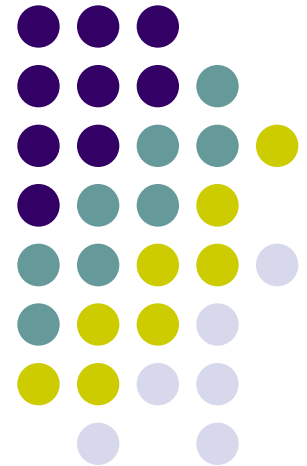
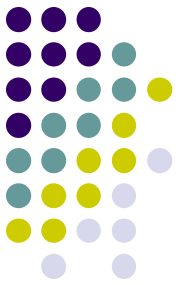


2014 Sub-Regional RTEP Assumptions

Mid-Atlantic Sub-Region
PPL Electric Utilities



2014 RTEP Assumptions

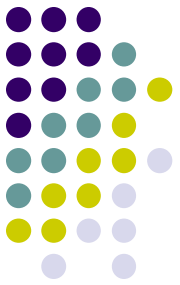


- PPL starts with a PJM RTEP developed Power Flow model which includes PPL 69 kV and above system topology.
- PPL's focus is assuring our system topology and load distribution is correct in the PJM RTEP model.
- PPL provided PJM model updates to develop the 2019 basecase in November 2013.

Load and Generation Assumptions



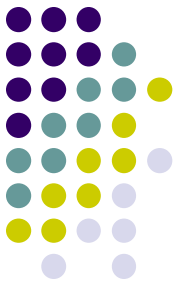
- Loads are modeled consistent with the 2014 PJM Load Forecast Report.
- PPL considers a 50/50 weather normalized peak summer load.
- Light load and winter peak cases are also analyzed to determine if more severe system reliability conditions exist.
- PPL considers various generation scenarios on 69 kV and 138 kV systems to determine the most severe load supply capability requirements.
- Topology Assumptions: the model includes all upgrades up to and including the 2019 study case year. Abnormal sectionalizing is not considered.



Planning Guidelines

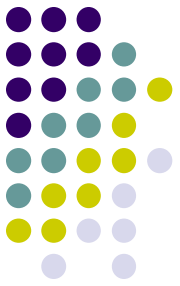
- PPL's Reliability Principles and Practices (P&P) document has been developed over the years to ensure that acceptable and appropriate levels of service remain consistent with good utility practice.
- PPL's FERC 715 Filing describes the reliability criteria for 69 kV and above facilities.
- Ensure the regional power system can sustain probable contingencies and disturbances with minimal customer interruptions. (Consistent with NERC TPL standards).
- Ensure PPL can adequately serve each customer's needs with respect to capacity, voltage, and reliability.

2013 RTEP Approach for Baseline Assessments



- Baseline Projects (bxxx)
 - ❖ Projects which resolve a system reliability criteria violation or operations performance issue. (Overload, low voltage or maximum allowable load drop concern)
- PJM and PPL perform separate analysis on the PPL LDA within the Mid-Atlantic Sub-Regional zone to comply with:
 - ❖ NERC Transmission Planning TPL standards
 - ❖ PJM Reliability Planning Criteria (Manual 14B, Attachment D)
 - ❖ PPL EU Reliability Principles and Practices (FERC 715 filing)
- Validate project with PJM and present it to TEAC and Sub-Regional TEAC stakeholders.
 - ❖ Stakeholder input regarding alternate solutions is welcome.
 - ❖ Power Flow cases can be made available to entities following CEII guidelines.

Supplemental Projects (sxxx)



- Projects that do not violate NERC TPL standards for overloads or low voltage concerns but impact PPL P&P reliability standards.
 - ❖ Examples include taps to new distribution substations, deteriorated equipment replacement, etc.
- Will be reviewed at the Sub-Regional RTEP Meetings.