

RULES AND REGULATIONS

Title 52—PUBLIC UTILITIES

PENNSYLVANIA PUBLIC UTILITY COMMISSION

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[L-2012-2294746]

Establishing a Uniform Definition and Metrics for Unaccounted-for-Gas

The Pennsylvania Public Utility Commission, on April 4, 2013, adopted a final rulemaking order which establishes a uniform definition of “UFG” and metrics for UFG.

Executive Summary

In February 2012, The Commission Bureaus of Audits and Investigation and Enforcement issued to the Commission the internal report UNACCOUNTED-FOR-GAS In the Commonwealth of Pennsylvania (Report). In response, the Commission established a cross-disciplinary team to explore UFG regulations. The team recommended that the Commission adopt a uniform UFG definition and a UFG metric for use in gas cost proceedings and filings, annual reports, and other investigations. Adoption of these UFG measures would benefit all ratepayer classes by limiting costs associated with unjustified UFG levels.

On June 7, 2012, the Commission issued a Proposed Rulemaking Order with proposed regulations establishing a uniform definition and metric for UFG for comment. Establishing a Uniform Definition and Metrics for Unaccounted-for-Gas, Docket No. L-2012-2294746 (June 7, 2012) (Proposed Rulemaking Order). The Rulemaking sought to establish a uniform UFG definition and to establish rebuttable metrics to transition all Natural Gas Distribution Companies (NGDC) to reasonable UFG levels. The metric consisted of a 5-year declining UFG compliance schedule whereby NGDCs could recover through rates a maximum of 5 percent in year one, down to a maximum of 3 percent in year five, declining by 0.5 percent per year. Nine parties filed comments and six parties filed reply comments.

On April 4, 2013, the Commission issued its Final Rulemaking Order. The Commission carefully considered the Comments and Replies and made modifications to the proposed regulations to accommodate many suggestions of interested parties. The Commission did not alter the core UFG metric. However, it established a reasonable transition to the new metric by having it apply on an annual basis for the twelve months ending Aug. 31, and taking effect beginning with each NGDC’s first subsequent gas cost proceeding one year after the effective date of the rulemaking. It clarified that the metric would apply only to distribution infrastructure, thus making the metric reasonably achievable for all NGDCs. It also established that UFG reports would be due September 30 of each report year, and clarified that the scope of allowable exceptions to the metric’s rebuttable presumption were open-ended.

Public Meeting held
April 4, 2013

Commissioners Present: Robert F. Powelson, Chairperson; John F. Coleman, Jr., Vice Chairperson; Wayne E. Gardner; James H. Cawley; Pamela A. Witmer

*Establishing a Uniform Definition and Metrics for Unaccounted-for-Gas;
Doc. No. L-2012-2294746*

Final Rulemaking Order

By the Commission:

Before us is the Final Rulemaking Order establishing metrics and a uniform definition for unaccounted-for-gas (UFG). In addition to the regulations discussed below, the Public Utility Code provides the Pennsylvania Public Utility Commission (PUC or Commission) with broad authority to regulate all aspects of the provision of public utility gas service within the Commonwealth. The Public Utility Code addresses our authority to regulate the character and service of public utility facilities—as well as the standards under which regulated utilities provide those services and facilities to the public. 66 Pa.C.S. §§ 1501, 1504. The Public Utility Code also tasks us with ensuring that public utility rates are just and reasonable and otherwise in conformity with the regulations and orders of the Commission. 66 Pa.C.S. § 1301. Our authority over regulated Natural Gas Distribution Company (NGDC) facilities and services is therefore broad.

Our jurisdiction extends to all NGDC plant and equipment without limitation, and all means and instrumentalities in any manner owned, operated, leased, licensed, used, controlled, furnished, or supplied for, by, or in connection with, the business of the regulated NGDC. 66 Pa.C.S. § 102. In addition, the Public Utility Code tasks the Commission with oversight of the Commonwealth’s competitive natural gas markets. 66 Pa.C.S. § 2201 et seq. In particular, we oversee the integral role of Pennsylvania’s NGDCs in competitive markets. 66 Pa.C.S. § 2205. The Public Utility Code also authorizes the Commission to require public utilities to provide it with information on matters the Commission is required to oversee. 66 Pa.C.S. § 504. Through this Order, we work to fulfill our statutory role by enhancing the methodology through which we evaluate natural gas costs in various Commission rate proceedings. Moreover, pursuant to our duty to ensure that rates remain just and reasonable, under 66 Pa.C.S. Section 1301, we establish a rebuttable presumption that levels of UFG above certain threshold levels are not just and reasonable expenses and, therefore, not recoverable from consumers.

