IF-GU-240a.1. Average retail gas rate for (1) residential, (2) commercial, (3) industrial customers, and (4) transportation services only

1. The entity shall disclose its average bundled gas rate per million British thermal units (MMBtu) of bundled gas delivered to retail customers.

1.1 Bundled gas is defined as gas delivered to retail customers where the entity provides all services to the customer from procurement to retail distribution, including but not limited to, transmission, storage, distribution, and retail services (customers that receive such services may be referred to as core customers).

The average bundled gas rate for retail customers is $9.90 per MMBtu.

1.2 The entity shall calculate its average bundled retail gas rate as the total revenue directly resulting from bundled gas delivered to retail customers divided by the amount of corresponding gas delivered (in MMBtu).

1.2.1 Revenue shall be based on an assumption of (1) 50 MMBtu, and separately, (2) 100 MMBtu, of bundled gas delivered to residential customers per year.

1.2.2 Revenue shall be calculated using seasonal rates and an appropriate methodology for determining seasonal gas delivery patterns.

1.2.3 The entity shall disclose its methodology for calculating typical monthly gas bill for residential customers.

2. The entity shall disclose its average retail gas rate separately for each type of customer, where customers are classified as (1) residential, (2) commercial, and (3) industrial.

2.1 Each customer type shall be consistent with the entity's financial reporting.

2.2 Each customer type shall be disclosed as an aggregate for all customers within that respective customer type.

2.3 If the entity's financial reporting combines commercial and industrial customers into one category, then the entity may combine the commercial and industrial customer types.

2.4 The entity may disclose sub-classifications of customer types. For example, in addition to the average bundled gas rate for commercial customers, the entity may provide further disclosures by small commercial, large commercial, firm, and/or interruptible customers.

The average retail gas rate per MMBtu is as follows:
- Residential = $10.57
- Commercial = $8.82
- Industrial = $8.49

3. The entity shall disclose its average gas rate for (4) transportation services only per MMBtu of gas delivered to retail customers.

3.1 Transportation services only is defined as gas moved through the entity's system for a fee for the benefit of an outside supplier selling to a customer inside the utility's distribution grid (customers that receive such services may be considered to be participating in customer choice programs, as described in Natural Gas Customer Choice Programs, by the U.S. Energy Information Administration).

3.2 The entity shall calculate its average gas rate for transportation services only as the total revenue directly resulting from gas transportation services only, provided to retail customers divided by the corresponding amount of gas delivered (in MMBtu).

The average gas rate for transportation services only is $1.89

IF-GU-240a.2. Typical monthly gas bill for residential customers for (1) 50 MMBtu and (2) 100 MMBtu of gas delivered per year

1. The entity shall disclose the typical monthly gas bill for (1) the first 50 million British thermal units (MMBtu), and separately, (2) the first 100 MMBtu, of bundled gas delivered to its residential customers per year.

1.1 Bundled gas is defined as gas delivered to retail customers where the entity provides all services to the customer from procurement to retail distribution, including but not limited to, transmission, storage, distribution, and retail services (customers that receive such services may be referred to as core customers).

The typical monthly gas bill for residential customers for 50 MMBtu of gas delivered per year is $49.64.

1.2 The entity shall calculate the typical monthly gas bill for residential customers as the sum of revenue directly resulting from bundled gas delivered to residential customers over the course of the reporting period, divided by the number of months in the reporting period, divided by the weighted average number of residential customers during the reporting period.

1.2.1 Revenue shall be based on an assumption of (1) 50 MMBtu, and separately, (2) 100 MMBtu, of bundled gas delivered to residential customers per year.

1.2.2 Revenue shall be calculated using seasonal rates and an appropriate methodology for determining seasonal gas delivery patterns.

1.2.3 The entity shall disclose its methodology for calculating typical monthly gas bill for residential customers.

The typical monthly gas bill for residential customers for 100 MMBtu of gas delivered per year is $86.65.

2. The entity may disclose additional customer types and/or sub-classifications of customer types. For example, the entity may additionally disclose typical monthly gas bill for commercial customers.

The typical monthly gas bill for Commercial customers using 444.1 MMBtu of gas delivered per year is $326.09.

The typical monthly gas bill for Industrial customers using 1,681.0 MMBtu of gas delivered per year is $1,190.01.
26.99%

Please see above.

customers.

gas for the entity’s customers.

2. The entity shall disclose the percentage of disconnections that are reconnected within 30 days.

2.1 The percentage shall be calculated as the number of residential customers previously disconnected that were reconnected within 30 days of the date of the disconnection, divided by the total number of residential customer disconnections during the reporting period that resulted from non-payment.

