

**UGI Utilities, Inc. – Gas Division
2019 Winter Reliability Data Requests**

November 4th, 2019

UGI Utilities, Inc. – Gas Division, (“UGI” or the “Company”) is a natural gas distribution company committed to delivering reliable, safe and affordable energy to approximately 640,000 customers in 45 counties in Pennsylvania and one county in Maryland. Safety and reliability are core values at UGI and our system is designed to meet the peak winter needs of our customers.

Winter Reliability Data Requests

1. Winter Readiness

Provide a summary of your company’s winter preventative maintenance program(s) which directly facilitate safe and reliable service over the heating season. Provide a description of any potential best practices including any new leak detection programs.

UGI continues to make significant investments in infrastructure to improve the reliability, integrity, and safety of our gas transmission and distribution systems. Among peer distribution companies in Pennsylvania, UGI ranks highest for the proportion of its system constructed from contemporary materials. UGI continues to deliver upon its commitment to replace all remaining cast iron mains by 2027 and bare steel mains by 2041. Approximately 65 miles of cast iron and bare steel mains are planned for replacement before the end of the calendar year 2019.

In advance of the winter season, UGI works to reduce pending leak inventory to minimize the number of repairs and the extent of monitoring which would otherwise be required during winter conditions. Over the past year, UGI worked aggressively to reduce its total leak inventory. In the past year, UGI reduced its B leak inventory by 70%.

Before and during the winter 2019-2020 frost season, UGI plans to undertake additional and accelerated leak survey measures. Commencing after November 1, 2019, a walking leak survey will be conducted over higher risk main facilities as determined by: building proximity, wall-to-wall paving locations, open and repaired leak amounts and classifications, and main materials. From January 1 through March 31, 2020 (or earlier due to accumulation of Frost Degree Days), all cast iron mains will be surveyed with mobile leak detection instruments at least bi-weekly to mitigate the risk of cast iron main breaks due to frost. In addition to the bi-weekly patrols of all cast iron main, a separate independent third-party contractor will complete monthly leak surveys of high-risk steel and cast iron mains identified through UGI’s segment-based Distribution Integrity Management Plan to mitigate the risk of hazardous leaks occurring under frost cover. Finally, to reduce the risk of wintertime failure of certain mechanically-coupled medium pressure curb valves, targeted leak surveys of service lines, known to contain these valves, are conducted during the winter frost season.

In late fall, UGI issues customer communications to increase awareness of winter hazards. Notices include topics such as: awareness of carbon monoxide, venting of appliances, avoidance of gas meters while clearing snow, identification of gas odors, and emergency contact information. Subsequently, throughout the winter, and particularly around major weather events, supplemental winter messaging is issued to customers reinforcing the importance of these topics.

Each fall, coordination meetings and calls are held with large interruptible service customers to discuss interruption plans as weather conditions and system performance may dictate. The general expectations around the timing of interruptions, communication protocols, and the requirements for backup fuel are addressed. The Company also holds a collaborative meeting for the Natural Gas Suppliers of the Company's transportation customers. Upcoming supply issues related to UGI's transportation programs are discussed.

Notable reliability projects since the prior winter include the following projects:

- In Stroudsburg, temporary LNG facilities will be in service prior to the commencement of winter to support the distribution system.
- On Campbell Street, Williamsport, a low-pressure distribution main that experienced pressure problems last winter is being replaced with a medium pressure main before the onset of the winter heating season.
- In Manheim, a three-inch high-pressure feed is being looped with six-inch high pressure main along Power Road to reinforce the supply to the Manheim system. This will be completed before the onset of the winter heating season.

2. Employee Safety/Readiness

Provide a description of any procedures and/or training protocols your company uses to ensure personnel are adequately prepared and staffed for the heating season. Also, Provide a summary of your organization's participation in emergency preparedness exercises over the past 12 months, whether internal or with external stakeholders. Describe the general scenarios simulated.

UGI's Gas Control, Operations, Engineering, and other supporting departments play key roles in maintaining the safety and reliability performance of our distribution systems, system. From the central control room in Temple, PA, Gas Controllers continually monitor system pressures and flows at key points within UGI's systems using a Supervisory Control and Data Acquisition ("SCADA") system. Abnormal operating conditions ("AOC") are identified through pre-determined alarm set points as dictated by local Engineering groups. Once an alarm activates, specific actions are taken to address any alarms, as appropriate. Engineering utilizes network models 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. These models form the basis for determining locations where reliability projects are required to improve system pressures or to increase system capacity, as needed to maintain design criteria.

