

UGI Utilities, Inc. – Gas Division
UGI Penn Natural Gas, Inc.
UGI Central Penn Gas, Inc.
2014 Winter Reliability Data Requests
October 31, 2014

UGI Utilities, Inc. – Gas Division, UGI Penn Natural Gas, Inc. and UGI Central Penn Gas, Inc. (collectively, “UGI” or “we” or the “Company”) each is a natural gas distribution company committed to delivering reliable, safe and affordable energy to over 600,000 customers in 45 counties in Pennsylvania and one county in Maryland. We pride ourselves on being a responsive, engaging energy company. Every day we strive to exceed the expectations of our customers and the communities we serve. Safety and reliability are core values at UGI and our system is designed to meet customers’ peak winter needs.

1. Winter Readiness

UGI continues to make substantial investments in infrastructure betterment to enhance the integrity and reliability of our delivery systems. UGI ranks high in Pennsylvania among natural gas utilities for the proportion of its system constructed from contemporary materials. Approximately 85 percent of UGI’s natural gas pipelines are comprised of high-density plastic or coated steel. UGI continues to make progress according to schedule on our commitment to replace all remaining cast iron mains within 14 years and bare steel mains within 30 years.

UGI performs extensive system leak surveys and frost patrols. Frost patrols are initiated at an accumulated 150 frost degree days and frost observations. Leak surveys are conducted on UGI’s entire cast iron system every two weeks from January 1 to March 31. Additionally, a special Business / Urban Area walking leak survey is performed targeting those facilities in higher density urban areas. Under severe frost conditions, surveys may be performed on a continuous basis.

In late fall UGI issues customer communications to increase awareness of winter hazards. Notices include carbon monoxide awareness, venting of appliances, and avoidance of gas meters while clearing snow, identification of gas odors, and emergency contact information.

2. Employee Safety/Readiness

UGI Operations and Engineering departments play key roles in maintaining the safe and reliable performance of our system. Operations and Engineering continually monitor UGI’s system to ensure the system is operating in a safe and reliable manner. System models are built to predict system performance under peak operating conditions. Model results are validated against actual system operating conditions using data from SCADA, system regulator station charts, and winter survey gauges. Specific reliability projects are identified to improve system pressures or increase system capacity as may be needed to maintain design criteria.

Each fall, planning meetings are conducted throughout the company to ensure appropriate preparations have been made prior to the winter season. These meetings include a review of any

previous system issues, a discussion of recent growth, a review of potential interruptible/large customer impacts, and an enumeration of any areas forecasted to experience reduced pressures under peak conditions. Any changes in typical system operations are discussed and locations for winter survey gauges are reviewed. Communication protocols are reviewed to ensure physical system operation remains consistent with supply contracts.

Emergency Response training sessions are held in preparation for winter activity. Emergency stock levels are reviewed and adjusted if needed. Additional emergency response / repair resources are evaluated seasonally and added to scheduled shifts and on call rosters during winter months in anticipation of increased activity.

UGI closely monitors weather forecasts from the National Weather Service and State Weather Bulletins throughout the winter and adjusts staffing plans in response to adverse weather forecasts. On cold weather mornings, crews are staged at critical system facilities to ensure proper equipment operation during peak periods of demand. System low points are monitored via SCADA systems or survey gauges. Shifts are implemented to ensure crew availability for weather related emergencies. In advance of forecasted snow and ice precipitation, vehicles, equipment, and personnel are staged geographically to minimize the distances travelled over treacherous roadways.

UGI participates in the American Gas Association (“AGA”) Mutual Assistance Program to ensure that supplemental resources are available in the event of a large scale emergency. The AGA Mutual Assistance Program is intended to supplement local, state and regional mutual assistance programs in the event of man-made or natural disasters that result in widespread service interruptions or damage to gas pipeline infrastructure.

3. Communications and Outreach

Communications and Outreach

UGI’s Communications, Community Relations and Outreach Programs are designed to keep customers, employees, community residents, elected and appointed officials, media and other key members of the public informed on the safe use of energy. These programs also provide these audiences with information on accessing additional safety-related resources from the Company, industry and government sources. Layered communications are provided to key audiences utilizing traditional, web and social media channels throughout the year.

