

| Parameter | 2022 RNA Transmission Security Studies Modeling Assumptions | Source |
|---|--|--|
| Load Forecast | <p>The 2022 Gold Book publishes the baseline coincident peak load forecasts (summer and winter) including the impact (reduction) of behind-the-meter (BtM) generation (solar, non-solar, and storage adjustments) at the time of NYCA peak as well as energy efficiency and codes & standards.</p> <p>The midday light load forecast utilizes the BtM solar generation from the 2022 Gold Book Table 1-9d and includes expected load during the midday light load hour.</p> | 2022 Gold Book |
| Load Model | ConEd: voltage varying | 2022 FERC 715 filing |
| | Rest of NYCA: constant power | |
| System Representation | Per updates received through the annual database update process (subject to RNA base case inclusion rules) | NYISO RAD Manual, 2022 FERC 715 filing |
| Inter-area Interchange Schedules | Consistent with ERAG MMWG interchange schedule | 2022 FERC 715 filing, MMWG |
| Inter-area Controllable Tie Schedules | Consistent with applicable tariffs and known firm contracts or rights | 2022 FERC 715 filing |
| In-City Series Reactors | <p>Consistent with Con Edison series reactor status in their 2021 Local Transmission Plan update presented at the November 19, 2021 ESPWG/TPAS [here].</p> <p>2021-2023 Series Reactor Status</p> <ul style="list-style-type: none"> • 71, 72, M51, M52 are bypassed • 41, 42, Y49 are in-service <p>Post-2023 Series Reactor Status</p> <ul style="list-style-type: none"> • 71, 72, M51, M52 are in-service • 41, 42, Y49 are bypassed | 2022 FERC 715 filing, Con Edison protocol |
| SVCs, FACTS | Set at zero pre-contingency; allowed to adjust post-contingency | NYISO T&D Manual |
| Transformer & PAR taps | Taps allowed to adjust pre-contingency; fixed post-contingency | 2022 FERC 715 filing |
| Switched Shunts | Allowed to adjust pre-contingency; fixed post-contingency | 2022 FERC 715 filing |
| Fault Current analysis settings | Per Fault Current Assessment Guideline | NYISO Fault Current Assessment Guideline |
| Thermal Generation (includes fossil and nuclear) Unavailability | The impact of thermal generation unavailability is captured in the transmission security margin calculations (aka “tipping points”) and incorporates the NERC five-year class-average forced outage rate values (EFORd). | <p>NERC Generating Unit Statistical Brochures, most recently available Brochure 4 [here].</p> <p>Reference May 5, 2022 TPAS/ESPGWG meeting materials [here] and May 23, 2022 ESPWG meeting materials [here].</p> |
| Wind Generation | <p>Dispatch land-based wind (LBW) generation and off-shore wind (OSW) generation to the following percentage of nameplate capacity:</p> <p>LBW</p> <ul style="list-style-type: none"> • Summer 5% • Winter 10% | Reference May 5, 2022 TPAS/ESPGWG meeting materials [here] and May 23, 2022 ESPWG meeting materials [here] . |

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| | <ul style="list-style-type: none"> • Light load 10% OSW <ul style="list-style-type: none"> • Summer 10% • Winter 15% • Light load 15% | |
| Solar Generation | BtM solar reductions in load forecast are included in the Gold Book (Table I-9d) along with nameplate capacity (Table I-9a). Utility-scale solar resources are dispatched at the same factor as the BtM solar resources for a given transmission security case. | Reference May 5, 2022 TPAS/ESPWG meeting materials [here] and May 23, 2022 ESPWG meeting materials [here] . |
| Hydro Generation | Large hydro and pumped storage are dispatchable up to the stated seasonal capabilities published in the Gold Book. Run-of-river hydro are fixed at their 5-year average based on GADS data (roughly 50% of the capability stated in the Gold Book). | Reference May 5, 2022 TPAS/ESPWG meeting materials [here] and May 23, 2022 ESPWG meeting materials [here] . |
| Battery Storage | As the starting point in transmission security analysis utility-scale battery storage resources are modeled at 0 MW output. If a potential transmission security reliability need is observed, post-processing analysis is performed to understand the nature of the need and how the characteristics of the battery storage resources may address the need. BtM storage resources are netted with load consistent with the forecasts published in the Gold Book. | 2022 Gold Book Reference May 5, 2022 TPAS/ESPWG meeting materials [here] and May 23, 2022 ESPWG meeting materials [here] . |