The regulations set forth herein are based upon the February 2012 Joint Report on UFG developed by the PUC Bureaus of Investigation and Enforcement and Audits (BI&E & Audits, respectively). To implement the Joint Report, the Commission established a cross disciplinary team to develop proposed UFG regulations. Based upon our review and consideration of the many comments filed in this rulemaking proceeding by industry, statutory advocates, and other interested persons, we issue these final regulations with this Order.

Discussion

Background

In general, UFG is defined as the difference between total gas supplies delivered to the NGDC and the amount of that gas the NGDC subsequently delivers to its retail, commercial, and industrial customers, adjusted for company use, temperature, pressure variations, or other allowed variables. As the name implies, UFG is gas that is “lost” during transport from supplier to customer. In the past, UFG also carried the monikers LAUF or

LUF—variants of “lost and unaccounted for gas.” This Rulemaking establishes, inter alia, the uniform terminology of “unaccounted for gas,” or UFG, to describe gas lost from an NGDC’s system.

Pennsylvania NGDC customers pay for the costs of UFG through various gas commodity cost and reconciliation proceedings before the Commission that allow for the collection of UFG as a part of commodity gas costs. The accurate calculation of UFG costs is of great concern to the Commission, NGDCs, and all gas market participants.

Until now, PUC regulations lacked a uniform definition for UFG. Prior to our establishing a uniform definition of UFG here, each NGDC defined UFG based upon individual company experience. This practice has created inconsistencies that hindered our ability to monitor UFG levels across NGDCs, and to gauge with accuracy the corresponding financial burden UFG imposed on all classes of ratepayers.

In February 2012, BI&E and Audits provided the Commission with the internal report UNACCOUNTED-FOR-GAS In the Commonwealth of Pennsylvania (Report). In response to the Report’s recommendations, the Commission established a cross disciplinary team to explore proposed UFG regulations. The Commission comprised the team from the following Commission Bureaus: Law, Office of Special Assistants, Audits, and Technical Utility Services.

On June 7, 2012, the Commission issued its Proposed Rulemaking Order with proposed regulations establishing a uniform definition and metric for UFG for comment. Establishing a Uniform Definition and Metrics for Unaccounted-for-Gas, Docket No. L-2012-2294746 (June 7, 2012) (Proposed Rulemaking Order). The Order and proposed regulations appeared in the October 22, 2012 edition of the *Pennsylvania Bulletin*, triggering a 30-day comment period and subsequent 15-day reply comment period. Nine parties filed comments and six parties filed reply comments. Comments or reply comments were submitted by Columbia Gas of Pennsylvania (Columbia), Dominion Retail, Inc. (Dominion), Energy Association of Pennsylvania (EAP),¹ Equitable Gas Company, LLC (Equitable), Industrial Customer Groups (ICG),² Office of Consumer Advocate (OCA), Office of Small Business Advocate (OSBA), PECO Energy Company (PECO), Peoples Natural Gas Company, LLC and Peoples TWP, LLC (collectively referred to as Peoples), Pennsylvania Independent Oil and Gas Association (PIOGA), and Pike County Light and Power Company (Pike). On January 3, 2013 the Independent Regulatory Review Commission (IRRC) submitted comments. We review and address the comments below.

Comments

52 Pa. Code Section 59.111(a) Adjustments Definition

IRRC opines that the second sentence of the definition of “Adjustments” specifies substantive regulatory requirements. IRRC notes that “substantive provisions should not be included in a definition” citing to the *Pennsylvania*

Code and Bulletin Style Manual, § 1.7(c). IRRC requested that the Commission remove the sentence from the definition and place it in the body of the regulation that addresses adjustments, such as 52 Pa. Code Section 59.111(b)(5). IRRC Comments at 1.

