



IMO Staff Recommendation to Panel on Exemption Application (Specified Facilities and Equipment Prior to Market Opening)

All information submitted in this process will be used by the *IMO* solely in support of its obligations under the "Electricity Act, 1998", the "Ontario Energy Board Act, 1998", the "Market Rules" and associated policies, standards and procedures and its *license*. All submitted information will be assigned the appropriate confidentiality level upon receipt.

Terms and acronyms used in this Form that are italicized have the meanings ascribed thereto in Chapter 11 of the "Market Rules".

PART 1 – GENERAL INFORMATION

<p><i>Market Participant Name:</i> Ontario Power Generation Inc. (OPGI)</p> <p><i>Location/Site:</i> Darlington GS</p> <p><i>Exemption Application ID:</i> 1160 (b) <i>Market Participant ID:</i></p> <p><i>Description of Exemption Requested:</i> The <i>exemption applicant</i> is requesting an <i>exemption</i> from data monitoring requirements as specified in Chapter 4, Appendix 4.2 of the "Market Rules".</p> <p><i>Date Exemption Application Received:</i> July 9, 2001</p> <p><i>Date all relevant application information supplied by exemption applicant:</i> November 2, 2004</p> <p><i>Management Approvals Obtained:</i> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><i>Section of the Exemption Application and Assessment Procedure under which the exemption application is made:</i></p> <ul style="list-style-type: none">• Section 1.5.1 (Application for Exemptions for Facilities and Equipment prior to Market Opening) <p><i>Market Rule(s) or related Market Manual(s) from which exemption is requested (copy of Market Rule(s) or Market Manual(s) attached):</i> "Market Rules" Baseline 12.0, Chapter 4: Appendix 4.2.</p> <p><i>Third Party Submissions Received:</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Pending Third Party Review</i></p> <p><i>Supplemental Assessment Information Attached:</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p><i>Related Historical Exemption Application(s) or Related Exemption Application(s) in Process:</i></p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Note: If YES, list History of <i>Exemption Applications</i>:</p> <p><i>Role of exemption applicant in the market as it relates to this exemption application:</i> <i>Generator</i></p>

PART 2 - RECOMMENDATION

Recommendation:

GRANT with conditions

Criteria Used in Assessment of Exemption Applications Prior to Market Opening (Section 1.5.2 of Exemption Application and Assessment Procedure):

(If X appears in a box, the criterion is applicable to this *exemption application* and is evaluated in Part 3 - Details of Assessment; if X does not appear in a box, the criterion is not applicable to this *exemption application*.)

Whether the *exemption* that is the subject-matter of the *exemption application* would, if granted, materially:

- impact the ability of the *IMO* to direct the operations and maintain the *reliability* of the *IMO-controlled grid*;

Comment: See “Assessment” section in Part 3.

- affect the ability of the *IMO* to operate the *IMO-administered markets* in an efficient, competitive, and reliable manner;

Comment: See “Assessment” section in Part 3.

Whether the cost or delay to the *exemption applicant* of complying with the obligation or standard to which the *exemption application* relates is reasonable, having regard to the nature of the obligation or standard, the nature of the *exemption application* and the anticipated impact of non-compliance by the *exemption applicant* in terms of the elements referred to above.

Comment: See “Cost to Comply” section in Part 3.

PART 3 – DETAILS OF ASSESSMENT

Exemption Request:

OPGI is requesting an *exemption* from Chapter 4, Appendix 4.2 of the “Market Rules”, specifically Reference 9, for the four 21.5 Megawatt Standby *Generators* located at the Darlington GS, which may be used occasionally as a system peaking resource.

Market Rule Requirement:

Appendix 4.2 in the “Market Rules” specifies the requirements for the *connection of embedded* and non-embedded *generation facilities* to the grid, specifically:

Reference 9 – *IMO* Monitoring and Telemetry requirements: data monitoring shall meet the requirements of Chapter 4. In the current context, this translates to a requirement to provide Megawatt and Megavar data monitoring for each Standby *Generator*.