Communication Channels and Tools

The UGI Communications, Community Relations and Outreach Programs escalate during the cold weather season. In particular, additional Communications, Community Relations and Outreach Program initiatives are provided during extreme weather events, or if an emergency situation arises. The communication channels and tools UGI utilizes include:

- Bill messages and inserts
- UGI website, outbound email and multiple social media platforms

- Call Center, including outbound dialer
- Proactive media, including public service announcements
- Paid advertising
- Personal contact through door-to-door, town meetings, etc.

Weather Event and Emergency Communications

In the event of a wide-spread emergency event, it is UGI's practice to take a broad-front, integrated external communication approach. For example, the UGI Call Center has available a predictive dialer which can be used to communicate with affected customers. In addition, UGI's interactive voice response ("IVR") phone system is adjusted by changing automated phone messages and prompts to limit the non-emergency options available in our call center to ensure that emergency-related contacts are handled in a timely fashion. Other messages can be added to the system providing important information to customers concerning the emergency situation, and informs callers of resources or options available to secure additional information. To manage increased call volumes, the Call Center is positioned to implement emergency Call Center staffing protocols and expand live operator coverage to a 24 hour a day / 7 day a week schedule, if necessary.

Key information provided via UGI's Call Center assets are also made available to customer and community audiences on the UGI website, via outbound email, and on UGI's social media channels on Facebook, Twitter, Linked-In and Instagram.

LIHEAP Communications

At the beginning of each heating season, UGI extensively promotes the availability of customer assistance programs to eligible customers. Special emphasis is placed on providing information regarding the Low Income Home Energy Assistance Program ("LIHEAP"), the federally-funded heating assistance program. UGI urges qualifying customers to apply for LIHEAP through a variety of means, including:

- Media announcements
- Bill inserts
- Outbound telephone campaigns
- Special mailings
- Website updates that include a link for customers to print a LIHEAP application

All UGI Call Center representatives attend special annual training on LIHEAP, and are provided scripts to ensure customers are informed of the LIHEAP program.

In addition to LIHEAP, UGI donates corporate funds to the Company's hardship assistance fund, Operation Share. These Company donations, in addition to donations from our customers, employees and others in the community, are made available to qualifying customers to assist them in paying their energy bills. UGI promotes Operation Share via customer inserts, direct communications with qualifying customers and the UGI website.

Customer Assistance Program and Bill Payment Communications

As the winter heating season begins, UGI either conducts or participates in a number of information sessions aimed at providing customers with resources to assist them in safely using natural gas to heat their homes. These sessions include ‘Be Winter-wise’ events sponsored by the Company, by elected and appointed officials, and by community agencies, such as the American Red Cross, among others.

UGI offers customer assistance programs to qualifying customers experiencing difficulty in paying their bills. Eligible customers can participate in the Company’s Customer Assistance Program (“CAP”). In most cases the CAP program makes UGI bills more affordable. Customers can be referred to the program by the UGI Call Center, and be referral through UGI’s broad network of community-based organizations. Customers interested in more information about the CAP program can learn details via the UGI Call Center (as mentioned above), on the Company website, through UGI service territory social agency partners, or by CAP enrollment campaigns conducted by UGI to inform known low-income customers. The Low Income Usage Reduction Program (“LIURP”), or Weatherization, offers free energy conservation measures to high usage, low income households to help make energy bills more affordable. Customers interested in more information about the Weatherization program can learn details via the UGI Call Center (as mentioned above), on the Company website, or through UGI service territory social agency partners.

In addition, each year UGI completes a survey of customers whose service has been terminated within the past year through a series of letters, phone calls, and field visits to advise customers of the available funding and programs in order to attempt to get the service reconnected. UGI continues efforts aimed at restoring service to customers with community-based organizations throughout the winter..

Finally, the Company also offers budget billing, as well as multiple free payment options to customers who enroll in UGI’s On-Line bill payment program, or the auto-deduction program to assist customers in managing bill payments. Information about these payment programs is provided to customers by such channels as: bill inserts and bill messages, IVR messages to customers calling the UGI Call Center, and on the UGI website, among others.

