Propane Crisis 2013-2014: Lessons Learned from Missouri

According to the U.S. Census Bureau, approximately 212,317 Missouri homes were heated with propane in 2011, representing 9 percent of all homes. This was slightly above the Midwest average of 7 percent. A typical Missouri household (1,500 sq. ft.) using propane will consume about 800 gallons annually. For the Missouri residential sector, about 3.2 percent of total energy consumption came from liquefied petroleum gases (LPGs) in 2011 (EIA).[1]

The Midwest propane crisis during the winter of 2013-2014 was an unavoidable situation precipitated by three factors:

1.) An unexpected increase in agricultural demand for propane for crop drying.
2.) Sustained total propane demand from the end of the crop drying season to the beginning of the space-heating season.
3.) The inability of the industry to transport adequate supplies of propane due to: a) distribution bottlenecks and chokepoints, b) unprecedented and prolonged propane demand, c) record levels of propane exports, and d) the closure of the Cochin Pipeline, a vital propane supply system to the Upper Midwest.

The Missouri Division of Energy agrees that several strategies compiled by NASEO can improve propane market monitoring capabilities:

1.) Expand the State Heating Oil and Propane Price (SHOPP) Program to other interested states. More coordinated data collection among a greater number of states - particularly those that are propane consumers - would enable policymakers to better predict and avoid extreme fluctuations in the propane market.
2.) Resume the annual SHOPP conference, which would facilitate communication and strengthen working relationships among state policymakers.
3.) Improve communication networks among states, the Department of Energy, the propane industry, and other stakeholders. This will enable states to draft more holistic and reliable market status reports and better handle energy emergencies.
4.) Construct an energy emergency reporting framework for states, which will provide them with more information during shortages and price spikes.
5.) Develop a process for sharing company-level 782c Primer Supplier Monthly reports. States would thereby have a more complete understanding of their current and future energy supplies.

The Missouri Division of Energy also hopes to facilitate greater dialogue among key players in the propane industry (marketers, distributors, transporters, and suppliers) and the Missouri Propane Gas Association. Enhanced dialogue could play a role in helping to avert similar crises in the future.

The propane gas crisis of 2013-2014 was a wake-up call. Missouri propane demand has been falling for the past decade and much of the delivery infrastructure had consequently become economically challenged. Propane supply disruptions along with price volatility ultimately resulted in propane gas shortages/supply curtailment. This made it difficult for market players to rapidly move more propane into areas experiencing price shocks and/or supply disruptions.

[1] This figure is roughly 2.8 percent for the industrial sector and less than 1 percent for the commercial sector.

If the 2014-15 summer fill is resisted on a large scale, it is possible a similar crisis could arise next winter, especially if winter weather is as severe as the last. Due to late planting, the crop drying season will likely last two to three weeks later than usual this year, which could further contribute to the problem. Unpredictable winter weather will continue to play an important role in consumer demand.