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## Market Rule Amendment Proposal

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### PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00356		
Subject:	Generation Cost Guarantees		
Title:	Interim Changes to Real-Time and Day-Ahead Generation Cost Guarantee Programs		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input type="checkbox"/> Deletion	<input type="checkbox"/> Addition
Chapter:	7	Appendix:	
Sections:	2.2B, 2.2C, 3.3A.10, 5.7.1, 6.3A, 6.3B		
Sub-sections proposed for amending:			

### PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Technical Panel Review	June 17, 2009
2.0	Publish for Stakeholder Review and Comment	June 24, 2009
3.0	Draft for Technical Panel Review	July 15, 2009
4.0	Draft for Technical Panel Vote	July 24, 2009
5.0	Revised Draft for Technical Panel Vote	August 12, 2009
6.0	Recommended by Technical Panel; submitted for IESO Board Approval	August 18, 2009
Approved Amendment Publication Date:		
Approved Amendment Effective Date:		

### PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Provide a brief description of the following:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

#### Summary

This amendment proposes changes to the market rules governing the real-time and day-ahead generation cost guarantee (GCG) programs. Compared to the current GCG program design, the proposed changes are expected to result in more efficient economic outcomes.

Addressing the inefficiencies associated with the current GCG program design aligns with the Market Surveillance Panel January 2009 Report which recommended that the IESO consider changes to the method of calculating guarantees to improve the effectiveness of day-ahead scheduling decisions.

The proposed changes include:

- Linking the guarantee payment to the market participant's offer price
- Introducing more stringent eligibility requirements for the real-time GCG program
- Removing operating reserve revenues from the guarantee payment
- Revising definitions of parameters used for calculating the guarantee payment.

#### Background

The IESO committed to review the current real-time commitment and generation cost guarantee programs in light of changes to the day-ahead guarantee program being implemented in 2011 with the new Enhanced Day Ahead Commitment (EDAC) design. Through this review, it has become evident that certain aspects of the guarantee programs are resulting in economically inefficient outcomes; namely, market demand is being met by resources with a higher incremental cost than the incremental cost of other available resources.

#### Market Efficiency Analysis Results

The results of an efficiency analysis of the guarantee programs suggest that the proposed changes to the GCG program could provide potential efficiency gains estimated at \$6.8 million annually.

As compared to the expected efficiency gains, the IESO cost of making the proposed improvements to the GCG programs is relatively small; a one-time expense of roughly \$100,000.

#### Impacts on HOEP and Uplifts

The IESO has considered the impact on market prices and uplifts related to the proposed changes in generator cost guarantee programs:

#### *HOEP*

- Approximately 40% of the replacement energy for the currently overcommitted generators would

**PART 3 – EXPLANATION FOR PROPOSED AMENDMENT**

be provided by imports which do not set price and therefore would have no impact on price. The other 60% could put some upward pressure on HOEP. Based on analysis completed for the Day-Ahead Market Evolution Preliminary Assessment, the potential increase to the annual average HOEP could be in the range of \$0.10 - \$0.39/MWh. After considering the impact of the global adjustment, the increase in the average annual effective HOEP could be in the range of \$0.02 - \$0.08 cents/MWh<sup>1</sup>.

*Uplifts*

- The annual avoided cost for the guarantee payments is estimated at \$13.2 million.
- The increase in annual intertie offer guarantee payments is estimated at \$6.7 million.
- The net change in uplift payments is a \$6.5 million reduction, which translates into a reduction of \$0.045/MWh.

*Total Impact on Consumers*

- The total impact on consumers would likely be negligible (~ \$0.01/MWh increase) since the increase in HOEP would be offset by the reduction in uplifts.

**Discussion**

The first proposed change enables the guarantee payment to be linked to the market participant's offer price. The IESO will use the information submitted by the market participant to calculate the combined guaranteed costs. This amendment is expected to incent generators to offer their units at a price closer to their incremental energy cost, allowing the IESO to schedule the lowest cost resource first.