4. Gas Supply & Planning

After a much colder than normal winter last year, which caused NYMEX natural gas prices to exceed \$5/Dth, a mild summer and increasing gas supplies from the Marcellus Shale and other shale regions have helped to replenish storage inventories and reduce natural gas prices to a range of \$3.50-\$4/Dth over the past three months.

UGI is prepared to meet the demands of its core market customers throughout the winter, especially on the coldest days. UGI contracts for firm supplies to meet the demands of core market customers both on a peak day and for a design cold winter.

UGI’s obligation as the supplier of last resort for core market customers is met through the procurement of services that are backed by a physical service interconnected with UGI’s

distribution system. These services include firm transportation, firm storage, firm delivered supply, and firm peaking services from a mix of nine interstate pipeline companies and four suppliers. Over the last several years, there has been a notable increase in the number of interstate pipeline capacity constraints which have curtailed holders of capacity with non-primary rights. Therefore, UGI's procurement of primary firm, asset-backed capacity is essential for supply reliability, especially during severe cold.

Another important part of UGI's reliability plan is the diversification of its supply portfolio. The diversity and liquidity which UGI has built into its supply portfolio means that UGI will stand a better chance of obtaining alternate supplies if any particular supply source is interrupted. The source points for UGI's gas supplies span from the Gulf of Mexico, Louisiana, Texas, and Oklahoma/Panhandle region to the Appalachian Mountains and Marcellus Shale region in Pennsylvania. In particular the Marcellus Shale region has become a growing supply source for UGI over the past few years. While there are vast quantities of natural gas being produced in the Marcellus Shale region, there still remains a lack of liquidity in certain areas due to insufficient pipeline infrastructure. To compensate for the lack of liquidity in parts of the Marcellus Shale region, UGI contracts for firm supply at these Marcellus supply locations in advance via RFP or other form of competitive bidding as appropriate. However, increasing supplies from certain parts of the Marcellus are flowing into liquid markets and UGI has been shifting its portfolio to take advantage of these locations. Even though UGI is shifting to Marcellus, UGI's non-Marcellus supply locations continue to be liquid. As stated above, the diversity and liquidity which UGI has built into its supply portfolio means that UGI will stand a better chance of obtaining alternate supplies if any particular supply source is interrupted.

Further, UGI requires strict contractual force majeure provisions to ensure firmness of supply. In the case of storage, UGI buys natural gas and injects it into underground storage fields in the summer. During the winter season, UGI withdraws this gas from the storage fields to supplement base load purchases.

In the event of a natural gas emergency where curtailment may be necessary, UGI follows the procedure as defined in its PUC-approved tariff. UGI's priority will be to preserve service for residential and for firm critical and essential human needs commercial customers. To accomplish this, UGI may interrupt all interruptible customers, issue operational flow orders or daily flow directives, or call for voluntary usage reductions by customers.

5. Natural Gas Demand from Electric Generators

UGI's electric generation natural gas customers are on UGI tariff transportation rate schedules and are not classified as core market customers. UGI's priority will be to preserve service for its core market customers, which consist of residential and firm critical and essential human needs commercial customers. To accomplish this, UGI may issue hourly or daily flow directives to electric generators or interrupt them entirely.

UGI has procedures in place to take action in the event an electric generator needs to be interrupted to preserve service to core market customers. These procedures include a customer notification procedure as well as an emergency shutdown procedure. Every effort will be made

by UGI to provide the electric generator the opportunity to complete a controlled reduction in demand. However, if the electric generator's usage threatens to jeopardize the integrity of UGI's distribution system, UGI will turn off gas flow to the electric generator.

6. Polar Vortex Analysis

All three UGI natural gas divisions recorded all-time high deliveries during the 24-hour period between January 7 and January 8. Together, UGI Gas Division, UGI Penn Natural Gas and UGI Central Penn Gas distributed more than 1.2 million dekatherms of natural gas to customers between 10 a.m. Tuesday January 7th and 10 a.m. Wednesday January 8th, the time frame UGI uses to define its gas day.

