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## IMO Staff Recommendation to Panel on Exemption Application (General)

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### PART 1 – GENERAL INFORMATION

Market Participant Name: Ontario Power Generation Inc. (OPGI)

Location/Site: Chats Falls Generating Station

Exemption Application ID: 01-1135

Market Participant ID:

Description of Exemption Requested: ***Exemption from the requirement for a registered facility(s) providing black start capability to be equipped with governors that are capable of operating in an isochronous mode.***

Date Exemption Application Received: May 2, 2001

Date all relevant application information supplied by applicant: May 2, 2001

IMO Management Approvals Obtained (YES or NO): YES

Section of the *Exemption Application and Assessment Procedure* under which the Exemption Application is made:

- *Section 1.4.1*

Market Rule(s) or related Market Manual(s) from which exemption is requested (copy of Market Rule(s) or Manual(s) attached): *Market Rules Baseline 6.6, Chapter 5, Appendix 5.1, Section 1.5.4*

Third Party Submissions Received (YES or NO):

Supplemental Assessment Information Attached (YES or NO): NO

Related Historical Exemption Application(s) or Related Exemption Application(s) in Process (YES or NO): NO

*N. B. If YES, see attached History of Exemption Applications*

Role of applicant in the market as it relates to this exemption application: *Generator*

## Part 2 – Recommendation

**Recommendation:** GRANT with conditions

### Criteria Used in Assessment of General Exemption Applications (Section 1.4.2 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; ☒

- impact the ability of the IMO to ensure non-discriminatory access to the IMO-controlled grid; ☐

*This exemption application has no impact on the ability of the IMO to ensure non-discriminatory access to the IMO controlled grid*

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

*This exemption application has no affect on the ability of the IMO to operate the IMO-administered markets in an efficient, competitive and reliable manner*

- increase costs of market participants; or ☐

*This exemption application would not increase costs to market participants*

- increase costs of the IMO; ☐

*This exemption application would not increase costs of the IMO*

Whether the exemption that is the subject-matter of the exemption application would, if granted, give the exemption applicant an undue preference in the IMO-administered markets; ☐

*Granting this exemption does not give the applicant undue preference in this procurement market.*

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; ☒

The adequacy of the exemption plan submitted by the exemption applicant; ☐

*No plan required to be submitted*

Where the exemption applicant is the IMO, the identification of the benefit to market participants of compliance with the obligation or standard relative to the financial and other resources required to achieve compliance within such deadlines as may be applicable; ☐

*Exemption applicant is not the IMO*

Where the exemption applicant is the IMO, the manner in which it proposes to operate in the IMO-administered markets or direct the operations and maintain the reliability of the IMO-controlled grid during the period in which the exemption would be in effect; ☐

*Exemption applicant is not the IMO*

Whether the facility or equipment that is the subject-matter of the exemption application:

- was in service or was returned to service on the date on which the obligation or standard to which the exemption application relates came into force; ☒

*The facility which is the subject of this application was in service prior to the date on which the standard to which the exemption relates came into force*

- was ordered by the exemption applicant on or prior to the date on which the obligation or standard to which the exemption application relates came into force; or ☐

- was in the process of construction on or prior to the date on which the obligation or standard to which the exemption application relates came into force; and ☐

The capability of the owner of the facility to operate the facility consistent with the terms of the proposed exemption. ☐

*The terms and conditions of this recommendation do not require the owner of the facility to operate the facility in a manner in which the facility is not capable*

### PART 3 – DETAILS OF ASSESSMENT

**Exemption Request:** OPGI has requested an *exemption* at Chats Falls GS from the requirement for a *registered facility* providing *black start capability* to be equipped with governors that are capable of operating in an isochronous mode, for the life of the equipment.

**Market Rule Requirements:**

This *exemption* pertains to Section 1.5.4, Appendix 5.1, of Chapter 5 “A *registered facility* or *registered facilities*, providing *black start capability* must be equipped with governors that are capable of operating in an isochronous mode.”

**Assessment:**

The *IMO-controlled grid* is subject to various types of electrical disturbances. A major disturbance may result in complete or partial system collapse. *Black start capability* must be provided to restore the *IMO-controlled grid* after a blackout has occurred. During the restoration period, electrical islands will be created that may contain one or more generating units. In cases where an electrical island contains only a single small generating unit, an isochronous speed governor is required to accurately control frequency as load is gradually added to the island. In cases where an electrical island contains a generating facility with multiple units, adequate frequency control is normally available through parallel operation of the units with appropriate governor speed-droop settings. This performance can be confirmed via testing.

