# MMU Review of 2021-2030 CRP


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# Introduction

- The MMU provided comments on the Comprehensive Reliability Plan (CRP) and its implications for market design.
  - ✓ This presentation provides a brief overview of three topics discussed in the memo.
- The CRP finds that the system meets all applicable reliability criteria under base case assumptions for the entire study period.
  - ✓ However, analysis in the CRP demonstrates that NYISO markets could be improved to better signal the value of addressing future reliability needs.



# Locational Signals in ICAP Market

- **CRP Finding**: resources at different locations in same capacity zone have different resource adequacy value:
  - ✓ Zones A and B vs. zones C-F
  - ✓ Staten Island vs. rest of Zone J (*after* ConEd LTP projects)
  - ✓ Zone G vs. Zones H-I
- **Implication**: capacity prices do not adequately signal where investment and retirement would be efficient. Leads to:
  - ✓ Premature retirement at high-value locations,
  - ✓ Over-retention at low-value locations, and
  - ✓ Barriers to new entry in the interconnection process.
- **Recommendation**: Implement C-LMP, which considers the marginal value of capacity at more locations.



# Market Signals to Integrate Renewables

- **CRP Finding:** State policies will drive major changes in the NYISO system by 2040, including:
  - ✓ Shift to winter peaking system with 56 GW peak load.
  - ✓ Need to balance short and long periods of low intermittent output.
  - ✓ Over 35 GW of CLCPA-compliant, dispatchable, non-duration limited resources needed for reliability.
- **Implication**: It is critical that NYISO markets efficiently signal value of resources that support reliability as load and generation patterns evolve.
  - ✓ Efficient markets will minimize the cost of this transition.
- **Recommendation**: apply marginal capacity accreditation to all resource types, including conventional resources.



# Transmission Security in the ICAP Market

- **CRP Finding**: The margin for satisfying transmission security (TS) needs in Zone J is very tight (42 MW by 2031).
  - ✓ NYISO markets should signal how much capacity is needed to satisfy TS needs and value the contribution of each resource.
- NYISO recently updated TSL-based LCR floors in the ICAP market to reflect resource availability from TS analysis.
- However, resources are treated differently in TS analysis and the capacity market:
  - ✓ Wind assumed to provide 0 MW in TS analysis.
  - ✓ SCRs assumed to provide 0 MW under normal conditions in TS analysis.
  - ✓ Conventional generators are treated as fully available in TS analysis.



# Transmission Security in the ICAP Market

- **Implication**: The capacity market does not accurately signal resources' value for addressing TS needs.
  - ✓ Assumption that some resource types provide 0 MW for TS is not realistic, causing TSL floors and LCRs to be inflated.
  - ✓ Resources lack incentives to address TS needs:
    - Lack of incentive for SCRs to register as DERs.
    - Lack of new entry may lead to reliability agreements.
- **Recommendation:**
  - ✓ Use reasonable availability assumption for all resources in TS analysis.
    - NYISO has indicated it intends to revisit these assumptions.
  - ✓ Consider discounting payments to suppliers (such as large generators) that cause capacity requirements to increase.

# Conclusion

- Overall, we find that the NYISO markets are well-designed and generally provide efficient investment signals.
- We recommend the following improvements to ensure that NYISO markets efficiently address reliability needs:
  - ✓ Implement C-LMP to accurately reflect resource adequacy value at each location.
  - ✓ Implement marginal capacity accreditation for all resource types.
  - ✓ Use reasonable assumptions for all resource types in transmission security analysis.
  - ✓ Consider discounting capacity payments to resources that do not help address transmission security needs.