

LIPA Comments on NYISO Proposed ICAP Locality Criteria

Why NYISO's Proposed Criteria Need More Work and Why NY Needs More Time to Develop Criteria

Comments on NYISO's Revised 9/17/2010 Proposed Criteria (Revised) 10/10/2010





- NYISO's proposed approach still adds potentially binding new ICAP zones before they are needed for reliability, thus potentially increasing costs without commensurate reliability gains.
- The justifying assertion is incorrect that creating a new subzone is immaterial because it may not bind, or at least NYISO's explanation is incomplete.
- LIPA recommends that NYISO initiate discussions on creating a new zone when the capacity in the new zone is forecast to create an unacceptable reliability deficiency within the demand curve reset period which cannot be less expensively addressed by reliability solutions including new capacitor banks or other transmission solutions.
- It is neither sensible nor consistent with economic efficiency principles to pay more for capacity in the new zone than it costs to build capacity in the ROS plus incremental transmission investments to deliver that capacity to the new zone.
- NYISO should conduct NYCA auction, determine NYCA clearing price and deliverability investments needed at each level of ROS surplus and then cap new locality price at NYCA clearing price plus deliverability costs.
- NYISO should consider adding a new ICAP locality or keeping an existing ICAP locality if market concentration would otherwise allow buyers to exert market power in the new or existing locality, and NYISO should continue to address this possibility by having the new locality clear no lower than the NYCA price.

NYISO's Proposed Approach



- NYISO's proposed approach still adds potentially binding new ICAP zones before they are needed for reliability, thus potentially increasing cost to consumers without commensurate reliability gains.
- Creating a new zone when it is not needed to meet minimum reliability requirements (i.e. 1 day in 10 year loss of load expectation) does not change whether the 1 day in 10 year loss of load expectation is met.
- Reliability contributions beyond the 1 day in 10 year loss of load expectation drop off sharply and can be expensive.
- NYISO's proposal provides reliability contributions beyond 1 day in 10 years at potentially high cost, at higher cost than least cost planning principles would dictate.
- The design therefore fails an economic efficiency test and needs to be reconsidered.
- LIPA supports the widely held view that more time is needed to develop appropriate criteria.

Creating New Zones Before they are Needed for Reliability



- Creating new ICAP zones before they are needed for reliability is material whether or not the curve might not bind for some levels of surplus.
- NYISO's justifying assertion is incorrect that creating a ICAP zone is immaterial because it may not bind, or at least NYISO's explanation is incomplete.
- There are multiple circumstances where a new ICAP locality may be both binding and material.



Case 1 – New Zone Net CONE is Greater than the NYCA Net CONE



- Assume NYISO's proposed 115% zero crossing straight line demand curve, i.e. all points on the demand curve are above those of the NYCA curve for a similar percentage of the NYCA and new zone reliability requirements.
- Assume that NYCA clears at 103% of its requirement.
- While the new zone would clear below NYCA above 105% and be adjusted upward to the NYCA price (i.e. it would not bind nor be material), the new zone would bind and be material below 105% of the new zone reliability requirement.



Case 2 – New Zone Net CONE is Less than the NYCA Net CONE



- Assume NYISO's proposed 115% zero crossing straight line demand curve.
- Some points on the new demand curve would be above those of the NYCA curve for a similar percentage of the NYCA and new zone reliability requirements and some would be below
- Assume that NYCA clears at 110% of its requirement.
- While the new zone would clear below NYCA above 112% of its reliability requirement and be adjusted upward to the NYCA price (i.e. it would not bind nor be material), the new zone would bind and be material below 112%.
- Hence NYISO's assertion is incorrect, or at least unclear.



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- **Economic Efficiency**
 - It is neither sensible nor economically efficient to pay capacity in the new zone more than it would cost to build capacity in ROS plus the incremental costs of transmission investments to deliver that capacity to the new zone.
 - NYISO should consider capping the ۲ new zone price at the NYCA clearing price plus the unit incremental deliverability cost.
 - For example, if NYCA cleared at ٠ \$1.25/kW-month and incremental deliverability costs were \$2/kWmonth paying more than \$3.25/kWmonth would increase the cost of supplying the next unit of capacity.





The New Zone Price Cap



- It is likely that deliverability costs will be some step function of ROS surplus.
- The attached shows a sample of costs that might be added to the NYCA clearing price to determine the maximum clearing price in the new zone depending on the price at which NYCA clears.
- The price cap in the downstream zone should depend on how much capacity surplus there is in the upstream region.



The 2009 State of the Market Report

- The 2009 SOM contemplates a case where the new zone reference price (\$9/kW-month) is less than the combined zone reference price.
- The case posited would yield a combined zone reference price of (\$10/kW-month) if two equally sized regions were assumed. The weighted average combined zone price (\$4+\$10)/2 equals the posited combined zone clearing price of \$7.
- Using NYISO's construct, the curves look like this.
- Although the average of \$4 and any point on the new zone price to the left of the vertical line will be less than average combined zone price (i.e. two zones are less expensive than one), the same conclusion does not hold for points where the new curve clears above the combined curve and above \$4.





The 2009 State of the Market Report (Cont.)

- The 2009 SOM does not contemplate a case where the new zone reference price (say \$12/kWmonth) is more than the combined zone reference price.
- In this case, the weighted average combined zone price (\$4+\$10)/2 still equals the posited combined zone clearing price of \$7, but the average of two zones would be \$8.
- Using NYISO's construct, the curves look like this.
- Under the case posited, the blended price would be below average price of the two zones, and consumers might not save money.
- Although the SOM analysis contributes to the discussion by highlighting the possibility that loads could save money in the specific case, the conclusion that loads would save money is not supported in the general case.





LIPA's Proposed Approach



- LIPA recommends that NYISO initiate discussions on creating a new zone when the capacity in the new zone is forecast to create an unacceptable reliability deficiency within the demand curve reset period which cannot be less expensively addressed by reliability solutions including new capacitor banks or other transmission solutions.
- The current NYISO process of setting Locality Capacity Requirements (LCR) using the Tan 45 method should be tentatively applied to potential super-zones.
- NYISO should then forecast whether capacity within the proposed locality is expected to drop below amount required to maintain 1 day in 10 year loss of load expectation within the demand curve reset period.
- NYISO should make some assessment of alternative reliability solutions if low cost fixes like new capacitor banks or low cost transmission solutions exist.
- NYSRC should be involved since IRM calculation procedures and results cannot be separated from the assumptions made about ICAP localities.
- NYISO should consider adding a new ICAP locality or keeping an existing ICAP locality if market concentration would otherwise allow buyers to exert market power in the new or existing locality, and NYISO should continue to address this possibility by having the new locality clear no lower than the NYCA price.

Bottom Line



- There are more cost effective and economically efficient criteria than those that NYISO is proposing.
- We collectively need more time to develop better solutions.