In addition, IRRC questioned why “storage losses” were not included in the adjustment definition. EAP also commented that storage losses should be included in the definition for adjustments. EAP Comments at 5. Similarly, OSBA commented that the proposed calculation of UFG may create problems if used to compute storage UFG, particularly for NGDC-owned storage systems. OSBA Comments at 3. Peoples and OSBA noted that UFG cannot be measured as the difference between metered injection volumes and metered withdrawal volumes, and actual inventory changes cannot be easily measured. Peoples added that storage losses are determined by periodic engineering studies rather than mathematical formulas; storage migration losses are not “UFG” and represent a long-accepted adjustment to system-wide UFG. Peoples Reply Comments at 2.

EAP supports a standardized definition for UFG that aligns with the American Gas Association (AGA) definition of UFG. EAP also supports the calculation of UFG by system type (gathering, transmission, storage, and distribution). EAP also recommends that in addition to including “storage losses” in the proposed definition of “Adjustments” at 52 Pa. Code Section 59.111(a), the Commission use “such as” in the definition as a modifier to reflect other potential adjustments in addition to those listed in the proposed regulation. EAP Comments at 4-5.

PECO also supports a definition for “Adjustments” to allow NGDCs the flexibility of including adjustments that reflects appropriate uses of gas not specified in the proposed regulation. With this, PECO recommends including a phrase “and all other adjustments an NGDC considers necessary, subject to approval by the Commission in Section 1307(f) proceedings.” PECO believes that including this phrase will allow NGDCs to make adjustments for typographical errors/manual data entry controls, transportation imbalances, and weather/temperature conditions. PECO Comments at 3, 11-12.

Resolution

As IRRC highlighted, the *Pennsylvania Code and Bulletin Style Manual*, Section 1.7(c), provides that definitions should not include substantive provisions. The Commission agrees and will move the substantive regulatory requirements for adjustments to 52 Pa. Code Section 59.111(b)(5).

The definition of adjustments to UFG is not an exhaustive list of the adjustments an NGDC may claim but is meant to provide examples. The Commission also agrees with OSBA and Peoples that storage UFG is dependent upon engineering principles and other factors affecting storage. However, regardless of facility type, the Commission finds that the UFG calculation remains the same as proposed in 52 Pa. Code Section 59.111(b)(1) and 52 Pa. Code Section 59.111(b)(2) given that storage field operational factors (such as migration) would be considered adjustments to storage related UFG. The Commission clarifies that NGDCs are to separate and report storage related losses, whether they are adjustments due to factors like migration, or relate to other losses. Therefore, the Commission disagrees that storage related facilities should be exempt from reporting requirements. In addition, the term “storage losses” is too broad to be included in the definition for adjustments; however, for

¹ EAP filed comments and Reply Comments on behalf of: Columbia Gas of Pennsylvania, Inc.; Equitable Gas Company, LLC.; National Fuel Gas Distribution Corporation; PECO Energy Company; Peoples Natural Gas Company; Peoples TWP, LLC; Philadelphia Gas Works; Pike County Light & Power Company; UGI Utilities, Inc.; UGI Penn Natural Gas, Inc.; UGI Central Penn Gas, Inc.; and, Valley Energy, Inc. (EAP Comments at 2.)

² ICG consists of the following ad hoc entities: Industrial Energy Consumers of Pennsylvania, Central Penn Large Users Group, Columbia Industrial Intervenors, Philadelphia Area Industrial Energy Users Group, Philadelphia Industrial & Commercial Gas Users Group, and UGI Industrial Intervenors (ICG Comments at 1-2.) The ICG comments do not identify the commercial, institutional, or industrial members of those ad hoc entities.

clarity, the Commission will add storage migration as an example of an adjustment to storage related losses.

The Commission agrees with both EAP and PECO that its list of adjustments was not exhaustive and will therefore include the phrase “such as” in the definition of “Adjustments” in 52 Pa. Code Section 59.111(a). This will allow NGDCs to include other uses of gas, or necessary adjustments, not specified in the proposed regulation. In addition, “such as” will be added to 52 Pa. Code Section 59.111(b)(5) for consistency purposes. However, the Commission will not adopt the additional language suggested by PECO.

52 Pa. Code Section 59.111(a) Definition for Gas Delivered and Gas Received

OSBA supports the Commission proposal that UFG measurement rely on actual metered data employing conceptually sound adjustments based on clear documentation and engineering standards. OSBA recommends, however, that distribution gas deliveries should be defined as metered gas deliveries, as adjusted for temperature or pressure for billing purposes, and adjusted for billing cycles. OSBA opines that this will allow parties to confirm that volumes used for revenue purposes are consistent with volumes used for UFG calculation purposes. Additionally, OSBA states that any other differences between gas deliveries used in the UFG calculation and billed gas deliveries should be included as adjustments, and subject to the Commission’s requirements for any such adjustments. In addition, OSBA sought to qualify distribution gas receipts as metered deliveries from enumerated sources. OSBA Comments at 2-3.

