



Transition to the Renewed Market

JUNE 4, 2025

Welcome and Introduction

- Today's session will be recorded and available for viewing online
- The recording and presentation for this engagement can be found on the [Renewed Market Operations page](#)

Participation

- For questions and comments click on the “raise hand” icon (hand symbol) at the top of the application window. This will indicate to the host you would like to speak.
- To unmute audio, click on the microphone icon at the top of the application window.
- Audio should be muted when not asking a question.

Territory Acknowledgement


The IESO acknowledges the land we are delivering today's webinar from is the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat peoples and is now home to many diverse First Nations, Inuit and Métis peoples. We also acknowledge that Toronto is covered by Treaty 13 with the Mississaugas of the Credit First Nation.

As we have attendees from across Ontario, the IESO would also like to acknowledge all of the traditional territories across the province, which includes those of the Algonquin, Anishnawbe, Cree, Oji-Cree, Huron-Wendat, Haudenosaunee and Métis peoples.

Agenda

Today's engagement will cover the following topics:

- Recap on key changes introduced in the renewed market
- Update on the transition to Ontario's renewed market
- Initial observations on market performance
- Walkthrough of Market Data displays on IESO.ca



Key Changes to Ontario's Wholesale Electricity Markets

Renewed Market – Key Features

Day-Ahead Market (DAM)

- New market commits resources the day before real-time through financially binding schedules, increasing operational and price certainty

Enhanced Unit Commitment

- Enhancements to resource scheduling process (occurs 3-27 hours before operation) to ensure optimal mix of resources are scheduled to deliver reliability at lowest cost

Locational Pricing

- Locational pricing ensures the cost of energy at all pricing points on the grid transparently reflects the costs of energy, losses and congestion
- Locational marginal prices replace uniform five-minute prices for dispatchable resources and are the basis of the new Ontario Electricity Market Price for non-dispatchable consumers

These new features are working together to lower costs to consumers and are essential to creating the platform needed to efficiently integrate emerging resource types such as DERs, storage, and hybrids

Renewed Market Prices and Settlement

- The renewed market has introduced locational pricing as the basis of settlement. These prices consider the cost of energy as well as the cost of congestion and of losses. Locational prices are used to settle suppliers and market-active loads (e.g., dispatchable loads and price-responsive loads).
- Those on the local price are billed for energy scheduled in the Day-ahead Market at the day-ahead price, and the balance of actual energy produced/consumed at the real-time price.
- Wholesale consumers can choose to pay the locational price or the uniform, province-wide Ontario Electricity Market Price, which replaced the Hourly Ontario Energy Price. The Ontario Electricity Market Price is a blend of day-ahead and real-time costs and is charged for a load's real-time consumption.

*More information on settlements and pricing can be found in the appendix

Renewed Market Pricing

The price Ontario consumers, suppliers and other types of market participants are settled on is dependent on how they participate and who they are billed by.

Participant Type	Applicable Renewed Market Price
IESO billed consumers	Choose between Ontario Price or local price (can pay LMP if registered as a Dispatchable Load or Price Responsive Load)
LDC billed consumers not on RPP	Ontario Price
IESO billed suppliers	Local price
LDC billed suppliers	Ontario price
Intertie Traders	LMP at the intertie
Transmission Rights Auction	Day-ahead external congestion price
Virtual Traders	Zonal price



Transition to the Renewed Market

Summary of the Renewed Market Launch 1/4

- The transition to Ontario's renewed electricity market started April 30 and completed on May 8 as per the planned schedule.
- The first run of the Day-ahead Market calculation engine was successful on May 2 providing results for the May 3 trade date.
- Authorization of Virtual Trading requests experienced delays initially due to issues in the registration workflow; these were resolved as of May 13.
- First renewed market settlement statements issued on time on May 15 and only a small number of disagreements have been filed by participants to date, indicating no identified widespread errors.

Summary of the Renewed Market Launch 2/4

- Overall feedback was that the transition was very smooth.
- IESO.ca was updated May 4 and new Market Data page launched with dynamic views showing how the Day-ahead and Real-time markets are working together.
- Communication channels were effective in coordinating action with market participants and keeping the broader sector informed of the overall status.
- IESO support teams were able to manage double the normal volume of inquiries over the transition period while responding quickly to urgent issues.
- On-demand training was available to support Market Participants as needed.

Summary of the Renewed Market Launch 3/4

- A small number of new defects were identified during the launch and all were quickly addressed through workarounds and tool fixes.
 - A majority of defects were addressed prior to having an impact on market participants.
 - In a few cases where a resolution wasn't immediately available, and the impact was isolated to one or two participants, the IESO discussed any workarounds directly with those impacted.

Summary of the Renewed Market Launch 4/4

- IESO declared a DAM failure for the May 22 trade date.
- The root cause was determined to be a system defect related to virtual trades.
- The IESO halted virtual trading on May 22 to avoid further DAM failures while determining a fix for the defect; a fix was implemented and virtual trading resumed on May 24.
- Advisories were issued to notify participants as the issue arose, and customer communications were released to provide updates and ensure broad awareness.



Initial Observations on Market Performance

Initial Observations on Market Performance 1/5

- Results from the first month of renewed market operations are consistent with the goals of Market Renewal - to increase market efficiency, transparency, and competition.
- The ability to draw conclusions at this point is limited due to:
 - Short duration the renewed market has been in operation (one month);
 - Participants learning how the renewed market works and adjusting their strategies; and
 - Experience in only one season - a full year, covering all four seasons, will provide more complete information.

Initial Observations on Market Performance 2/5

- Locational marginal prices (LMPs) have largely conformed to expectations based on congestion in different parts of the province.
- Prices in specific zones sometimes deviate from the rest of province, as is to be expected when localized conditions arise.
- Deviations are desired outcomes that reflect the improved alignment between energy prices and system need.

