

BGE 2015 RTEP Planning Modeling and Procedures



An Exelon Company

Base Case Modeling

- BGE uses PJM developed RTEP power flow models for all assessments where available
 - 5 year assessments – 2020 PJM RTEP Case
 - Beyond 6 to 15 year assessments – 2023 PJM RTEP Case
 - Retool analyses – Prior year PJM RTEP base cases, updated as appropriate for consistency with PJM modeling procedures
 - Use most recent ERAG MMWG series power flow models for other years where PJM cases not available



Load Modeling

- All loads will be modeled consistent with the load levels shown in the 2015 PJM Load Forecast Report
 - BGE 2020 forecasted load is 7,457 MW
 - Load management and energy efficiency will be implemented consistent with PJM policy.



Planning Criteria

- NERC Transmission Planning Criteria
 - Used for all BES facilities
- PJM Transmission Planning Criteria – Manual 14B
- BGE Transmission Planning Criteria
 - Documented in FERC 715 Filing and available on PJM website
 - Used for all non-BES transmission facilities



Identification of Required Upgrades

- PJM-identified Criteria Violations (NERC, RF, PJM)
 - In general, PJM will identify a criteria violation, discuss with BGE for concurrence. PJM and BGE work together to validate the analysis prior to bringing the violation for stakeholders review
 - Occasionally, BGE will identify a violation first, but process follows as outlined above
 - End result: PJM-identified baseline upgrade
- Generation Interconnection requirements
 - PJM notifies BGE after an interconnection request is received. PJM works with BGE for the completion of the Feasibility, Impact, and Facility Studies as described in PJM manual 14A
 - End result: Possible PJM-identified network upgrade



Identification of Required Upgrades

- BGE-identified criteria violations on radial facilities
 - BGE examines radial transmission facilities for violations of BGE standards for radial facility coincident peaks
 - BGE will determine appropriate enhancement and communicate with PJM
 - End Result: BGE-identified supplemental project
- Requirements for Distribution Planning projects
 - BGE will model the associated loading for new or upgraded distribution facilities in all MMWG cases
 - If the new loadings produce a violation of NERC/PJM standards, the planning process will follow the general PJM-identified criteria violation process
 - If the new loadings do not produce a violation of NERC/PJM standards, BGE will determine required system enhancements and communicate results to PJM
 - End Result: PJM-identified RTEP project or BGE-identified supplemental project



Identification of Required Upgrades

- Customer connections to transmission facilities
 - BGE will model the associated loading for new customer connections in all MMWG cases
 - If the new loadings produce a violation of NERC/PJM standards, the planning process will follow the general PJM-identified criteria violation process
 - If the new loadings do not produce a violation of NERC/PJM standards, BGE will determine what system enhancements are required and communicate results to PJM
 - End Result: PJM-identified RTEP project or BGE-identified supplemental project
- Aging infrastructure issues
 - BGE will identify system enhancements required and communicate results to PJM
 - End Result: BGE-identified supplemental project



Supplemental Projects

- Proposed system enhancements will be presented at either TEAC or Sub-Regional RTEP meetings to solicit comments