Pennsylvania Public Utility Commission
Continuity of Supply
System Balance Management
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System Management
Distribution System Tariffs

- Distribution systems are not identical
  - Commodity delivery points
  - System peaks
  - Capacity
  - Load
  - Transmission pipeline resources

System Management
Distribution System Tariffs

- Basic rules for scheduling, delivery and system balancing are provided in distribution company tariffs, subject to Commission approval
- Tariffs contain provisions for balancing mechanisms such as operational flow orders (OFOs), balancing services, penalties for under- or over-deliveries, default
- Suppliers usually required to sign formal contracts with creditworthiness provisions/security

Scheduling
(Columbia Gas of Pennsylvania, Inc. Tariff)

- Competitive customers aggregated according to pipeline scheduling point
- Distribution company calculates the daily delivery requirement for each aggregation group
- Choice daily delivery required:
  - Estimated normalized annual consumption of the aggregation group divided by 365; converted to Dth using annual BTU content, adjusted for Company use and Retainage.

Scheduling & Supply

- Supplier must make firm deliveries on all days equal to the Daily Delivery Requirement
- Supplier must have firm supply contracts equal to the Daily Delivery Requirement for the months of November through March (winter peak)
- Suppliers must post sufficient credit instruments to cover potential costs of under-delivery/default. Amount of security required should not be greater than potential for default on peak design day
- Defined delivery points on distribution system

Scheduling & Supply
Transmission Capacity

- Suppliers must obtain primary firm transmission capacity in an amount equal to or greater than their system-wide Daily Capacity Requirement (e.g. sufficient capacity to transport daily delivery requirement)

- Suppliers must accept the assignment or release of capacity on a recallable basis from the distribution company at maximum rates

Imbalances
Distribution Companies

- For distribution utilities, maintaining system balance is a basic element in providing safe, reliable and adequate service under the Public Utility Code.
- For distribution utilities providing supply services, maintaining continuity of supply is also a basic element under the Public Utility Code.
- Failure of a distribution utility to meet either of these requirements will result in civil penalties of up to $1,000 per day/affected customer, loss of revenue equal to failed deliveries and potential rate making consequences in the next base rate case, including the return on equity (ROE) calculation.

Imbalances
Natural Gas Suppliers
(competitive suppliers)

- Required to match Daily Delivery Requirement
- Most distribution systems provide a balancing service which provides a percentage bandwidth – if you meet the Daily Delivery Requirement plus or minus a percentage, you are deemed to have matched the Daily Delivery Requirement

Imbalances
Natural Gas Suppliers

- Failure to match Daily Delivery Requirement could result from either over-delivery or under-delivery
- Calculation of Imbalances:
  – Annual reconciliation of the actual consumption and deliveries following the July billing cycle.
  – For imbalances, the distribution company will pay or bill the supplier for differences in volumes equal to the weighted average commodity cost of gas billed by the company during that same 12-month period

Imbalance Calculation

- If the actual consumption is greater than the actual deliveries, the supplier must purchase the additional volume from the distribution company at the weighted average cost of gas, defined as:
  - Total commodity cost of gas purchases, including pipeline transportation and retention, divided by tariff sales over the same period
- If consumption is less than deliveries, the distribution will purchase the excess at the same price

System Balancing
Operational Flow Orders (OFO)

- A supplier's Daily Delivery Requirement may be altered on short notice by an OFO
- An OFO is issued under circumstances where the distribution company must reduce or increase commodity supply on the system to maintain system balance
- Suppliers are required to alter deliveries to match OFO's

OFO's (cont.)

- When a supplier fails to match deliveries to an OFO, a penalty will be assessed
- One example is a penalty of $50 per Mcf on the difference, plus any costs incurred by the distribution company to manage the difference

Balancing
Hedging Mechanisms

- Suppliers frequently have the option of securing balancing services from the distribution company. Most suppliers opt for balancing services rather than cash-in/cash-out remedies
- Suppliers negotiate liquidated damage clauses in their supply contracts ensuring delivery or their supplier is responsible for imbalance charges
- Hedge supply contracts with call options for additional supply in the event of unusual weather conditions – note that pipeline capacity issues must be resolved

System Balance
Issues to be Re-Examined

- On most systems, suppliers must take an assignment of pipeline capacity from the distribution company at rates negotiated by the distribution company

- Security requirements – what is the appropriate level

- Imbalance trading – should suppliers be permitted to trade imbalances among themselves to avoid or reduce cash-in/cash-out scenarios