

Draft – Review- Talking Points

**“Modeling of Emergency Assistance For The NY Control Area
IRM Studies” (Draft paper issued June 23)**

Background

- The 2017 Base Case development is underway now.
 1. The 1000 MW Con Ed-PSEG wheel is scheduled to terminate by May 1, 2017. The proposed modeling topology (bubble diagram) for the 2017 Base Case is described on Page 16. The SENY Import Limit will remain at 2,000 MW from PJM to SENY
- Several months ago ICS requested a Study Scope whereby,
 1. ISO Operations Department would propose an Emergency Assistance Limit based on operational experiences and factors.
 2. ISO Planning would produce some preliminary evaluations developing indicative IRMs’ and Zone J LCR’s reflective of proposed Emergency Assistance Limits .
 3. This study scope was approved by ICS WG a month ago.
- On June 23 the ISO Planning Department issued a draft paper describing preliminary findings per the study scope.

Review of June 23 Paper Assumptions

- Operations Department comments justifying consideration for an Emergency Assistance Limit recommendation:
 1. Appears that with time, the “Emergency Assistance Relied Upon in NY” (Figure 1 & 2, page 4 & 5) for the development of the minimum Installed Reserve Margin is increasing. This suggests that Operations will be relying on increasing Neighboring Support to meet load on a higher frequency and higher magnitude than in the past. While it can

be debated whether or not this is acceptable, it does mean that the accuracy of the assumptions on Emergency Assistance capability from Neighboring Control Areas is becoming much more important.

2. The issue of NY internal or external installed capacity resources being on-line or off-line is not relevant for developing minimum IRM values because there are powerful tariff and market constructs whereby the NYISO Operations Department can schedule these capacity resources on-line to meet load in tight conditions. But Neighboring Emergency Assistance capability is only provided with resources that are already on-line and only if the Neighboring Control Area has excess energy on-line. Understanding that Neighboring Control Areas only commit minimum generation capacity to meet their own predicted peak load conditions plus their minimum operating reserve requirements, there is no basis or reason to believe neighboring Control Areas will have excess energy schedule on-line above-and-beyond their minimum operating reserve requirements. The Operations Department believes that a planning design technique that assumes all Neighboring Control Area capacity up to .1 LOLE is always on-line and available as excess energy available for NY as Emergency Assistance is over-stated.

Figure 5, page 9, indicates the amount of resources that were available from four Neighboring Control Areas to the NYISO for peak load conditions over the past three years (top 5 peak days). The average of these fifteen points is 2,970 MW and is an empirical view of the excess on-line capacity and available to the NYISO for emergency purchases during past peak conditions.

3. The Operations Department reviewed the 2016 Summer Capacity Assessment for expected peak condition (Table 5, page 12). Understanding that the NYISO market systems are designed to drive the actual capacity infrastructure to minimum IRM values, Table 2 column 3 displays the predicted capacity margins for expected peak

conditions if the Total Capacity Resources were at minimum IRM 117.5% (39,362 MW). At this minimum planning criteria level, the expected peak day capacity margins would be -1,094 MW and emergency procedures and possibly emergency purchases would be required for expected peak conditions.

4. The Operations Department believes that it may be acceptable for minimum Planning Design Criteria to model and rely upon expected Emergency Assistance to re-establish Total Operating Reserve Requirements but it may not be prudent to “plan” on a need to relay upon emergency procedures & emergency purchases to meet load from a minimum planning criteria.
5. In addition, as a best practice review, Table 5 (page 6) indicates that the Neighboring Control Areas rely on less Emergency Assistance than the NYISO; with Ontario and the Maritimes relying on zero Emergency Assistance when setting their minimum IRM’s.
6. Operations Recommends an Emergency Assistance Limit of 2,620 MW as a proposed, formal Sensitivity for the 2017 IRM Report:
 - Started with the 2016 Base Case. This assumes the current 1000 MW wheel and current topology.
 - Assumed PJM upgrades not complete.

Preliminary Findings:

- Started with the 2016 Base Case. This assumes the current 1000 MW wheel and current topology.
- Assumed PJM upgrades not complete
- Starting with 2016 Base Case and then solely imposing a 2,620 MW Emergency Assistance Limit for the Control Area and utilizing a “full Tan 45 approach”, the results are as follows:
 - IRM: 117.4% increased to 118.8%

- Zone J LCR: 80.8% decreased to 79.9%
- Zone K LCR: 102.4% decreased to 101.6%
- Again starting with the 2016 Base Case and solely modeling the expiration of the 1000 MW Wheel by using the new SENY topology modeling as described on Page 16 with 2000 MW SENY Import Limit and utilizing a “full Tan 45 approach”, the results are as follows (no Emergency Assistance Limit):
 - IRM: 117.4% remained 117.4%
 - Zone J LCR: 80.8% remained 80.8%
 - Zone K LCR: 102.4% remained 102.4%
- Again starting with the 2016 Base Case and modeling **both** the 1000 MW wheel expiration **and** the with implementing a 2,620 MW Emergency Assistance Limit, **without** a “full Tan 45 approach”, the results are as follows:
 - IRM: 117.4% increased to 118.0%
 - Zone J LCR: 80.8% increased to 81.2%
 - Zone K LCR: 102.4% increased to 103.0%

NEXT STEPS:

- Want ICS WG comments to this draft paper
- Re-Run this evaluation as a defined sensitivity as part of the 2017 IRM Report but
 - Using the 2017 Base Case (instead of 2016 Base Case),
 - Utilizing a “full Tan 45 approach”,
 - Incorporating meaningful comments from ICS WG.