



EKPC Local Planning Assumptions for 2015 RTEP

January 2015

East Kentucky Power Cooperative

- EKPC integrated into PJM on June 1, 2013
- Generation & Transmission cooperative serving mainly rural portions of eastern two-thirds of KY
- Total Miles of Transmission Line = 2902
 - 122 miles @ 345
 - 370 miles @ 161
 - 431 miles @ 138
 - 1979 miles @ 69 kV
- EKPC Forecasted Net Peak Demand (50/50 Probability)

• 2015 Summer – 2567 MW	2020 Summer – 2709 MW
• 2015-16 Winter – 3577 MW	2020-21 Winter – 3643 MW

EKPC Powerflow Models

- EKPC participates in annual SERC LTSG DBU process
 - Develops near-term and long-term cases to be used by SERC NTSG and LTSG
 - This case set includes annual models for the ERAG MMWG base case development
- EKPC presently jointly develops internal base cases with LGE/KU in spring of the year for internal studies
 - EKPC and LGE/KU have 54 free-flowing interconnections
 - EKPC has 57 distribution delivery points connected to the LGE/KU system (622 MW at peak)
 - LGE/KU has 17 distribution delivery points connected to the EKPC system (109 MW at peak)
 - Beginning in 2013, EKPC is effectively utilizing the same EKPC representation for the SERC LTSG process, PJM planning processes, the joint LGE/KU-EKPC process, and the EKPC internal process.
- EKPC participating in development of PJM RTEP 2020 case
 - Incremental updates have been provided for the 2020 case.

EKPC Planning Criteria

- EKPC plans its system to meet:
 - NERC Reliability Standards requirements
 - SERC Regional criteria
 - EKPC transmission planning criteria – posted on PJM website
- EKPC identifies different categories of projects:
 - Reliability projects to address planning criteria violations
 - Other projects to address items such as equipment condition, operational enhancements, outage reductions, improved service restoration, etc.
 - Interconnection projects to provide facilities for connection of new generation, transmission, and/or distribution facilities

EKPC Planning Criteria (cont.)

- EKPC planning criteria similar to Table I of the existing NERC TPL Standards in most respects
 - Primary difference – EKPC considers loss of a line, transformer, or generator in conjunction with loss of a generator to be a single-contingency (Category B) event.
 - EKPC planning criteria posted at <http://www.pjm.com/planning/planning-criteria/to-planning-criteria.aspx>

EKPC/PJM Coordination

- EKPC Participates in TEAC and PC meetings
- EKPC Participates in Monthly RTEP project status meeting
- EKPC will continue assessment of its system to supplement and verify PJM's assessments
 - Focus will be on testing against EKPC criteria

EKPC/PJM Coordination (cont.)

- EKPC will share its assessment results with PJM and will review PJM results to validate
- EKPC will work with PJM to develop appropriate upgrades/mitigation plans for identified violations
- EKPC will present identified projects, planning criteria, and processes at PJM TEAC and sub-regional RTEP meetings as necessary to allow stakeholder input and feedback

EKPC RTEP Projects

- EKPC has 27 RTEP projects identified in the 2015-2019 period.
 - Two at 161 kV, Two at 138 kV, remainder at 69 kV
 - 23 are baseline projects
- EKPC is submitting 13 additional RTEP projects identified in the 2015-2020 period.
 - One at 161 kV, remainder at 69 kV
 - 8 are baseline projects
- Most significant EKPC RTEP projects
 - Uprate of JK Smith-Lake Reba Tap and JK Smith-Dale 138 kV lines
 - Addition of a 3rd EKPC-TVA tie between the Summershade substations
 - Addition of a 69kV EKPC-Duke tie-line at Hebron.