PECO Reply Comments assert that billed volumes are always derived from actual data based on a half-month billing lag. It also asserts that output data reporting is always on a calendar basis. It recommends that the regulations avoid inconsistency because of the variances in accounting treatment that NGDCs may use when booking billed volume and output data values. Because actual data is more consistent and accurate, PECO recommends basing billing cycle adjustments upon sales data only. PECO Reply Comments at 2.

Peoples’ Reply Comments opine that it is not sure of the effect of the OSBA proposed change, especially for NGDCs that do not adjust for temperature or pressure for billing purposes; Peoples therefore opposes the proposed change. Peoples Reply Comments at 3.

Resolution

Meter data, both on the consumption and delivery side, provides utilities with the basis for computing UFG. As PECO pointed out, meter data can have inherent differences between deliveries and receipts that may affect UFG. In addition, Peoples highlighted that NGDCs have historically calculated their UFG from billed sales based upon metered consumption; a switch in methodology could introduce unknown consequences. The Commission generally agrees with the PECO and Peoples comments in this regard; we will not modify the proposed definition of Gas Delivered or Gas Received at this time. However, we expect that NGDCs will explore inaccuracies between meter data and billing system consumption data, and will eliminate conflicts whenever possible. In addition, since NGDCs bill based upon energy or volumetric rates, NGDCs should also ensure conversion factors (such as heat content) accurately reflect system composition. More importantly, an NGDC billing preference (i.e., therms, MCF, CCF, etc.) should not introduce avoidable errors into UFG computations.

52 Pa. Code Section 59.111(a) Definition for UFG

IRRC stated that the PUC should consider whether the AGA definition of UFG is appropriate for use in this regulation. In addition, EAP, Equitable, and PIOGA suggest that the definition for UFG should follow the AGA definition.

Resolution

The Commission does not believe that there is a material difference between the AGA definition and the proposed definition. However, to align consistent language across the industry, the Commission will adopt the AGA definition of UFG.

52 Pa. Code Sections 59.111(a), (b)(1), and (b)(2) Reference to Facility Types

Equitable submits that the proposed rulemaking be revised to address distribution system UFG only and that UFG for other system functions such as transmission, storage and production/gathering be addressed separately. Equitable, therefore, proposed renaming the proposed rulemaking “Distribution System Unaccounted-for-Gas.” Equitable further suggests the elimination of references to transmission, storage and production/gathering from the definition of Adjustments, Gas Delivered, Gas Received, NGDC, and UFG-Unaccounted-for Gas in 52 Pa. Code Section 59.111(a)—Definitions, 52 Pa. Code Section 59.111(b)—Calculation of the Proposed Regulation. Equitable Comments at 1-3.

However, OSBA disagrees with Equitable’s recommendation of revising the proposed regulation to address distribution system UFG only and eliminating UFG for other system functions (transmission, storage, and production/gathering). OSBA agrees with the Commission, stating that there is merit in the Commission’s proposal to evaluate UFG in NGDC gathering systems. OSBA posits that this will help the Commission and parties to annual Section 1307(f) proceedings to evaluate whether a particular utility is making progress, or losing ground, in controlling its gathering systems’ UFG. OSBA Reply Comments at 4-5.

Resolution

The Commission agrees with OSBA that while the proposed regulation sets cap metrics for only distribution system losses, it also addresses UFG for other system functions such as transmission, storage, and production/gathering. As stated in the Proposed Rulemaking Order, the proposed UFG calculation is based on the US DOT Report calculation and is generally aligned with current NGDC definitions of UFG. Furthermore, since the Commission has jurisdiction over public utility gathering, transmission (pursuant to 52 Pa. Code Section 59.3(a)), distribution and storage, losses from all facility types of an NGDC must be recorded and reported with each company’s annual filing. Proposed Rulemaking Order at 12.

