



Topaz Power Group LLC

Quick Start Task Force Meeting

February 17, 2011
Austin, Texas

Agenda

- Anti-Trust Admonition
- Discuss WMS Expectations
- Using SCED to produce LMP Projections
- Details on RTC
- Real Time Co-Optimization
- Power Augmentation
- Plan Future Work/Meetings
- Adjourn

WMS Expectations

- Provide further detail on SCED Look-Ahead, relationship with SCED, RUC, NSRS, uplift, load participation
- Investigate RT Co-optimization
 - Review PUCT rulings
- Investigate how power augmentation technologies could participate in SCED Look-Ahead

Using SCED to produce LMP Projections

➤ Floyd Trefny

SCED Look-Ahead Decision

Status Quo

- >2 GW omitted from RT
- Incurred Costs
 - On-line reserve costs
 - RUC Uplift

SCED Look-Ahead

- More economically rational prices
- Serve public interest
- Avoided Costs:
 - On-line reserve costs
 - RUC Uplift
- Incurred Costs:
 - Implementation
 - Limited Make-Whole

RTC Operational Details

- Looks forward 2 hours and 15 minutes
- Runs every 15 minutes
- Issues
 - Binding decisions 15 & 30 minutes into future
 - Advisory guidance beyond 30 minutes
 - De-commitment decisions 15 minutes out
 - Advisory RT Ancillary Service prices
- Resources must be synchronized and running at LSL in :15 or :30

RTC Operational Details

➤ Fast Start Management

- Requires NYISO staff to approve Start-Up and Shut-down of Quick Start Units

➤ RTC assumes 1 hour minimum run time

RTD Hybrid Pricing

- RTD first determines LMP assuming full capacity of QS Unit
- RTD then issues Base Point to QS Unit's HSL
- RTD re-dispatches other Resources

Real Time Dispatch

- Runs every 5 minutes, issues LMPs
 - Similar to SCED
- Looks forward 60 minutes
- Issues
 - Base Points
 - Energy and A/S prices for first RTD increment
 - Advisory prices for remaining 45 minutes
- Does not make UC decisions

RTD Corrective Action Mode

- Used during unanticipated system conditions
- 5 modes, issuing unit commitments 5 or 10 minutes in future

SCED Look-Ahead Constraints

- Non-zero Low Sustainable Limits
- Minimum run times
- Minimum down times
- No Energy pre-synchronization
- Start-Up costs

RT Co-Optimization

- Final Order of PUCT Docket 31540
- TNT Discussions
- 2006 Co-Optimization Task Force

Action Items

- Summarize proposal discussions
- Research RT Co-optimization
- Research Power Augmentation
- Plan next QSTF meeting