

Market Renewal FACT SHEET

Intertie Congestion Pricing

#5

The single schedule market (SSM) is one initiative in the Market Renewal's Energy work stream. A SSM uses a Locational Marginal Price (LMP) for each time period at each location to operate the system. The Intertie Congestion Price is a component of the LMP calculated for power imported or exported on interties into or out of the Ontario system.

What is the Intertie Congestion Price?

Single schedule markets apply the same pricing design to transactions for electricity moved within Ontario and between the Ontario system and other connecting electricity systems. The point between the two systems at which import or export of electricity occurs, is called an Intertie Location. The LMP at each Intertie Location is the sum of the Energy Reference Price, the Energy Intertie Congestion Price, and the Energy Loss Price.¹

The Intertie Congestion Price is the Energy Congestion Price at an intertie location similar to the Energy Congestion Price at locations within the province.² Each intertie has a transmission limit. When that limit is reached, no more power can flow over the line, and there are additional congestion costs at connected location. The change in the marginal cost resulting from intertie congestion is based on the incremental cost of adding 1MW of transmission capability to the intertie.

The difference between Intertie Congestion Prices and Energy Congestion Prices within the province is that there are additional details required for calculating LMP at interties:

- Imports/exports must be scheduled jointly with another region unlike internal generation dispatch and the IESO cannot observe the generation and dispatch in the other region.

¹ LMP = Energy Reference Price + Energy Intertie Congestion Price + Energy Loss Price

² See Fact Sheet on the Energy Price – Congestion Component

- Ontario currently schedules imports/exports on an hourly basis and holds the schedule fixed over the period.³
- Other operational requirements for interties beyond transmission limits must be considered such as limits on the rate of change of imports/exports.

Why is it important?

Ontario is connected by interties to a number of other jurisdictions, including Manitoba, Michigan, Minnesota, New York and Quebec. It is necessary to use the same LMP pricing structure at the interconnection points as for the rest of the system so that all resources, whether internal, imports, or exports are competing on a fair basis for dispatch.

More information

For more information about other LMP components, please see the fact sheets on Energy Reference Price (#2) and Energy Price – Loss Component (#3).

³ Mathematically, this means that the intertie transmission limits cannot bind on the 5-minute basis. The Energy Intertie Congestion Price impact of the intertie transmission limit must be calculated from the pre-dispatch model.