Initial Observations on Market Performance 3/5

- The introduction of the DAM is beginning to deliver improved real-time operational certainty for both market participants and the IESO.
- Most export transactions are now being scheduled day-ahead, where near zero export transactions were typically scheduled day-ahead pre-MRP.
- The majority of non-quick start generator commitments are now occurring in day-ahead rather than real-time.
- The pre-dispatch sequence is now successfully selecting the least-cost resource.

Initial Observations on Market Performance 4/5

- The DAM is producing intuitive prices that are largely reflective of the current low demand and high supply conditions.
- On average, 95% of energy volume is clearing in the day-ahead market and the remaining amount settled in real-time.
- The DAM secures the necessary supply anticipated to satisfy forecast market demand, settled at DAM prices. The real-time market then balances any unforeseen changes to the market demand or available supply and settles these quantities at real-time prices.

Initial Observations on Market Performance 5/5

- As expected, real-time prices are more volatile than day-ahead due to unanticipated outages, demand or supply availability changes, or other sudden changes on the system.
- Suppliers and consumers can benefit from the improved price certainty established in a day-ahead position.
- Dispatchable resources that can respond quickly to take advantage of real-time price spikes are rewarded for providing real-time flexibility.



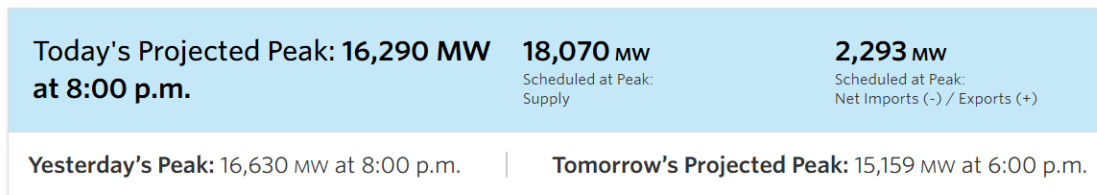
IESO.ca - New Market Data Displays

New Market Data Displays

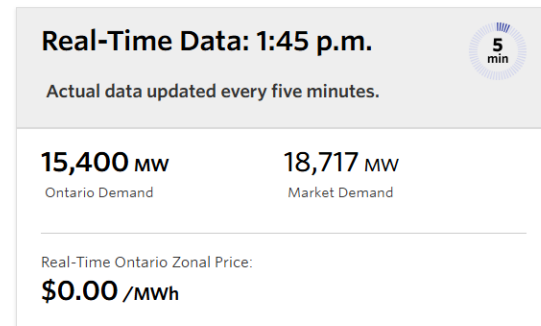
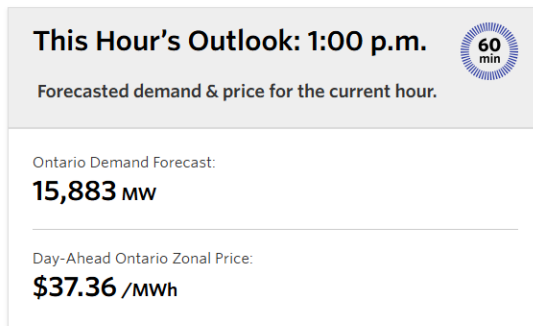
- The renewed market features an expanded offering of price, demand and supply information.
- The new [Market Data](#) page provides a snapshot of the day-ahead and real-time markets showing how they work together to more accurately reflect the cost to provide electricity throughout the province.
- Visit the [Market Data Explained](#) page to understand the new information available, learn new terminology, and identify data sources feeding the displays.

New Market Data Displays - Overview

- The Overview section displays current market activity from hour-to-hour, and every 5-minutes.
- Compare demand peaks, from yesterday, today, and what is projected tomorrow.
- Contrast prices from the DAM against real-time outcomes.

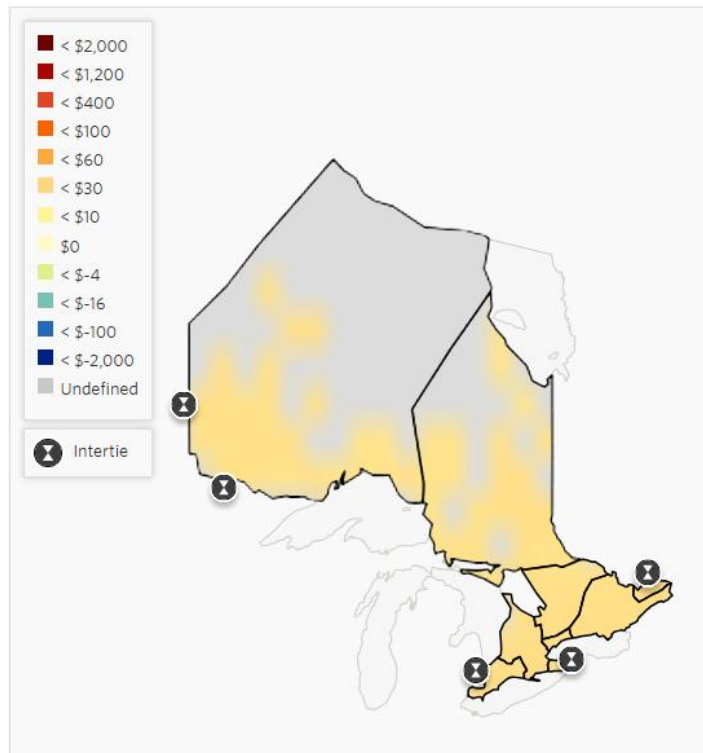


Projected peaks and scheduled values above are from the Day-Ahead Market. Follow the IESO's [Peak Tracker](#) to monitor forecasted Ontario demand for the next 24 hours.



