

January 9, 2007

## Comments on

### “Definitions of Critical Terms Used in Document A-10”

The IESO thanks NPCC for the opportunity to comment on this document. Attached are our comments as indicated in the marked-up version of the document. We strongly feel that the definitions for both **local area** and **significant adverse impact** need to be revised. Suggested changes to the definition of both, **local area**, and **significant adverse impact** are embedded in the document itself.

#### Definitions of Critical Terms Used in Document A-10

The Criteria for Classification of Bulk Power System Elements are based on three defined terms: **bulk power system**, **local area**, and **significant adverse impact**. Definitions for these terms are provided below.

##### Bulk power system

The interconnected electrical systems within northeastern North America comprised of system **elements** on which **faults** or **disturbances** can have a **significant adverse impact** outside of the **local area**.

##### Local area

An electrically, confined or radial portion of the system comprised only of buses that are not part of the bulk power system. The geographic size and number of system elements contained will vary based on system characteristics. A local area may be relatively large geographically with relatively few buses in a sparse system, or be relatively small geographically with a relatively large number of buses in a densely networked system.

### Significant adverse impact

With due regard for the maximum operating capability of the affected systems, one or more of the following conditions arising from **faults** or **disturbances**, shall be deemed as having significant adverse impact:

- a. instability
  - any instability that cannot be demonstrably contained to a well-defined **local area**.
  - any loss of synchronism of **generators** that cannot be demonstrably contained to a well-defined **local area**
- b. unacceptable system dynamic response
  - any material power flow oscillations on Area tie lines that cannot be demonstrated to be clearly positively damped within 30 seconds of the initiating event. To be material, oscillations must be larger in magnitude than the combined operating metering measurement error for the ties between the Areas of concern.
- c. unacceptable equipment tripping:
  - tripping of an un-faulted **bulk power system** element (element that has already been classified as bulk power system) due to operation of a **protection system** in response to a stable **power swing** that cannot be attributed to either setting or design deficiencies.
  - operation of a Type I or Type II **Special Protection System** in response to a condition for which its operation is not required
- d. voltage levels at bulk power system busses in violation of **applicable emergency limits**
- e. loadings on bulk system facilities in violation of **applicable emergency limits**

In parallel with this transmittal, these comments have also been posted on the NPCC Open Process Form at <http://www.npcc.org/>.

Thank you for your attention to these concerns.

Yours truly,

*R. J. Falsetti*

Ronald J. Falsetti, P.Eng.  
Independent Electricity System Operator (IESO)