

Electric Market Rules Impact Electric Reliability

The natural gas pipeline industry prides itself on providing a safe and reliable service to its customers, whether they are local gas distribution companies, industrial users or electric generators.

The natural gas pipeline industry model for building infrastructure works differently than the model used by the electric power system. For example, the electric power system builds into its system a reserve margin, or excess capacity beyond existing need. In contrast, the natural gas industry builds pipelines and provides transportation service based on specific contractual commitments for firm—or guaranteed—service made by its customers.

This is because the pipeline’s federal regulator,

Some electric wholesale power market rules (typically those in organized wholesale electric markets) create disincentives for generators to hold firm transportation contracts.

Wholesale electric market design—which bases clearing prices on the lowest marginal costs—creates little incentive to hold firm pipeline capacity, which is more reliable than interruptible capacity. When generators contract for firm service the reservation charge increases their marginal cost.

Interruptible transportation may not be appropriate if a generator is depended upon for electric reliability, especially in areas where pipeline capacity is tight or where gas-fired electric generation is growing rapidly. A generator with interruptible transportation may be “interrupted,” especially during high-demand periods.

When a pipeline cannot schedule interruptible transportation because firm transportation customers are utilizing their full contractual entitlements, it is not a pipeline reliability issue. It is a contracting issue.

A customer, in a capacity-constrained market, that wants to ensure gas delivery in a reliable manner will need to commit to firm transportation service.

the Federal Energy Regulatory Commission, requires a demonstration of market need—usually in the form of customer contracts for firm service—before it approves the construction of a proposed pipeline or expansion of an existing pipeline. The pipeline infrastructure we have today is the result of the historical decisions by existing firm customers, including local gas distribution companies, natural gas producers, industrial customers and some electric generators, to contract for the level of guaranteed pipeline service required to meet their needs.

Some customers, like local gas distribution companies, have a legal obligation to ensure that they can provide the natural gas that their customers need to heat their homes, cook their food and run their businesses. Because of that obligation, they have contracted for firm pipeline transportation service to ensure they can meet the needs of their customers on a peak-demand day.

Other customers may opt for a less-guaranteed transportation service, such as interruptible transportation, that does not require a monthly reservation charge that must be paid regardless of whether the customer uses the service or not. Interruptible transportation contracts, as the name implies, are subject to capacity availability especially during peak demand days. Interruptible transportation also can be interrupted when firm customers wish to use their firm contractual rights. In some regions, particularly in organized wholesale electric markets, many electric generators opt for interruptible transportation or released capacity (capacity acquired in a secondary market).

Key Points:

- Tomorrow's infrastructure will be determined by decisions made today not only by producers, local gas distribution companies and industrial customers, but by the growing market represented by gas-fired electric generators. If additional pipeline capacity is needed in the near future to meet the growing demand of the electricity sector, generators need to decide and contract today so pipeline infrastructure will be available when generators need it in the coming years.
- INGAA members recognize that electric market rules in some regions may make it uneconomic for some generators to contract for and pay reservation charges for pipeline capacity. While generators may be making a rational economic decision, INGAA submits that regulators and stakeholders in the electric market need to examine whether the electric rules promote the investments and contracting practices necessary to support electric reliability.

FERC & Natural Gas Pipeline Expansions

The Federal Energy Regulatory Commission (FERC) is the federal agency that reviews a company's proposal to construct an interstate natural gas pipeline. FERC allows an expansion or a new pipeline project to proceed only after it has determined the project is needed.

New natural gas pipelines typically are not built on speculation. FERC is legally required to make a finding that a pipeline is needed in order for it to approve that pipeline.

In most cases, need is demonstrated by a sufficient level of firm customer commitments. Consequently, the electric power industry and its regulators need to determine how much natural gas pipeline capacity is necessary to ensure electric power reliability.

They also must determine who will be responsible for contracting for this capacity and how its cost will be recovered from the consumers who ultimately benefit from the reliability of the electricity that supports our public safety, economy and way of life.

The good news is that the current system works well. According to FERC, in 2011 alone, FERC-jurisdictional natural gas pipeline companies added roughly 2,100 miles of new pipeline.

Major infrastructure can be developed, certificated and constructed in a timely fashion, but customer contracts need to be in place to begin the development process. As such, if generators and electric utilities anticipate the need for additional pipeline capacity or transportation services, they should consult with pipelines early in their resource planning process.