It is proposed to amend Chapter 7, sections 2.2B.1.3 and 2.2C.1.4 which specify the information to be submitted by the market participant in order to be eligible for the guarantee. Currently, the market participant submits the "combined guaranteed costs" which include all fuel costs of start-up, ramping to minimum loading point (MLP) and operation during its minimum generation block run time (MGBRT), in both the real-time and day-ahead GCG programs. With the proposed changes, the market participant would no longer be allowed to submit fuel costs associated with operation during MGBRT; these costs would be recovered through the market participant's offer price associated with MGBRT and not as a submitted cost. For the day-ahead GCG program, the market participant also submits the incremental operating and maintenance (O&M) costs for start-up, ramping to MLP and operation during its MGBRT. Similar to the treatment of fuel costs associated with MGBRT, it is proposed that the market participant would no longer be allowed to submit O&M costs associated with MGBRT. Rather, O&M costs incurred during MGBRT would be recovered through the market participant's offer price associated with MGBRT. In addition, the amendment would allow market

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<sup>1</sup> The estimated impact of the global adjustment takes into account the expiry of the OPG rebate. The MW quantities that were subject to the OPG rebate will be offset by supply expected to be subject to the global adjustment over the period of this interim change.

**PART 3 – EXPLANATION FOR PROPOSED AMENDMENT**

participants to submit incremental O&M for start-up and ramp to MLP in the real-time guarantee program. This change would create parity between the real-time and day-ahead guarantee program since the day-ahead guarantee program already allows market participants to claim those costs.

The second proposed amendment is to increase the minimum requirements for eligibility for the real-time generator cost guarantee. The proposed changes would introduce more stringent eligibility requirements for the real-time GCG program by requiring the facility to be economic for a longer period ( $\frac{1}{2}$  of MGBRT, instead of only 1 hour) and for a higher MW quantity (full MLP, instead of only 1 MW) – refer to section 5.7.1.3.

This will reduce the real-time scheduling inefficiency related to constraining on resources whose offers are economic for only a short period. In recognition of the varying ramp times for different generation facilities, the amendment introduces the concept of MGBRT for the determination of:

- eligibility for the real-time guarantee (Ch 7, section 2.2B);
- pre-dispatch scheduling of facilities eligible for the real-time guarantee (Ch 7, section 5.7); and
- real-time scheduling of facilities eligible for the real-time guarantee (Ch 7, section 6.3A).

The IESO may, for reliability reasons, constrain on a generation facility after the release of the pre-dispatch of record until the dispatch hour. If constrained on for reliability, a generation facility that does not meet the MGBRT requirement for eligibility for the real-time GCG program will be deemed to have accepted the real-time GCG and must satisfy the other relevant eligibility requirements listed in Chapter 7, section 5.7 – refer to new section 6.3A.4. The IESO will consult with the registered market participant prior to applying the constraint for reliability reasons, but market participant consent is not required as the IESO already has sufficient authority under the Market Rules to dispatch resources that have submitted dispatch data as necessary to maintain reliability. Allowing a facility that is constrained on in real-time to be eligible for the RT-GCG would be consistent with the day-ahead GCG program; eligible facilities that are constrained on for reliability reasons during the day-ahead commitment process receive the DA-GCG. Section 5.7.1.4 has been revised for consistency with section 6.3A.4 so that offer prices can't be increased either after the market participant indicates that it intends to synchronise under the program or after the IESO has applied manual constraints. This reflects the original intent of the provision which was to eliminate gaming opportunities whereby a market participant could increase its offer prices once it accepted the guarantee in order to earn high CMSC payments for its minimum run-time operations.

It is also proposed to modify section 5.7.1.2 such that a generator must use the same offer price for the minimum loading point for the entire MGBRT period in order to be eligible for a real-time generation cost guarantee. This change would reduce the potential for offer strategies that would interfere with the objective of the amendment which is to schedule generators on the basis of offers closer to their true costs. Generators will be able to lower their offers (if necessary to achieve real-time scheduling objectives) after MLP constraints have been applied. (Note that the proposed change to Chapter 9, section 4.7B.1.2 states that the offer price for calculation of the guaranteed incremental energy costs will be the real-time dispatch offer price. This means that if the offer is lowered after constraints have been applied, the generator's guaranteed costs will be based on the lower offer.)

