

Bob Gray,

The existing El Paso interstate natural gas pipeline feeding Southern Arizona is over 70 years old, and may have exceeded its useful life. There has been one gas natural gas pipeline failure in New Mexico. There has been one major rupture of the gasoline pipeline in Arizona. This raises the question of pipeline reliability, if not safety, due to its age. As the natural gas pipeline ages, the probability of failure increases.

There is a growing dependence on natural gas not only for electrical generation, but also with City bus fleets. Tucson, as well as Mesa, relies on continuous gas supply in order feed their Compressed Natural Gas (CNG) plants to generate fuel for their City bus system. The major pipeline serving southern central Arizona is at or past its capacity during certain times of peak demand. Additional pipeline capacity and storage along with demand side management should be considered in order to improve system reliability.

Tucson's Sun Tran bus fleet relies heavily on CNG. The continued operation of bus service is critical to the health and welfare of the Tucson community. Disruption of bus service can be devastating for many citizens who rely on the service, so it is imperative that natural gas supplies will be in place. A failure of the natural gas pipeline could have catastrophic effect upon public transportation.

CNG plants, as well as other natural gas fuel plants, can be feed by Liquid Natural Gas (LNG) that is vaporized to its gas phase. Tanker deliveries are the only infrastructure existing for LNG. The import of LNG by rail or truck is not currently cost competitive with pipeline natural gas. The use of LNG for conversion to CNG fuel for Bus Transportation would create a financial hardship to the City. There are some electrical generating plants that can also revert to coal for fuel. There is no alternative fuel for bus fleets. In the event of natural gas supply curtailment for any cause, City bus transportation natural gas supply should be defined as a critical, must serve load.

The overall cost of natural gas is also important. Without options for natural gas supply locations, delivery and storage there can be no real competition.

The loss of pipeline natural gas supply due to lack of transportation capacity, maintenance, or any other cause on basically a sole source infrastructure would be acceptable. The seasonal load variations on the natural gas infrastructure can also generate an Arizona supply shortfall. To address this concern and the pipeline reliability due to age or other risks, the natural gas infrastructure needs to be expanded. The connection to the San Juan via the Pacific Texas Line, with south central Arizona storage could greatly improve the reliability of Arizona's natural gas supplies

For the long term, there appears to be a growing LNG supply should be addressed for it increases the diversity necessary for a balanced natural gas infrastructure.

Ron Ballard
Operations Administrator
Facilities Management
City of Tucson

Vinnie Hunt
Energy Manager
City of Tucson