Annual winter planning meetings are conducted throughout the Company to ensure appropriate preparations are made prior to the winter season. Emergency scenarios / mock drills are conducted to test winter operational protocols and incident command structure. Additionally, winter planning meetings cover a wide range of preparedness topics including:

- Employee safety considerations – winter operational protocols
- Changes to system operations – new and replaced assets
- System reinforcement projects – completed / pending
- Facilities management – snow removal, maintaining access to critical facilities
- Locations of emergency materials
- Communications protocols
- Pennsylvania Public Utility Commission reporting requirements and courtesy notifications
- Mutual aid protocols – requesting and providing resources

- Gas control alarm management and system change protocols
- Dispatch of peaking assets – propane/air, LNG, and communication protocols
- Interruptible customer notifications
- Fleet availability and preparedness
- Enhanced Emergency Response Plan – Training module to refresh UGI First Responders prior to the upcoming winter season

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. UGI currently subscribes to two weather services, MDA EarthSat and Telvent DTN. 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 dangerous roadways.

UGI performed internal Tabletop exercises during this past year. Exercises included pipeline emergency response and involved relevant departments affected by such emergencies. Due to the nature of the exercises, simulations were conducted in real time precluding the use of presentation material and/or information packets. The tabletop exercises utilized real life gas scenarios that help assess emergency response preparedness.

UGI participates in both the American Gas Association (“AGA”) and Northeast Gas Association (“NGA”) Mutual Assistance Programs 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. UGI also utilizes GPS enabled Fleet solution to track vehicle locations for employees that responded to the emergency event in order to minimize emergency response times.

UGI has approximately 600 trained and qualified field employees dedicated to emergency response who address system reliability, perform system maintenance, and complete emergency capital improvements. In addition, UGI utilizes a large complement of contractor resources to supplement our internal workforce. Annually, staffing levels and varied shifts are reviewed and prospectively adjusted, as required, to meet the needs of the business. During peak periods, both supervisory and field resource levels are further flexed to maximize Operation’s coverage.

3. Communications Outreach

Provide a summary of the communications procedures your company has in place to effectively manage potential crisis events during the heating season. Include a description of outreach activities and any exercises done with local and regional emergency management organizations to coordinate emergency response procedures.

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 such matters as the safe use of energy, energy conservation, and Company-sponsored programs available to assist customers in managing their bills. These programs also provide key audiences with links and information on how to access additional resources provided by the Company, the natural gas industry, as well as relevant information from government sources. Communications to key audiences are delivered through a variety of traditional, web and social media channels.

Communication Channels and Tools

The UGI Communications and Community Relations Department and the Company's Customer Service Department work to ensure customers receive additional information on conservation, the safe use of energy, and bill payment options during the cold weather season. For example, multiple advisories regarding the safe use of energy as well as recommendations and tips on staying warm inside the home are provided throughout the heating season. When service area communities experience extreme weather, or when emergency situations arise, the Company's Communications and Community Relations Department and Outreach Program staff provide additional information regarding special initiatives to customers. The communication channels and tools UGI utilizes include:

- UGI's Call Center, including use of our outbound dialer
- Bill messages and inserts
- UGI's website
- Outbound email
- Social media platforms including:
 - Facebook
 - Twitter
 - Instagram
 - Linked-In
- Proactive media, including public service announcements
- Paid web, broadcast, and print advertising, and
- Personal contacts, including face-to-face sessions, UGI-sponsored community meetings, and participation in widely-attended customer awareness events.

Weather Event and Emergency Communications

In the event of a weather emergency, UGI employs a broad-front, integrated external communications approach to provide customers and communities with critical information. For example, the UGI Call Center has an outbound dialer, which can be used proactively to communicate with customers in targeted areas. Outbound dialer calls provide messages that include important safety, energy use, and outage restoration information.

In addition, the UGI phone system's pre-recorded messages and prompts are adjusted and updated to facilitate responses to emergency calls. Other messages can be added to the system that provide important information to customers concerning the emergency, as well as information on resources that can provide additional information. To manage increased call volumes that may arise during an emergency, the UGI Call Center is positioned to implement enhanced staffing that can expand live operator coverage to 24 hours a day, seven-day-a-week coverage.

Customers can also interact with Customer Service, Communications and Community Relations Departmental staff via social media. The Company's social media platforms are monitored, and specific customer concerns are individually addressed. The goal of this effort is to ensure that customer questions and concerns posted to social media platforms receive a timely response.