OPGI would like to register units at Chat Falls GS for *black start capability* under an *ancillary service* contract. However, the governors of the Chat Falls generating units do not have the capability to be operated in the isochronous mode. Since the restoration plan involving Chat Falls requires more than one unit from that generating station in order to provide adequate voltage control and load pickup during restoration, and OPGI is contracting with the *IMO* to provide more than one unit, isochronous capability will not be required for the Chats Falls governors. Based on past performance of the facilities, the operation of at least two Chats Falls units in parallel will provide sufficient frequency control during restoration. Therefore, exempting the Chat Falls units from providing isochronous governor capability will have minimal impact on *IMO’s* system restoration capability. Granting of this *exemption* will not have any effect on the ability of the *IMO* to direct the operations and maintain the *reliability* of the *IMO-controlled grid*. The proposed *exemption* will not have a material impact on the *reliability* of the *IMO-controlled grid*.

Granting this *exemption* would not give undue preference to the *exemption applicant* considering that other Black start providers offering multi-unit stations for contract, with similar capabilities and performance, would also be eligible for *exemption*.

**Cost to Comply:**

If the *exemption* is not granted, OPGI will be required to make significant capital investment in new equipment. The costs are estimated to be \$500,000 per *generation unit*. Three *generation units* are required to be upgraded with governors that are capable of operating in an isochronous mode.

Considering the multi-unit Chats Falls station can effectively meet the restoration plan requirements, the investment in compliance with this requirement is not required.

**Recommendation:**

It is recommended that OPGI be **GRANTED** an *exemption* from the requirement for a *registered facility* providing *black start capability* to be equipped with governors that are capable of operating in an isochronous mode as long as more than one unit is made available for black start purposes.

**PART 3 – DETAILS OF ASSESSMENT**

**Proposed Operation:** For the term of this *exemption*, the Chats *generation unit* governors will be operated with a speed droop characteristic when called upon to black start an electrical island.

**PART 4 – TERMS AND CONDITIONS**

<b>Effective Date of Exemption</b> (or event causing exemption to become effective)	Date <i>Exemption Application</i> received
<b>Date of Expiration of Exemption</b> <ul style="list-style-type: none"> <li>If greater than 5 years, the Panel must be satisfied that the circumstances justify a later date</li> <li>Circumstances which will cause the exemption to immediately expire</li> </ul>	For the life of the equipment or if less than 2 units are available to provide <i>black start capability, which ever is sooner</i> . Life of the equipment is estimated to be 10 years to 30 years.
<b>Market Rule (s) or related Market Manual(s) from which the Exemption is granted</b>	Chapter 5, Appendix 5.1, Section 1.5.4
<b>Restrictions on the manner of operation and/or additional obligations to be met during the term of the Exemption, if any</b>	More than one unit shall be made available for black start and Chat Falls units will be operated with a speed droop characteristic when called upon to black start an electrical island.
<b>Monitoring Information Required</b> Information required to be provided by the Exemption Applicant for monitoring by the IMO	None
<b>Payment of Costs</b> <ul style="list-style-type: none"> <li>Processing Costs (when introduced)</li> <li>Incremental Exemption Costs</li> <li>Settlement amounts to be withheld or repaid</li> </ul>	None

## PART 4 – TERMS AND CONDITIONS

<p><b>Reconsideration/ Removal</b></p> <ul style="list-style-type: none"> <li>• Date on which the Exemption will be reconsidered (<i>if applicable</i>)</li> <li>• Circumstances under which the Exemption will be reconsidered (<i>if applicable</i>) other than unforeseen future change in circumstances</li> </ul>	<p>Circumstances under which this <i>exemption</i> should be reconsidered are:</p> <ul style="list-style-type: none"> <li>• an unforeseen change to the Ontario Power System Restoration Plan after market opening</li> </ul>
<p><b>Transferability</b></p> <ul style="list-style-type: none"> <li>• List the terms and conditions that need to be met to allow for a transfer of this exemption to be approved by IMO staff</li> </ul>	<p>Approval to transfer this <i>exemption</i> may occur once the following criteria have been met:</p> <ol style="list-style-type: none"> <li>1. 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 comply with all of the terms and conditions of the <i>exemption</i>;</li> <li>2. 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</li> <li>3. 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>).</li> </ol>
<p><b>Other:</b></p>	<p>Not Applicable</p>