Agenda Item 3.0

PSPC Meeting 271

January 14, 2010

Transmission Security Analysis (TSA) Assumptions

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Background

- Annual reliability reviews for the Forward Capacity Market are performed in accordance with sections 6 and 7 and Appendix A of Planning Procedure 10 – Planning Procedure to Support the Forward Capacity Market (PP-10)
- They are focused on preserving transmission security reliability
- They are performed using an array of tools and formats including
  - Power flow analysis tools (Siemens/PSSE or PowerGEM/TARA)
  - Transmission Security Analysis (TSA)
- Before each Annual Forward Capacity Auction and Reconfiguration Auction, key examples of assumptions are shared with the Reliability Committee (RC)

Background, *cont.*

- During the Summer of 2009, assumptions related to the reliability reviews have been re-considered as part of the LSR/TSA/Zone stakeholder process and are now part of the FCM Working Group Design Basis Document
  - Currently being discussed at the Markets Committee (MC)
  - FERC filing expected in February 2010
- Changes to the assumptions have been approved by the RC on 08/28/09 and will be made effective starting with FCA_2014_2015 (FCA #5)

Forward Capacity Auction (FCA) 2012-2013 De-list Bids Reliability Review Update

(Presentation to the Reliability Committee – September 2009)

Background

- To increase transparency in the reliability review process, ISO-NE has been coming to the Reliability Committee before the start of each Forward Capacity Auction and Reconfiguration Auction to review key examples of assumptions that are being used in performing reliability reviews
- The goal of today's presentation is to review assumptions being used in performing reliability reviews for the third Forward Capacity Auction (FCA 2012-2013), scheduled to start on October 5, 2009
  - Due to the reliance, in part, on Transmission Security Analyses (TSA) in performing reliability reviews in the Connecticut and Boston sub-areas, today's presentation will focus on the assumptions used in the Connecticut and Boston sub-areas

FCA 2012-2013 Assumptions

- Load Forecast Data
  - 2009 CELT forecast
    - Connecticut sub-area 90/10 peak load: 8,205 MW
    - Boston sub-area 90/10 peak load: 6,280 MW
- Resource Data
  - Generating Capacity
    - Connecticut sub-area existing qualified capacity: 8,418 MW
      - Includes 197 MW of qualified New Capacity Resources with awards from state-sponsored Requests for Proposals (RFPs) or other contractual obligation(s), modeled to comply with Attachment K of the ISO-NE Open Access Transmission Tariff (OATT)
      - Includes 6,917 MW of regular generation resources, 413 MW of intermittent generation resources and 1,087 MW of peaking generation resources
    - Boston sub-area existing qualified capacity: 3,185 MW
      - Includes 2,978 MW of regular generation resources, 68 MW of intermittent generation resources and 140 MW of peaking generation resources

FCA 2012-2013 Assumptions, *cont.*

- Resource Data
  - Active Demand Resources
    - Connecticut sub-area existing qualified capacity (excluding RTEG): 269 MW
    - Boston sub-area existing qualified capacity (excluding RTEG): 230 MW
  - Passive Demand Resources
    - Connecticut sub-area existing qualified capacity: 322 MW
    - Boston sub-area existing qualified capacity: 153 MW

RTEG – Real-Time Emergency Generation

FCA 2012-2013 Assumptions, *cont.*

- Resource Availability Assumptions
  - Regular Generation Resources - Weighted average EFORd
    - Connecticut sub-area: 5%
    - Boston sub-area: 9%
  - Peaking Generation Resources - Operational de-rating factor
    - Connecticut and Boston sub-areas: 33.3%
  - Passive Demand Resources: 0%
  - Active Demand Resources
    - De-rating based on performance factors
      - Connecticut sub-area: 25%
      - Boston sub-area: 22%

FCA 2012-2013 Assumptions, *cont.*

- Transfer Limits - 2009 Regional System Plan (RSP)
  - Internal Transmission Transfer Capability
    - Connecticut sub-area
      - N-1 Limit: 2,500 MW
      - N-1-1 Limit: 1,300 MW
    - Boston sub-area
      - N-1 Limit: 4,900 MW
      - N-1-1 Limit: 3,700 MW
- Topology
  - The network model includes new transmission projects which have been certified pursuant to Market Rule 1, Section 12.6. The list of certified transmission projects for FCA 2012-2013 was discussed with the RC on October 15, 2008 and is available at: http://www.iso-ne.com/markets/othrmkts_data/fcm/qual/index.html

