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IESO-NYISO Intertie Transaction Failures– Security vs. Economics

Prepared for IJTSC – September 26, 2007

Topics

- Issue – Export Failures to NY for security
- Intertie Transaction Failure
  - Communication between market operators
  - Transaction coding
  - Impact to participant
  - Impact to reliability and market
- Reasons for Failure
  - economic
  - security
- Investigation of security failures
  - Issue – large amount of security failures
- Moving Forward
  - NY DNI curtailments

Intertie Transaction Failure

- Communication
  - When an intertie transaction fails at checkout, the communication of the failure is verbal and a code is manually applied by the control room operator

- Different codes are applied for different reasons:
  - economic failures are coded with an "OTH" code.
  - security failures are coded with a TLRe or TLRi depending on the location

- Participant Impact
  - Economic (under participant control) failures will draw the appropriate failure charge with no CMSC
  - Security failures (ISO controlled) will not draw failure charges and may receive CMSC depending on the location of the failure

- Reliability/Market Impact

  - Impact on reliability
    - Under/over commitment
    - Excess baseload generation
    - Limit violations
    - Regulatory/environmental impacts
  - Impact on the market
    - Market price
    - Market uplift costs for commitment of internal generation and interties
    - Uneconomic spill and fuel consumption

Reasons for Failures

- Economic
  - Participant failure to navigate markets
  - These failures occur at checkout

- Security
  - Transmission issues
  - Capacity or energy issues
  - These failures can occur at anytime (checkout or real-time)

Security Failure Investigation

- Observed for some time a large amount of export security failures
- The following data comes from *Table 1-15: Monthly Export Failures by Cause May 2006 – April 2007* (page 28) of "Monitoring Report on the IESO-Administered Electricity Markets for the period from November 2006 – April 2007" (released Aug 10-07) on site: http://www.oeb.gov.on.ca/html/en/industryrelations/msp_reports.htm

NYISO Failures Type	GWh	%
ISO Controlled (i.e. security)	36.3	53.1%
Participant Controlled (i.e. Economics)	32.0	46.9%
Total	68.3	100.0%

Security Failure Investigation – cont'd

- Conversations with the NYISO that started January '07 indicated that these security failures at checkout are as a result of a **security constrained LMP (economic) dispatch** that has been communicated to the IESO as security failures.
- These failures are indeed economic.

Moving Forward

- The NYISO has confirmed that in the future failures resulting from their dispatch algorithm will be communicated verbally as economic failures.
- Participants have sufficient information such as LMP prices in advance of the dispatch hour to ensure appropriate scheduling.
- One exception:
  - NY DNI failures
    - Currently these failures are a result of their dispatch algorithm.
    - NY has confirmed that insufficient information exists for participants
    - These failure will be deemed as security failures including a partial DNI failure.

Implementation

- The NYISO and the IESO have agreed on a communication protocol and will implement once the appropriate stakeholdering is complete.