In addition, important information is made available to customer and community audiences through mainstream channels such as: public service announcements released to media outlets; UGI website postings; outbound email; and UGI's social media channels (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 those customers who meet the State-determined eligibility requirements. UGI has already started its general Low-Income Home Energy Assistance Program (LIHEAP) awareness and information efforts that the Company conducts prior to the opening date of the program and has begun outreach to qualifying customers. The Company also participates in a range of events that promote LIHEAP awareness and provide information on the application process. In its communications, UGI uses the following channels to urge qualifying customers to apply for LIHEAP, including:

- Media announcements
- Bill inserts
- Outbound telephone campaigns
- Customer Service Representatives who provide inbound customer calls
- Special mailings
- E-mail communications
- In person communications with Company personal at targeted Outreach events
- Website updates that include a link for customers to print LIHEAP applications and information on upcoming community events

All UGI Call Center representatives attend special training sessions on LIHEAP and are provided scripts to ensure customers receive consistent information regarding LIHEAP.

UGI operates its own “hardship” fund for qualifying customers experiencing difficulty in paying their utility bills. This fund is called Operation Share. UGI annually donates corporate funds to Operation Share. In addition, The Company solicits donations from our customers, employees, and others in the community. UGI promotes participation in Operation Share via customer inserts, direct communications with qualifying customers and via postings on the UGI website. UGI provides information on its customer assistance programs in English and Spanish language versions.

In addition to providing LIHEAP information and application support, UGI offers a number of additional assistance programs:

- UGI's Customer Assistance Program (CAP) offers qualifying income-eligible customers a more manageable monthly energy bill. UGI provides CAP participants with a monthly payment amount based on gross income, household size and energy usage. When CAP bills are paid on or before the bill due date, the difference between the amount billed and the actual amount used may be forgiven in addition to a portion of their pre-program arrearage.
- The Low-Income Usage Reduction Program, or Weatherization, offers free installation of energy conservation measures to low-income households to help make energy bills more affordable. Possible energy saving measures include ceiling insulation; floor, duct and hot water pipe insulation; caulking and weather-stripping, gas heater repairs and water flow restrictors.
- C.A.R.E.S. (Customer Assistance and Referral Evaluation Service) can provide referrals to other helpful programs in your community. These programs can include the above-mentioned LIHEAP, budget counseling, and State Weatherization or Office of Aging programs.

- UGI also can assist eligible customers by setting up a Payment Plan. If a customer's bill is higher than expected and there is difficulty paying the entire amount, UGI can set up a Payment Plan to help spread payments over a set period of time.

UGI also offers several programs to assist customers in conveniently managing their bill payments. Under the Budget Billing Plan, UGI will estimate annual energy usage and spread out that amount evenly over the budget billing period to calculate the monthly amount a customer pays. UGI reviews each customer's Budget Billing Plan every three months to determine actual energy usage and make any necessary adjustments to monthly payments. This service is free of charge, and any active UGI customer who is current on their bill is eligible for Budget Billing.

UGI encourages customers who may qualify for any of these programs to contact the Company. UGI is committed to assisting customers who need their energy service restored or are working to avoid termination of service whenever possible.

Customer Assistance Program and Bill Payment Communications

As the winter heating season begins, UGI conducts and 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 (jointly sponsored by the Company, elected and appointed officials, and by community-based organizations (CBOs)), other community and Company location events (where informational and direct customer assistance is provided by Company employees and CBOs).

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"). UGI's CAP offers qualified, income-eligible customers a more manageable monthly energy bill. UGI provides CAP participants with a personalized, monthly payment amount based on gross income, household size and average bill. In most cases, this program makes UGI bills more affordable. Over time, following consistent program payments, participants' pre-program arrearage to UGI can be forgiven. Customers can learn more details about CAP via the UGI Call Center, the Company's website, UGI's social agency partners, Company community events, or by CAP enrollment campaigns conducted by UGI for known low-income customers. These campaigns include target Outreach via email and dialer calls to LIHEAP recipients with an option to complete the CAP application online to expedite the enrollment process.

As previously stated, UGI's 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. Possible energy saving measures can include ceiling insulation, floor, duct and hot water pipe insulation, caulking and weather-stripping, gas heater repairs and water flow restrictors. UGI also offers the Rehabilitation Program. This program allows UGI to contribute funding for the installation of approved energy efficient measures at the time of new construction or rehabilitation of an existing property. Through the program, UGI partners with community-based organizations throughout the service territory to distribute funds to housing projects. Customers can obtain more information about LIURP via the UGI Call Center, the Company's website, or through UGI's social agency partners. Community based organizations can obtain more information about the Rehabilitation program via UGI's Call Center or website.

