

# Interregional Production Cost Analysis Common Economic Database and Analysis

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# Background

- IPSAC has reviewed the types of production models used by the JIPC, the scopes of work, and the high level assumptions for all studies

[http://www.interiso.com/public/meeting/20091106/20091106\\_interregional\\_prodcost\\_analysis110609.pdf](http://www.interiso.com/public/meeting/20091106/20091106_interregional_prodcost_analysis110609.pdf)

[http://www.interiso.com/public/meeting/20090630/20090630\\_coordination.pdf](http://www.interiso.com/public/meeting/20090630/20090630_coordination.pdf)

- Today we will discuss progress on the development of these joint data bases and the plans for next steps

# Background, *cont.*

- IREMM is a high level simplified representation
  - Gross representation of resources dispatch and commitment
  - Loads are aggregated into subareas (a.k.a. bubbles)
  - Transmission constraints are represented as transportation limits on major interfaces
  - Offers advantages of understanding of system performance and “seeing the forest for the trees”
  - The “bubble” or high level model database coordinates and builds upon common databases and can be used to improve external representations when using more detailed production cost programs
- Detailed production programs (such as PROMOD, Gridview, MAPS) have a full representation of unit dispatch and commitment and are aligned with full load flow system representations

# Review Scope of Work

- Represent the three ISO/RTO's and neighboring systems
- Conduct production cost analysis to identify where major interfaces are constraining interregional transfers for the 2013 system
- For the IREMM analysis, run additional cases that assume higher interface limits (500 MW and 1,000 MW increments) for various combinations of interfaces
  - Will restrict the total number of simulations to a manageable level
- Show impact on production costs and other metrics for all cases
  - LSE expenses
  - Fuel usage
  - Emissions

# Review Scope of Work, *cont.*

- The IREMM screening analysis identifies areas where there *a may be a need* for transmission improvements
- For these areas of *possible* transmission need
  - Conduct detailed production cost analysis
  - As warranted, conduct detailed transmission planning analysis

# Status and Schedule: Screening Analysis

- Screening analysis performed using IREMM
  - Status
    - Finalize coordinated database with PJM East (**Preliminary Database Assembled by JIPC**)
    - Conduct IREMM simulation results of NYISO/ISO-NE focused analysis (**Status to be presented to IPSAC today**)
    - Finalize the modeling of the three ISO / RTOs
      - Analysis to be completed by second quarter 2010
      - Consider expanding areas modeled by IREMM
- Discuss high level study assumptions and scope of work of IREMM analysis with IPSAC (**Complete**)
- Discussions of IREMM study assumptions (**To be discussed later today**)

# Status and Schedule

## Detailed Production Cost Analysis

- Detailed Production Cost Analysis
  - Conduct analysis of the NYISO/PJM border area (**NCSP09 Results Complete and to be discussed with IPSAC later today**)
  - Database to be updated and further synchronized
  - Update of analysis to be discussed with IPSAC by second quarter 2010 (**Scope to be discussed with IPSAC later today**)

# Follow-up Transmission Analysis

- Examine results of economic analyses
  - IREMM analysis
  - Detailed production cost analysis
- Need for additional detailed transmission analysis
  - Based on results of economic analyses
  - Will be identified
  - Discussed with IPSAC
- Additional scopes of work items will be discussed with IPSAC later today and on January 28, 2009