

- ✓ PECO develops several power system simulation models for internal study use and to meet external obligations
- ✓ Representations include detail for all voltage levels from 500kV to 69kV, 34kV network and 34kV & 13kV radial substations
- ✓ For 2010, PECO will develop simulation models for specific years from 2011-2021 and load levels from summer peak to light load
- ✓ 2009 Series MMWG power flow cases used as a starting point

- ✓ PECO topology updated to include latest design changes, new or cancelled transmission and distribution projects
- ✓ Eastern PJM topology modified as needed to properly model significant transmission projects consistent with PJM's posted construction schedule
- ✓ PECO bus loads modified using individual substation peak load forecast developed internally, then scaled to meet target value for PECO zone from 2010 LAS report
- ✓ Eastern PJM individual company total load scaled as needed to meet target value from 2010 LAS report
- ✓ New IPPs with a signed ISA and existing generators scheduled for retirement modeled consistent with PJM's IPP Queue lists and generator retirement schedule

- ✓ Annually, PECO studies system conditions expected six & ten years in the future
- ✓ Intention is to identify system problems prior to RTEP to allow sufficient time to develop and study alternative solutions
- ✓ Provides opportunity to modify projects already in RTEP to improve system performance longer term
- ✓ Will also identify problems not seen in RTEP since PJM generally focuses on peak load conditions
- ✓ 500kV, 230kV & 138kV facilities are tested for adherence to NERC and MAAC/RFC standards, including estimations of generator and load deliverability tests
- ✓ 69kV system tested against PECO's local criteria
- ✓ Specific thermal and voltage limits adhered to and contingency events simulated are described in Exelon Transmission Planning Criteria document
- ✓ As a separate initiative, PECO also performs a short circuit study to identify deficiencies in circuit breaker fault interrupting capability within the next two years