2.2 A reconnection is defined as the entity, or its service provider, intentionally turning on a customer’s access to gas, which was previously disconnected.

2.2.1 Reconnections may occur for reasons including, but not limited to, bill payment, the establishment of a bill payment plan, and/or the use of a bill assistance program.

2.3 The scope of disclosure may include reconnections that occur after the end of the reporting period, but the entity shall not double-count reconnections across multiple discrete reporting periods.

Note to IF-GU-240a.3

1. The entity shall discuss how policies, programs, and regulations impact the number and duration of residential customer disconnections.

1.1 Policies include company-level policies that govern the conditions under which the entity may disconnect (or may not disconnect) residential customers.

1.2 Programs include those administered at the national, state, local, utility commission, or company-level that are designed to improve the affordability of gas among residential customers, and/or reduce the number and/or duration of residential customer disconnections (e.g., Low Income Home Energy Assistance Program).

1.3 Regulations include those occurring at the national, state, local, utility commission, or company-level that are designed to improve the affordability of gas among residential customers, and/or reduce the number and/or duration of residential customer disconnections.

The Company follows the Utility regulations detailed in both the PA CH 56 and COMAR regulations. Both sets of regulations require UGI Utilities to have a winter moratorium on low income terminations. The moratorium in PA begins December 1st and ends March 31st each year. COMAR requires utilities to cease terminations one month earlier effective November 1st. While the Company does have a manual process to continue to work in arrears, non-low-income, residential and commercial accounts during the moratorium, other temperature driven policies limit the amount of work that gets completed during those periods.

All termination notice requirements are followed and there are numerous customer protections one can invoke when disputing a noticed termination. Medical certificates, Protection from Abuse Orders, and a customer’s eligibility to enter into a regulated or company arrangement all impact the number of customers terminated each month. Additionally, low-income customers are able to enroll into a number of programs that can assist with lowering or helping pay their monthly bills. Enrollment into these programs remove a customer from the collection path. These programs are; CAP (Customer Assistance Program), LIURP (Low income usage reduction program), Operation Share (one time a year hardship grant), and LIHEAP, the state managed Low Income Home Energy Assistance Program. The Company follows every termination with a regulated Cold Weather Interim Survey (CWIP). This process begins approximately October 1st by notifying anyone terminated during that season who still has not reconnected, and then follows a series of additional contacts to determine if the household is still without heat by Dec. 1 of that season. In these contacts all available options to reconnect are provided to the customer if reached.

IF-GU-240a.4. Discussion of impact of external factors on customer affordability of gas, including the economic conditions of the service territory

1. The entity shall describe the external factors that cause, or are reasonably likely to cause, a significant impact on the affordability of gas among the entity’s retail customers.

1.1 External factors are defined as influences outside of the direct control of the entity.

1.2 The scope of external factors includes factors that directly impact current and/or future gas rates, and/or factors that impact customers’ current and/or future ability to pay gas bills (i.e., no direct impact to gas rates).

1.3 External factors may include, but are not limited to, geography, climate, weather, and regulations, public policy, and public purpose programs (regardless of whether such factors directly relate to affordability).

1.4 At a minimum, external factors shall include the economic conditions of the service territory.

1.4.1 The entity may disclose the median household income, poverty rates, employment rates, or other quantitative or qualitative data that depict the economic conditions of the service territory.

2. For each external factor, in addition to a description of the factor, the entity shall briefly describe:

2.1 The frequency and magnitude in which the factor impacts the affordability of gas for the entity’s customers.

2.2 The trend in the impact of the factor on the affordability of gas for the entity’s customers.

Demand for natural gas remains high in UGI’s service territory. One of the primary factors influencing natural gas affordability and adoption is the wholesale price spread between natural gas and oil, in particular. With the abundance of Marcellus Shale gas in PA, UGI Utilities residential customers paid 30% less in 2019 as compared to 2008. A ban on fracking, for instance, is estimated to result in a 325% increase in natural gas prices nationally, representing a $5,661 increase in the cost of living for an average American, and would eliminate about 19 million jobs. The median household income for UGI Utilities territory is approximately $57,000/annually, while the median age is 41 years old. Approximately 31% of households are renter-occupied. Recently, the price of oil has dropped, representing approximately $350 of annual savings for a residential customer converting from oil to natural gas. However, longer term data is indicative of residential conversion energy cost savings of over $1,000 per year.
3. The entity shall describe the risks and opportunities that arise out of the external factors.  

