Operational Performance Measures
Rationale & Description

Operational performance measures drive good performance in processes and systems that are important to our customers and stakeholders. The rationale and description for each of the 24 operational performance measures for 2006 is noted below. The general rationale for groups of measures is as follows:

- FACILITATING THE ELECTRICITY MARKET: Measures 1 - 11 drive the IESO to deliver accurately and on-time, the information and processes necessary for our customers to successfully participate in the wholesale market.

- PROVIDING METERING, SETTLEMENT AND MARKET SUPPORT SERVICES: Measures 12 - 20 drive good performance in the provision of market and related support services that our customers and stakeholders indicate are important.

- ENSURING SYSTEMS AVAILABILITY: Measures 21 - 24 ensure a high level of availability in key IESO electronic and computer systems that the public and our customers access on a regular basis. These measures are aimed at achieving on-going availability levels that provide the public and our customers with confidence in using our electronic products and services.

FACILITATING THE ELECTRICITY MARKET

1. Implement Accurate Intertie Schedules

Accurate intertie schedules are a reflection of good coordination and efficiency of process between the IESO and its neighbouring control areas, and must be maximized in order to support good system and market operation. This measure represents the number of occurrences where the IESO implements intertie transactions that are consistent with those of the corresponding control area, as a percentage of the total number of intertie transactions.

2. Publish Regularly Scheduled SAA's and SSR's on Time

SAA's and SSR's (SAA – Security & Adequacy Assessment, SSR – System Status Report) are the primary publications by which market participants are informed of the current and future status of the electricity system. Failure to publish Daily SAA's, Weekly SAA's and SSR's on time, in accordance with market rules, may prevent market participants from taking action to solve supply/demand imbalances possibly resulting in the IESO having to take unilateral extra-market actions. This measure tracks the percentage of these reports that are published on time.

3. Minimize Day Ahead Demand Forecast Errors

Significant errors in demand forecasts can result in real-time operation of facilities that is different from that anticipated based on forecasts. Errors must be minimized in order to avoid poor commitment and/or transaction decisions by market participants, and minimize the possibility of IESO having to take unilateral extra-market actions in or near real time. This measure is calculated as the average of the absolute error in each of the 24 hours

of the day ahead hourly Ontario electricity demand forecast as compared to the actual hourly Ontario demand expressed as a percentage of the electricity demand in the peak hour.

4. Minimize Day Ahead Demand Forecast Bias

A forecast bias that is consistently and materially either above (+) or below (-) the actual demand experienced can lead to skewed real time prices and counter-intuitive actions by the market participants, and should be maintained within a small range around zero (zero indicates no bias). This measure represents the average percentage of hours that the day ahead hourly Ontario electricity demand forecasts are above or below the actual demand experienced.

5. Minimize Day At Hand Demand Forecast Error - 3 hours before real time

Significant errors in demand forecasts close to real time can result in real time operation of facilities that is different from that anticipated based on forecasts. The three hours before real time dispatch forecast is important because it provides operational decision making information to participants who may wish to change their bids/offers/quantities prior to the 2 hour before dispatch cut-off time. As well, the results of the 3 hours before real-time forecasts are used in the determination of operation and settlement of participants in the Transitional Demand Response Program, a program which improves price responsiveness in Ontario's electricity market. This measure is calculated as the average of the absolute error of the day at hand hourly Ontario electricity demand forecast issued 3 hours before each dispatch hour, as compared to the actual hourly Ontario demand, expressed as a percentage of the (average?) hourly Ontario demand.

6. Minimize Day At Hand Demand Forecast Bias - 3 hours before real time

A forecast bias that is consistently and materially either above (+) or below (-) the actual demand experienced can lead to skewed real time prices and counter-intuitive actions by the market participants and should be maintained within a reasonably small range around zero (zero indicates no bias). As well as potentially inappropriate operation of the Transitional Demand Response Program. This measure represents average the percentage of hours that the day at hand hourly Ontario demand forecasts issued 3 hours before each dispatch hour are above or below the actual demand experienced.

