



Operating Reserves Modeled in the IRM Study

Ryan Carlson

Senior Resource Adequacy Analyst

ICS

May 5, 2021

Agenda

- Review current model
- Review previous cases when re-allocating reserves
- Potential test cases
- Next steps

Current Reserves Allocation

- Zone A: 345 MW
- Zone F: 463 MW
- Zone G: 259 MW
- Zone J: 358 MW
- Zone K: 540 MW
- All other zones are currently set to zero

Re-allocating Reserves

- While reviewing 2021 FBC results, the NYISO identified that EOP activations were being triggered to address zonal deficiencies while reserve capacity was still available
- MARS withholds resource capacity based upon zonal reserve allocation input data, and releases it back to the model in EOP steps 3 and 8.
- In actual operation, reserves would be re-distributed dynamically based upon system needs and resource capabilities
- The ELR fixed injection model currently does not reflect the flexibility to increase output in response to reserve allocations
- NYISO performed a simulation, maintaining total reserve requirements but using an alternative zonal allocation which shifted to generator surplus zones
- This case resulted in a significant reduction in EOP activations while maintaining a 0.1 LOLE
- Today's presentation outlines several possible proposals for re-allocating reserves in the IRM Study

Potential Test Cases

- **Base Case: Final 2021 LCR Case**
- **Case 1: Remove all reserves from EOP table**
- **Case 2: Re-allocate reserves based on where they are procured**
 - Ratio the numbers to meet the NYSRC requirement of 1962 MWs
- **Case 3: Replicate EC Distribution**
- **Consider any further suggestions**

- **All proposed distributions meet the NYSRC's requirement for Establishing the Minimum Level of Operating Reserve**

Next Steps

- Review and include suggestions to the test plan
- Return to next ICS with results from test cases

Questions?

Questions or comments can be sent to IRM@nyiso.com

Our mission, in collaboration with our stakeholders, is to serve the public interest and provide benefit to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system