UGI Gas Division, which primarily serves the central and southeastern regions of Pennsylvania including Harrisburg, Lancaster, Reading, Allentown, Bethlehem and Easton, distributed 664,008 dekatherms in the 24-hour time period, shattering the previous peak of 580,549 dekatherms set on January 23, 2013

UGI Penn Natural Gas, which serves Northeast Pennsylvania including Scranton, Wilkes-Barre and Williamsport, distributed 398,631 dekatherms, breaking the previous record of 339,190 dekatherms set on January 23, 2013.

UGI Central Penn Gas, which serves communities across the state, distributed 176,871 dekatherms, exceeding its previous peak of 163,724 dekatherms set on January 22, 2013. In total, UGI exceeded its previous natural gas peak by more than 12 percent.

The record low temperatures and record high send out experienced in January 2014 provided an opportunity for UGI to stress test the reliability of its transmission and distribution systems. As a whole, the UGI system demonstrated a high degree of reliability; however, several outages identified the need for improved reliability in certain geographic areas.

Specifically, on January 7, 2014, UGI Gas Division experienced outages affecting Millersville and parts of the Harrisburg West Shore. The Harrisburg West Shore communities of Camp Hill and Enola experienced poor system pressures on the morning of January 7th. Poor delivery pressure into the UGI Gas Division system from an upstream pipeline supplier resulted in a cascading series of lower than normal pressures at the downstream system regulators, ultimately leading to pockets of poor system pressures affecting approximately 400 customers in Enola and Camp Hill.

Subsequent to this event, several system changes have been implemented to mitigate the probability of future reoccurrence. First, immediately following the poor pressure event, pipeline supplier station settings were adjusted to raise maximum pressure differential limits and low pressure under-ride settings. As evidenced on subsequent days where temperatures were colder than January 7th, these changes proved immediately effective in maintaining adequate system pressures. Second, UGI Gas Division has implemented system regulator station modifications to provide improved capability of maintaining downstream pressures in the event lower than normal inlet pressures are experienced. Larger regulators along with a manually-

operated emergency bypass will improve the ability to support downstream demand. Finally, the installation of various localized reinforcements in the West Shore distribution system will eliminate localized pressure losses and improve downstream system pressures. Collectively, these system enhancements will result in improved system reliability and capacity in the Harrisburg West Shore communities.

Also on January 7, 2014, UGI Gas Division experienced the loss of 241 customers in the Millersville area. The poor system pressure in Millersville was caused by a combination of high pressure drop across UGI Gas Division's high pressure distribution system upstream of the Lancaster system regulator in combination with localized system chokes at the far end of the Millersville system.

In the days immediately following this outage, UGI Gas Division implemented several system modifications which enabled reliable delivery through the balance of the winter. First of all, localized chokes immediately upstream of the outage area were mitigated with the installation of a backfeed into the affected subdivision. This modification provided an immediately nominal increase in system pressures. Secondly, a manual emergency bypass was installed at the Lancaster regulator station to ensure that downstream pressures could be maintained in instances of excessive upstream pressure drop. Finally, in the summer of 2014, UGI Gas Division installed an additional system feed into the Lancaster distribution system. This new feed will add a new source of supply to Lancaster / Millersville, reduce load through the Lancaster system regulator, and improve downstream system pressures. Added together, these measures significantly improve the pressures in the Lancaster / Millersville distribution system.

In addition to the aforementioned system enhancements, UGI has made many other significant investments to improve system reliability across its local distribution systems.

- In the Wilkes-Barre & Scranton area, a new high pressure header will provide improved system pressures and an element of redundancy to the local distribution system.
- Across UGI's systems, the infrastructure replacement program has eliminated over 60 miles of cast iron and bare steel mains which will result in lower leakage, fewer main breaks, and improved system pressures.
- In communities including, but not limited to, the greater Lehigh Valley, Shamokin, Stroudsburg, and Scranton, maintenance intensive sections of low pressure main which experienced water infiltration have been subsequently replaced and upgraded to medium pressure which will result in significant reliability improvements.
- Various regulator stations in the Reading and Lehigh Valley communities have been rebuilt, in whole or part, to address condition issues and to improve the ability to maintain downstream system pressures.