7. Minimize Day At Hand Demand Forecast Errors - 1 hour before real time

Significant errors in demand forecasts close to real time can result in real time operation of facilities that is different from that anticipated based on forecasts or operation by non-dispatchable facilities that is inconsistent with real time price signals. The one hour before real time dispatch forecast is important as it provides for operational decision making that is necessary to ensure reliable real time dispatch. This measure is calculated as the average of the absolute error of the day at hand hourly Ontario demand forecast issued 1 hour before each dispatch hour, as compared to the actual hourly Ontario demand expressed as a percentage of the average hour demand.

8. Minimize Day At Hand Demand Forecast Bias - 1 hour before real time

A forecast bias that is consistently and materially either above (+) or below (-) the actual demand experienced 1 hour before dispatch can lead to sub-optimal operational and market price outcomes. This measure represents the average percentage of hours that the day at hand hourly Ontario demand forecasts 1 hour ahead of dispatch are above or below the actual demand experienced.

9. Effective Processing of Transmission Rights Auctions

Transmission rights provide a means for participants to hedge congestion costs at the interties. Failure to complete an auction as per timelines can inconvenience market participants and cause the IESO to be non-compliant with the market rules. This measure records the number of failures to complete Transmission Rights Auctions as per market rule time line requirements.

10. Continuous Operation of the Market – Frequency of Market Suspension, and
11. Continuous Operation of the Market – Duration of Market Suspension

Suspension of the wholesale electricity market is a serious event that can result in IESO taking unilateral extra-market actions, and participants being dispatched and settled at quantities and prices other than those otherwise expected under normal market operation. These two measures track both the number of times the market is suspended as a result of IESO actions, and the total duration in hours of such market suspensions per year.

PROVIDING METERING, SETTLEMENT AND MARKET SUPPORT SERVICES

12. Settlement Ready Meter Data Timeliness

Whenever data is not available as per established timelines, it can disrupt the processes that market participants have put in place to review or utilize such data. This measure portrays validated and estimated interval metered data suitable for settlement calculations, calculated as a percentage of meters, that is available to market participants 1 day after the trade day.

13. Timeliness of Meter Trouble Reports Issued to Meter Service Providers

The earlier a meter trouble report is issued, the sooner the underlying issue can be resolved by the meter service provider. In certain instances meter troubles will result in settlement that is based on administrative quantities that do not accurately reflect actual quantities. This measure tracks the number of meter trouble reports (MTRs) issued to the Meter Service Providers (MSPs) on the 1st business day following the trade day, as a percentage of all meter trouble reports issued.

14. Timeliness of Preliminary and Final Settlement Statements

Whenever statements are not available as per established timelines, it can disrupt the processes that market participants have put in place to review or utilize such data, such as in bilateral arrangements that may be entered into outside of the IESO-administered markets. This measure tracks the number of preliminary and final settlement statements issued on the date specified in the IESO Settlement Schedule & Payments Calendar (SSPC) as a percentage of all statements required to be issued on the date specified in the SSPC.

15. Accuracy of Preliminary and Final Settlement Statements

Maintaining a high accuracy for preliminary and final statements ensures market participants' processes can run normally and without disruption. Errors require action and time by both the market participant and the IESO to resolve and should be minimized. A statement error is considered to have occurred if a Notice of Disagreement (NOD) for a preliminary settlement statement is accepted as an IESO error, or if a dispute for a final settlement statement is accepted as an IESO error. Accuracy is calculated as the percentage of settlement statements that do not contain an error caused by the IESO as a percentage of all settlement statements.

16. Customer Relations Performance - Average Time to Close an Open Ticket

Market participants and the public expect inquiries to the IESO to be dealt with as quickly and efficiently as possible. The level of performance in responding to customer inquiries is used as a measure of customer satisfaction and as an indication of the degree of IESO's customer focus. This measure tracks the time to close open tickets (inquiries) that take more than a day to close. Inquiries that are resolved in less than one day are considered routine, and are not included in this measure. Inquiries that take more than one day to resolve tend to represent issues and concerns of greater concern and complexity, and the time to resolve these to the satisfaction of the customer are specifically tracked by this measure.

17. Timeliness of Issuing Invoices

Whenever invoice data is not available as per established timelines, it can disrupt the processes that market participants have put in place to review or otherwise utilize such data. This measure is calculated as the percentage of invoices issued on the IESO Settlement Schedule & Payment Calendar (SSPC) date to total invoices which should have been issued on the SSPC date.

