

2024-2025 IRM PBC

- Tan45 Results

Henry Fox

Resource Adequacy

ICS Meeting # 279

August 02, 2023

2024-2025 PBC Tan45 Results

| Results | | 2023 FBC | 2024 PBC | | Delta |
|------------------------|------|----------|--|---|--|
| IRM | | 19.900 | 20.800 | | 0.900% |
| NY J | | 78.200 | 72.719 | | -5.481% |
| NY K | | 107.400 | 109.880 | | 2.480% |
| GRP G-J | | 88.548 | 84.252 | | -4.296% |
| NYBA EOP (Days/Yr.) | | 6.91 | 7.55 | | 0.64 |
| Case | LOLE | LOLH | lormalized LOEE (EUE) "Simple Method" ppm | N | ormalized LOEE (EUE) "Bin Method" ppm |
| 2023 IRM FBC | 0.1 | 0.358 | 1.264 | | 1.102 |
| 2024 IRM PBC | 0.1 | 0.337 | 1.188 | | 1.031 |



Observation

- The NYISO investigated the lower-than-anticipated J LCR in the Tan45 results and identified two major drivers:
 - Transfer capability improvement due to AC Transmission ("AC Tx") project
 - Improvement of outage rate for cables connecting to downstate
- Therefore, two additional Tan45 runs were conducted to understand the individual impacts from these two drivers



Impact of AC Transmission Project

- AC Tx project increases the transfer limits towards downstate by about 1500 MW (<u>AC Tx Topology Update</u>)
- A test case was conducted to revert the transfer limits improvement due to the AC Tx project, with following impacts compared to the PBC:
 - IRM: -0.25%
 - JLCR: +1.27%
 - K LCR: +0.83%

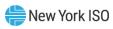
| Margin | 2024 PBC (Tan45) | Test Case Reverting AC Tx (Tan45) | Delta |
|--------|------------------------|---|--------|
| IRM | 20.8 | 20.550 | -0.25% |
| J LCR | 72.719 | 73.990 | 1.27% |
| K LCR | 109.880 | 110.709 | 0.83% |
| G-J | 84.252 | 85.183 | 0.931 |



Impact of Cable Outage Rate Improvement

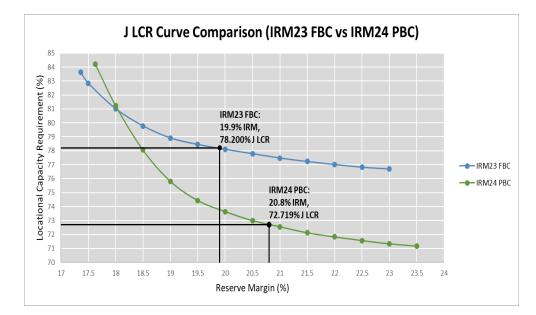
- The outage rate of all cables is reduced from 7% to 4.8% in this year's PBC (<u>Attachment E4 in AM</u>)
- A test case was conducted to revert the cable outage rate improvement, with following impacts compared to the PBC:
 - IRM: -0.59%
 - JLCR: +2.99%
 - K LCR: -0.42%

| Margin | 2024 PBC (Tan45) | Test Case Reverting Cable Outage Rate (Tan45) | Delta |
|--------|------------------------|--|--------|
| IRM | 20.8 | 20.211 | -0.59% |
| J LCR | 72.719 | 75.706 | 2.99% |
| K LCR | 109.880 | 109.461 | -0.42% |
| G-J | 84.252 | 86.439 | 2.187 |



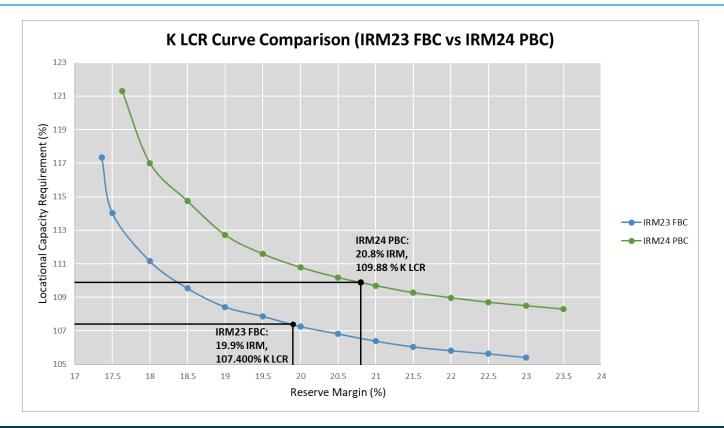
Combined Impacts

- Both AC Tx project and improved cable outage rate help increasing the transfer into J and therefore creating downward pressure for J LCRs
 - AC Tx lowers J LCR by 1.27% and improved cable outage rate lowers J LCR by 2.99%
- As the J Curve moves down, the Tan45 point would be pushed out, hence increasing the IRM, as demonstrated in the J curves comparison.





K Curve Comparison – **ICS Request**



New York ISO

Questions?