1. Risks may include, but are not limited to, customer non-payment of gas bills, cost recovery uncertainty, reputational value, and regulations, public policy, and/or public purpose programs that may generate adverse financial impacts.

2. Opportunities may include, but are not limited to, customer growth, capital investment opportunities, reputational value, and regulations, public policy, and/or public purpose programs that may generate adverse financial impacts.

4. The scope of disclosure includes the affordability of all retail customers within the entity’s service territory for gas, which may include, but is not limited to, residential, commercial, industrial, and agricultural customers.

1. The entity may prioritize low-income residential customers in its disclosures.

5. The entity may describe how its average rates, average bills, and/or customer disconnections compare to other utilities.

UGI Utilities current residential distribution rates are below those of Peoples Gas, Columbia and PGW.

### IF-GU-420a.1. Percentage of gas utility revenues from rate structures that (1) are decoupled or (2) contain a lost revenue adjustment mechanism (LRAM)

1. The entity shall disclose the percentage of gas utility revenues from (1) revenue decoupled rate structures.

1.1 Revenue decoupled rate structures are defined, according to the U.S. National Association of Regulatory Utility Commissioners in Decoupling for Electric & Gas Utilities (September 2007), as a rate adjustment mechanism that separates the entity’s gas utility’s fixed cost recovery from the amount of gas sold—and the utility’s revenues are collected based on the regulatory-determined revenue requirement.

1.1.1 Revenue decoupled rate structures may also be referred to as, "revenue regulation" or "revenue cap regulation," where the regulator establishes an allowed revenue requirement and adjusts collections so as to achieve that allowed, or "target," revenue irrespective of actual sales (definition adapted from, Decoupling Case Studies: Revenue Regulation Implementation in Six States, The Regulatory Assistance Project, July 2014).

1.1.2 Additional guidance on the scope of revenue decoupled rate structures is contained in Alternative Regulation for Emerging Utility Challenges: 2015 Update, Edison Electric Institute, November 11, 2015.

1.2 The scope of decoupled rate structures shall exclude straight fixed-variable rate design and those rate structures that contain a lost revenue adjustment mechanism (LRAM).

1.2.1 Rate structures that contain a LRAM are defined as volumetric rates that contain a mechanism which allows the entity to recover revenues lost directly resulting from energy conservation, energy efficiency, demand side management, and/or distributed generation programs that are directly managed and/or implemented by the entity.

1.2.2 Additional guidance on the scope of LRAMs is contained in Alternative Regulation for Emerging Utility Challenges: 2015 Update, Edison Electric Institute, November 11, 2015.

1.3 The percentage shall be calculated as the total regulated gas utility revenue from revenue decoupled rate structures divided by total regulated gas utility revenue.

2. The entity shall disclose the percentage of gas utility revenues from (2) rate structures that contain a LRAM.

2.1 Rate structures that contain a LRAM are defined as volumetric rates that contain a mechanism which allows the entity to recover revenues lost directly resulting from energy conservation, energy efficiency, demand side management, and/or distributed generation programs that are directly managed and/or implemented by the entity.

2.2 The scope includes mechanisms that allow the estimation of lost revenues based on the programs’ actual impacts, but excludes lost revenues from planned or forecasted programs’ impacts (as described in Alternative Regulation and RateMaking Approaches for Water Companies, The Brattle Group, September 23, 2013 — while the referenced resource is intended for water utilities, the concept of LRAMs is similar for gas utilities).

2.3 The percentage shall be calculated as the total regulated gas utility revenue from rate structures that contain a LRAM divided by total regulated gas utility revenue.

3. The scope of disclosure is limited to revenues directly resulting from the provision of gas to retail customers by regulated utilities.

0% of UGI Utilities’ gas revenues are derived from decoupled rate structures. Nevertheless, fixed monthly customer charges not dependent on usage account for 18.8% of! the Company’s revenue on a pro forma basis.

UGI Utilities does not have a rate structure that contains a lost revenue adjustment mechanism. Notwithstanding, UGI’s Universal Service Rider allows the Company to collect dollars that would otherwise become uncollectible from low income customers enrolled in its Customer Assistance program from other residential customers.
### IF-GU-420a.2. Customer gas savings from efficiency measures by market

#### 1. The entity shall disclose the total amount of gas savings delivered to customers, in million British thermal units (MMBtu), from energy efficiency measures during the reporting period for each of its markets.