UGI conducts a Customer Assistance and Referral Evaluation Services (C.A.R.E.S.) program. CARES can provide referrals to other helpful assistance programs in a customer's community. Referrals are made to customers regarding the LIHEAP, budget counseling, and Pennsylvania Weatherization or Office of

Aging programs. Customers interested in more information about UGI's CARES program can contact the UGI Call Center or visit UGI's website.

In addition, each year UGI surveys customers whose service has been terminated within the past year, through its Cold Weather Interim Procedure (CWIP). Outreach to these terminated customers includes letters, phone calls, and field visits to provide information regarding available assistance programs in an attempt to get service reconnected. UGI also makes efforts aimed at restoring service to terminated customers collaboratively with community-based organizations throughout the heating season.

Finally, UGI offers payment programs like budget billing and automatic payment deductions, as well as electronic bill payment options to assist customers in managing their bill payments. Information about these payment options is provided to customers via bill inserts, bill messages, IVR messages (to customers calling into the UGI Call Center), and UGI's website. UGI provides information regarding these programs, as well as information on Company customer assistance programs, in English and Spanish language versions.

4. Gas Supply and Planning

Describe the methods and protocols your company uses to ensure reliable gas delivery at least cost during the heating season. Include how your company plans to manage peak demand days, capacity planning, interstate supply coordination, storage, curtailment, and weather forecasting. Provide a description of any best practices, including communications and coordination with natural gas suppliers and interruptible service customers on your system ahead of anticipated peak usage.

UGI's focus for gas supply portfolio planning is to meet the demands of its core market customers throughout the winter, especially on the coldest days when deliveries are the most critical. UGI contracts for primary firm supplies and capacity reserves to meet the demands of core market customers during peak day and sustained cold weather periods. UGI ensures reliability of supplies through diversification, enhanced force majeure language, and requiring primary firm delivery rights for each service.

UGI's supply portfolios are developed and maintained to access a multitude of source points for diversity, liquidity, and reliability. The source points for UGI's gas supplies include the Gulf of Mexico, Louisiana, Texas, Appalachian Mountains, Marcellus/Utica Shale region in Pennsylvania, and on-system peaking plants. Where possible, UGI has shifted its portfolio sources to take advantage of locations closer in proximity to its service territory (e.g., the Marcellus Shale region or on-system peaking plants) for economic and reliability benefits. UGI also continues to look for opportunities to build redundancy into the portfolio to enhance reliability and reduce dependencies on a single pipeline.

UGI contracts for firm supply in advance via RFP or other form of competitive bidding as appropriate. 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. In the case of natural gas 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. UGI requires strict contractual force majeure provisions to ensure firmness and reliability of supply. This language is non-negotiable when contracting for new services with suppliers.

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 supply interconnected with UGI's distribution system or supported by primary firm delivery rights to UGI's city gates. These services include primary firm transportation, primary firm storage, primary firm delivered supply, and primary firm peaking services from a mix of seven

interstate pipeline companies, local production meters and gathering systems, and three 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. These constraints have been caused by a variety of factors including extreme cold weather, changing flow dynamics due to Marcellus and Utica Shale production, and unanticipated pipeline outages. Most notably, on September 12, 2019, Enbridge, parent to Texas Eastern Transmission Pipeline, announced that it anticipates operating portions of the Texas Eastern system at reduced operating pressures for a portion or potentially all of the upcoming winter season. Texas Eastern anticipates that these pressure reductions will negatively impact their ability to deliver on their contractual firm transportation obligations with UGI. UGI continues to develop contingency plans in the event that the Texas Eastern capacity reductions are not lifted prior to the winter heating season including, but not limited to, procuring additional supply options, planning for expanding interruptions to interruptible customers, and seeking voluntary demand reductions from core market customers.

UGI has required all supply services to have primary firm delivery rights. Primary firm capacity holders have the highest priority on the pipeline and would be the last to experience any supply curtailments from the pipeline. All non-primary firm capacity holders would be curtailed to zero before primary firm capacity is reduced. Therefore, UGI's procurement of primary firm, asset-backed capacity is essential for supply reliability, not only during severe cold weather, but, also in the case of unanticipated pipeline capacity reductions.

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

Provide your company's view on any potential concerns about fuel availability over the winter heating season given the increased demand for natural gas as an electric generation fuel source and possible increased use of firm gas transportation service. Include any new protocols or plans your company may have in place to manage this new dynamic.

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 residential, firm critical and essential human needs commercial customers.

UGI's tariffs include a Gas Emergency Planning section addressing how UGI would potentially curtail service to gas-fired generators in order to protect the integrity of UGI's distribution system to maintain firm service to essential human needs customers. UGI's gas emergency plan includes 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.