Assessment:

Darlington GS consists of four large (935 Megawatts each) nuclear *generation units* which are supported by four gas turbine Standby *Generators* rated at 21.5 Megawatts each. Normally three of

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the Standby *Generators* must be configured to provide Class 3 power when power is not available to Darlington GS from the *IMO-controlled grid* (ICG). Class 3 power is a safety requirement of the Darlington GS nuclear operating *license* related to maintaining control systems and cooling pumps to ensure the safe operation of the station.

When all four Standby *Generators* are available, one can be considered as a spare. OPGI is able to use this spare Standby *Generator* to connect to the ICG and make offers to the *IMO-administered markets* (IAM) for peaking power purposes (i.e. additional power to the IAM during periods of peak demand).

The Standby *Generators* are tested regularly as part of the Darlington nuclear license requirements and this also requires connection to the ICG during the tests.

This exemption application requests an exemption to the data monitoring requirements of the *Market Rules*. The *Market Rules*, in this situation, require the provision of the Megawatt and Megavar output of each Standby *Generator* to be telemetered to the IMO. At present, only the aggregate of the output of the four Standby *Generators* is telemetered, along with the synchronizing breaker status of each Standby *Generator*.

OPGI has indicated that it would cost *Confidential Information Withheld at Request of the Applicant* (see “Cost to Comply” below) to implement and install the telemetry as required by the *Market Rules*. IMO staff have assessed the impact to the ICG and IAM and have concluded that the cost burden far exceeds the benefits.

1. The following factors have been considered in this assessment.
2. The spare Standby *Generator* that is connected to the ICG for peaking power or for testing is only connected to the ICG for short periods of time. This limits any impacts to an acceptable short time period.
3. The IMO is currently receiving data monitoring that shows the status of each Standby *Generator* synchronizing breaker as well as the total of the four Standby *Generator* outputs. If only one Standby *Generator* is synchronized at any time, then it is possible to determine which individual unit is running and what its output is. Darlington also provides planned resource information ahead of time to the IMO for the Standby *Generator* they plan on synchronizing to, and operating on the ICG. This information includes specific unit Megawatt output and planned duration. This information effectively provides the same result that would be derived from telemetry for the individual units as required by the *Market Rules*.
4. The provision of *energy* and *operating reserve* from the Standby *Generators* contributes to the *reliability* of the *IMO-controlled grid* and also provides a benefit to the efficient operation of the *IMO-administered markets*. The *energy* and *operating reserve* from the Standby *Generators* is most likely to be offered during peak demand periods, where the greatest benefit would be realized.

The IMO has assessed this exemption application and recommends that the exemption from providing data monitoring for each individual Standby *Generator* as required by the *Market Rules* be granted. A consideration of the costs (see “Cost to Comply below”) supports the granting of this exemption, as one of the principles embodied in the Exemption procedures permits exemptions to the *Market Rules* having due regard to “not impose unnecessary costs for *facilities* that have been operating in a reliable manner prior to commencement of the operation of the *IMO-administered markets* but do not meet current industry standards reflected in the *market rules*.” In this situation, the facility has been, and is reliable, is maintained at high nuclear licensing standards, is operated in

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an orderly manner with due notification and with low frequency of operation.

- If this exemption were to be granted, the IMO’s ability to direct the operations and maintain the *reliability* of the *IMO-controlled grid* would not be impacted.
- If this exemption were to be granted, the ability of the *IMO* to operate the *IMO-administered markets* in an efficient, competitive, and reliable manner would not be impacted.

Cost to Comply:

OPGI has estimated that the cost to provide additional telemetry to meet the market rule requirements would be in the order of *Confidential Information Withheld at Request of the Applicant*. The data monitoring cost for most typical installations is of the order of \$30,000. OPGI has indicated that the higher cost in this situation is due to the added burdens imposed by the stringent and rigid nuclear standards and procedures. The standards require engineering design activities, installation, drawing preparation and revisions, operating and design manual revisions and multiple levels of approvals and redundancy to satisfy regulatory requirements for nuclear station reliability and safety. All these activities add up to a considerable cost. The number of data quantities that are required to be added increases the estimated cost very little. The cost of adding one data quantity or 10 quantities is roughly the same, as most of the costs are related to respecting the nuclear safety and reliability requirements and not due to physical equipment costs.

