EKPC Local Planning Assumptions

February 2016

EAST KENTUCKY POWER COOPERATIVE

A Touchstone Energy® Cooperative

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 = 2903 miles
  - 122 miles of 345 kV
  - 370 miles of 161 kV
  - 431 miles of 138 kV
  - 1980 miles of 69 kV
- EKPC Forecasted Net Peak Demand (50/50 Probability)
  - 2016 Summer – 2140 MW
  - 2016-17 Winter – 3170 MW
  - 2021 Summer – 2330 MW
  - 2021-22 Winter – 3320 MW

EKPC Planning Criteria

- EKPC participates in the 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 for internal studies
  - EKPC and LGE/KU have 54 free-flowing interconnections
  - EKPC has 56 distribution delivery points connected to the LGE/KU system (600+MW at peak)
  - LGE/KU has 17 distribution delivery points connected to the EKPC system (100+ 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 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, or baseline projects, address planning criteria violations which originate from internal analysis and/or PJM RTEP analysis.
  - Projects not covered by baseline analysis are known as supplemental projects and address items such as, but not limited to: equipment condition, operational enhancements, outage reductions, improved service restoration, among others.
  - 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
  - EKPC considers the loss of a line, transformer, or generator in conjunction with the loss of a generator to be a single-contingency (P1) event.
  - EKPC planning criteria posted at http://www.pjm.com/planning/planning-criteria/to-planning-criteria.aspx

EKPC/PJM Coordination and RTEP

- EKPC provides RTEP model updates to PJM
- PJM RTEP analysis results are communicated to and verified by EKPC.
- EKPC performs a screening of its internal cases annually to supplement PJM RTEP analysis, including sub-BES equipment.
- EKPC Participates in PC, TEAC, SRRTEP, and Monthly RTEP project status meetings

EKPC/PJM Coordination and RTEP (cont.)

- EKPC will share its assessment results with PJM
- 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