

Revision 2 – February 15 – Updated to reflect new Technical Working Groups and Timelines

I. Introduction

Ontario's Long Term Energy Plan reinforces the investment focus on renewable generation under the Green Energy and Green Economy Act (GEA) and the Ontario Power Authority's Feed-In-Tariff (FIT) program. The Plan acknowledges the significant commitments made to date - 5,800 MW of variable generation projects, primarily wind, are underway and are expected to be in commercial operation by the end of 2012, with 10,700 MW targeted for 2018. Within the next two years the IESO needs to be in a position to register and incorporate this variable generation into our operations.

Without changes to how the IESO currently operates, the deployment of renewable generation across the province will challenge our ability to maintain reliability and/or efficiency of the bulk power system. The IESO is preparing to adapt power system operations and the IESO-administered markets to accommodate the new renewable generation. The IESO is considering policies and principles similar to those implemented in jurisdictions with comparable amounts of renewable generation and will be consulting with stakeholders to ensure that these are appropriate to meet Ontario's needs.

IESO will be moving forward with discussions in four areas related to renewable generation, focussing on wind and solar, as appropriate:

1. **Forecasting**¹ – The ability to predict output from variable resources is essential for maintaining system reliability and market efficiency
2. **Dispatch** – Integration of renewable generation into economic dispatch models should help resolve issues like surplus baseload generation, **transmission loadings and operational needs such as ramping**.
3. **Visibility** – New processes such as direct telemetry, **meteorological data** and reporting may be needed to ensure visibility of large-scale wind and solar generators
4. **Future Markets** – Where technically capable, directly connected or embedded variable resources could be eligible to participate in Operating Reserve and Ancillary Service markets.

The Renewable Integration Design Principles proposed by the IESO to enable these areas will be posted on the SE-91 web page.

¹ Forecasting will include work previously accomplished through SE-57 (http://www.ieso.ca/imoweb/consult/consult_se57.asp). Subsequently, SE-57 will no longer be an active Stakeholder Engagement process, and will be closed.

II. Stakeholders

Renewable Integration is of interest to many stakeholders. Local distribution companies, generators of all types (particularly wind and solar generators), energy agencies, employees in the electricity industry, and consumers will all share an interest in the discussion paper and the policies, standards, and market rule changes that will follow.

III. Stakeholder Engagement Goal

Goal

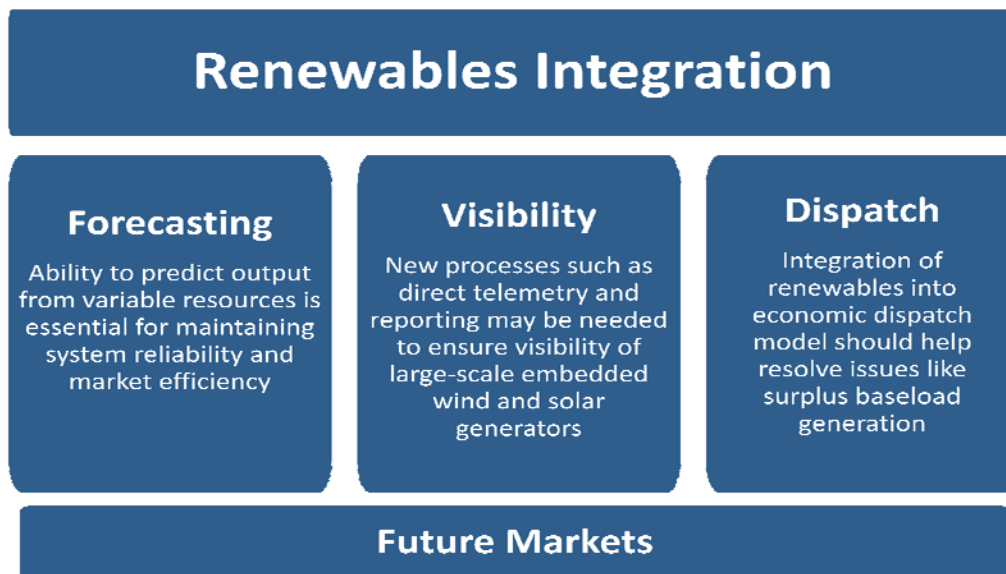
Explain, discuss, and develop policies, standards and rules that permit a growing amount of renewable generators to be integrated into the Ontario market, while maintaining the reliable, safe, and efficient operation of the IESO controlled grid.

