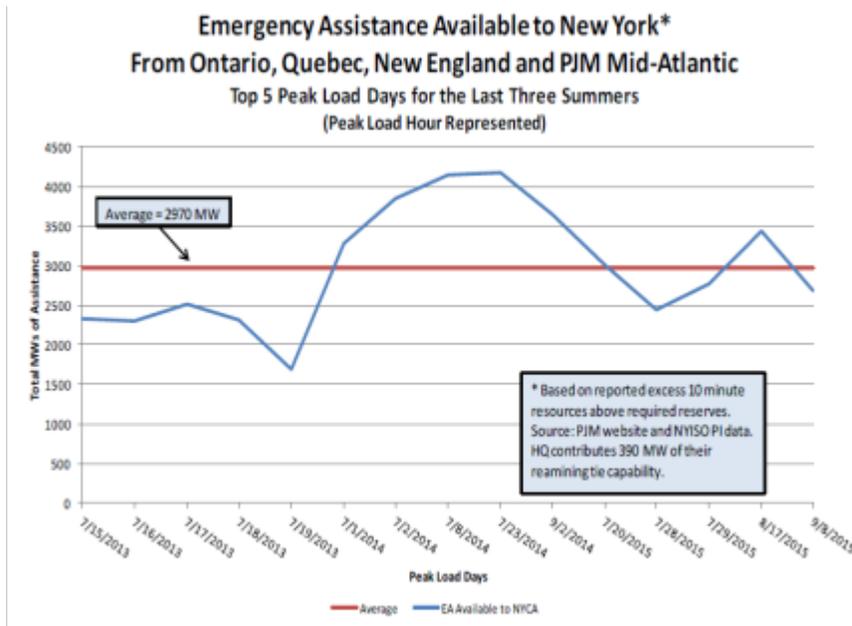


NRG Comments on the NYISO White Paper
“Modeling of Emergency Assistance for the NYCA in NYSRC IRM Studies”

The NYISO white paper on Emergency Assistance demonstrates that the level of Emergency Assistance (EA) assumed in the NYISO is significant. Compared to neighboring Control Areas, the amount of Emergency Assistance – assumed available to the NYISO after it has already adopted all of its Emergency Operating Procedures, including depleting reserves – is considered “excessive” and “unrealistic” by NYISO Operations (p.1). The paper points to concerns with assuming a “Direct” amount of Emergency Assistance in the form of actual capacity, as well as concerns with assuming “Indirect” amounts of Emergency Assistance, in the form of available transmission in neighboring Control Areas. In both instances, the assumptions used in the GE MARS model appear to be driving the model outputs, with a direct impact on both the NYCA IRM and the LCRs.

NYISO Operations suggests limiting the total amount of EA to 2,620 MW. However, the white paper seems to suggest that an average of 2,970MW of “direct” EA would have been available during the peaks over the past 3 years. As pointed out in the NYSRC-ICS discussion, only 2013 was a year approaching a planned peak in the NYCA. Both 2014 and 2015 summer peaks were below the 50/50 peaks. As figure 5 demonstrates, the average amount of “Direct” EA MWs would likely be even lower than the total suggested by NYISO Operations, since the actual available EA MWs were at or below 2,500 MWs during each of the 5 days during the 2013 peak. The paper does not state whether each of the neighboring Control Areas were also experiencing peak conditions, or whether each of the neighboring Control Areas were also experiencing below normal peak conditions.



In addition, the white paper points out that when applying the 2,620MW limit to the GE MARS model, the total flows into the NYCA decrease, but “the flows from ISO-NE and the flows from PJM into SENY both increased” (p. 12). As was discussed in the NYSRC-ICS meeting, this is largely due to manner in which external area power flows are modeled in GE MARS. In particular, GE MARS models all external power from all external interfaces as a single group (called “NY Imports”), and does not enforce any

limits on how power actually flows into NYCA. This is important, because it means that the GE MARS model does not consider any limits on the amount of power assumed to flow into SENY.

When considering power flows from ISO-NE and PJM, the GE MARS modeling assumption is that all power from PJM is assumed to flow into SENY and all power from ISO-NE is assumed to flow below the UPNY-SENY interface. These are both inappropriate assumptions. While power coming across AC lines *might* flow this way, there is no real mechanism to ensure that it actually *does* flow this way. According to the NYSRC-ICS discussion, about 30% of the power flowing from PJM actually flows into Zones A and C, and about 50% of the power flowing into NY from NE actually comes in above UPNY/SENY. The white paper even points out while the GE MARS model assumes power is wheeled across the PARs into SENY and NYC (possibly increasing the actual amount of power flowing from PJM in SENY), there is “no market or operational mechanism under NYISO’s tariffs to effectuate this type of wheeling of EA energy” (p.14). The GE MARS modeling assumptions should appropriately reflect how power flows across AC lines into NYCA by limiting the paths over which power from external Control Areas is assumed to flow into SENY.

NYISO recommends that the NYSRC-ICS include a sensitivity to the IRM basecase that reflects EA limits. Given that PJM will complete significant transmission upgrades by 2018, it is important that the way power actually flows from external Control Areas into NYCA be reflected in the IRM modeling. If a sensitivity is sufficient to develop new rules around IRM modeling assumptions, then this recommendation could be sufficient. If new rules need to be in place in the 2017 IRM model in order to be in place for the 2018 IRM, then the NYSRC-ICS discussions should be about implementing these modeling changes sooner rather than later.

The white paper stresses that NYISO Operations is concerned with *both* the direct and indirect EA assumed in the GE MARS model. If the NYSRC-ICS focuses only on the direct EA, whether based on the NYISO Operations recommendation of 2,620MW, or some assessment of the amount of EA available from External Control Areas during recent system peaks, then a key part of the white paper will be ignored. The indirect EA assumed available in the GE MARS model should also be addressed. One mechanism to do this is to accurately reflect how power flows into NYCA from external Control Areas in the GE MARS model. Combined with some limit on the direct EA assumed, limiting the amount of indirect EA assumed available via GE MARS better reflects the actual amount of EA that can be relied on during tight operating conditions.



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