New Market Data Displays – Price Heat Map

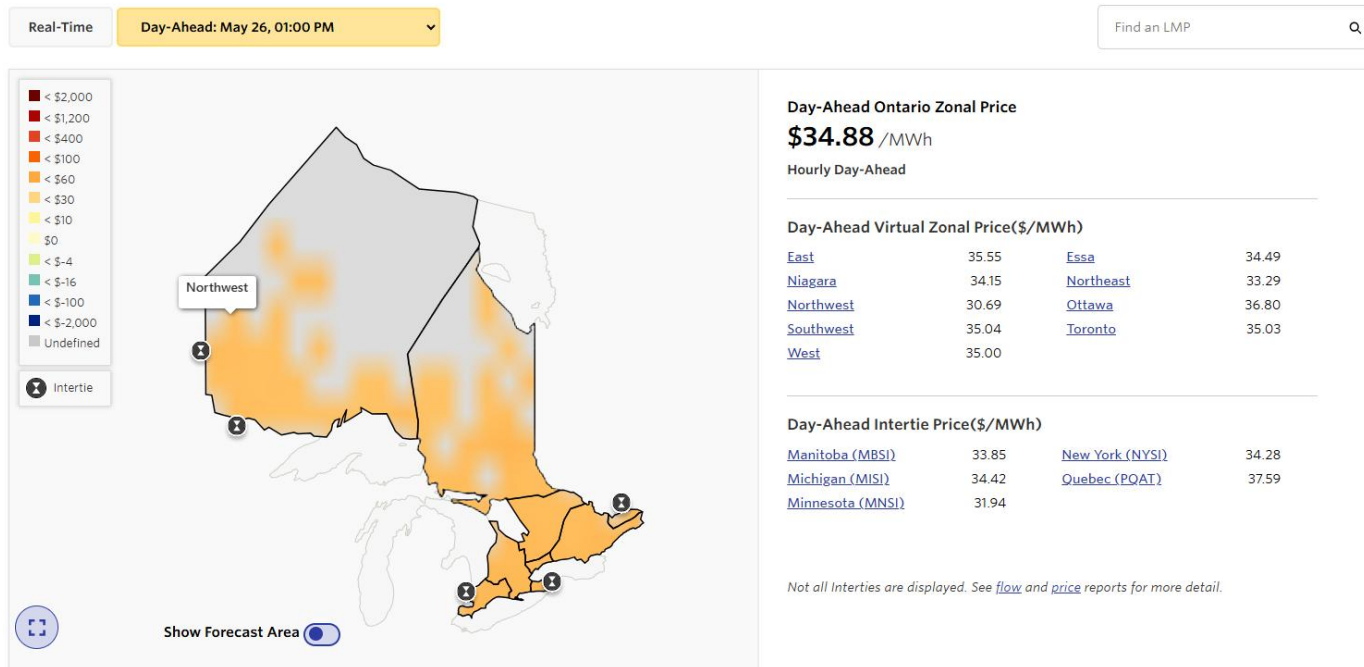
- Follow price trends at-a-glance.
- Maps, charts and data show results within the current market cycle.



New Market Data Display - Day-ahead Map

Price by Location

Prices displayed are for reference only and not used for settlement.

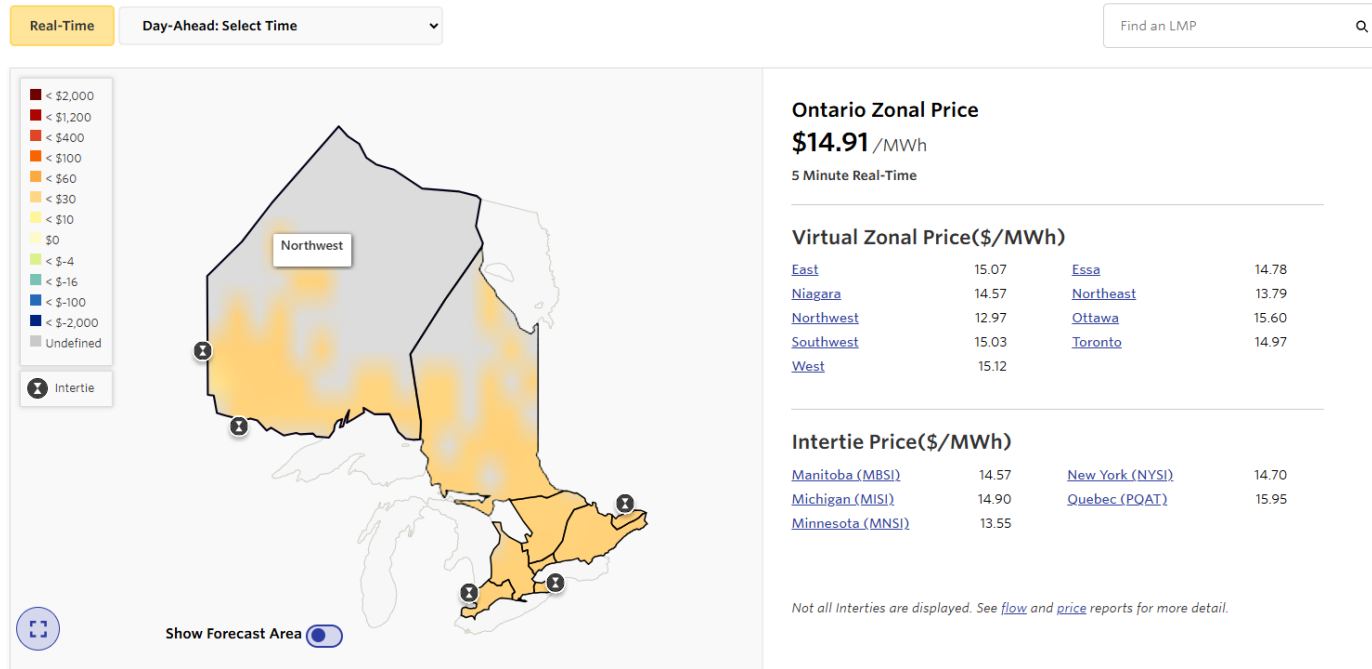


Updated: 26 May, 1:55 p.m. EPT.