Objectives

Allow stakeholders the opportunity to discuss and provide feedback on the Renewable Integration Design Principles, and Design Details.

IV. Stakeholder Engagement Approach and Methods

Renewable Integration will be the overarching stakeholder engagement umbrella. The engagement process will be broken into four sub-categories each involving their own policies and objectives. **Forecasting**, **Dispatch**, and **Visibility** sub-categories will be the focus of early discussion. The IESO expects that those three sub-categories will feed into the fourth, **Future Markets**, which will be the focus of stakeholder engagement at a later date.



The IESO will begin the Stakeholder Engagement Process by releasing the Renewable Integration Design Principles, via web posting. This paper will outline the design principles proposed within each sub-category. The posting of the Renewable Integration Design Principles will provide all interested stakeholders with an efficient low-cost method to be informed of the proposed changes with the opportunity to communicate their views via e-mail to the IESO (stakeholder.engagement@ieso.ca).

Upon release of the design principles, the IESO will hold several face-to-face meetings. The focus of the face-to-face meetings will be for the IESO to discuss the design principles. All stakeholder input, including dissenting views, will be posted on the IESO website. Meeting minutes will be posted following their approval by stakeholders. The IESO will ensure that any information identified as confidential will not be made public.

The IESO will establish a series of technical working groups to discuss the design details associated with the four areas of Forecasting, Dispatch, Visibility, and Future Markets, and specifically the *Design Principles for Renewable Generation*. The working groups will be the forum where the IESO and stakeholders engage on the specifics of how a particular design principle or principles will be implemented, although, not all design principles will require working groups.

Discussion of design details will be limited to the working groups, however, the IESO will report on the outcomes of the working groups to the broader SE-91 group, as well as other relevant stakeholder forums such as the Technical Panel and Stakeholder Advisory Committee, as appropriate.

The IESO acknowledges that changes proposed in this consultation may impact other agencies. As such, the Ontario Power Authority and other agencies, will be consulted and encouraged to participate, as required, throughout the consultation process.

The results of the consultation and how this input was considered will be posted on the IESO website.

The implementation of this stakeholder engagement plan will be in accordance with the IESO's approved stakeholder engagement principles.

The stakeholder plan will be subject to review and update as the process evolves and stakeholder comments are incorporated, and as revisions are warranted.

Stakeholder Initiatives	Timeline
1. Update Stakeholder Advisory Committee on Renewable Integration plan.	October 26, 2010
2. Post stakeholder engagement plan.	November 4, 2010
3. Deadline for feedback on stakeholder engagement plan.	November 18, 2010

4. Status update to the Stakeholder Advisory Committee.	December 8, 2010
5. Post the Renewable Integration Design Principles for stakeholder feedback and post revised Stakeholder Engagement Plan	December 9, 2010
6. Face to face meeting with stakeholders to present design principles.	December 16, 2010and January 11, 2011 (this meeting is offered twice in recognition of holiday schedules, the same content will be reviewed at both meetings)
7. Deadline for stakeholder feedback on the design principles.	January 17, 2011
8. Conference call with stakeholders to summarize feedback on design principles	February 1, 2011
9. Post Visibility Technical Working Group Terms of Reference and open the registration process	February 15, 2011
10. Conference call with stakeholders to explain Visibility Technical Working Group and review Terms of Reference	February 22, 2011
11. Close the Visibility Technical Working Group nomination process	Late February
12. Face to face meeting with stakeholders to review and finalize Design Principles based on feedback	March 2, 2011
13. Meeting of Visibility Technical Working Group	Early March, 2011
14. Meeting of Visibility Technical Working Group	Mid March, 2011
15. Meeting of Visibility Technical Working Group	End of March, 2011