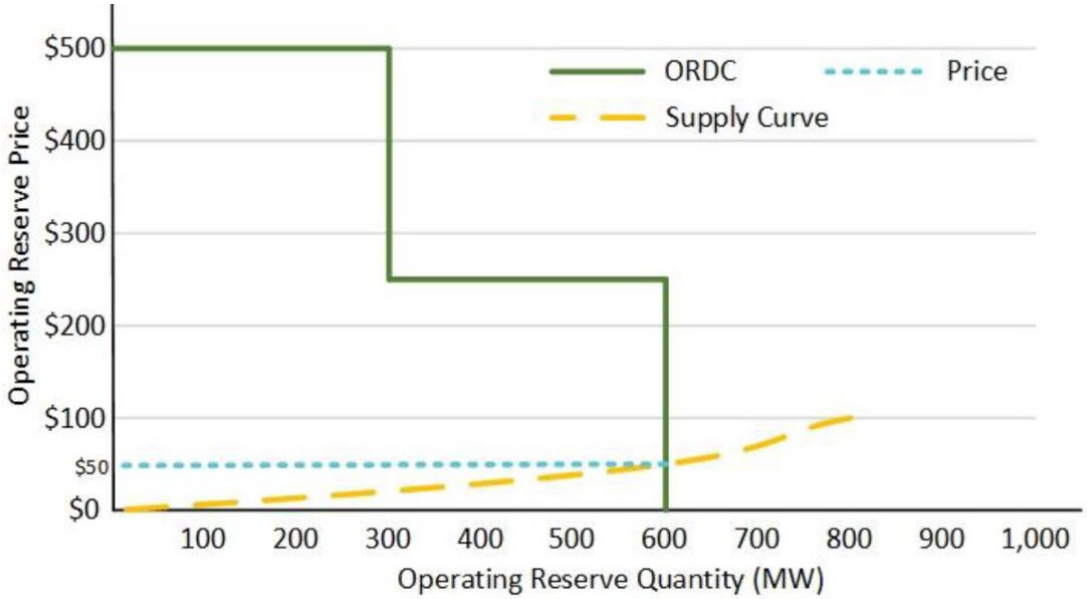
Constraint Violation Penalties – Scheduling Algorithm

Penalty Curve Name	Penalty Price	Description
OR – System Wide – Total 30-min & Flexibility	$6,000/MW	Considers all energy and OR offers/bids before violating the 30-minute requirement.
OR – System Wide – Total 10-min	$10,000/MW	30-minute requirement is violated before the total 10-minute OR.
OR – System Wide – 10-min Synchronized	$12,000/MW	Priced to ensure that it is given priority over the total 10-minute OR.
OR – Area (Max & Min Values)	Max: $60,000/MW Min: $4,000/MW	Prevents transmission constraint violations (max) & supports minimum area reserve requirement (min).
Energy Balance (Under & Over Generation Values)	Under: $30,000/MWh Over: (-$30,000)/MWh	Maintains balance by addressing under and over-generation violations.
Transmission Security	$60,000/MW	Applies to all transmission security limit violations.
NISL	$35,000/MW	Applies to all net interchange scheduling limit violations.
Cascade Hydro	$37,000/MWh	Applies to all hydro constraint violations. Resolves conflicts between upstream and downstream hydro constraints.
Intertie	$40,000/MWh	Applies to all intertie limit violations.
Daily Energy Limits	$100,000/MWh	Applies to all daily energy limit violations.

Example: Constraint Violation Penalties in Practice

Operating Reserve Demand Curve (ORDC) Example

Scenario 1: Calculation engine is **able to** determine a schedule that meets requirements while respecting all system and resource constraints.



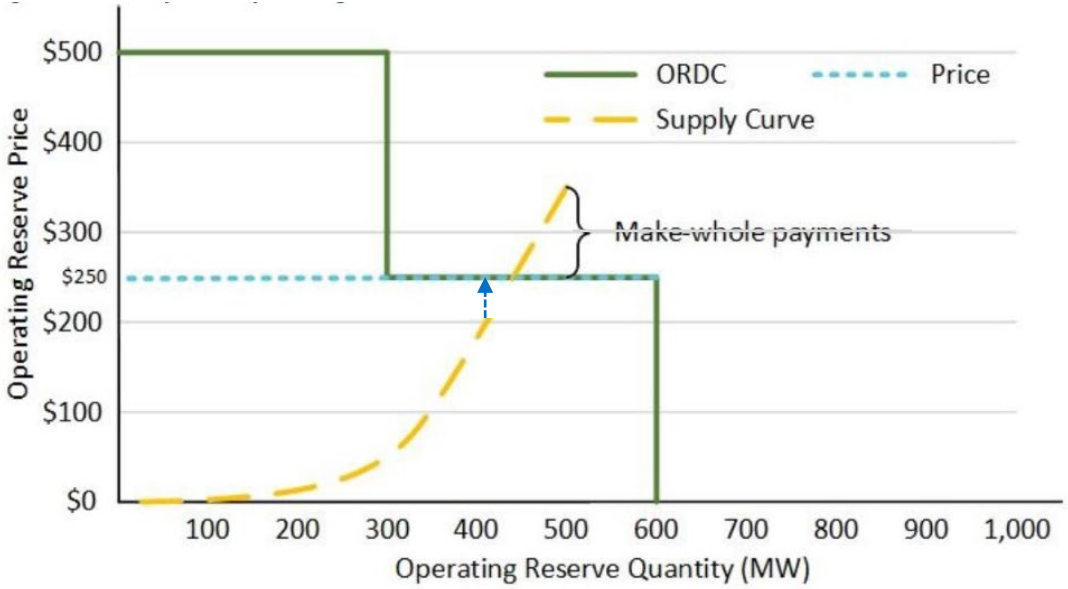
Note:

- The Ontario market requires 600MW of Operating Reserve capacity
- From 0 to 300MWs the market would be willing to set a price of up to $500/MW to signal that there is a significant shortfall of Operating Reserve capacity
- When the shortfall is less, from 301 to 600MWs, the maximum price signal is reduced to $250/MW
- In this example, there is more than enough offers to meet the required quantity at a price below the Operating Reserve Demand Curve
- Therefore, the requirement is met and the **price is set by the marginal offer; approximately $50/MW**

Example: Constraint Violation Penalties in Practice (cont'd)

Operating Reserve Demand Curve (ORDC) Example

Scenario 2: Calculation engine is **unable to** determine a schedule that meets the reserve requirement while respecting all required system and resource constraints due to a supply shortfall.



Note:

- There are only 400MWs of Operating Reserve offers
- The 600MW requirement would not be met and the **price would be set by the Operating Reserve Demand Curve at $250/MW** to send the desired price signal to the market