





NCZ Boundary

- UPNY/SENY is the binding constraint identified in the NCZ Study.
- NYCA Load Zones G K are on the constrained side of the UPNY/SENY interface.
- However,
 - From transmission security perspective, Zone K export capability is much more limited than J's, which limits K's support to GHI.
 - From a resource adequacy perspective, Zone K capacity provides limited value to GHI.
- Zone J is electrically more integrated with the NYCA transmission system in Zones G-H-I.
- The NYISO is proposing that the NCZ consist of Zones GHIJ.



Retirements in GHI can be offset or supported by increasing Zone J capacity up to 2200 MW





Retirement in GHI can be offset or supported by increasing Zone K Capacity <u>only</u> up to 300 MW





Conceptual Methodology for Determining the Indicative NCZ LCR

- The NYISO's tariff requires it to establish an Indicative NCZ LCR, which will be used in the ICAP Demand Curve reset analysis.
- The NYISO is using that same value in its customer impact analysis.



Conceptual Methodology for Determining the Indicative NCZ LCRs (cont.)

- The approach will utilize the existing NYSRC unified or "Tan 45" methodology
 - The unified or "Tan 45" methodology has been in use since 2005
 - Developed to strike a balance between the Zone J&K LCRs and the statewide IRM and to maintain the LOLE criterion – i.e., higher or lower J&K LCRs verses lower or higher statewide IRM.
 - Capacity is shifted for a given IRM as long as the LOLE criterion of a loss of load event is not more than once in ten years (0.1 days/year).
 - At criterion the UPNY/SENY interface is highly constrained.
 - The NCZ would be layered on top of the "Tan 45" solution and the Tan 45 minimum LCRs as well as the NCZ requirement would need to be met to maintain the LOLE criterion at the defined statewide IRM.



Determining the LCRs for the NCZ

- Start with the existing IRM/LCR unified approach for finding the Tan 45 point for the statewide IRM and Zone J & K LCRs.
- The next step is to layer the NCZ zone on top of the Tan 45 point.
- Using the determined IRM (say 17.0%) and LCRs (86% NYC and 105% LI), freeze the capacity in Zone K at its LCR.
- Capacity in Zone J is then to be returned to its starting value.



Determining the LCRs for the NCZ (cont)

- Next step is to shift capacity from the Zone G-J (i.e., the new Locality) to Zones A, C, and D until the LOLE criterion is satisfied.
- At the LOLE criterion of 0.1 days/year, the capacity to load ratio for Zones G-J collectively, becomes the LCR for the NCZ.
- In order to ensure the resource adequacy criterion is satisfied, Zones J and K as well as the NCZ of G-J will need to meet their minimum LCRs established by the unified method.



Determination of Indicative NCZ LCR

- The existing IRM/LCR process is used to determine the LCRs for Zones J and K, and further extended to determine the Indicative NCZ LCR for G-J.
- LCRs established for 2013/2014 Capability Year:

J LCR = 86%

K LCR =105%

• Preliminary Indicative NCZ LCR:

G-J LCR = 88%



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