

For Reliability Focus on Infrastructure, Not Harmony*

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The use of natural gas to generate electricity has grown substantially in recent years and continued growth is projected given expectations around natural gas price stability and the potential shuttering of coal-fired generation due to environmental restrictions. At the same time, natural gas utilities must continue their reliable service for residential, commercial and industrial customers who use natural gas directly for heating, end-use appliances, as feedstock in manufacturing and other uses. These uses need not be in competition with one another given that our nation's abundant natural gas resources can support growing demand across numerous economic sectors. The key to serving all of these needs is adequate investment in the natural gas infrastructure used to bring our abundant supplies to market. Market structures and cost recovery mechanisms must be put into place to help ensure that natural gas pipeline and storage facilities are built to keep up with growing natural gas demand from all sectors.

For a number of years, energy policy makers have been grappling with the implications of increased gas demand for power generation. The inability of gas-fired generators to obtain natural gas deliveries when needed can threaten electric system reliability. Similarly, when a large gas-fired generator is dispatched to serve electric needs, the pull on the gas system can be great causing changes in pipeline pressures and reducing system flexibility to meet other customers' needs, especially when the generator's gas pull is unanticipated.

Recent efforts to address these reliability concerns have focused on bringing together, or harmonizing, the natural gas and electricity markets. The tendency here is to view these energy products as essentially identical, to be traded and scheduled in the same way, the argument being that elimination of the inconsistencies will increase efficiency and maximize the utilization of existing infrastructure to help increase reliability. But these energy products are not identical, and this approach overlooks their significant differences. Electricity moves at the speed of light but flows along the path of least resistance. By comparison, natural gas moves along the pipeline at no more than 30 mph, but can be directed based on the location and amount of compression along the pipeline. Electric generation can be sited locally or remotely based on system needs; natural gas is produced where it is found geologically and transported to market. As a result, different economic and regulatory structures have been developed for the two industries that reflect these fundamental physical differences. Although it is sometimes enticing to see the parallels in the industries in an effort to bring them together to work more efficiently, the physical differences must be respected.

Rather than trying to force the natural gas and electricity markets into some form of common market, policy makers should instead focus on the infrastructure needed to help ensure reliability for both natural gas and electricity customers. A number of recent proposals to better harmonize the natural gas and electricity markets – from better communications between electric transmission and interstate pipeline operators to changes in the natural gas nomination schedule – will have little success in improving reliability if the natural gas infrastructure is inadequate to keep up with the growing demands of the system. For example, in the recent effort to examine

the gas nomination schedule, electric interests have argued for more opportunities for gas-fired generators to nominate gas service to be able to respond to intraday variations in electric demand. However, additional nomination opportunities will have little impact if the pipeline is already fully utilized. In that instance, improved reliability could only come from additional infrastructure, whether in the form of new pipeline or storage capacity.

Natural gas utilities use a variety of assets, including such things as diverse holdings of pipeline transportation and storage capacity, pipeline no-notice service and on-system storage facilities, to prepare to reliably meet the needs of their customers. Utilities have invested and continue to invest in the infrastructure necessary for reliability. Admittedly, as regulated entities, utilities are provided the opportunity to recover the costs of these assets through various approved cost recovery mechanisms. Energy policy makers should more closely examine the market structures supporting (or not supporting) investment in the gas infrastructure necessary to help ensure electric reliability and develop appropriate cost recovery mechanisms to enable such investments to be financed and built. Unless and until a robust investment climate is achieved to build the gas infrastructure needed to support electric reliability, efforts to harmonize the natural gas and electricity markets will continue to fall short.

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