52 Pa. Code Sections 59.111(b)(1) and (b)(2) Calculation for UFG

Equitable commented that the UFG calculation should be changed to: $UFG \% = ((\text{Gas Received} \pm \text{Adjustments}) - (\text{Gas Delivered} \pm \text{Adjustments})) / (\text{Gas Received} \pm \text{Adjustments})$. Equitable Comments at 2. In addition, IRRC and EAP suggested that 52 Pa. Code Section 59.111(b)(2) should include parenthesis isolating the percentage calculation to improve clarity. IRRC Comments at 2; EAP Comments at 8.

Resolution

The definition proposed by Equitable does not provide additional clarity since the adjustments to Gas Received and Gas Delivered would not be identical as Equitable presents in its comments. Instead, the definitions presented in that 52 Pa. Code Section 59.111(a) identify that adjustments may occur in three areas: gas received, gas delivered, and other adjustments. Therefore, the Commission does not believe that the Equitable proposed calculation addresses adjustments that cannot be characterized as either gas received or delivered, e.g., purging for construction purposes. Therefore, the Commission believes that the proposed UFG calculation is adequate since it provides more flexibility and functionality. However, the Commission accepts the IRRC and EAP suggestion that movement of the parenthesis in 52 Pa. Code Section 59.111(b)(2) could provide additional clarity and will modify 52 Pa. Code Section 59.111(b)(2) accordingly.

52 Pa. Code Section 59.111(c)(1) Establishment of the Metric

IRRC requested the PUC demonstrate three themes related to the establishment of the metric. First, will the calculation of the percentage of UFG under the regulation differ from the percentages shown in Table 1 of the Preamble, and if so, by how much? Second, the PUC should demonstrate that the diminishing percentage reductions of UFG specified in 52 Pa. Code Section 59.111(c)(1) are attainable for all gas utilities affected by the regulation. Finally, the PUC should explain why it is necessary to impose the penalty of not allowing cost recovery now rather than waiting until after the PUC and the gas utilities have more experience with these new definitions, calculations and their results. IRRC Comments at 2. In addition to the IRRC questions above, many commenters had similar concerns.

While EAP, PECO, and PIOGA all suggested the creation of a standardized definition/calculation, they also commented that the Commission should wait to establish the metric since they believe the metric has been arbitrarily set. EAP states the prudent course of action should be the adoption of a common definition and method of UFG calculation and using that new data in existing 66 Pa.C.S. Section 1307(f) proceedings. EAP Reply Comments at 2. More specifically, PECO commented that the Commission is setting cost recovery targets based on industry information the Commission found is, or likely is, inaccurate and/or measured and reported inconsistently from company to company, which makes it likely that the "targets" the Commission proposes are similarly inaccurate and/or inconsistent with properly measured and reported levels of UFG. PECO Comments at 2-3. Equitable believes that the proposed regulation should adopt a standardized definition for UFG with no metric, leaving the issue of cost recovery to annual 66 Pa.C.S. Section 1307(f) proceedings. Equitable comments at 3.

Resolution

The points IRRC asks the Commission to address are based upon, and intertwined with, comments from other parties. Therefore, the Commission will respond to the IRRC comments in turn—but will also provide additional discussion where needed. First, IRRC questions how much NGDC reported UFG percentages will change based upon the consistent definition/calculation in Annex A of the Proposed Rulemaking Order. The Commission highlighted the fact that the data presented in the Proposed

Rulemaking Order included inconsistencies due to company specific conditions and calculations. A substantial part of these differences was that NGDCs were filing UFG data that included multiple facility types. Report at 6-7. Since every NGDC in Table 1 of the Preamble has multiple facility types, and did not report separate UFG by facility type, the Commission contends that distribution system UFG for each NGDC will be lower than that reported in Table 1. Since the proposed regulations will task every NGDC to report UFG attributed to facility types (i.e., transmission, storage and/or production), their respective distribution UFG should be reduced by the quantity of UFG reported for transmission, storage and/or production facilities. However, the percentage change in reported statewide UFG to distribution UFG is difficult to quantify.

Generally, different facility types have differing levels of UFG. For instance, production facilities typically have higher UFG levels than distribution systems. Conversely, distribution UFG is usually much higher than transmission UFG. This is due to the nature, construction, criticality, and risk of those facilities. Therefore, an NGDC with production facilities will see a much larger reduction in their reported distribution UFG than an NGDC that does not have any local production. Below, the Commission provides two such examples of reductions to provide a qualitative response.