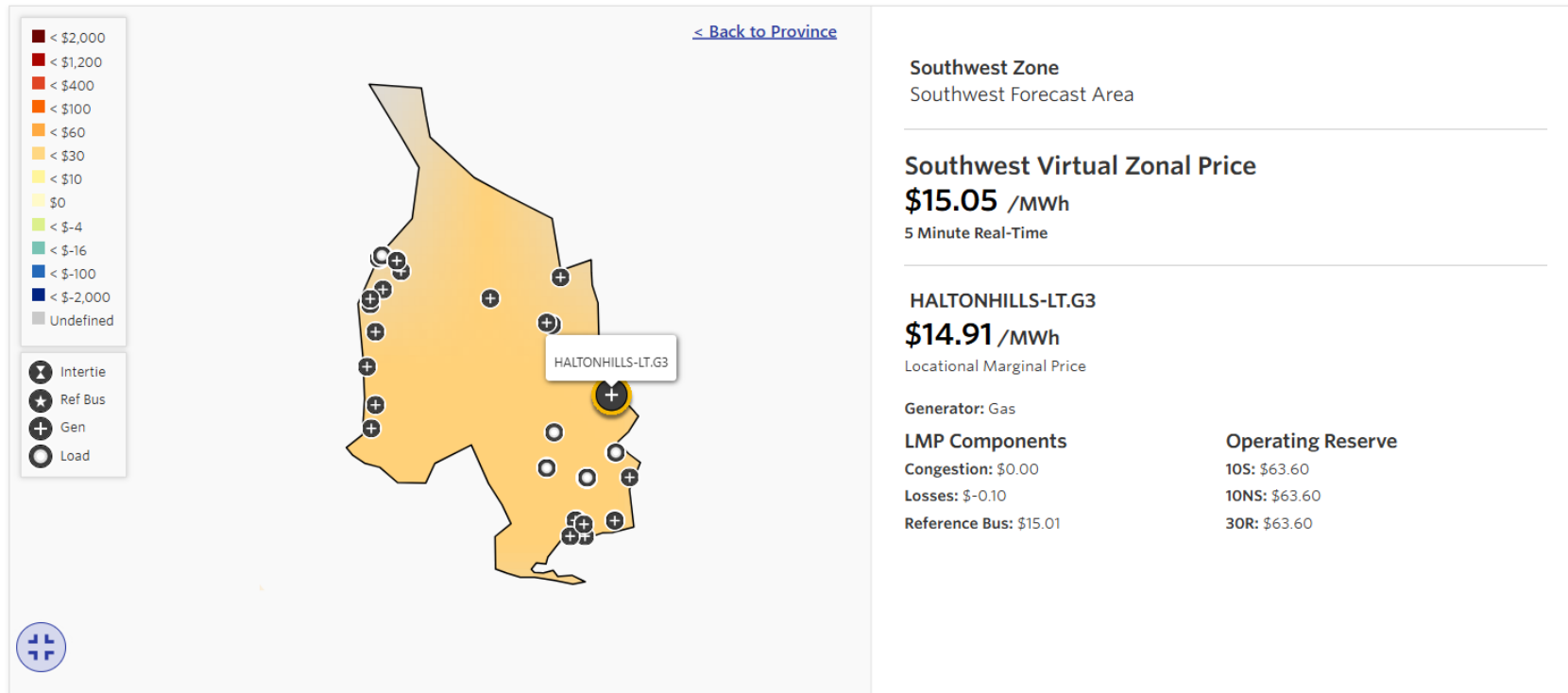
New Market Data Display – Real-time Map

Price by Location

Prices displayed are for reference only and not used for settlement.



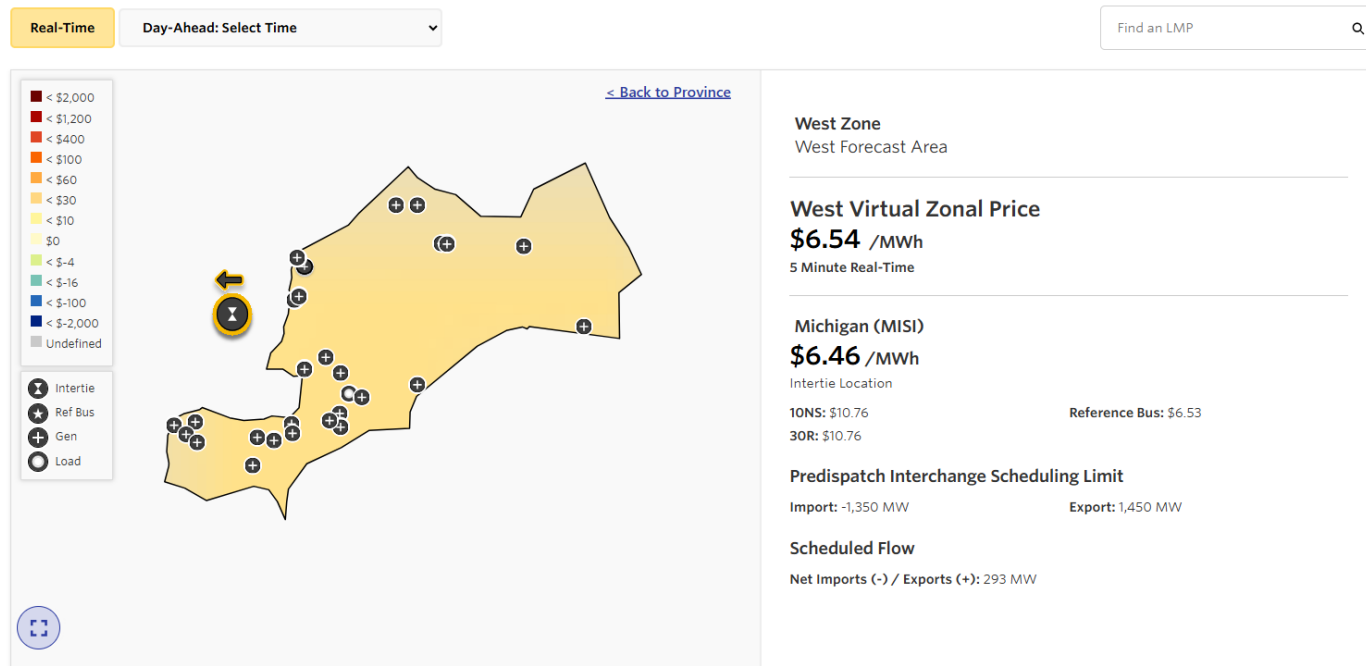
New Market Data Displays – Local and Zonal Prices