1.1 Markets are defined as those operations that are subject to distinct public utility regulatory oversight.

1.2 Gas savings are defined according to the gross savings approach as the changes in energy consumption and/or demand that results from program-related actions taken by participants in an efficiency program, regardless of why they participated.

1.2.1 The entity may list those markets where it reports gas savings on a net savings basis and thus may be different from the figures disclosed here, where net gas savings are defined as changes in consumption that are specifically attributable to an energy efficiency program, and that would not otherwise have happened in the absence of the program.

#### 2. Gas savings shall be calculated on a gross basis but consistent with the methodology set forth in national, state, or local evaluation, measurement, and verification (EM&V) regulations where such savings occur, where examples of U. S. state regulations include, but are not limited to:

<table>
<thead>
<tr>
<th>State Regulation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minnesota Statutes 216B.241</td>
<td>Not applicable. See above response.</td>
</tr>
<tr>
<td>New York Case 07-M-0458</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

2.1 California Public Utilities Commission Decision 09-09-047

2.2 Minnesota Statutes 216B.241

2.3 New York Case 07-M-0458


4. The scope of gas savings from efficiency measures includes savings delivered directly by the entity and, where regulations provide, savings substantiated by purchases of efficiency savings credits.

4.1 For any savings from efficiency measures delivered directly by the entity, any efficiency savings credits must be retained (i.e., not sold) and retired on behalf of the entity in order for the entity to claim them as delivered gas savings.

4.2 For efficiency savings credits that are purchased, the agreement must explicitly include and convey that credits be retained and retired on behalf of the entity in order for the entity to claim them.

#### 5. Relevant regulations governing efficiency savings credits include the following regulations in the U.S.:

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut House Bill 7432</td>
<td>Not applicable. See above response.</td>
</tr>
<tr>
<td>Nevada Regulation of Public Utilities Chapter 704</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

6. The entity shall consider guidance on regulations as a normative reference, thus any updates made year-on-year shall be considered updates to this guidance.

7. All savings achieved by UGI Utilities are beyond those required by regulation as the Company's EE&C programs are voluntary.

8. UGI Utilities utilizes a volumetric customer distribution surcharge to recover costs associated with managing the Company's energy efficiency programs.

9. UGI Utilities does not utilize decoupling nor does it make lost revenue adjustments as part of the Company's EE&C programs. Estimate usage reductions are factored into the calculation of the Company’s base rates.
5. The entity may discuss incentives it has developed for its customers that promote end-use efficiency, including, but not limited to, energy efficiency rebates, and other measures to subsidize customer energy efficiency.

UGI Utilities offers a variety of energy efficiency programs to its residential and commercial customers. The current EE&C Plan is a five-year, approximately $63MM program that was designed to encourage customers to install high efficiency appliances over less expensive, standard efficiency appliances by providing incentives to offset the incremental equipment cost. By participating in these programs, customers receive the benefits of saving energy and money, both in terms of receiving a rebate for the equipment installation, and lower utility bills. Common measures installed include natural gas furnaces, boilers, and water heaters. The Company also offers residential and commercial audit programs to enhance the efficiency of homes and businesses, along with incentives for Combined Heat & Power (CHP) projects. In 2019, UGI issued $6.7MM in rebates to customers across the residential, commercial, and industrial sectors.

### IF-GU-540a.1. Number of (1) reportable pipeline incidents, (2) Corrective Action Orders (CAO), and (3) Notices of Probable Violation (NOPV)

1. The entity shall disclose the number of U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) reportable pipeline incidents, where:

   1.1 Reportable incidents are defined as events that involve a release of gas from a pipeline and that result in one or more of the following consequences: a death or personal injury necessitating in-patient hospitalization; estimated property damage of $50,000 or more, including losses to the operator, losses to others, or both, but excluding the cost of gas lost; an unintentional estimated gas loss of three million cubic feet or more; or an event that is significant in the judgment of the operator, consistent with the definition provided in U.S. 49 CFR 191.

   UGI Utilities had one reportable incident in 2019. On April 4, 2019, a 3rd party contractor was performing excavation using horizontal directional drilling (HDD) methods along the 200 Block of West Chocolate Avenue. In the process of HDD work, the 3rd party contractor failed to expose a properly marked UGI facility in the public right of way, that happened to be in the bore path. The drill subsequently pierced our main which was part of a distribution network in a commercial area. This event is being reported as an incident due to the cost of this repair exceeding the $50,000 reporting threshold.