PECO provided its Lost and Unaccounted for Gas Plan and Report as an exhibit to its comments. Within this plan, PECO identified drivers for its UFG attributed to calculation or reporting type errors. This identification resulted in a reduction of 0.66% to its reported UFG. PECO Energy Company Lost and Unaccounted For Gas Plan and Report 2012 at 12. As a result, PECO's efforts represent a 16.8% reduction in its UFG. In another example, Equitable developed a UFG reduction plan in response to its base rate proceeding at Docket No. R-2008-2029325, and reaffirmed it in its 1307(f) proceeding at Docket No. R-2010-2155613. Equitable focused on four areas: (1) segmentation of the gathering system; (2) line walking; (3) meter-size testing; and (4) a more stringent large meter calibration program per the Equitable 1307(f) proceeding at Docket Number R-2010-2155613. As a result, Equitable reduced its UFG, as reported in the PUC Annual Report, from 10.01% in 2008 to 2.3% in 2012. The Equitable decrease in UFG represents a 77% decrease in its reported system-wide UFG.

These two examples illustrate that substantial UFG reduction is possible under a proactive effort to reduce UFG. The Commission notes that not every NGDC would (or needs to) reduce UFG. However, the Commission believes that the IRRC concern with anticipated UFG reductions ties to its second question on demonstrating that all utilities are capable of meeting the 3% metric. This question relates to comments on the metric being arbitrary or not needed at all. The Commission based the metric upon historical NDGC performance data coupled with anticipated changes from the new definition/calculation. As discussed in the Proposed Rulemaking Order, a majority of NGDCs now operate below the 3% UFG level. With the two examples highlighted above, and more recent data, the Commission believes that there are only two Purchased Gas Cost (PGC) companies and one Gas Cost Recovery (GCR) company reporting UFG above the 3% metric in their Annual Reports for calendar year 2011. As discussed above, Annual Report numbers are actually system-wide UFG; therefore, we anticipate distribution UFG to be somewhat lower. In addition, the Proposed Rulemaking Order indicated that there are

various initiatives and tools, e.g., Act 11 or accelerated main replacement programs, to aid NGDCs in eliminating UFG in distribution systems.

Therefore, the Commission determined that an end state UFG metric should be set at 3% for distribution UFG and we find the evidence presented in the Proposed Rulemaking Order, and in the discussion above, supports the 3% goal as a viable metric for all NGDCs. However, the Commission understands that differing variables, as well as UFG mitigation, could delay reductions in UFG. For this reason, the Commission built time into the regulations for an NGDC to mitigate, identify, or at a minimum, quantify why it could not reduce its UFG. Nonetheless, IRRC and various commenters suggested that the Commission should wait to establish the metric.

In anticipation of these concerns, the Commission provided two provisions within the Proposed Rulemaking Order to give NGDCs additional time by (1) delaying the metric for one year after adoption of the consistent definition/calculation, and (2) decreasing the metric from 5% to 3% over five years. While EAP points out this 5 year grace period appears to be a 40% reduction in UFG levels, the Commission notes that it developed the provision to afford NGDCs more time to implement a downward sliding recovery mechanism. The Commission also notes that all but one GCR NGDC reported UFG below 5% in 2011 and a majority of NGDCs would not have to reduce UFG to meet the 3% metric. Therefore, the 0.5% reduction per year is not arbitrary. Rather, the reduction reflects current conditions, statutory goals, and provides additional NGDC flexibility to meet the metric. The Commission points out that no PGC company would need to reduce UFG by 40% based upon data filed for the 2011 calendar year.

In contrast, the Commission does not believe an immediate 3% cap metric is prudent and therefore developed a lenient grace period. This grace period will allow the Commission and other parties to GCR or PGC proceedings to identify potential problems resulting in high UFG and work with NGDCs to eliminate the high UFG before the 3% metric takes effect. However, if an NGDC fails to meet the metric, the Commission proposed a provision for UFG recovery due to unforeseen, unintended, or unknown operational issues in 52 Pa. Code Section 59.111(c)(3). Therefore, the Commission believes that it has enough data to find the 3% distribution metric feasible for all NGDCs, supported by industry performance regardless of potential data variability, and establishes that metric at this time. Furthermore, the Commission believes it crucial to have a mandated maximum UFG allowable percentage, or cap metric, to provide clear means for enforcement and to define prudent UFG levels.

