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## Market Rule Amendment Proposal

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### PART 1 – MARKET RULE INFORMATION

Identification No.:	<b>MR-00309-R00</b>		
Subject:	<b>Generation Facility Registration</b>		
Title:	<b>Provision of Black Start Capability by Self-Scheduling and Transitional Scheduling Generators</b>		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input type="checkbox"/> Deletion	<input type="checkbox"/> Addition
Chapter:	7	Appendix:	
Sections:	2.2		
Sub-sections proposed for amending:	2.2.10; 2.2.20		

### PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Technical Panel Review	29 Nov 05
2.0	Submitted for URAC Approval	29 Nov 05
3.0	Approved by Urgent Rule Amendment Committee of the IESO Board	30 Nov 05
4.0	Ratified by IESO Board	7 Dec 05
Approved Amendment Publication Date:	30 Nov 05	
Approved Amendment Effective Date:	1 Dec 05	

### 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 would permit registered market participants to register a self-scheduling or transitional scheduling generation facility to be a certified black start facility. The existing market rules do not allow a self-scheduling or transitional scheduling generation facility to be a certified black start facility.

This amendment is deemed urgent as it meets the following statutory criteria:

“To avoid, reduce the risk of or mitigate the effects of an unintended adverse effect of a market rule.” (section 34(4) of the Electricity Act, 1998).

The existing market rules prohibiting self-scheduling and transitional scheduling generators from being a certified black start facility were developed within the context of:

- self-scheduling generation facilities being too small (less than 10 MW) to be providers of black start capability; and
- transitional scheduling generators being truly “transitional” and moving to being dispatchable, self-scheduling or intermittent.

Due to recent industry developments and other changes to the market rules, there are now larger (> 10 MW) self-scheduling generators in Ontario, the unintended adverse effect of the existing market rules is to not allow the IESO to contract with a market participant for black start capability for a facility technically and demonstrably capable of being a certified black start facility.

This amendment ensures the timely maintenance of black start capability in a specific area of Ontario that could not otherwise be procured without the use of a specific self-scheduling generation facility in that area. No other market participant in that area of Ontario has identified that their facility is capable of providing black start capability.

#### Background

The initial set of market rules from the Market Design Committee and the Ministry of Energy allowed a self-scheduling generator to provide any physical service (energy, ancillary services). Refer to the original rules following:

- Ch 7 section 2.2.10: A self-scheduling generation facility may be registered to provide any physical service, provided that its registration information meets the applicable requirements of this section 2.2.
- Chapter 11 Definitions:
  1. physical service means the service of providing energy or ancillary services;

**PART 3 – EXPLANATION FOR PROPOSED AMENDMENT**

2. ancillary service means a service necessary to maintain the reliability of the IMO-controlled grid, including but not limited to frequency control, voltage control, reactive power and operating reserve.

It should be noted that black start capability was later defined as a contracted ancillary service.

The market rules were amended in November 1999 under MDI 48 to not allow self-scheduling generation (SSGs) to provide operating reserve. The rationale for this change was that SSGs were small (i.e. less than 10 MW), had not invested in the communication infrastructure to be dispatchable, and would have not submitted operating reserve offers. The change under MDI 48 also did not permit a self-scheduling generation facility to provide any physical service except for energy. Section 2.2.10 was changed to the following:

- Ch 7 section 2.2.10: A self-scheduling generation facility may not be registered to provide any physical service other than energy.

The market rules for Transitional Scheduling Generators (TSGs), MR-00019, were developed in the summer of 2001 to accommodate existing generators with Ontario Hydro Power Purchase Agreements with OEFC. TSG treatment in the market rules was mirrored on the treatment of SSGs, at the request of the affected participants and as most of the TSGs operated as SSGs anyway. Some of the TSGs are much larger than the 10 MW SSG limit. The TSG model and rules were viewed and justified as transitional. It was expected that the TSGs and OEFC would amend the Power Purchase Agreements to accommodate the IESO-administered markets and that the TSGs would then re-register under the prevailing market rules.

Further changes were made to section 2.2.10 under MR-00186 in the spring of 2002 to allow TSGs, SSGs and intermittent generators to provide reactive support and voltage control service. The rationale for this change was that some SSGs and TSGs already provide reactive support and voltage control. This change resulted in the existing market rule:

- Ch 7 section 2.2.10: A self-scheduling generation facility may not be registered to provide any physical service other than energy and reactive support service and voltage control service.

After the market opened, cogeneration and enhanced combined cycle generation facilities were permitted to be registered as self-scheduling (MR-00161 and MR-00241), in recognition of their unique operating characteristics. These amendments had the result that generation facilities much larger than 10 MW could be self-scheduling. The implications of these changes and the restrictions on the type of services a self-scheduling generator could provide were not considered as part of these amendments.

In 2004, the IESO entered into an ancillary services contract for provision of black start capability with a large cogeneration facility that was registered as self-scheduling generation facility. The cogeneration facility was the only facility in a specific part of Ontario that offered to provide black start capability. Both the IESO and the market participant were unaware of the market rule not permitting self-scheduling generation to provide black start capability. It is only recently; after the contract re-negotiation process; that the existing market rule restriction was identified. Changes to the market rules are required for the contract to be renewed.

With the recent announced Ontario government and Ontario Power Authority requests for supply (Renewable Energy Supply, Clean Energy Supply), it is expected that there will be more large self-scheduling generation facilities in Ontario. Contracts awarded under these industry initiatives require the generators to be self-scheduling in the IESO-administered markets. The size of the potential

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projects under these initiatives is up to 200 MW. Some of these facilities may be able to provide black start capability.

#### Discussion

The proposed amendments would allow self-scheduling and transitional scheduling generation facilities to be registered as a certified black start facility. These facilities would continue to be able to provide energy and reactive support service and voltage control service.

It is proposed that both self-scheduling and transitional scheduling generation facilities be allowed to be registered as a certified black start facility for the following reasons:

- There is an expected increase in the number of large self-scheduling generation facilities in Ontario resulting from Ontario government and OPA requests for new supply, as noted above;
- Transitional scheduling generators have been historically treated equivalently as self-scheduling generation; and
- Increasing the number of potential certified black start facilities would improve competition for the provision of this contracted ancillary service and positively impact on reliable operation of the IESO-controlled grid.

A self-scheduling and transitional scheduling generation facility that wishes to be a certified black start facility would still need to meet all the existing technical and operational requirements as any other certified black start facility.

It is not proposed to permit self-scheduling and transitional scheduling generation facilities to provide other contracted ancillary services (regulation) or operating reserve at this time, as those changes would require significant discussion with stakeholders and analysis on the reliability and market impacts.

The amendment also proposes that sections 2.2.10 and 2.2.20 be re-worded positively in order to facilitate reader understanding. That is, the proposed amendment would specify what a self-scheduling or transitional scheduling generator may be registered to provide rather than what it cannot be registered to provide.

### PART 4 – PROPOSED AMENDMENT

## 2.2 Registered Facilities

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2.2.10 A self-scheduling generation facility may ~~not~~ be registered:

- to provide ~~any physical service other than~~ energy ~~and~~ ~~and~~ reactive support service and voltage control service; and
- as a certified black start facility.

.....  
2.2.20 A *transitional scheduling generator* may ~~not~~ be registered:

- ~~to provide any physical service other than~~ *energy and reactive support service and voltage control service* and
- as a *certified black start facility*.

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

This amendment ensures the timely maintenance of black start capability in a specific area of Ontario that could not otherwise be procured without the use of a specific self-scheduling generation facility in that area.