2. The entity shall disclose the number of PHMSA Corrective Action Orders (CAO) received, where:

   2.1 A CAO is issued when a particular pipeline facility is found to be hazardous to life, property, or the environment. A corrective action may include suspended or restricted use of the facility, physical inspection, testing, repair, replacement, or other appropriate action, consistent with the definition provided by U.S. 49 CFR 190.233.

   Zero (0)

3. The entity shall disclose the number of Notices of Probable Violation (NOPV) received, where:

   3.1 An NOPV is defined as the beginning of an enforcement proceeding that contains a statement of the provisions of the laws, regulations, or orders that the respondent is alleged to have violated and a statement of the evidence upon which the allegations are based, consistent with the definition provided in U.S. 49 CFR 190.207.

   Zero (0)

Note to IF-GU-540a.1

1. The entity shall discuss notable incidents such as those that affected a significant number of customers, created extended disruptions to service, or resulted in a PHMSA “serious incident.”

   1.1 PHMSA serious incidents are defined as incidents that resulted in a fatality or an injury requiring in-patient hospitalization.

   Zero (0)

2. For such incidents, the entity may provide:

   2.1 A description and cause of the incident
   Zero (0)

   2.2 The total population affected by the incident
   Zero (0)

   2.3 The costs associated with the incident
   Zero (0)

   2.4 Actions taken to mitigate the potential for future service interruptions
   Zero (0)

   2.5 Any other significant outcomes (e.g., legal proceedings, serious injuries, and/or fatalities)
   Zero (0)
### IF-GU-540a.2. Percentage of distribution pipeline that is (1) cast and/or wrought iron and (2) unprotected steel

1. The entity shall disclose the percentage, by length, in kilometers, of its natural gas pipelines that are (1) cast and/or wrought iron, and separately, (2) unprotected steel.

   1.1 A distribution pipeline is defined according to U.S. 49 CFR 192.3 as a pipeline other than a gathering or transmission line, where:

   1.1.1 A gathering line is defined as a pipeline that transports gas from a current production facility to a transmission line or main; and

   1.1.2 A transmission line is defined as a pipeline, other than a gathering line, that (1) transports gas from a gathering line or storage facility to a distribution center, storage facility, or large-volume customer that is not downstream from a distribution center; (2) operates at a hoop stress of 20 percent or more of the specified minimum yield strength (SMYS); or (3) transports gas within a storage field.

2. The percentage of (1) cast and/or wrought iron distribution pipelines shall be calculated as the total length of cast and/or wrought iron pipelines that the entity owns or operates divided by the total length of distribution pipelines that the entity owns and/or operates.

3. The percentage of (2) unprotected steel distribution pipelines shall be calculated as the total length of unprotected steel pipelines that the entity owns or operates divided by the total length of distribution pipelines that the entity owns and/or operates.

4. The entity may discuss its pipeline replacement rates, its use of polyethylene pipes, or other efforts to reduce fugitive emissions and leaks and improve the safety of its distribution pipelines.

*Data provided on a calendar year basis ending December 31, 2019.

### IF-GU-540a.3. Percentage of gas (1) transmission and (2) distribution pipelines inspected

1. The entity shall disclose the percentage, by length, of gas (1) transmission pipelines, and separately, (2) distribution pipelines that were inspected during the reporting period.

2. Inspection activities include those listed under U.S. 49 CFR 192 for gas pipelines, including:

   2.1 Internal inspection tool or tools capable of detecting corrosion and any other threats to which the covered segment is susceptible

   2.2 Pressure test(s)

   2.3 Direct assessment to address threats of external corrosion, internal corrosion, or stress corrosion racking

   2.4 Other technology that an operator demonstrates can provide an equivalent understanding of the condition of the line pipe

3. The percentage is calculated as the length of gas pipelines inspected divided by the total length of gas pipelines.

*Data provided on a calendar year basis ending December 31, 2019.
One-Call: UGI Utilities has been a member of PA One-Call since 1979 and have consistently had members on the Association initiatives, which may include, but are not limited to:

1.3.2 American Petroleum Institute (API) Recommended Practices 1170 and 1171

Efforts may include, but are not limited to, those related to employee training, emergency preparedness, process safety, and asset integrity management.

1.3.3 Natural Gas Industry Safety Programs, as outlined by the American Gas Association

- “Call-Before-You-Dig” and "Dig Safety" Programs: UGI Utilities actively participates in these programs in PA and MD. UGI has training programs on its web site for outreach training for all participants in the program. UGI also had several instructors certified to train required compliance instruction for excavators and locators in PA. UGI is a member of the Gold Shovel Standard (GSS). This program certifies excavators in certain safe digging requirements: follow safe digging practices, management sign-off committee to the safe digging process, root cause and corrective actions and documentation of events and incidents. See Public Education Programs for more information.

