

January 11, 2007

Comments on NPCC C-18 Document

“Procedure for Testing and Analysis of Extreme Contingencies”

Introduction:

The IESO thanks NPCC for the opportunity to provide comments on the C-18 document. We commend the drafting team for developing this document further. However, there are a few issues that still remain a concern. Our comments are highlighted below:

Comments:

Section 3.0, Modeling Assumptions

- The granularity of the assumptions is a year. It is accurately stated that historic and expected generating/loading patterns should be considered while modeling but what about seasonal and on-peak/off-peak variations? Thermal loading, flow patterns, and generation dispatch variations which occur on a seasonal and time-of-day basis should also be captured as the effects of these variations could be easily lost when one considers only a yearly time-frame. These effects could be quite significant and during Extreme Contingency situations, could profoundly affect the system state.
- Where did the 75% come into the paragraph? What about time-of-day transactions which do not make the cut? What about transactions that flow for a limited amount of time but have huge MW amounts associated with them? We feel that the number is loosely stated and should not be limited to transactions that make the “75%” cut. The language should be more stringent and should incorporate “all transactions that could potentially affect power flows or system state” instead of a number based rational.

Section 4.0, Evaluating Individual Test Results:

- There is no mention of phase shifters in this section. During Extreme Contingency testing, large angles across locally controlled (MW-Control) phase shifters should be a cause for concern especially as the scope of this document is primarily focussed on interconnection reliability studies.
- What about reversal of flow patterns? Extreme Contingencies could cause reversal of flows which could either provide relief or cause detriment to the system.
- What about angle between closed breakers? The angle across busses should be an additional point. Large angles between closed breakers could help identify modeling or topology errors/incorrect assumptions.

- Additional comments on:

- **Introduction**

References to “Council” / “Council-wide” should be replaced with “Region” / “Region-wide”, and “NPCC” replaced with “NPCC Inc.” to be consistent with the new organizational name and other documents.

- **Section 4.0 Evaluating Individual Test Results (Page 3, point # 7)**

...net loss of source resulting from any combination of loss of synchronism...

Should be changed to

...net loss of generation resource resulting from any combination of loss of synchronism...

- **Section 4.0 Evaluating Individual Test Results (Page 3, point # 7)**

...generation rejection initiated by SPS, or any other defined system separation,

Should be changed to

...generation rejection or runback initiated by SPS, or any other defined system separation,

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,

A handwritten signature in cursive script that reads "R. J. Falsetti".

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