

Revision X: March 24, 2010: Updated schedule in section V.

I. Introduction and Background

Loss penalty factors are intended to represent the transmission losses associated with each resource. In Ontario, the term resource refers to all generators and loads as well as all intertie connections. Transmission losses are a natural occurrence when moving power from one point to another and are the result of heating, energization, magnetization, size and type of cable. Loss penalty factors are the incremental transmission losses based on the location of the resource with respect to a reference bus and the flow of power on the grid.

For more information, please refer to the discussion paper; loss penalty factors on the SE-40 web page – dated April 2007: <http://www.ieso.ca/imoweb/pubs/consult/se40/se40-Loss-Penalty-Factor-Paper.pdf>

Background

The initial programming of the Dispatch Scheduling Optimizer (DSO) had a dynamic module for on-line calculation of loss penalty factors; the module estimated the change in losses resulting from changes in generation and in dispatchable load, for the purpose of accounting for the impact of losses.

This dynamic calculation of loss factors was disabled prior to market start for the following reasons:

1. The dynamically calculated loss factors were very volatile;
2. During market tests, erratic dispatch instructions were produced for the same priced resources at the same station, due to fluctuation of loss factors; and
3. Market participants found the loss factors difficult to predict when formulating their offer/bid strategy.

Static loss penalty factors were employed prior to market opening as a replacement for the dynamic module. These static loss factors have not been updated since market opening.

Next Steps

1. All loss factors are being recalculated based on the current grid configuration, and will be evaluated against the original static loss factors. These loss factors will be distributed to market participants in ~~January 2010~~ **February 2010** for discussion.

2. Analysis will be undertaken by the IESO to investigate the following questions:
 - How much have the loss factors changed since market opening?
 - Are there recognizable patterns in demand based on seasons, day vs. night, weekday vs. weekend, etc.?
 - Can we move to a quasi-dynamic format – i.e. hourly updates?
 - What is the capability of market participants to handle frequent loss factor updates?

II. Stakeholders

Loss factors most directly impact all dispatchable resources in Ontario (intertie, generator, and dispatchable load) as a change in the loss factor could change dispatch. The enabling of a more dynamic module, may incur some market participant costs associated with accessing the additional information from the DSO, and interpreting and adjusting their bidding/offering strategy to respond to market signals.

III. Stakeholder Engagement Goals and Objectives

The goal of this stakeholder plan is to provide stakeholders the opportunity to provide feedback to the IESO on the loss factors.

Objectives

1. To identify issues that could be barriers to any change in the existing loss factors.
2. To suggest other alternatives to the identified options available.
3. To minimize adverse effects on current and future market participant operations and processes to the maximum extent possible. Any changes to loss penalty factors would be made available to market participants well in advance of implementation to aide them with their offer/bid strategy.

IV. Stakeholder Engagement Approach and Methods

The stakeholder engagement approach will be feedback — with request for stakeholder review and written feedback.

The implementation of this stakeholder engagement plan will be in accordance with the IESO's approved stakeholder engagement principles. The stakeholder engagement method to be employed will be a web-based posting, a feedback meeting, with a request for written comments via e-mail.

Web-based postings 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). All stakeholder input, including dissenting views, will be posted on the IESO website. Feedback will be provided on all stakeholder comments and how this input was considered, and the results of the consultation will be posted on the IESO website.

V. Decision Making Process

Stakeholder Engagement Schedule	
Activity	Target Date
1. Post stakeholder plan and loss penalty factor paper for comment.	Completed April 10, 2007
2. Distribute re-calculated loss factors to dispatchable generators, dispatchable loads importers and exporters.	Completed April 23, 2007
3. Deadline for stakeholder feedback on plan and discussion paper.	Completed April 24, 2007
4. Conference call to discuss re-calculated loss factors and options for changing loss factors.	Completed April 30, 2007
5. Post IESO stakeholder feedback and advise individual participants on changes to loss factors.	Completed Mid May, 2007
6. Posting of revised penalty factors on the IESO web.	Completed August 28, 2007
7. Deadline for stakeholder feedback on revised penalty factors.	Completed September 12, 2007
8. Implementation of changes to loss factors.	Completed October 10, 2007
9. Additional penalty factors calculated based on snapshots from prior year	April 2008
10. Update on initiative provided at June 2 Dispatchable Load Working Group meeting	June 2, 2009
11. Webcast meeting with stakeholders to discuss options moving forward on how to effectively manage changing loss penalty factors	January 21, 2010
12. Deadline for stakeholder feedback on recommendation.	February 4, 2010
13. Post final recommendation to IESO management on plans for changes to loss factors.	February 2010
14. Proposed Loss Factors Posted on IESO website	February 25, 2010
15. Due date for written feedback on loss penalty factors	March 17, 2010