

Market Surveillance Panel

Monitoring Document: Generator Offer Prices Used to Signal an Intention to Come Offline

August 19, 2011

1. Introduction

1.1 Purpose of this Monitoring Document

Ontario Energy Board (OEB) By-law #3 authorizes the Market Surveillance Panel (MSP or the Panel) to issue monitoring documents including data catalogues, monitoring indices or other information requirements and evaluation criteria that the Panel considers appropriate to enable it to carry out its monitoring functions.¹ The Panel is also empowered to investigate any activities related to the IESO-administered markets or the conduct of a market participant where, among other things, the Panel considers such investigation to be warranted as a result of the Panel's monitoring activities.²

The purpose of this Monitoring Document is to outline evaluative criteria that the Panel will use in monitoring for anomalous or inappropriate market conduct by generators that could constitute gaming, specifically in relation to prices offered by generators in order to signal an intention to

¹ Ontario Energy Board, By-Law #3 (Market Surveillance Panel), article 4.2.1, available online at: http://www.ontarioenergyboard.ca/OEB/Documents/About+the+OEB/OEB_bylaw_3.pdf. The By-law requires that proposed monitoring documents be published for IESO and market participant comment. The proposed version of this document was published on June 17, 2011. The Panel received five comments, which are posted at: <http://www.ontarioenergyboard.ca/OEB/Industry/About+the+OEB/Electricity+Market+Surveillance/Monitoring+Document++Generator+Offers>.

² *Electricity Act, 1998*, section 37, and OEB By-law #3, article 5.1.

take their units offline. This Monitoring Document therefore also provides guidance to generators regarding the level of offer prices which normally would not trigger a gaming investigation if a generator raises its offer price to signal an intention to come offline. Given the wide variety of specific factual circumstances which may arise in the market, this Monitoring Document is not a comprehensive or binding statement of how the Panel's monitoring or investigative mandate will be exercised in specific situations.³ Thus, prices above the levels set out in this Monitoring Document will not automatically lead to a gaming investigation, nor will prices below those levels necessarily preclude one.

There are two potential concerns when a generator increases its offer price in order to signal its intention to come offline. If a generator's offer price exceeds its marginal or opportunity cost, this may constitute an exercise of market power and will be assessed according to the Panel's monitoring criteria related to market power issues.⁴ In addition, since the magnitude of the shut down offer price affects the magnitude of the congestion management settlement credit (CMSC) payments to the generator, gaming concerns could arise where the offer price is higher than necessary to achieve the operational objective of coming offline – thereby generating unnecessarily large CMSC payments. This Monitoring Document focuses on the potential gaming issues.

The Panel is aware that the Independent Electricity System Operator (IESO) has consulted with stakeholders on recommended changes to the CMSC rules applicable to generators, including

³ Article 4.2.7 of OEB By-law #3 makes it clear that nothing in article 4.2, which makes provision for the issuance of monitoring documents, should be interpreted as precluding the Panel from undertaking such monitoring, evaluation or analysis as the Panel determines appropriate for the purposes of carrying out its monitoring activities.

⁴ Pricing-up or economic withholding of generation is dealt with in Market Surveillance Panel, Monitoring Document: Monitoring of Offers and Bids in the IESO-Administered Markets (the "Monitoring of Offers and Bids Document"), March 2010, available online at http://www.ontarioenergyboard.ca/OEB/_Documents/MSP/MSP_Monitoring_Offers_Bids_Document_20100310.pdf. A generator's offers may be examined under this framework regardless of whether or not the same offers are being examined pursuant to the evaluative criteria related to gaming, which are set out in this Monitoring Document.

during ramp down.⁵ Until such time as a permanent rule-based solution is implemented, the Panel considers it useful to issue guidance in relation to the monitoring and possible investigation of offer price levels that are used to signal an intention to come offline. The Panel will consider whether to make changes to this Monitoring Document if and when any market rule amendments relating to ramp-down CMSC payments are implemented.

1.2 Mandate of the Market Surveillance Panel

The Panel was established prior to the opening of the IESO-administered markets in 2002. Among other things, the Panel is mandated to monitor possible gaming or abuses of market power by market participants as well as recommending changes in market structure or in market rules and procedures that would improve the efficiency of the market.⁶ More specifically, OEB By-Law #3 provides that:

The Panel shall monitor, evaluate and analyse activities related to the IESO-administered markets and the conduct of market participants with a view to:

- (a) identifying inappropriate or anomalous market conduct by a market participant, including unilateral or interdependent behaviour resulting in gaming or in abuses or possible abuses of market power;

⁵ IESO Stakeholder Engagement, SE-84: Congestion Management Settlement Credit (CMSC) Payments for Generation Facilities. See: http://www.ieso.ca/imoweb/consult/consult_se84.asp. The Electricity Market Forum convened by the IESO is currently examining the broader issue of whether to evolve beyond the two sequence market structure from which CMSC payments are derived.