Materials Specifications: Material specifications are provided to manufacturers of the various materials used by UGI Utilities in its gas systems. The manufacturers of gas materials are required to make their respective materials according to stringent industry specifications from testing and standards organizations such as API (American Petroleum Institute), ASTM (American Society for Testing and Materials), ASME (American Society of Mechanical Engineers International), MSS (Manufacturers Standardization Society), NACE (National Association of Corrosion Engineers), GTI (Gas Technology Institute), NFPA (National Fire Protection Association), Plastics Pipe Institute (PPI).

Construction Techniques: Installers are qualified either annually (plastic fusers) or every 6 months (welders), ensuring quality joints when assembling pipes. Non-Destructive testing (NDT) techniques such as x-rays, ultrasonic and other tests are used to check welds as an additional safeguard. Pipelines are also subjected to pressure tests (using air, nitrogen or water) and pressurized to exceed the pressure level that will be created by the amount of gas the pipe will carry to test the integrity of the pipe.

Corrosion and Damage Control and Inspection: Steel (contemporary) gas lines are installed with corrosion-control coatings on the outside surface. Cathodic protection methods are used to protect any areas where the coatings may become damaged over time. Trained and certified personnel routinely apply survey techniques using specialized electronic equipment to evaluate gas line conditions to ensure adequate levels of cathodic protection, and in some instances evaluate for coating defects to identify areas of concern before they become a problem.

All exposed pipelines are evaluated for pipe and coating conditions, with remedial actions taken, if necessary. In addition, government regulations require surveys of pipelines with leak detectors at specified intervals, with the frequency depending on material and whether the pipe is located in a populated area or a rural region.

Smart pigs are in-line inspection devices that are propelled or tethered through the gas system while recording detailed data about the condition of the line (wall loss, dents, bends, etc.). Pigs are generally used on transmission and high pressure distribution lines that have either been specially designed or modified to accommodate in-line inspections.

UGI Utilities complies at a minimum with the required assessments identified by PHMSA and inspection frequencies for all cathodic protection systems, transmission line assessments, atmospheric corrosion inspection, regulator stations including relief devices and emergency valves. In addition, UGI has stringent training and testing programs for employees involved in any aspect of operations, maintenance or repair.
Industry and Peer Education Programs: Through technical conferences and seminars, members of the natural gas industry share information and experiences on all aspects of operating a gas system with others in the industry. UGI Utilities regularly sends representatives to the American Gas Association’s annual Operations Conference, where more than 200 technical papers are presented and made available to the industry. These papers cover topics ranging from pattern analysis software for system mapping to the use of trenchless technology for renovating or repairing gas pipelines. Industry trade associations also publish numerous manuals, books, pamphlets and studies on delivery system operations and “best-practices” programs, in which UGI Utilities regularly participates. UGI also attends Energy Association of Pennsylvania (EAPA) events sponsored by the Pennsylvania Public Utility Commission (PUC), and tvarious educational programs for the Gas Utility Industry such as the Appalachian Gas Measurement Short Course in Pittsburg, PA and the Appalachian Underground Corrosion Short Course (AUCSC) in Morgantown, WV.

Public Education Programs: UGI Utilities provides a Dig Safety program available upon request for excavators who have frequent offenders (two or more dig-ins in a six month period) to provide additional safe digging practices. Public Education Programs include: UGI Utilities provides a Dig Safety program available upon request for excavators who have frequent offenders (two or more dig-ins in a six month period) to provide additional safe digging practices. Public Education Programs include: UGI Utilities provides a Dig Safety program available upon request for excavators who have frequent offenders (two or more dig-ins in a six month period) to provide additional safe digging practices. Public Education Programs include:

UGI Utilities is a partner in the EPA Natural Gas STAR Methane Challenge Programs.

The entity shall describe how the it integrates a culture of safety and emergency preparedness throughout its project lifecycles, such as through training, oversight of workforce, rules and guidelines for communicating risks, and use of technology.

From the genesis of a pipeline project to the end of its useful life, UGI requires that experienced and qualified individuals are involved with a life of a pipeline. UGI undergoes a multi disciplinary review of pipeline designs that are ultimately reviewed by a licensed Professional Engineer. Designs also designate emergency shut off valves for each. If a pipeline project is to proceed, it must be evaluated against these valves are known and accessible to all individuals performing construction work. Pipeline construction is also undergone several inspection layers, ensuring safe and compliant construction practices. During a pipeline’s life cycle, it will be inspected and maintained by qualified individuals to ensure reliability, and safe operating performance until the pipeline is decommissioned.