Market Data Displays – Intertie Price & Scheduled Flow

Price by Location

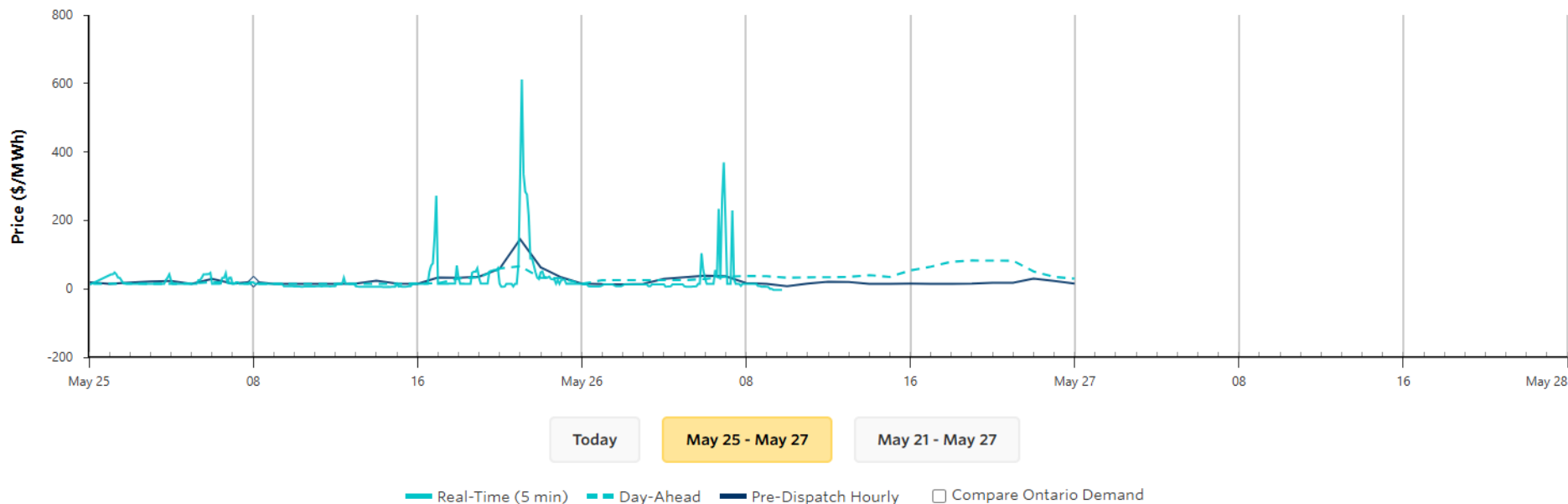
Prices displayed are for reference only and not used for settlement.



Updated: 26 May, 2:40 p.m. EPT.

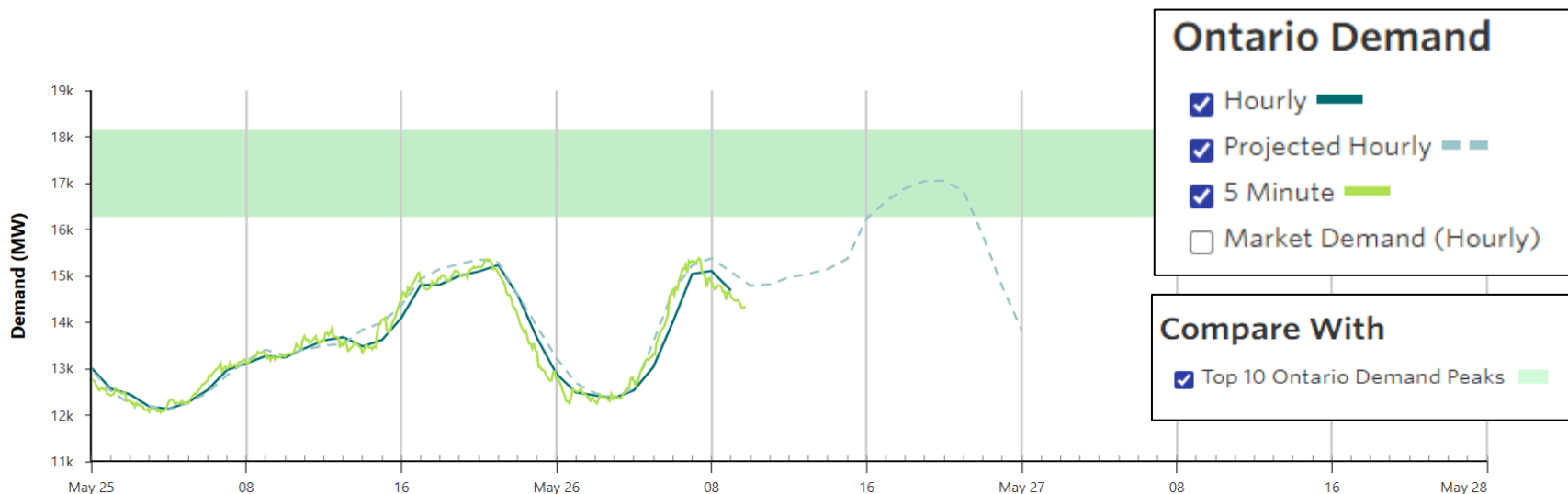
New Market Data Displays – Day-ahead to Real-time

