

# MEMORANDUM

**To:** Bob Boyle; NYSRC ICS Chair

**From:** Mark Younger; Hudson Energy Economics, LLC

**Subject:** Capacity Shifting for Sensitivity Runs

**Cc:** Dana Walter; NYISO  
Greg Drake; NYISO  
NYSRC ICS Members

**Date:** March 15, 2016

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As I understand it, the purpose of the sensitivity runs for the Installed Reserve Margin (“IRM”) report is to provide an estimate of how the IRM, and to a lesser degree the New York City (“NYC”) and Long Island Locational Capacity Requirements (“LCRs”) would be expected to change as a result of changed assumption.

Unfortunately, there is an inconsistency between how we shift capacity for the IRM base case and for the sensitivities that frustrates the ability of the sensitivities to provide a reasonable estimate of the impact. Specifically, the unified method for shifting capacity for the setting of the IRM (“Unified Method”) is provided in Section 3.4.1 of the New York State Reliability Council (“NYSRC”) Policy 5.<sup>1</sup> Specifically, Policy 5 states:

Under this method capacity is removed from zones west of the Central-East interface that have excess capacity when compared to their forecast peaks until a study point IRM is reached. At this point, capacity is shifted from Zones J and K into the same zones as above until the 0.1 LOLE criterion is violated. Doing this at various IRM points yields a curve such as depicted in Figure 3-2, whereby all points on the curve meet the NYSRC 0.1 days/year LOLE criterion.

The important point is that under the Unified Method, capacity is shifted in and out of NYC, Long Island, and the upstate zones that have excess capacity (currently zones A, C, and D). Conversely, for the sensitivities the NYISO adjusts the capacity based upon the proportion of load in each zone. This creates an inconsistency between the IRM setting process and the Sensitivity process that hinders the ability of the Sensitivity process to provide a reasonable estimate of the likely IRM/LCR impacts.<sup>2</sup> Specifically, the

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<sup>1</sup> See, [http://www.nysrc.org/pdf/Policies/Final 2015 POLICY 5-9.pdf](http://www.nysrc.org/pdf/Policies/Final%202015%20POLICY%205-9.pdf)

<sup>2</sup> My point regarding the inconsistency between Policy 5 and the Sensitivity Methodology of shifting capacity based upon each zones load level should not be interpreted as support for the Policy 5 method for shifting capacity. I believe that it would be better if Policy 5 were revised to shift capacity based

Sensitivity shifting process can result in changes to Zones B, and D through I when the IRM process would not change capacity levels in those zones. Since the value of capacity in at least some of these zones, such as the Hudson Valley zones, can have a higher benefit than in Zones A, C, & D this difference results in the Sensitivity shifting method not providing good proxy for what would happen under the Unified Methodology.

The load shifting process for the Sensitivity cases should be revised to only allow capacity changes in the same zones that are allowed for the Unified Methodology. Specifically, under current conditions all of the capacity shifting under the current method should be limited to Zones A, C, D, J, and K.<sup>3</sup> In cases where the sensitivity methodology shifts out of zones A – I, that same amount should be shifted out of Zones A, C, and D. Making this change should result in a more consistent representation under the Unified Methodology and the Sensitivity Methodology.

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upon either the amount of load or capacity in a zone. This would result in shifts of capacity out of zones A – I coming out of all those zones and not just out of A, C, & D. However, regardless of which method Policy 5 uses, the sensitivity analysis for shifting capacity should match the Policy 5 methodology.

<sup>3</sup> Once the NYISO gets to a point that Zone C capacity no longer exceeds Zone C load, as could happen with the shutdown of Fitzpatrick and Cayuga, then the shifting should be limited to Zones A, D, J and K.