Recommendation: Grant with Conditions

Conditions:

- OPGI will continue to notify the IMO through existing procedures and channels of their plans to operate any of the Standby *Generators*.
- Notwithstanding the granting of any of these *exemptions*, OPGI shall continue to be liable for the breach of any *reliability standards*.
- Where the above conditions are not or cannot be met, the *IMO* will take appropriate action to ensure the *reliability* of the *IMO-controlled grid* and appropriate actions for non-compliance will be taken pursuant to Chapter 3 of the *Market Rules*.

Reconsideration/Removal

This *exemption* may be reconsidered or removed if:

- Any changes are made to the existing data monitoring facilities associated with the Standby *Generators*,
- There is any change that would result in connecting more than one Standby *Generator* to the *IMO-controlled grid* other than at the specific request of the IMO.

PART 4 – TERMS AND CONDITIONS

<p>Effective Date of Exemption</p> <p>(or event causing <i>exemption</i> to become effective)</p>	<p>Date <i>exemption application</i> received July 9, 2001</p>
<p>Date of Expiration of Exemption</p>	<p>Lifetime exemption</p>

PART 4 – TERMS AND CONDITIONS

<ul style="list-style-type: none"> • If greater than 5 years, the Panel must be satisfied that the circumstances justify a later date. • Circumstances which will cause the <i>exemption</i> to immediately expire. 	
Market Rule(s) or related Market Manual(s) from which the Exemption is granted	Appendix 4.2, Reference 9
Restrictions on the manner of operation and/or additional obligations to be met during the term of the Exemption, if any	<ul style="list-style-type: none"> • OPGI will continue to notify the IMO through existing channels of their plans to operate any of the Standby <i>Generators</i>.
Monitoring Information Required Information required to be provided by the <i>exemption applicant</i> for monitoring by the <i>IMO</i> .	None
Payment of Costs <ul style="list-style-type: none"> • Processing Costs (when introduced) • Incremental <i>Exemption</i> Costs • <i>Settlement amounts</i> to be withheld or repaid. 	None
Reconsideration/Removal <ul style="list-style-type: none"> • Date on which the <i>exemption</i> will be reconsidered (if applicable). • Circumstances under which the <i>exemption</i> will be reconsidered (if applicable) other than unforeseen future change in circumstances. 	<ul style="list-style-type: none"> • Any changes are made to the existing data monitoring facilities associated with the Standby <i>Generators</i>, • There is any change that would result in connecting more than one Standby <i>Generator</i> to the <i>IMO-controlled grid</i> other than at the specific request of the <i>IMO</i>.
Transferability <ul style="list-style-type: none"> • List the terms and conditions that need to be met to allow for a transfer of this <i>exemption</i> to be approved by <i>IMO</i> staff. 	Approval to transfer this <i>exemption</i> may occur once the following criteria have been met: <ul style="list-style-type: none"> • the transfer meets applicable terms and conditions set forth in the <i>exemption</i> itself and whether the transfer would affect the ability of the proposed transferee to

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	<p>comply with all of the terms and conditions of the <i>exemption</i>;</p> <ul style="list-style-type: none">• the proposed transferee is a <i>market participant</i> or undertakes in writing to the <i>IMO</i> to apply for authorization as a <i>market participant</i>; and• the extent to which the transfer of the <i>exemption</i> will impact the timely implementation of the plan to become compliant with the exempted obligation (such plan may be the <i>exemption</i> plan, modified as required by the Panel as part of the terms and conditions of the <i>exemption</i>).
<p>Other:</p>	<ul style="list-style-type: none">• Notwithstanding the granting of any of these <i>exemptions</i>, OPGI shall continue to be liable for the breach of any <i>reliability standards</i>.• Where the above conditions are not or cannot be met, the <i>IMO</i> will take appropriate action to ensure the <i>reliability</i> of the <i>IMO-controlled grid</i> and appropriate actions for non-compliance will be taken pursuant to Chapter 3 of the <i>Market Rules</i>.