



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

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 license. 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. ¹ : <u>N/A</u>	<i>Market Participant Class</i> : <u>N/A</u>
Telephone: <u>905-855-4128</u>	Fax: <u>905-855-6371</u>
E-mail Address: <u>Rule.amendments@ieso.ca</u>	

PART 2 – MARKET RULE AMENDMENT SUBMISSION INFORMATION

Subject: <u>Renewable Integration - Forecasting</u>	
Title: <u>Centralized Forecasting for Variable Generation</u>	
Nature of Request (please indicate with x)	
<input checked="" type="checkbox"/> Alteration	<input type="checkbox"/> Deletion
<input checked="" type="checkbox"/> Addition	<input type="checkbox"/> Clarification
Chapter: <u>4, 5, 7, 9</u>	Appendix: _____ Sections: _____
Sub-sections proposed for amending/clarifying: _____	

¹ 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*.

Summary

It is proposed to amend the market rules in order to implement a centralized forecasting service for variable generation in Ontario. Centralized forecasting would replace the existing decentralized forecasting approach so that market participants with variable generation would no longer be responsible for producing and updating their own generation forecasts. Instead, those market participants would be responsible for providing site specific data that would be used as inputs to variable generation forecasts generated by a third party service provider.

Background

The Green Energy Act (“GEA”) and the Ontario Power Authority’s implementation of the feed-in tariff (“FIT”) program will accelerate the introduction of variable renewable generation (e.g. wind, solar, etc.) in Ontario, increasing the need for more accurate variable generation forecasts. Significant commitments have been made to date: 5,800 MW of variable generation projects (mostly wind) are expected to be in service by the end of 2012, with an additional 4,900 MW of variable generation by 2018. Accurately predicting variable generation with its less predictable output will be essential in order for the IESO to maintain system reliability and market efficiency. Consistent with recommendations from the OEB’s Market Surveillance Panel¹ and the North American Electrical Reliability Corporation (NERC)², the IESO is committed to implement centralized forecasting for variable generation in Ontario.

Under a centralized forecasting service, variable generators will be responsible for collecting and submitting site specific data (for example, wind generators may submit wind speed, wind direction, output, outage information, etc.) and relaying that data to the IESO. A third party service provider will use the site specific data in conjunction with weather forecasts and other analytical tools to produce a generation forecast for each variable generator. With centralized forecasting, variable generators will no longer have an obligation to submit generation forecasts.

Expected benefits of centralized forecasting, many of which are discussed in the IESO’s Centralized Renewable Forecasting paper³, include:

- Increased market efficiency through improved unit commitments and import/export scheduling;
- Consistent and more accurate variable generation forecasts; and
- Cost effectiveness for generators compared to decentralized forecasting.

¹ Market Surveillance Panel: Monitoring Report on the IESO- Administered Electricity Markets for the period from May 2008 – October 2008, http://www.oeb.gov.on.ca/OEB/Documents/MSP/msp_report_200901.pdf at page 261.

² Accommodating High Levels of Variable Generation, http://www.nerc.com/files/IVGTF_Report_041609.pdf at pages 58-59.

³ Centralized Renewable Forecasting, <http://www.ieso.ca/imoweb/pubs/consult/se57/se57-20090210-Wind-Forecasting.pdf> at pages 2-3.

PART 3 – DESCRIPTION OF THE ISSUE

The centralized forecasting service will apply to variable generation resources. However, the IESO's initial focus will be to ensure the implementation of centralized forecasting for wind generation.

The IESO proposes that the costs paid to the centralized forecasting service provider(s) will be treated as procured service charges and recovered from consumers through a non-hourly charge to be invoiced each month through the IESO's current settlements process. This treatment is consistent with the expectation that centralized forecasting will improve market efficiency, through improved unit commitments and import/export scheduling, thus reducing costs to the market overall.

Stakeholder Consultations on Centralized Forecasting

Centralized forecasting is one initiative currently being discussed with stakeholders as part of SE-91 – Renewable Integration. The stakeholder engagement is focusing on a range of principles, from forecasting and visibility to dispatch. An “Integrating Renewable Resources - Design Principles⁴” paper will form the basis for market rule development. SE-91 builds on the forecasting work previously completed in SE-57 - Renewable and Embedded Generation.

For further information on centralized forecasting, please refer to SE-91/SE-57 on the stakeholder engagement page found on the IESO's website at:

http://www.ieso.ca/imoweb/consult/consult_se91.asp

http://www.ieso.ca/imoweb/consult/consult_se57.asp

PART 4 – PROPOSAL (BY SUBMITTER)

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

It is proposed to amend the market rules to allow for the implementation of a centralized forecasting service for variable generation in Ontario. The current decentralized forecasting approach whereby each variable generator is responsible for producing a generation forecast and updating that forecast on a regular basis will be replaced by the centralized forecasting service.

Highlights of proposed changes, which are subject to modification pending the finalization of the design principles as part of SE-91, include:

Dynamic and Static Data Obligations:

- Remove existing obligations requiring intermittent generators to submit forecasts to the IESO
- Add obligation for variable generators to submit site-specific static and dynamic data (e.g. wind speed, outage information, etc.) as specified in the applicable market manual
- Specify that static and dynamic data requirements for variable generators will be applicable to: (1) registered market participants; (2) embedded facilities within a distribution system with an installed capacity of 5MWs or greater

⁴ Integrating Renewable Resources – Design Principles, http://www.ieso.ca/imoweb/pubs/consult/se91/se91-20101209-Renewables_Integration_Design_Principles.pdf

