

# Market Renewal FACT SHEET

## Reference Levels

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The single schedule market (SSM) is one initiative in the Market Renewal's Energy work stream. The move from a two schedule market to a SSM requires a review of the market power mitigation process.

### What are reference levels?

Reference levels are prices that reflect the approximate cost of dispatch and are calculated for each unit during the market power mitigation process. These prices represent an estimation of what the competitive offer should be for a unit during an interval where it has been deemed that market power exists and must be mitigated.

The IESO currently looks at market power mitigation after-the-fact, which allows it to use actual energy cost data for the period in which market power is being reviewed. Typically, the IESO sets the reference level for a specific generating source (e.g., hydro, gas-fired, etc.) based on the average market clearing price (MCP), or historical bid price, and historical dispatch schedules.<sup>1</sup>

Single schedule markets that use before-the-fact market power mitigation must use a method to determine reference prices. These reference prices are intended to accurately approximate future generation resource costs and include the following:<sup>2</sup>

- Gas price indexes (spot prices)
- Prior offer prices or market clearing prices
- Agreed upon values reflecting incremental costs and/or opportunity costs based on technical characteristics
- Models for estimating commitment, incremental costs and/or opportunity costs

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<sup>1</sup> For hydro, the IESO uses a 30-day average MCP. For gas-fired generation and inertia, the IESO uses a 90 day average of bid prices during the intervals where that resource was economic.

<sup>2</sup> In an energy market, resources can offer any price (subject to mitigation if they have market power) but in general, a resource offer is tied to its marginal generating cost which is the sum of the fuel cost of the resource and its variable operating costs.

## **Why is it important?**

The IESO's current method of determining reference levels after-the-fact will not be feasible in a single schedule market. This introduces the challenge that the IESO must now develop a method of using past data to forecast future costs. It is important that the IESO's method of forecasting future costs is as accurate as possible.