The concept of MGBRT is already used in the day-ahead guarantee program as a determinant of eligibility (Ch 7, sec 2.2C) and for pre-dispatch scheduling of eligible facilities (Ch 7, sec 5.8). For

**PART 3 – EXPLANATION FOR PROPOSED AMENDMENT**

consistency, it is proposed to amend Ch 7, section 6.3B such that real-time scheduling of facilities eligible for the day-ahead guarantee is also based on MGBRT.

A definition change is also required for “minimum generation block run-time”, as well as a clarification/change to the definitions of “minimum run-time” and “per-start”. The current definition of MGBRT results in a number of MGBRT hours that is greater than the technical requirements of the facility (refer to MR-00356-R02 for further clarification of the definition changes).

The third proposed change is to introduce another eligibility requirement for the day-ahead guarantee so that eligibility requirements are consistent between real-time and day-ahead guarantee programs. In the real-time GCG, a market participant may not increase the offer prices in its submitted price-quantity pairs corresponding to the generation facility’s MLP for the minimum run time after the time of the publication of the pre-dispatch schedule determined three hours prior to the dispatch hour (see Ch 7, sec 5.7.1.4). This provision was included in the real-time guarantee program to prevent a gaming opportunity whereby a market participant is scheduled for the dispatch hour, but prior to notifying the IESO of its intention to synchronize and qualify for the guarantee, the participant increases those offer prices and then receives very high CMSC payments for its MGBRT. The gaming opportunity also potentially exists in the day-ahead guarantee program and, accordingly, the introduction of a similar restriction is proposed for the day-ahead guarantee program (refer to Ch 7, sec 3.3A.10).

**PART 4 – PROPOSED AMENDMENT****2.2B Generation Facility Eligibility for the Real-Time Generation Cost Guarantee**

2.2B.1 A *registered market participant* for a *generation facility* shall be eligible for the guarantee of certain elements of its costs, calculated in accordance with section 4.7B of Chapter 9, provided the following criteria are met:

2.2B.1.1 the facility is not a quick-start facility;

2.2B.1.2 the *facility* is a dispatchable *generation facility*; and

2.2B.1.3 [Intentionally left blank – section deleted];

2.2B.1.34 the *registered market participant* has, according to the timelines and in the form specified in the applicable *market manual*, submitted to the IESO the following data for the *generation facility*: ~~*combined guaranteed costs*~~ fuel costs for start up and ramp to minimum loading point; the minimum run-time; the minimum loading point; the minimum generation block run-time; and any incremental operating and maintenance costs associated with the facility for start-up and

~~ramp to minimum loading point for that facility, and the minimum loading point~~ and that the *IESO* accepts the data as reasonable.

## 2.2C Generation Facility Eligibility for the Day-Ahead Generation Cost Guarantee

2.2C.1 A registered market participant for a generation facility shall be eligible for the guarantee of certain elements of the *facility's* costs, calculated in accordance with section 4.7D of Chapter 9, provided the following criteria are met:

2.2C.1.1 the facility is not a quick-start facility;

2.2C.1.2 the *facility* is a dispatchable *generation facility*;

2.2C.1.3 ~~the facility is located within Ontario; and~~ Intentionally left blank – section deleted];

2.2C.1.4 the registered market participant has, according to the timelines and in the form specified in the applicable *market manual*, submitted to the *IESO* the following ~~information data~~ for the *generation facility*: ~~the combined guaranteed costs~~ fuel costs for start up and ramp to minimum loading point; the *minimum run-time*; the *minimum loading point*; the *minimum generation block run-time*; and any incremental operating and maintenance costs associated with the *facility* for start-up and ramp to minimum loading point, ~~minimum run time for that facility as determined in the pre-dispatch of record~~ and that the *IESO* accepts the data as reasonable.

## 3.3A Dispatch Data Submissions for the Day-Ahead Commitment Process

### Market Participant Revisions to Dispatch Data

3.3A.8 Subject to sections 3.3A.9 and 3.3A.11, after the *IESO* releases the constrained schedules from the *pre-dispatch of record* a registered market participant may submit revised *dispatch data* with respect to any *dispatch hour* without restriction until 2 hours prior to the beginning of that *dispatch hour*.

