# Gas/Electric Integration Issues in PJM

The Energy Forum at the Kleinman Center for Energy Policy

Bill Berg October 29, 2015





# **Overview of Exelon**

### **Exelon Generation**

### **Power Generation**

### Constellation



- Largest merchant fleet in the nation (~35 GW of capacity), with unparalleled upside
- One of the largest and best managed nuclear fleets in the world (~19 GW)
- Significant gas generation capacity (~10 GW)
- Renewable portfolio (~1 GW), mostly contracted



- Leading competitive energy provider in the U.S.
- Customer-facing business, with ~1.1 M competitive customers and large wholesale business
- Top-notch portfolio and risk management capabilities
- Extensive suite of products including Load Response, RECs, Distributed Solar

### **Competitive Business**

### —Regulated Business –

Exelon is the largest competitive integrated energy company in the U.S.

Exelon Utilities

ComEd, PECO & BGE

- One of the largest electric and gas distribution companies in the nation ~6.6 M customers
- Diversified across three utility jurisdictions – Illinois, Maryland and Pennsylvania
- Significant investments in Smart Grid technologies
- Transmission infrastructure improvement at utilities





# **Constellation's North American Wholesale Gas Business**

- Major marketer of wholesale natural gas with coverage of the lower-48 United States and Canada.
- Enabled with most major producers (and many smaller producers), wholesale marketers, and wholesale endusers in all the major supply and markets in the lower-48.
- Significant experience managing, scheduling, and optimizing gas transport and storage, including several significant AMA transactions.

Supply	~4-6 Bcf per day delivered in competitive markets
Transportation	Active shipper on more than 45 interstate pipelines on a daily basis
Trading	Active participant in all major supply basins, markets, and trading points in North America
Volume Management	Schedule, nominate and balance behind more than 100 LDCs

### Top 10 US Gas Marketer with a growing presence





## **Geography of Constellation's Gas Assets**







# **Exelon and Gas Electric Coordination**

- Exelon is a diverse and active company in both the electric and gas markets and has a significant interest in gas electric coordination.
- Exelon supported the standards developed by NAESB and believes the final Scheduling Rule provides greater flexibility to adjust to changing system conditions; Specifically:
  - The Timely nomination cycle will:
    - Allow electric transmission operators additional time to complete their DA scheduling; and
    - Allow generators to arrange natural gas supply and pipeline transportation knowing the results of the DA market.
  - The three intraday nomination cycles will:
    - Provide sufficient time for processing gas nominations;
    - Provide schedulers enough time to react between when the schedule is issued and the next nomination deadline;
    - Avoid overlapping nomination cycles;
    - Allow for most scheduling work to be completed during regular business hours; and
    - Allow revisions to nominations as load conditions change.







# **Exelon and Gas Electric Coordination**

- Further, PJM's commitment to permit hourly offers in the RT market should facilitate better price formation in the RT energy market.
- Exelon supports FERC's request that the gas and electric industries, through NAESB, explore the potential for faster, computerized scheduling and a streamlined confirmation process and continued efforts to shorten the clearing time of the day ahead electric market





# **Gas/Electric Coordination is a Three Legged Stool**

- Gas/Electric coordination is a three legged stool. Two of the legs, 1) Gas
  Transmission Scheduling and 2) the timing of the day ahead offers and release of
  day ahead awards in the electric market are FERC regulated, while 3) the price
  discovery/liquidity and sale of the physical molecules is unregulated. However, the
  timing of the first two legs does impact the third leg.
- Ideally, the timing of the first two legs should be structured so that the closing of the Day Ahead generator offer window and the timely nomination deadline incent both the gas traders and generators to make a deal.
- When ISO-NE moved its Day Ahead offer deadline from 12:00PM to 10:00AM the natural gas market did not make a corresponding adjustment. We still see the natural gas market becoming liquid after the 10:00AM offer deadline with little to no trading activity prior to the 10:00AM deadline.
  - Generators must submit Day Ahead offers with little/no opportunity for price discovery.
  - Lack of price discovery creates risks which must be priced into the day ahead offers
  - Increased risk imposes costs to end use customers unnecessarily.
- FERC and PJM should continue to pursue additional time reductions in the clearing of the Day Ahead market and make the closing (i.e. 10:30AM - 11:30AM) of the DA market as late as possible.

