



## Market Rule Amendment Submission

This form is used to request an amendment to, or clarification of, the *Market Rules*. Please complete the first four parts of this form and submit the completed form by email or fax to the following:

Email Address: [Rule.Amendments@ieso.ca](mailto:Rule.Amendments@ieso.ca)

Fax No.: (416) 506-2847 Attention: Market Rules Group

**Subject: Market Rule Amendment Submission**

All information submitted in this process will be used by the *IESO* 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 licence. All submitted information will be assigned the *confidentiality classification* of “Public” upon receipt. You should be aware that the *IESO* will *publish this amendment submission* if the *Technical Panel* determines it warrants consideration and may invite public comment.

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

### PART 1 – SUBMITTER’S INFORMATION

|   |  |
|---|--|
| Please enter contact information in full.   |  |
| Name: <u>IESO Staff</u>   |  |
| (if applicable) <i>Market Participant / Metering Service Provider</i> No. <sup>1</sup> : <u>N/A</u> | <i>Market Participant Class</i> : <u>N/A</u> |
| Telephone: <u>905 855-6464</u>  | Fax: _____                                   |
| E-mail Address: <u>rule.amendments@ieso.ca</u>  |  |

### PART 2 – MARKET RULE AMENDMENT SUBMISSION INFORMATION

|   |  |
|---|--|
| Subject: <u>Ancillary Services</u>  |  |
| Title: <u>Eliminate Requirement for Minimum Amount of Regulation/Automatic Generation Control Service</u> |  |
| Nature of Request (please indicate with x)  |  |
| <input type="checkbox"/> Alteration   | <input checked="" type="checkbox"/> Deletion |
| <input type="checkbox"/> Addition   | <input type="checkbox"/> Clarification       |
| Chapter: <u>5</u>   | Appendix: _____ Sections: <u>4.4</u>         |
| Sub-sections proposed for amending/clarifying: <u>4.4.2</u>   |  |

<sup>1</sup> This number is a maximum of 12 characters and does not include any spaces or underscore.

**PART 3 – DESCRIPTION OF THE ISSUE**

Provide a brief description of the issue and reason for the proposed amendment. If possible, provide a qualitative and quantitative assessment of the impacts of the issue on you and the *IESO-administered markets*. Include the Chapter and Section number of the relevant *market rules*.

Regulation/automatic generation control (AGC) is a contracted ancillary service in the IESO-administered markets. The existing market rules (section 4.4.2 of chapter 5) authorize the IESO to determine the AGC requirement for each hour of the following day. The same rule requires that the requirement be at least  $\pm 100$  MW with a ramp rate of 50 MW/min. The IESO believes that the minimum requirement and the rate requirements should be eliminated for the following reasons:

- The minimum requirement is likely resulting in additional market costs for AGC procured for hours in which  $\pm 100$  MW is not required to maintain acceptable reliability performance;
- The minimum requirement is restricting contracting with existing AGC providers, discouraging potential new AGC providers;
- The ramp rate requirement restricts the potential diversification of supply of AGC.

Reliability Performance

The reliability standards pertaining to AGC are indirect rather than direct, and involve time averages of data pertaining to Area Control Error<sup>1</sup>. Control Performance Standard 1 (CPS 1) is a statistical measure of ACE variability and its relationship to frequency error over a 12 month period. Control Performance Standard 2 (CPS 2) is a statistical measure designed to limit unacceptably large net unscheduled power flows by measuring a 10-minute period average of ACE. Details regarding CPS 1 and CPS 2 are contained in the Performance Standards Reference Document available from: [www.nerc.com](http://www.nerc.com).

The IESO has consistently exceeded the industry reliability standards for CPS 1 And CPS 2 as shown in the table below.

| Performance Measure | Performance Standard | IESO Performance |        |        |        |                   |                 |
|---------------------|----------------------|------------------|--------|--------|--------|-------------------|-----------------|
|                     |                      | 2002             | 2003   | 2004   | 2005   | Jan to April 2006 | May to Aug 2006 |
| CPS 1               | $\geq 100\%$         | 171.65 %         | 170.4% | 163.6% | 161.0% | 160.72%           | 160.39%         |
| CPS 2               | $\geq 90\%$          | 96.98%           | 98.38% | 97.8%  | 96.4%  | 96.89%            | 94.55%          |

The IESO performance has also been better than the median of large balancing authorities in the eastern connection.

<sup>1</sup> area control error or ACE means the instantaneous difference between actual and scheduled interchange, taking into account the effects of frequency bias (Source: chapter 11 market rules).

### PART 3 – DESCRIPTION OF THE ISSUE

Since May 2006, the IESO has reduced its scheduled AGC amount by  $\pm 50$  MW (from 150 MW to 100 MW) and has demonstrated that it is able to maintain good control performance at significant savings to the market (i.e. approximately \$1 million/month).

The IESO believes that if it were to schedule even somewhat lower levels of AGC (i.e. less than  $\pm 100$  MW) in some hours of the day, the IESO would still meet the reliability standards. Typically, hours when demand is not changing dramatically would be hours in which less than  $\pm 100$  MW of AGC would be appropriate, e.g. over-night.