3.3A.9 A registered market participant for a dispatchable *generation facility* that did submit *dispatch data* under section 3.3A.2 may revise its *offer* in real-time provided the revised *dispatch data* does not increase the offered quantity in any hour relative to the *dispatch data* submitted under section 3.3A.2. Registered market participants may revise prices offered. Revised *offers* which represent increases to the hours, or increases to the offered quantity relative to the *dispatch*

*data* submitted under section 3.3A.2 will require *IESO* approval. Changes to daily *energy* limits will not require *IESO* approval.

- 3.3A.10 *A registered market participant for a dispatchable generation facility that was deemed to have accepted the guarantee in accordance with section 5.8.4 shall not increase the offer prices in its submitted price-quantity pairs corresponding to the generation facility's minimum loading point for the minimum generation block run-time after the time of the publication of the constrained schedule resulting from the pre-dispatch of record. A registered market participant may submit revised dispatch data for an hour-ahead dispatchable load with respect to any dispatch hour, without restriction, until 3 hours prior to that dispatch hour*

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## 5.7 Pre-Dispatch Scheduling of Generation Facilities Eligible for the Generation Cost Guarantee

5.7.1 A *generation facility* shall be eligible on a voluntary basis for the generation cost guarantee on a *per-start* basis for a given *dispatch hour*, provided that:

- 5.7.1.1 the criteria specified in section 2.2B have been met:
- 5.7.1.2 the *offer price* in the submitted *price-quantity pair* corresponding to the *minimum loading point* for that *generation facility* for ~~the first hour~~all hours of the *minimum generation block run-time* ~~for that generation facility is greater than or must be equal to the same to the offer prices in the submitted price-quantity pairs corresponding to the minimum loading point for that generation facility for subsequent hours of the minimum generation block run-time until after the IESO has constrained on the generation facility as specified in section 6.3A.2;~~
- 5.7.1.3 the *generation facility* is scheduled ~~for the dispatch hour~~ in any *pre-dispatch schedule* determined within 3 hours ahead of the *dispatch hour*;
- a. for the *dispatch hour*; and
- b. for at least half of *minimum generation block run-time*, rounded up, at *minimum loading point* or higher, during the period from *dispatch hour* until the earlier of:
- the end of the period representing *minimum generation block run-time*; or
  - the end of the period representing *minimum run-time*;

- 5.7.1.4 the *registered market participant* for the *generation facility* does not increase the *offer prices* in its submitted *price-quantity pairs* corresponding to the *generation facility's minimum loading point* for the *minimum generation block run-time* after ~~the time of the publication of the *pre-dispatch schedule* determined three hours prior to the *dispatch hour*~~ notifying the *IESO* of its intention to synchronise under section 5.7.1.6 or after the *IESO* has applied a manual constraint under section 6.3A.4;
- 5.7.1.5 the *generation facility* is not already synchronised at the time of the publication of the applicable *pre-dispatch schedule* referred to in section 5.7.1.3;
- 5.7.1.6 the *registered market participant* for the *generation facility* notifies the *IESO* of its intention to synchronise and then run for at least the *minimum generation block run-time* in accordance with applicable *market manual*; and
- 5.7.1.7 at the time of notification of intention to synchronise made in accordance with section 5.7.1.4, the *registered market participant* for the *generation facility* also notifies the *IESO* of its intention to qualify for the generation cost guarantee.