The project lifecycle includes, at a minimum, pipeline design, construction, commissioning, operation, maintenance, and decommissioning.

From the genesis of a pipeline project to the end of its useful life, UGI requires that experienced and qualified individuals are involved with a life of a pipeline. UGI undergoes a multi disciplinary review of pipeline designs that are ultimately reviewed by a licensed Professional Engineer. Designs also designate emergency shut off valves for each. If a pipeline project is to proceed, it must be evaluated against these valves are known and accessible to all individuals performing construction work. Pipeline construction is also undergone several inspection layers, ensuring safe and compliant construction practices. During a pipeline’s life cycle, it will be inspected and maintained by qualified individuals to ensure reliability, and safe operating performance until the pipeline is decommissioned.

Process emissions are defined as natural gas emissions resulting from leaks or other types of unintended or irregular releases.

3.2.1.1 A covered task is defined, consistent with U.S. 49 CFR 192.801, as an activity, or maintenance task, is performed as a requirement of maintaining regulatory compliance, and affects the operation or integrity of a pipeline.

From the genesis of a pipeline project to the end of its useful life, UGI requires that experienced and qualified individuals are involved with a life of a pipeline. UGI undergoes a multi disciplinary review of pipeline designs that are ultimately reviewed by a licensed Professional Engineer. Designs also designate emergency shut off valves for each. If a pipeline project is to proceed, it must be evaluated against these valves are known and accessible to all individuals performing construction work. Pipeline construction is also undergone several inspection layers, ensuring safe and compliant construction practices. During a pipeline’s life cycle, it will be inspected and maintained by qualified individuals to ensure reliability, and safe operating performance until the pipeline is decommissioned.

3.1.1 Pipeline operators are defined as those people who engage in the transportation of gas, consistent with U.S. 49 CFR 192.3.

UGI Utilities is a partner in the EPA Natural Gas STAR Methane Challenge Programs. Also, UGI maintains a database of employees who require their operator qualifications be maintained and documented. Individuals who perform work on a pipeline are required to hold the appropriate covered task as defined in UGI’s Gas Operations Manual (GOM).

UGI Utilities trains and qualifies Company employees and contractors through testing and “hands-on” simulation as required by the PHMSA Operator Qualification (OQ) rule. UGI employees undergo multi-phase progressive training curriculum beginning with New Employee Orientation training and continuing through advanced training. To promote more uniform and hands on training, UGI is in the process of constructing a centralized training center which is expected to be open in the spring of 2021.

3.2.1.2 A covered task is defined, consistent with U.S. 49 CFR 192.801.801, as an activity, or maintenance task, is performed as a requirement of maintaining regulatory compliance, and affects the operation or integrity of a pipeline.

UGI Utilities is an active participant in the Pennsylvania One Call and Maryland Miss Utility systems. UGI emphasizes the importance of utilizing and placing one call tickets to internal and external stakeholders when opportunities arise. Additionally, UGI places high priority on performing inspections of higher risk pipelines in the event they are exposed or third party excavations are occurring on or near these pipelines. UGI develops communication channels with local townships and municipalities and other utilities in order to understand short and long term road re-construction project and infrastructure replacement projects.

UGI Utilities has identified over 140 covered tasks an individual could utilize in the field while performing routine work on or along the pipeline. These tasks are maintained and reviewed by the UGI OQ Committee to ensure the each task provides the appropriate instruction and requirements to perform the work safely.

From the genesis of a pipeline project to the end of its useful life, UGI requires that experienced and qualified individuals are involved with a life of a pipeline. UGI undergoes a multi disciplinary review of pipeline designs that are ultimately reviewed by a licensed Professional Engineer. Designs also designate emergency shut off valves for each. If a pipeline project is to proceed, it must be evaluated against these valves are known and accessible to all individuals performing construction work. Pipeline construction is also undergone several inspection layers, ensuring safe and compliant construction practices. During a pipeline’s life cycle, it will be inspected and maintained by qualified individuals to ensure reliability, and safe operating performance until the pipeline is decommissioned.

UGI Utilities is a partner in the EPA Natural Gas STAR Methane Challenge Programs. Also, UGI maintains a database of employees who require their operator qualifications be maintained and documented. Individuals who perform work on a pipeline are required to hold the appropriate covered task as defined in UGI’s Gas Operations Manual (GOM).