Section 4.4.2 of chapter 5 also specifies that the AGC have a ramp rate of 50 MW/min. Specifying such a limit in the market rules is not appropriate because the number is not related to the CPS 1 and CPS 2 reliability standards that the IESO must meet. Historically, Ontario has achieved excellent AGC performance using relatively small amounts of AGC having high ramp rates. However use of somewhat larger amounts of lower ramp rate suppliers is also a valid way of meeting the standards, and the IESO should have the flexibility to use either approach when appropriate. Some of the potential new providers of AGC in Ontario have slower ramp rates than the main AGC sources currently used. A 50 MW/min ramp rate restriction makes it more difficult to contract with such new providers.

NERC is developing a new reliability standard (Standard BAL-007-1 — Balance of Resources and Demand) to replace the existing CPS1 and CPS2 standards. The proposed standards would allow greater flexibility than the existing standards. The proposed standards are expected to come into effect sometime in 2007. The existing market rule minimum requirements would not be consistent with the new more flexible standard.

#### Impact on Contracting and Potential New Suppliers

The IESO has an AGC contract with one supplier of AGC, the historical provider of AGC in Ontario. Other potential suppliers (hydroelectric and gas-fired generators) have expressed interest in providing AGC, but on a time-limited basis (e.g. certain number of hours in a month) and/or on a non-guaranteed basis. The historical AGC provider is able to guarantee availability of  $\pm 100$  MW for all hours of the year. To ensure that the IESO can meet its market rule obligation in all hours the IESO contracts with the historical provider of AGC for the  $\pm 100$  MW. With that contract, any additional contract with another supplier would add extra costs to the market with little reliability benefit. In other words the minimum AGC requirement specified in the market rules is a disincentive on contracting with new AGC suppliers.

If the  $\pm 100$  MW obligation was eliminated, the IESO believes more flexible contracting arrangements could be established with the existing supplier of AGC. More flexible arrangements would remove the existing barrier for the IESO to seek out new AGC suppliers. With additional suppliers there could be competition and diversity in supply of AGC which, if they materialize, could mitigate the cost to the market.

#### Neighbouring Jurisdictions

In neighbouring jurisdictions with competitive markets, the ISO has the authority to establish AGC requirements to meet applicable reliability standards. Only in the PJM market are the AGC MW requirements specified (as a percentage of forecast demand) in market documentation, but PJM has the authority to adjust the requirement if “the adjustment is consistent with the maintenance of NERC control standards”. Requirements may be adjusted by the ISO as needed to assure continued compliance with these standards.”

**PART 4 – PROPOSAL (BY SUBMITTER)**

Provide your proposed amendment. If possible, provide suggested wording of proposed amendment.

Delete the second sentence from section 4.4.2 of chapter 5: see below:

4.4.2 The *IESO* shall determine the quantity of *regulation* capacity needed for each hour of the following day. ~~As a minimum, the requirement shall be +/- 100 MW, with a ramp rate of 50 MW/min.~~

The IESO would retain the obligation to meet all applicable reliability standards as specified in section 4.4.1 of chapter 5.

The IESO would publish in a market manual the typical requirements for AGC quantity and ramp rate. The actual daily hourly requirements would still be published in system status reports (SSR) and security and adequacy assessments (SAA), as they are today.

**PART 5 – FOR IESO USE ONLY**

*Technical Panel Decision on Rule Amendment Submission:* Determined to warrant consideration

MR Number: MR-00329-Q00

Date Submitted to *Technical Panel*: 2 Nov 06

Accepted by *Technical Panel* as: (please indicate with x)

Date:

General       Urgent       Minor

7 Nov 06

Criteria for Acceptance:

1. The amendment submission identifies ways to reduce participant costs. Allowing greater flexibility for AGC procurement would allow the IESO to contract only for the AGC required, potentially reducing contracting costs which are borne by the market as uplift charges.
2. The amendment submission identifies means to better enable the market to satisfy the market design principle of efficiency. Greater flexibility for AGC procurement is expected to encourage potential suppliers to invest in AGC equipment, thereby increasing potential competition for the provision of AGC.
3. Industry reliability standards are objective based rather than prescriptive. That is, the reliability standard is to meet the control performance requirements, not to have a minimum amount of AGC. Market rules should, where possible, be objective based rather than prescriptive.

Priority: High

Criteria for Assigning Priority:

Existing AGC contracts expire in the spring of 2007. Amending the market rules as suggested on a high priority basis would allow for more flexible AGC procurement arrangements to be incorporated into the replacement/renewal contracting process in early 2007.

Not Accepted (please indicate with x):

Clarification/Interpretation Required (please indicate with x):

*Technical Panel Minutes Reference:* IESOTP 194-1

*Technical Panel Comments:*

The need for this amendment should be reformulated to emphasize the need on the basis that industry reliability standards are objective based rather than prescriptive. That is, the reliability standard is to meet the control performance requirements, not to have a minimum amount of AGC. The Panel supports that market rules should, where possible, be objective based rather than prescriptive.

The IESO should also ascertain whether there is a reasonable likelihood that increased competition would actually result from the suggested change e.g. are there generation facilities in Ontario that could provide AGC today but do not because of the noted contracting limitations.