Ontario Zonal Price Extended View



New Market Data Displays - Demand

- Track demand for Ontario, and the market as a whole, and chart the four new regional demand forecast areas, and monitor for peak demand

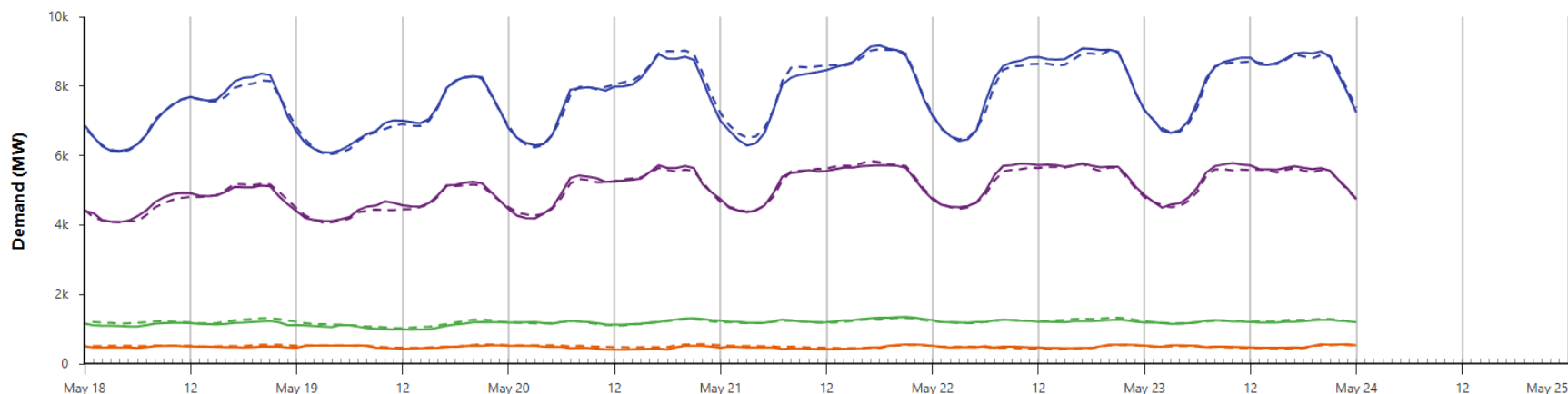


New Market Data Displays - Demand

- Track projected and forecast demand for the four new regional demand forecast areas

Ontario Demand

Updated: 23 May, 1:45 p.m. EPT.

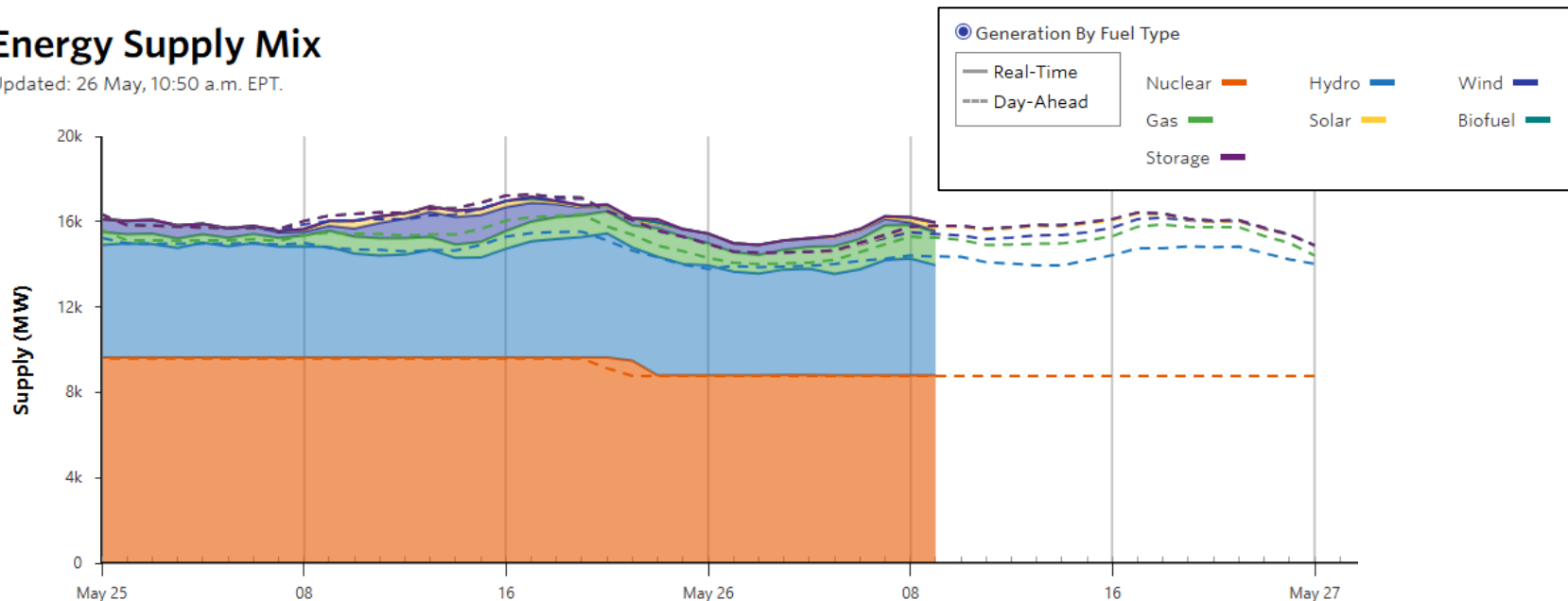


New Market Data Displays - Supply

- Track the day-ahead supply mix or imports and exports

Energy Supply Mix

Updated: 26 May, 10:50 a.m. EPT.