⁶ The *Ontario Energy Board Act, 1998* and the *Electricity Act, 1998* contain provisions relating to the establishment, role and powers of the Market Surveillance Panel. The duties and activities of the Panel are elaborated under OEB By-law # 3, including the monitoring, investigation, review and reporting on activities related to the IESO-administered markets or the conduct of market participants listed in articles 3.1.2 to 3.1.7.

- (b) identifying activities of the IESO that may have an impact on market efficiencies or effective competition;
- (c) identifying actual or potential design or other flaws and inefficiencies in the market rules and in the rules and procedures of the IESO;
- (d) identifying actual or potential design or other flaws in the overall structure of the IESO-administered markets and assessing whether any one or more specific aspects of the underlying structure of the IESO-administered markets is consistent with the efficient and fair operation of a competitive market; and
- (e) recommending remedial actions to mitigate the conduct, flaws and inefficiencies referred to in paragraphs (a) to (d).⁷

As noted above, the Panel may commence an investigation where warranted as a result of the Panel's monitoring activities.

2. Generator Decisions to Come Offline

There are two ways that generators come offline in Ontario's wholesale electricity market. A generator may be dispatched off by the IESO's scheduling algorithm as demand declines and/or other less expensive sources of supply are available, thereby rendering the generator's offers no longer economic. Coming offline in this manner does not raise gaming (or market power) issues if the participant has not raised its offer price to induce the dispatching off.

Alternatively, generators sometimes choose the point in time at which they want to come offline for their own business reasons. This can be achieved by submitting an offer price higher than its usual operating offer in order to increase the likelihood that the generator is not scheduled in the constrained dispatch schedule. Once the generator's output level falls below its minimum

⁷ OEB, By-Law #3, article 4.1.1.

loading point (MLP), it will be ramped off at its submitted ramp rate. The evaluative criteria set out below would be used in assessing whether gaming may be occurring when a generator chooses to come offline (the Panel may also apply the Monitoring of Offers and Bids Document to assess possible market power concerns in such cases).

Subject to the price levels set forth in section 2.3, the Panel normally would not consider a self-induced shut-down to constitute gaming (or an exercise of market power) if: (i) there are *bona fide* business reasons (such as short-term fuel or staff availability or other operational constraints) for the generator's decision to come offline; and (ii) the submitted offers do not exceed the incremental costs of the generator continuing to operate using viable options (or the generator's opportunity costs of running instead of shutting down, if applicable).

2.1 CMSC Payments During Ramp Down

The algorithms for the unconstrained market schedule and constrained dispatch schedule result in the ramping down of a generator in different intervals and at different rates. As a result, there are quantity differences during the ramp-down period, which in turn give rise to constrained-on CMSC payments to the extent that the offer price is different from the market price. Between May 2009 and April 2011, total ramp-down CMSC payments to fossil-fired generators averaged approximately \$1 million per month.

The amount of the CMSC payment for a ramping-down generator in any particular interval is equal to (i) the difference between its constrained dispatch schedule quantity and its unconstrained market schedule quantity, multiplied by (ii) the difference between the generator's offer price and the uniform market clearing price (MCP). A high offer price therefore leads to a large CMSC payment during a self-induced ramp down.

In its August 2010 Monitoring Report, the Panel observed that some generators were using very high (occasionally up to \$2,000/MWh) prices to signal their intention to come offline.⁸ Such

⁸ See the Panel's August 30, 2010 Monitoring Report on the IESO-administered Markets for the Period from November 2009 to April 2010, p. 271. Available online at:

<http://www.ontarioenergyboard.ca/OEB/Industry/About+the+OEB/Electricity+Market+Surveillance/Market+Surveillance+Panel+Reports>.

prices were much higher than needed to ensure that the generating unit was dispatched off, and also resulted in very high self-induced CMSC payments for the ramp-down period. The Panel recommended that the IESO take action to limit CMSC payments where these are induced by the generator strategically raising its offer price to signal the ramping down of its facility.⁹ In addition, staff in the IESO's Market Assessment Unit (MAU) discussed high offer price levels with various market participants, which generally led to offer price reductions on a voluntary basis.¹⁰ However, some generators are still using offer prices which are considerably higher than necessary to achieve the objective of coming offline.