UGI Utilities trains and qualifies Company employees and contractors through testing and “hands-on” simulation as required by the PHMSA Operator Qualification (OQ) rule. UGI employees undergo multi-phase progressive training curriculum beginning with New Employee Orientation training and continuing through advanced training. To promote more uniform and hands on training, UGI is in the process of constructing a centralized training center which is expected to be open in the spring of 2021.

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4. Disclosure may focus broadly on safety and emergency management systems, but shall specifically address operations in high consequence areas and the systems to avoid and manage emergencies, accidents, and incidents that could have catastrophic impacts on human health, the local community, and the environment.

UGI Utilities has a robust emergency training program tailored to a variety of stakeholders. For internal 1st Responders, UGI Utilities requires field employees and duty supervisors complete annual refresher training related to emergency response. Simulated emergency response events such as live demonstrations and hypothetical emergency drills are completed annually to better prepare our emergency responders in the event an emergency occurs. UGI Utilities provides and requires emergency response personnel complete incident command system (ICS) training to ensure an understanding of the ICS process in the event it’s implemented during an emergency. UGI Utilities also holds liaison meetings with affected stakeholders (public officials, residents, emergency responders, and excavators) annually at various locations where UGI Utilities serves natural gas. These liaison meetings educate stakeholders on gas leak recognition and response tactics, how to obtain assistance in the event of an emergency and a general understanding of the pipeline industry. UGI contracted with RTUE – “Responding To Utility Emergencies”, to develop an external facing curriculum that provides Emergency Management personnel the ability to train, test and certify in responding to Natural Gas & Electrical Utility emergencies at no cost to emergency responders. Upon request, UGI Utilities also performs a formal face to face Natural Gas or Electrical safety module conducted by UGI’s Damage Prevention & Public Awareness group or Electric Operations.

UGI Utilities has also been an active participant in the natural gas industry’s journey to developing and implementing pipeline management systems (PSMS). Presently, UGI Utilities is working with industry groups to develop a common approach to PSMS with the intention of its implementation at UGI.

7. The entity shall discuss direct or indirect financial opportunities related to the management of the integrity of gas delivery infrastructure, including but not limited to, improvements to stakeholder relations, opportunities for capital investments, reduction in customer rates through improved operational efficiency, and reduced risks of regulatory or civil fines or settlements.

UGI Utilities has an active pipeline replacement program in place aimed at eliminating non-contemporary pipe from its distribution system. Within these efforts, fiscal efficiencies are reviewed on a constant basis in order to identify cost saving measurements. UGI Utilities develops communication channels with local townships and municipalities across its service territory in order to understand short term and long term road re-construction projects. UGI actively attempts to plan pipeline replacement projects in line with municipal roadway plans and highway construction to reduce pipeline project costs. With the replacement of non-contemporary pipe with new pipelines, UGI is able to reduce the overall risk of its pipeline system.

8. The entity may disclose the following:

| 8.1 Pipeline replacement rates | UGI replaces 66-70 miles of cast iron and bare steel/wrought iron main per year. UGI has committed to fully replace its cast iron system by 2027. UGI is currently ahead of schedule on this commitment and is positioned to complete this work by the end of 2025. |
| 8.2 Average response time for gas emergencies | On a fiscal basis, UGI Utilities response time to an emergency was an average of 21.9 minutes in 2019. UGI Utilities employees responded to an emergency within 60 minutes 99.7% of the time and within 45 minutes 98.5% of the time. This response rate is attributed to collaboration between the field resources and our dispatchers. |
| 8.3 Open Grade 2 and 2+ leaks | UGI Utilities had a total of 174 open Grade 2 leaks for the fiscal year ending September 30, 2019. This signifies a 49% decrease in open Grade 2 leaks when compared to 2015 leak data. |
| 8.4 Fugitive emissions, including the technique(s) it employs to measure leakage, the amount of leakage calculated according to each technique it employs, and the regulations to which its gas leakage is subject. | UGI Utilities utilizes an array of leak survey techniques including convention flame-ionization surveys, infra-red, and laser (RMLD - remote methane leak detection). UGI Utilities is in the process of conducting a pilot implementation of LGR Off-Axis Integrated Cavity Output Spectroscopy (OA-ICOS) technique which provides heightened sensitivity and precision (Heath Mobile Guard). |
| 8.5 Process emissions | UGI Utilities performs annual infra-red leak surveys on a sample of transmission-distribution regulator stations pursuant to 40 CFR 88 Subpart W |
| 8.6 Other efforts designed to reduce emissions and/or improve the safety of its gas delivery infrastructure | |