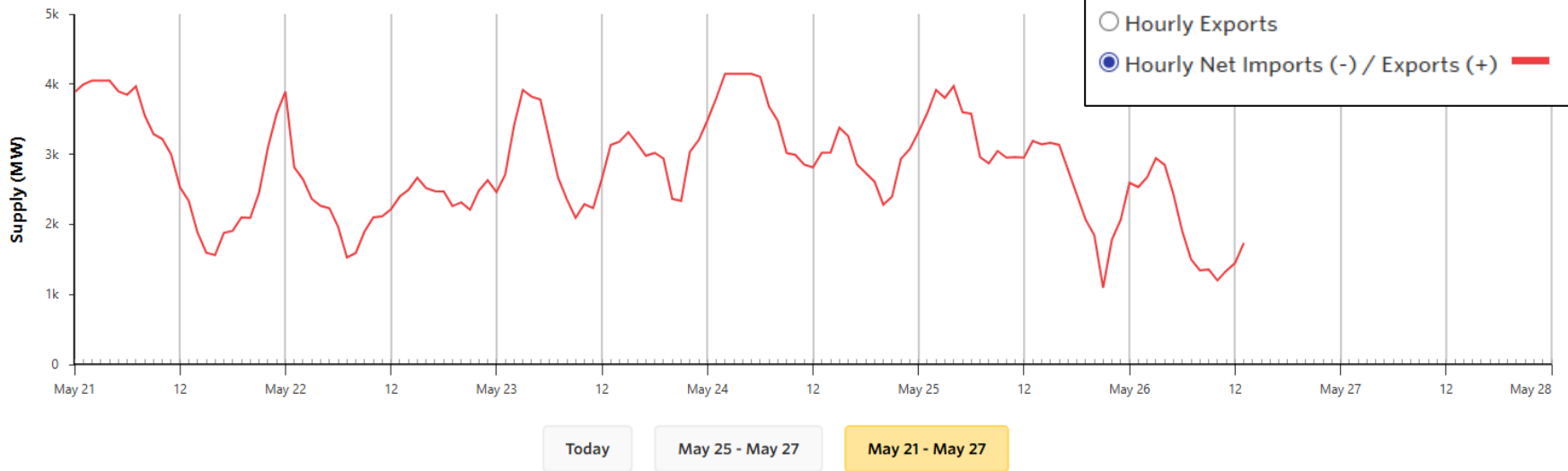


New Market Data Displays – Imports and Exports

- Track net imports/exports - or hourly imports and exports separately

Energy Supply Mix

Updated: 26 May, 2:25 p.m. EPT.





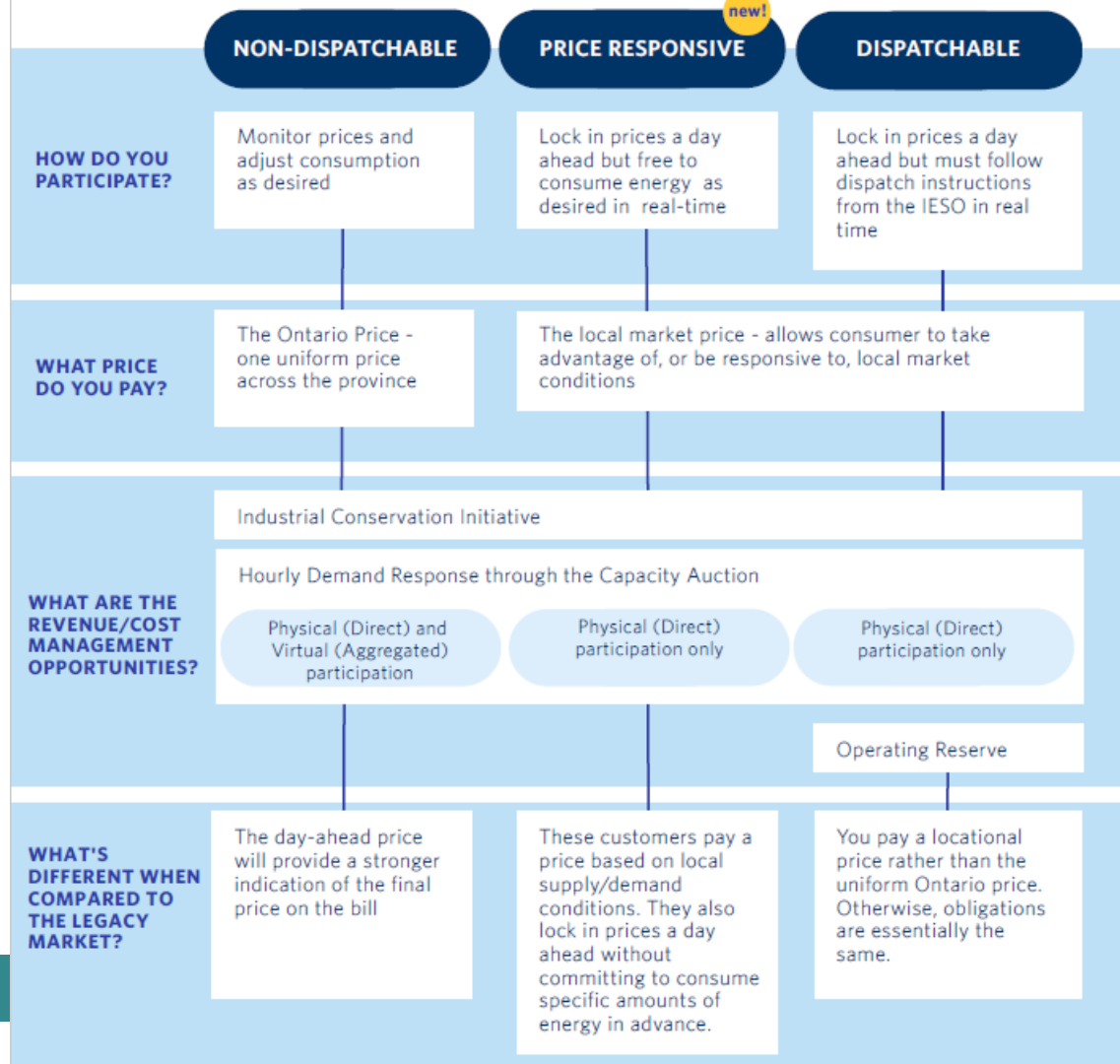
Resources

Registration Updates and Changes

- Ensure your organization's contacts and permissions are up-to-date in [Online IESO](#).
- Review changes to reports on the [Technical References](#) page to see if any IESO reports your organization relies on have changed (e.g., pricing or settlement reports).
- Participants with dispatchable facilities must submit [Market Control Entities](#).