52 Pa. Code Section 59.111(c)(1) Individualized Metric

IRRC asked the Commission to demonstrate that the use of a single standard will best accomplish the purposes of reducing UFG for all system types. IRRIC Comments at 2. EAP and Peoples submitted that the metric should be company specific instead of a uniform statewide target. EAP further states that mandating a single statewide goal that does not take into account the variables and differences in individual NGDC operating systems will likely not produce accurate and meaningful results. EAP Comments at 7. OSBA presented a variation of this concept in which it suggested that continuous improvement in UFG levels should be included in the final rulemaking order, if not in the amendment of the Commission's regulations in Annex A. OSBA did note that some NGDCs have extremely low UFG—a level that may

not require continuous improvement. OSBA Comments at 3-4. In contrast, both Pike and Columbia disagree with OSBA over the need for continuous improvement. In fact, Columbia commented that continuous improvement for UFG levels treats UFG in a non-uniform manner, creates an inherent unfairness to NGDCs falling within the established cap metric, and is completely at odds with the Commission's establishment of a standard metric for UFG recovery. Columbia Reply Comments at 3.

Resolution

The Commission believes the issue raised by the commenters to be whether a single standard or individualized standard is best for all interested parties. The Commission contends that much of the variability between NGDCs depends upon the types of facilities the NGDC operates. As noted earlier, NGDCs with integrated production will historically experience higher UFG than NGDCs receiving full supply requirements from the interstate pipelines. By requiring NGDCs to report UFG by facility type, the Commission aims to eliminate most of the variability in reported UFG levels between NGDCs.

The Commission agrees that differences in architecture, procedures, and overall NGDC operation could create differences in distribution UFG. However, it is also important to note that differences in distribution UFG tie directly to company performance. EAP cites Commission staff affirming that there are at least 17 conditions leading to UFG. EAP Comments at 7. However, these 17 (or more) conditions depend upon appropriate NGDC actions to address these conditions and are generally within the NGDC control. More importantly, the Commission finds that NGDCs have programs in place to address many, if not all, the factors Staff identified in its presentation.³

Given that NGDCs should work to correct conditions causing UFG, and the similarity in general function of distribution systems, the Commission believes that distribution systems are only distinguishable by operating characteristics and company policies/procedures. These differences, though somewhat variable, effectively gauge the performance of each NGDC. Thus, a unified statewide approach allows the Commission to compare the totality of NGDC performance and then focus its safety efforts on companies performing poorly. Therefore, the differences between distribution operating characteristics do not necessitate the development of individual UFG reduction targets due to the problems with individualized targets highlighted below.

The Commission emphasizes that individualized UFG reduction targets would be unfair and burdensome for all involved. For instance, NGDCs with low UFG would be required to improve upon their distribution UFG. While the Commission generally supports continuous improvement, and encourages all NGDCs to continue to improve their systems, there is a point when improvement becomes noneconomic or operationally infeasible. Therefore, an individualized metric system may penalize any NGDC that proactively reduced its UFG by forcing continuous improvement, irrespective of any cost/benefit analysis. Ultimately, the cost to the ratepayer could increase substantially for no purpose other than an attempt to reduce a relatively low UFG percentage. Conversely, NGDCs reporting high UFG would be subject to higher percentage reductions, thus presenting an apparent bias against NGDCs requiring double-digit percentage reduc-

³ Paul Metro, "Technical Losses in Natural Gas Transportation, Distribution and Storage," 2007 presentation at the Winter Meeting of the National Association of Regulatory Utility Commissioners (NARUC) at 3.

tions. Therefore, we believe a company-by-company approach to UFG metrics would create inequities between NGDCs, appear to be biased, and could be uneconomical or impractical.

The Commission has always questioned upward UFG trends and has historically required, along with other parties to Section 1307(f) proceedings, utilities to develop plans to halt or reduce the trend. Notably, companies with UFG levels below the metrics are expected to either maintain or improve their UFG levels and, if increasing, may be required to provide a specific rationale in an appropriate filing and/or proceeding to explain the UFG increase and require that NGDC to put forth a plan to identify/reduce increasing UFG. We note that in these or similar proceedings, investigations, audits, etc., the Commission has the authority to require NGDCs to address increasing UFG, regardless of level. The Commission, therefore, contends that the metric established in Annex A offers a consistent and prudent approach to improved UFG performance in distribution systems.

