



An Exelon Company

ComEd 2017 Assumptions for Western Sub-Regional RTEP

January 5, 2017

Base Case Power Flow Model

- ✓ ComEd provides updates to PJM for inclusion in the PJM 2022 RTEP model
- ✓ ComEd studies include:
 - 90/10 and 50/50 load levels, years 1-6 & 10
 - Loads consistent with PJM Load Forecast Report
 - 2022 summer 50/50 load of 22,935 MW (2016 forecast)
 - New generators included only if under construction or judged highly likely to enter construction in the next 2 years
 - Wind is not dispatched in peak cases
- ✓ ComEd detailed model is submitted to PJM/RF for inclusion in ERAG MMWG cases

Baseline Analysis

- ✓ Both ComEd and PJM study our system to determine baseline reliability upgrades
 - Upgrades are driven by:
 - PJM criteria (Manual 14B)
 - ComEd FERC Form 715 criteria
 - NERC Planning Criteria
- ✓ ComEd works with PJM to analyze and validate results
- ✓ Potential violations are included in the PJM open window process
- ✓ For immediate need projects (< 3 years out) ComEd works with PJM to develop solutions
- ✓ Proposed solutions are presented to TEAC or Sub-Regional RTEP and become baseline projects

FERC Form 715 Planning Criteria

- ✓ ComEd Transmission Planning Criteria
 - Double underground lines at 90/10 load
 - Transient voltage recovery
 - Voltage stability
 - Included in FERC 715 filing
 - Posted on PJM web site
- ✓ NERC TPL Standards

Supplemental Projects

- ✓ A project that will typically impact transmission network flows or model:
 - Transmission System configuration changes due to new or expansion of existing distribution substations
 - New transmission customer connections
 - Infrastructure replacement (EOL/condition/obsolescence) resulting in increased capacity and or configuration changes; consistent with efficient asset management decisions.
 - NERC Alert mitigation projects
 - Wood pole replacement program
 - Reliability improvements driven by internal standards (installing breakers on autos, removing tertiary capacitors)
 - Projects to address potential generation retirements
 - Enhancing Resiliency
 - Environmental drivers, for example, oil removal in water crossings or near waterways- Cables/OCBs
 - Enhanced Functionality /operability
 - Employee and public Safety- deteriorating condition, old technology, clearances, material construction, etc.
- ✓ Reviewed at PJM TEAC or Sub-Regional RTEP meetings for stakeholder input