18. Invoice Accuracy

Accuracy of invoices is important because any error requires action and time by both the market participant and the IESO to resolve, and can disrupt a market participant's normal processes. This measure is calculated as the percentage of invoices not needing correction out of the total population of invoices issued.

19. Administrative Pricing Frequency, and
20. Administrative Pricing Duration

The use of administered prices can result in market participants being settled at prices other than those otherwise expected under normal market operation, and should be minimized. These two measures track both the number of instances of administrative pricing as a result of a tool failure, procedural error, or incorrect input, as defined in the market rules, and the number of dispatch intervals where administrative pricing was applied as a result of a tool failure, procedural error, or incorrect input, as defined in the market rules. Planned outages to the market tools are not counted as instances of administered pricing.

ENSURING SYSTEMS AVAILABILITY

21. Public Market Reports Publication

This measure tracks the availability (accessibility and timely publication) of certain public market reports that are critical in supporting market participants in undertaking bids and offers, sending pricing signals to the public and meeting market rule obligations. Public reports are deemed failed when any of the following reports are either unavailable or are not successfully published for external access in a timely manner (i.e. within 5 minute of expected publication interval). The following public reports are considered in this measure:

- Dispatch Constraints Total
- Dispatch Unconstrained Energy Price
- Dispatch Unconstrained HOEP
- Dispatch Unconstrained Totals
- Pre-dispatch Constraints Total
- Pre-dispatch Unconstrained Energy Price
- Pre-dispatch Unconstrained Totals

Failure to publish is not counted in instances where the public or a market participant is unable to access or retrieve published reports due to problems that are local to their own site facilities, or locally developed report scraping facilities.

22. Market Participant Interface Availability

The Market Participant Interface (MPI) allows a market participant the electronic access needed to submit bids and offers, to access their private reports, and to access the Transmission Rights Auction during any scheduled Transmission Rights Auction period. Market participants also use the MPI to access non-real time data for business planning and audit purposes. The MPI for the real time market is considered failed when any of the following conditions occur:

- One or more MPs are unable to access any of the interfaces at https://mos.ieso.com. These are "Workspace"

- One or more MPs are unable to access the "Workspace" interface for submitting bids/offers or for accessing their private reports
- One or more MPs are unable to access the "Transmission Rights" interface during an auction period
- One or more MPs are unable to log on to the interface or unable to access the "Participant" interface for accessing their participant registration information
- One or more MPs are unable to access the "Metering" interface for access to their metering data.

23. Dispatch & Scheduling Instructions

The IESO (via its Market Information System (MIS) and Message Exchange (MX) System) must be able to send accurate and timely dispatches to market participants in order to facilitate proper reliability and market operation. Failure to receive these accurate instructions in a timely manner can also result in non-ideal operation of their facilities. Dispatch and Scheduling are considered failed when any of the following conditions occur:

- Real Time Unconstrained and Constrained sequences failed to complete
- Pre-dispatch Unconstrained and Constrained sequences failed to complete
- Resource dispatch is unable to calculate or send the instructions
- Dispatch schedules (private reports) are not produced
- Message Exchange is unable to send dispatch instructions via the ICCP or the Web
- Market participants are unable to connect to MX to receive dispatch instructions because of problem with the IESO's infrastructure or its applications

Failures due to identified problems with a market participant's managed systems such as firewall, ISP connections or local workstations will not result in an outage being charged against this performance measure.

24. Corporate Web Site Availability

The IESO's corporate web site provides the public with easy access to graphical displays of current market price and energy demand information. The corporate website is the primary means by which non-participants and market participants without registered facilities obtain information on the state of the market and the power system so that they can make operational decisions. The IESO corporate web site is considered failed when any of the following conditions occur:

- Access to the web site at http://www.ieso.ca is unavailable due to issues with any components of IESO infrastructure or IESO's Internet Service Provider (ISP).
- Updates for the Current Market Demand, Current Hourly Price, Hourly Uplift Charge Estimate are not available on the Today's Market page of the corporate web server.

The system is not considered failed if the public or market participants are unable to access the site due to problems that are local to their own site facilities or Internet Service Provider. Additionally, the system is not considered failed unless both versions of the market graphs are not being updated.