FCA 2012-2013 Assumptions, *cont.*

- These assumptions (including internal transmission transfer capabilities) are subject to change prior to the start of FCA 2012-2013 on October 5, 2009 based on
  - The need to reflect approved retirements, Static and Permanent De-List Bids and Export Bids

LSR/TSA/Zones Process Status Update

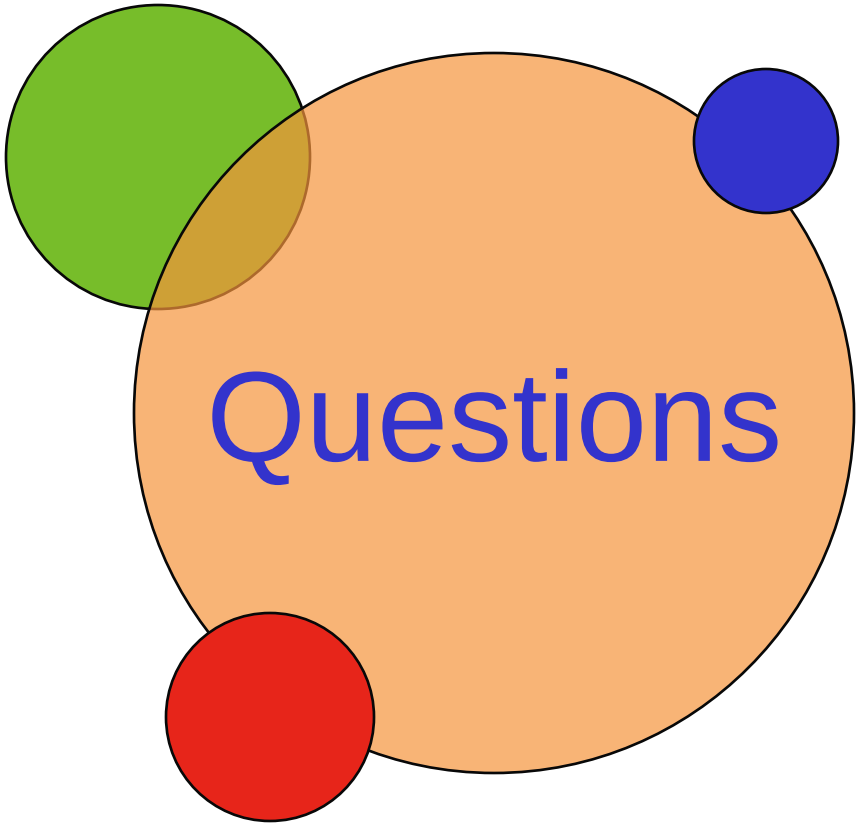
Upcoming Changes from LSR/TSA/Zones Process

- The LSR/TSA/Zones stakeholder process started in the first quarter of 2009 and is still on-going as part of the FCM Working Group efforts
- The goal was to comply with FERC requirements and address issues that the ISO had committed to address for the February 2010 FERC filing
- It resulted in parallel discussions at the RC and the MC
- An issues list was compiled that summarized all issues needing to be addressed by the RC
  - This issues list was finalized on 08/04/09
  - It covered four areas
    1. Tie benefits related issues
    2. Reliability reviews related issues (Focused on Annual reliability reviews performed by ISO System Planning for the Forward Capacity Auction, Annual Reconfiguration Auctions and annual bilateral transactions)
    3. Zonal issues
    4. Local capacity requirement related issues

Upcoming Changes from LSR/TSA/Zones Process, *cont.*

- On 08/28/09, a straw vote was taken on the ISO proposed changes for the reliability review related issues
  - Changes to the reliability review assumptions were two-fold
    1. Include reliance on capacity from Real-Time Emergency Generators
    2. Reduce peaking generation forced outage assumptions from 33% to 20%
- As part of the discussion, to ensure consistency and transparency, annual reliability reviews assumptions were compared to assumptions used in calculating the system Installed Capacity Requirement (ICR) and local sourcing requirements (LSR/MCL)
- All materials are available at

  http://www.iso-ne.com/committees/comm_wkgrps/relblty_comm/relblty/mtrls/2009/aug282009/index.html
- Conforming changes will be made to PP-10 in the Spring
- Changes will take effect starting with FCA_2014_2015 (FCA #5)


Questions