The IESO responded to the Panel's recommendation by commencing Stakeholder Engagement Plan 84 (SE-84). When it did so, the IESO acknowledged that it currently has no recourse to recover self-induced CMSC payments, but "indicated that [it] expects that generators will respect the intent of the market rules, and will not take advantage of any opportunities to earn self-induced CMSC while [the IESO is] in the process of addressing the issues."¹¹

2.2 Potential for Gaming

The Panel has indicated that "in general the Panel regards gaming as the exploitation of opportunities to profit or benefit from defects in the design of the market, from poorly specified rules or procedures, or from circumstances that are not expressly covered by Market Rules or procedures."¹²

⁹ See the Panel's January 30, 2009 Monitoring Report on the IESO-administered Markets for the Period from May 2008 to October 2008., pp. 216-217. Available online at: <http://www.ontarioenergyboard.ca/OEB/Industry/About+the+OEB/Electricity+Market+Surveillance/Market+Surveillance+Panel+Reports>.

¹⁰ Portions of CMSC payments were also voluntarily paid back by various generators after the MAU discussed this issue with them.

¹¹ See Congestion Management Settlement Credit (CMSC) Payments for Generation Facilities (SE-84), Session Notes, December 1, 2009, available online at: <http://www.ieso.ca/imoweb/pubs/consult/se84/se84-20091201-session-notes.pdf>, p. 2.

¹² Monitoring of Offers and Bids Document, p. 48.

CMSC payments were designed to “make whole” market participants who were required by transmission congestion or other factors beyond their control to follow a physical dispatch (constrained schedule) instruction that differed from the economic outcome of their offer or bid in the market (unconstrained) schedule.¹³ They were not intended to provide a windfall revenue stream. The Panel considers that actions taken by market participants to self-induce CMSC payments, such as submitting offer prices that are higher than necessary to ensure a generator comes offline, could constitute gaming activity.

In order to more effectively carry out its monitoring function, the Panel believes that it is useful to identify offer price levels that normally would not warrant the initiation of an investigation into potential gaming where there are *bona fide* business reasons for a generator’s decision to come offline. The Panel will also consider the amount of CMSC payments received and local conditions in the generator's area during the relevant time period. Any investigation will be conducted in accordance with all applicable requirements, including the provisions of OEB By-law #3.

2.3 Offer Price Levels

To determine the offer price levels which should be sufficient for a generation unit to come offline, the Panel has reviewed historical pricing patterns in the wholesale market. A generator that wants to come offline can examine pre-dispatch constrained schedule (“shadow”) prices in order to assess what level of offer price is likely to result in its unit not being scheduled. In particular, the generator’s 3-hour ahead pre-dispatch shadow price provides information regarding local system conditions prior to the final window for submission of an offer in which a generator would signal its intention to come offline.

The Panel recognizes that real-time prices may vary from pre-dispatch prices and that a generator that is seeking to come offline may want a high degree of assurance that this outcome will occur at the planned time. Based on an analysis of historical pricing patterns, the Panel believes that offer price levels that are not more than 30% above a generator’s 3-hour ahead pre-dispatch

¹³ Market Design Committee, Second Interim Report, June 30, 1998, ch.3.

shadow price would normally provide a high degree of assurance that the unit will be dispatched below its MLP and be able to come offline in real-time. However, if prices are low, it is possible that the 3-hour ahead pre-dispatch shadow price may be below the generator's cost. In some instances, even an offer price that is 30% above the 3-hour ahead pre-dispatch shadow price could be below the generator's marginal cost. Accordingly, where there are *bona fide* business reasons for a generator to come offline, the Panel normally would not consider a gaming investigation to be warranted where the generator's offer price does not exceed the greater of (i) 130% of the generator's 3-hour ahead pre-dispatch constrained schedule (shadow) price, or (ii) the generator's marginal (or other incremental or opportunity) cost.

For generators participating in the IESO's Generation Cost Guarantee (GCG) Program, the offer price during the generator's Minimum Generation Block Run Time normally will be used as the initial measure of marginal cost. In other cases, the generator's offer prices during the period prior to the proposed ramp-down will be used as the initial indicator of marginal cost. In their comments on the proposed version of this Monitoring Document, some generators noted that the costs of producing electricity during the ramp-down process will typically be higher than the generator's marginal cost during normal operations and that there could also be other incremental or opportunity costs associated with the generator's planned shut-down. Where the generator can document that it would incur higher marginal or other incremental or opportunity costs to continue to operate beyond its desired ramp-down period, the Panel will consider the nature and magnitude of such costs in its assessment.