LIPA
Day-Ahead Market
Phase Angle Regulator Optimization

Market Structures WG

ISO Market Operations

January 14, 2003

Draft--For Discussion Only

PAR Optimization

- PAR Optimization Functionality
- Original NYISO PARs Selected for Optimization
- LIPA PARs Selected for Optimization
- NYISO Web Posting Information

PAR Optimization

- Software Functionality
  - ➢ PARs initialized with MW schedule as currently developed (previous like day's)
  - ➢ PARs selected for optimization have shift factors developed for relief of transmission constraints
  - ➢ UC optimization algorithm will adjust PAR schedules to solve constraints to minimize total production cost
  - ➢ Optimization considers PAR MW scheduling limits

PAR Optimization

- ## PARs Selected for Optimization

  - ➢ Only PARs under NYISO control are optimized (ISO Operational Control or ISO/TO Operating Protocols)

  - ➢ Other PARs scheduled as currently done using previous like day's operation

  - ➢ Only Day-Ahead Market PAR schedules are optimized, Hour-Ahead and Real-Time Market scheduling remains unchanged

PARs Selected for Optimization effective 8/1/2001

- Dunwoodie North N1 [99031]
- Dunwoodie North N2 [99032]
- Dunwoodie South S1 [99153L]
- Dunwoodie South S2 [99153R]
- Tremont 11 [X28]
- Tremont 12 [X28]
- Freshkill R1 [21191]
- Freshkill R2 [21192]
- Gowanus R2   [T2 bank]
- Gowanus R14 [T14 bank]
- Corona R1 [18001]
- Corona R2 [18002]

Draft--For Discussion Only

LIPA PARs Selected for Optimization

- East Garden City PAR1 [Y49]
- East Garden City PAR2 [Y49]
- Barrett PS [459]
- Pilgrim PS [871]
- Northport PS2 [Bus Tie]

PAR Optimization

- NYISO Web Posting Information

  ➢ Final DAM hourly PAR MW flow values for both optimized
  and other PARs

  ➢ Real-Time PAR MW flow values to be provided (correctly) for
  all internal NYISO and external interconnection PARs

  ➢ Two week notice for Implementation of LIPA PAR
  Optimization via tie-list

Draft--For Discussion Only