

# NYISO Electric System Planning Process

**Input Data, Assumptions, and Variable Lists**

# Situational Input Assumptions

## ➤ Economic Outlook

- *GSP growth*
- *Employment Growth*
- *Base, High and Low Scenarios*
- *Use Economy.Com*

## ➤ Fuel Prices

- *Coal, Oil, Gas and Nuclear*
- *Basis Difference – i.e., transportation costs*
- *Use DOE EIA*

# Situational Input Assumptions (cont.)

## ➤ New Resources

- *Generating – include TO and class year projects*
- *Transmission - include TO and class year projects*
- *Demand Response – PRLWG*
- *Alternative Scenarios – Criteria?*

## ➤ Resource Retirements

- *Planned*
- *Alternative Scenarios - Criteria?*

# Situational Input Assumptions (cont.)

## ➤ Neighboring Control Areas

- *Imports/Exports*
  - ▶ Border charges?
  - ▶ Levels?
- *Develop Planning Coordination Protocols with neighboring control areas*
  - ▶ Data exchange protocols
  - ▶ Future assumptions
  - ▶ Coordination of analyses

# Data and Modeling Inputs

## ➤ Load Forecast

- *Base, High, Low Scenarios - LFWG*
- *Load Forecast Uncertainty – Weather and forecast error*

## ➤ Generator Data

- *Availability statistics – GADS & Generic*
- *Heat-rate curves – MAPS/Platts-RDI*
- *Emission rates – MAPS/Platts-RDI*
- *Bidding Assumption – “The perfect competition assumption”*
  - ▶ I.E., generators bid marginal cost which is essentially their fuel cost

# Data and Modeling Inputs (cont.)

## ➤ Transmission

- *Network Topology*
  - ▶ New York
  - ▶ Neighboring systems
- *PAR settings*
- *Interface Definitions*
- *Contingency Lists*
- *Availability*
- *Transfer Limits*
  - ▶ Normal
  - ▶ Emergency

## Data and Modeling Inputs (cont.)

- **Demand response**
  - *As Percent of Peak, Load Modifier, etc – PRLWG*
    - ▶ Price Responsive
    - ▶ Emergency response
    - ▶ Energy efficiency programs
- **Operational**
  - *EOPs*
  - *Lines normally operated open etc*
- **Reliability Criteria and Standards**
  - *NERC/NPPC*
  - *NYSRC*
  - *Local Reliability Rules*