## 6.3A Real-Time Scheduling of Generation Facilities Eligible for the Generation Cost Guarantee

- 6.3A.1 After the *registered market participant* for a *generation facility* eligible for the generation cost guarantee notifies the *IESO* of its intent to synchronise pursuant to section 5.7 of Chapter 7, that *generation facility* shall synchronise, unless otherwise agreed to by the *IESO*, before the end of the specified *dispatch hour* and, subject to section 6.3A.3, run ~~for~~ until the end of the *minimum generation block run-time*.
- 6.3A.2 The *IESO* shall, unless there is an adverse impact on the *reliable* operation of the *IESO-controlled grid*, if necessary to respect the *minimum generation block run-time* submitted by the *market participant* for the *generation facility*, constrain on the *facility* at its *minimum loading point* for the specified *minimum generation block run-time*.
- 6.3A.3 If the *IESO*, for reasons of *reliability*, constrains off the *generation facility* such that the *generation facility* has to de-synchronise before the end of its *minimum generation block run-time*, the *generation facility* shall remain eligible for the generation cost guarantee.
- 6.3A.4 In consultation with the *registered market participant*, the *IESO* may, for *reliability reasons*, during the time period from the release of the *pre-dispatch of record* until the *dispatch hour*, manually apply a constraint to a *generation facility*



that submitted offers into the pre-dispatch schedule to ensure that the output from that generation facility is scheduled for at least its minimum generation block run time. If the IESO applies that manual constraint, the generator will be deemed to have accepted the generation cost guarantee provided that:

- the criteria specified in sections 5.7.1.1 and 5.7.1.4 are satisfied; and
- the generation facility is not synchronized at the time the manual constraint is applied.

### **6.3B Real-Time Scheduling of Generation Facilities Eligible for the Day-Ahead Generation Cost Guarantee**

6.3B.1 If the IESO, for reasons of reliability, requires a *generation facility* that was eligible for the day-ahead generation cost guarantee under section 2.2C and that has accepted the day-ahead generation cost guarantee to either desynchronize from the *IESO-controlled grid* or to not synchronize to the *IESO-controlled grid* such that the *generation facility* does not meet its *minimum generation block run-time* requirements, the *generation facility* shall remain eligible for the day-ahead generation cost guarantee. The *registered market participant* for the *generation facility* may also apply to the IESO for additional compensation under section 4.7E.1 of Chapter 9.

6.3B.2 If a *generation facility* that was eligible for the day-ahead generation cost guarantee under section 2.2C and that has accepted the day-ahead generation cost guarantee does not meet its *minimum generation block run-time* requirements due to reasons not specified in section 6.3B.1 then the *facility* shall not remain eligible for the day-ahead generation cost guarantee nor shall the *registered market participant* for the *generation facility* be eligible to apply to the IESO for additional compensation under section 4.7E.1 of Chapter 9.

#### **PART 5 – IESO BOARD DECISION RATIONALE**

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## Market Rule Amendment Proposal

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### PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00356		
Subject:	Generator Cost Guarantees		
Title:	Interim Changes to Real-Time and Day-Ahead Generation Cost Guarantee Programs		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input type="checkbox"/> Deletion	<input type="checkbox"/> Addition
Chapter:	9	Appendix:	
Sections:	4.7B, 4.7D		
Sub-sections proposed for amending:			

### PART 2 – PROPOSAL HISTORY – REFER TO MR-00356-R00

Version	Reason for Issuing	Version Date
Approved Amendment Publication Date:		
Approved Amendment Effective Date:		

**PART 3 – EXPLANATION FOR PROPOSED AMENDMENT**

Provide a brief description of the following:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

**Summary**

Refer to MR-00356-R00

**Background**

Refer to MR-00356-R00

**Discussion**

This amendment proposes the following changes to the way in which the real-time and day-ahead GCG is calculated:

- Amend Ch 9, sections 4.7B and 4.7D such the real-time and day-ahead GCG payment would be based on the market participants offer price and fuel costs for start up and ramp to minimum loading point. For the real-time guarantee program, the offer price for calculating the guaranteed incremental energy costs will be based on the offer price associated with the real-time dispatch rather than the offer price upon which the real-time guarantee was invoked. For the day-ahead guarantee program, the offer price for calculating the incremental energy costs will be based on the offer price associated with the pre-dispatch of record.
- Remove operating reserve (OR) revenues from the guarantee payment (sections 4. 4.7B.1.1b and 4.7D.1.1b). This change is intended to eliminate the potential disincentive for generators that are eligible for guarantees to provide OR.
- Amend section 4.7B to allow market participants to submit incremental operating and maintenance costs for start up and ramp to minimum loading point to be included as a guaranteed cost and submitted using form 1551 in the real-time GCG program. Currently, no operating and maintenance costs are allowed to be submitted for the real-time GCG.
- Amend section 4.7D to allow market participants to submit incremental operating and maintenance costs related *only* to start-up and ramp to minimum loading point to be included as a guaranteed cost and submitted using form 1551 in the day-ahead GCG program. Any costs related to the market participant's minimum generation block are to be recovered through their offer price which is used in the calculation of all incremental energy costs during their minimum generation block run-time. Currently, all incremental operating and maintenance costs for the day-ahead GCG are submitted via form 1551.