Options for Consumer Participation

- Registration as a Price Responsive Load is at least 75 days, plus up to 30 days to update the Registered Market Participant first if this has not been previously completed.
- To become a Dispatchable Load, the process is at least 180 days.



For More Information

- The IESO has released a series of eLearning Modules that stakeholders can access and complete on demand: [MRP - eLearning Modules](#). These explain market-related processes from registration to settlement under the renewed market for nine different participant types.
- There are also various [training guides](#) available covering topics such as pricing changes and the day-ahead market.
- Market Rules and Market Manuals can all be found on the IESO website: [Renewed Market Rules & Manuals Library](#).

Next Steps

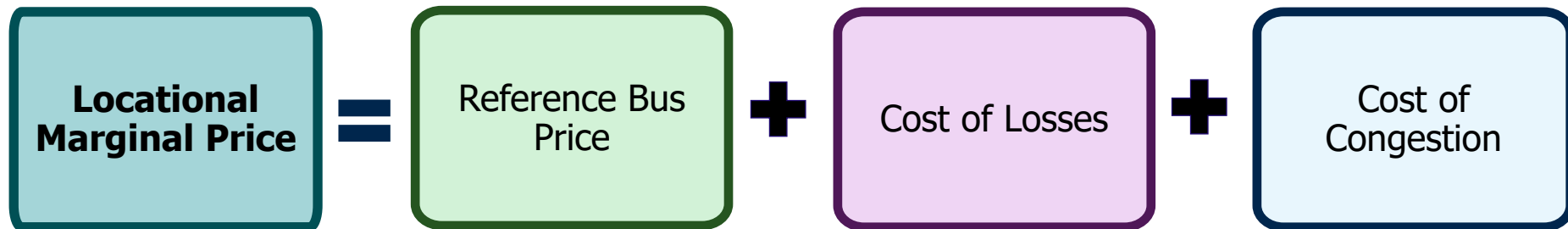
- The recording and presentation for this engagement can be found on the [Renewed Market Operations page](#)
- If you have any questions on the information shared today, please contact IESOCustomerRelations@ieso.ca.



Appendix

Locational Marginal Pricing for Suppliers

- Locational marginal pricing (LMP) is the concept of setting prices that reflect the value of energy at different points on a system. It is the most efficient and transparent way to price as it reflects dispatch
- LMPs will be directly charged/paid to active Ontario-based resources and will be the basis of all other market prices



Two-Settlement Example – Energy Suppliers

Day-Ahead

$$\text{Quantity}_{\text{DAM}} \times \text{LMP}_{\text{DAM}}$$

DAM schedule: 150 MW
DAM price: \$25

$$= 150 \text{ MW} \times \$25 \\ = \$3750$$

Real-Time (Balancing)

$$(\text{Quantity}_{\text{RT}} - \text{Quantity}_{\text{DAM}}) \times \text{LMP}_{\text{RT}}$$

Actual injection: 175 MW
Real-time market price: \$30

$$= (175 \text{ MW} - 150 \text{ MW}) \times \$30 \\ = \$750$$

Net Energy Settlement = \$4500

Supplier sells additional MWs not scheduled in the DAM at the real-time locational marginal price

Two-Settlement - Active Load Participants

Day-Ahead

$$\text{Quantity}_{\text{DAM}} \times \text{LMP}_{\text{DAM}}$$

DAM schedule: 150 MW
DAM price: \$25

$$150 \text{ MW} \times \$25 = \$3750$$

Real-Time (Balancing)

$$(\text{Quantity}_{\text{RT}} - \text{Quantity}_{\text{DAM}}) \times \text{LMP}_{\text{RT}}$$

Actual consumption: 100 MW
Real-time market price: \$30

$$(100 \text{ MW} - 150 \text{ MW}) \times \$30 = -\$1500$$

Net Energy Settlement = \$2250

Is credited for
unconsumed
DAM scheduled
MWs at the real-
time locational
marginal price

Non-Dispatchable Load Market Prices

- The Ontario Electricity Market Price, or “Ontario Price” is made up of the hourly load-weighted average of all Ontario non-dispatchable load DAM locational marginal prices (the DAM Ontario Zonal Price) plus a price adjustment which accounts for the total cost of the differences between day-ahead and real-time schedules.

$$\text{(DAM Ontario Zonal Price + Load Forecast Deviation Adjustment)} \times \text{Quantity consumed in real-time}$$

- The Load Forecast Deviation Adjustment (LFDA) is typically a small component of price. The DAM OZP is a good predictor of the final price.

Settlement for Non-Dispatchable Loads

$$(DAM\ OZP + LFDA) \times Q_{RT}$$

DAM OZP = Day-ahead
Ontario zonal price

LFDA = Load Forecast
Deviation Adjustment

Q_{RT} = Resource's real-time
market actual hourly
consumption (AQEW- AQEI)

- DAM OZP values are published each afternoon for the next day
- LFDA values are published daily 10 business days after the trade date
- The DAM OZP and LFDA for each hour will be on settlement statements
- Same as today the monthly invoice will reflect your total energy charge

Thank You

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