## PART 4 – PROPOSED AMENDMENT

**4.7B Real-Time Generation Cost Guarantee Payments**

4.7B.1 The IESO shall determine on a *per-start* basis, for each *generation facility* that has met the eligibility criteria for the real-time generation cost guarantee specified in sections 2.2, 5.7 and 6.3A of Chapter 7, the following:

4.7B.1.1 the sum of the following revenues earned in each *dispatch interval* during the period from synchronisation ~~to~~ until the end of the *minimum generation block run-time* or the end of the minimum run-time, whichever comes first:

a. *energy market* prices multiplied by the sum of the applicable AQEI and any applicable *physical allocation data*, for *energy* injected up to and including the *minimum loading point*; and

~~b. hourly settlement amounts for operating reserve; and~~

~~eb.~~ any congestion management *settlement* credit payments resulting from the *facility* being constrained on in order to meet its *minimum loading point*; and

4.7B.1.2 the applicable *combined guaranteed costs* ~~submitted by the market participant~~ for the specified *generation facility* for the start to which the revenues determined in accordance with 4.7B.1.1 apply. The combined guaranteed costs will be calculated by the IESO and will be the sum of the following costs:

a. fuel costs for start up and ramp to minimum loading point submitted by the market participant as outlined in section 2.2B.1.4, and

b. the offer price associated with the real-time dispatch multiplied by the energy injected, to a maximum of the minimum loading point, during the period from the beginning of the minimum generation block run-time until the earlier of:

- the end of the period representing minimum generation block run-time; or

- the end of the period representing minimum run-time.

The other costs that are to be considered in addition to those specified in the definition of combined guaranteed cost are:

a. incremental operating costs for start up and ramp to minimum loading point; and

b. incremental maintenance costs for start up and ramp to *minimum loading point*;

where both of these additional cost components are reported to the IESO in the manner specified in the applicable *market manual*.

- 4.7B.2 If for each eligible *generation facility* the sum of the revenues calculated pursuant to section 4.7B.1.1 is greater than or equal to the *combined guaranteed costs* referred to in section 4.7B.1.2, then no additional payments are made in respect of the eligible *generation facility* by the IESO.
- 4.7B.3 If for each eligible *generation facility* the sum of the revenues calculated pursuant to section 4.7.1.1 is less than the *combined guaranteed costs* referred to in section 4.7B.1.2, then the IESO shall calculate that difference and shall include that amount in the form of additional payments made in respect of the eligible *generation facility*.
- 4.7B.4 A *real-time* generation cost guarantee shall not be paid for a *generation facility* with respect to costs incurred or revenues accrued by that *generation facility* for which a day-ahead generation cost guarantee applies under section 4.7D.

## 4.7D Day-Ahead Generation Cost Guarantee Payments

- 4.7D.1 The IESO shall determine on a *per-start* basis, for each *generation facility* that has met the criteria set out in chapter 7, sections 2.2C and 6.3B, a day-ahead generation costs guarantee on the basis of the following:
- 4.7D.1.1 the sum of the following revenues earned in each *dispatch interval* during the period from synchronisation to the end of the *minimum generation block run-time*:
- a. *energy market prices* multiplied by the sum of the applicable AQEI and any applicable *physical allocation data*, for *energy* injected up to and including the *minimum loading point*;
  - ~~b. hourly settlement amounts for operating reserve; and~~
  - eb. any congestion management *settlement* credit payments resulting from the *facility* being constrained on in order to meet its *minimum loading point*; and
- 4.7D.1.2 the applicable day-ahead *combined guaranteed costs* and other costs specified in this section ~~submitted by the market participant~~ for the specified *generation facility* for the start to which the revenues determined in accordance with 4.7D.1.1 apply. The *combined guaranteed costs* will be calculated by the IESO and will be the sum of the following:

- a. fuel costs for start up and ramp to *minimum loading point* submitted by the *market participant* as outlined in section 2.2C.1.4, and
- b. *offer price* used to establish the *pre-dispatch of record* multiplied by the *energy injected during the minimum generation block run-time* to a maximum of the *minimum loading point*.

The other costs that are to be considered in addition to those specified in the definition of *combined guaranteed cost*, ~~*day-ahead combined guaranteed costs*~~ are:

- a. incremental ~~*variable*~~ operating costs for start up and ramp to *minimum loading point*; and
- b. incremental ~~*variable*~~ maintenance costs for start up and ramp to *minimum loading point*;

where both of these additional cost components have, in the opinion of the *IESO*, a reasonable and demonstrable link with the day-ahead commitment to which they pertain and are reported to the *IESO* in the manner specified in the applicable *market manual*.

- 4.7D.2 If for each eligible *generation facility* the sum of the revenues calculated pursuant to section 4.7D.1.1 is greater than or equal to the sum of the costs referred to in section 4.7D.1.2, then the *IESO* shall make no additional payments in respect of the eligible *generation facility*.
- 4.7D.3 If for each eligible *generation facility* the sum of the revenues calculated pursuant to section 4.7D.1.1 is less than the sum of the costs referred to in section 4.7D.1.2, then the *IESO* shall calculate that difference and shall include that amount in the form of additional payments made in respect of the eligible *generation facility*.

## PART 5 – IESO BOARD DECISION RATIONALE

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## Market Rule Amendment Proposal

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### PART 1 – MARKET RULE INFORMATION

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Chapter:	11	Appendix:	
Sections:			
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### PART 2 – PROPOSAL HISTORY

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**PART 3 – EXPLANATION FOR PROPOSED AMENDMENT**

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**Summary**

Refer to MR-00356-R00

**Background**

Refer to MR-00356-R00

**Discussion**

It is proposed to amend the market rule definition of “minimum generation block run-time” (MGBRT). MGBRT is currently used to determine whether or not a resource is eligible for the day-ahead generator cost guarantee, and it is proposed (under R00) that MGBRT will be used to determine eligibility for the real-time guarantee. MGBRT would also be used to determine the real-time scheduling obligations of generation facilities under either of the guarantee programs.

In order to correctly determine eligibility for the day-ahead and real-time guarantees, MGBRT must be a static number of hours, based on the technical requirements of the facility. The current definition of MGBRT is a formula (not a static number).

In addition, it is proposed to clarify the definition of “minimum run-time”. The current definition does not consider that generation facilities may have ramp times that vary between one and five or more hours. The minimum run-time should reflect the time that a facility must be operating, for technical reasons, from a cold start.

As well, the definition of “per start” must be corrected. Currently, it indicates that a “start” operates for the minimum run-time. Since the guarantee now covers the period from synchronization until the end of MGBRT, the start may end before the registered minimum run-time does.

**PART 4 – PROPOSED AMENDMENT**

*minimum generation block run-time* means the number of hourstime difference, specified by the *market participant*, between the minimum run time and the minimum time required for that a generation facility to ramp from synchronization to must be operating at *minimum loading point* in accordance with the technical requirements of the facility;

*minimum run-time* means the ~~time period~~ number of hours required specified by the market participant, for which a the generation facility to ramp from a cold start to minimum loading point plus minimum generation block run-time, having synchronized to the IESO-controlled grid, must run specified by the market participant, in accordance with the technical requirements of the *facility*;

*per-start* means the act of achieving synchronization to the *IESO-controlled grid*, ramping to the *minimum loading point* and operating at the *minimum loading point* ~~for until the end of~~ the *minimum generation block run-time*;

#### **PART 5 – IESO BOARD DECISION RATIONALE**

Insert Text Here