52 Pa. Code Section 59.111(c)(1) Application of the Metric

OCA submits that while it supports the provisions of 52 Pa. Code Section 59.111(c) of the proposed regulation, the section should also be applicable to transmission system losses. OCA submits that transmission and distribution mains make up the network of pipes used to deliver gas to customers. Therefore, the metric should also include transmission UFG pointing to the almost non-existent functional and physical difference between transmission and distribution mains. OCA also submits that not all Pennsylvania NGDCs meet industry standards in their definition of mains as either distribution or transmission mains. OCA cites Peoples TWP, LLC as one of such Pennsylvania NGDC with transmission mains that do not meet industry standard. Furthermore, OCA highlights the difficulty or confusion of NGDCs distinguishing between transmission and distribution UFG absent necessary metering. In conclusion, OCA maintains that while transmission facilities do not significantly contribute to UFG, including transmission facilities in the metrics produces no significant hardship for NGDCs either. OCA Reply Comments at 3-5.

Peoples disagrees with the OCA proposal, noting that OCA believes that transmission line UFG is likely insignificant. In addition, Peoples noted that inclusion of transmission UFG would likely require increasing the metrics cap to reflect an additional function in the metric. Peoples Reply Comments at 1-2.

OSBA highlights the inclusion of different types of utility assets (gathering, storage, transmission, distribution) in the calculation of UFG as one of the causes of the variations in the reported UFG levels. OSBA, therefore, advocates limiting the proposed metric to distribution UFG in order to eliminate such variations. OSBA Reply Comments at 2-3.

Resolution

The Commission agrees with Peoples and OSBA that the metric should focus only on distribution system losses at this time. As mentioned in the Proposed Rulemaking Order, although the proposed regulation only establishes caps for distribution UFG, cap metrics for other functions under the Commission's jurisdiction will be reviewed later after more data collection. Also, as highlighted in the Proposed Rulemaking Order, a declining distribution metric was proposed to align with the U.S. Department of Transportation's Pipeline and Hazardous Material Safety

Administration's (PHMSA) Distribution Integrity Management Plan (DIMP and other efforts within the gas industry. Proposed Rulemaking Order at 12.

52 Pa. Code Section 59.111(c)(2) Reporting Period

Several commentators requested that the final regulation employ an annual reporting period end-date outside the high volume winter months. IRRC requested that the Commission review the ending date and to the extent practical, coordinate the ending date with other filings the utilities make that require a calculation of UFG. IRRC Comments at 2. OCA suggests an annual period ending August 31 to minimize UFG fluctuations due to unbilled volumes. OCA comments at 4. Equitable suggests that the UFG calculation be based on the twelve months ending August 31 or other date as the NGDC may show to be more appropriate for its system. Equitable Comments at 2. OSBA and EAP contend the UFG metric should be calculated on a summer-to-summer basis instead of a calendar year basis, which will prevent NGDCs from having to make large estimated unbilled gas adjustments in their UFG calculations. OSBA Comments at 3; EAP Comments at 8. PECO suggests UFG be calculated over annual periods or 3-year average periods ending June 30. PECO comments at 6. PIOGA and EAP support PECO's suggestion of a 3-year average. PIOGA Reply Comments at 2; EAP Reply Comments at 3. Peoples suggests an annual period ending during the summer. Peoples Comments at 1-2. Pike commented that it is unclear how NGDCs should calculate distribution system losses on a calendar year basis if annual GCR filings are not synchronous with the calendar year. Pike Comments at 3.

OSBA comments that reviewing trends in UFG rates, rather than only an individual year's performance, is an important part of the annual UFG evaluation. OSBA opines that without an explicit Commission directive, it is sometimes difficult to obtain information from NGDCs regarding historical performance. OSBA requests that when the proposed metrics go into effect, NGDCs be required to provide five years of historical UFG performance, with supporting data and calculations, in their next PGC or GCR proceeding. OSBA Comments at 4.

Resolution

The Commission notes and agrees with comments made by OCA, OSBA, and EAP that a calendar year reporting period may require large estimated unbilled gas adjustments in NGDC UFG calculations. For the reasons discussed by the commenters, we have changed the annual reporting period for distribution metrics in 52 Pa. Code Section 59.111(c)(2) from the year ending December 31 to the twelve months ending August 31. Adopting this reporting period to accommodate commentators has additional consequences, discussed below.

Regarding comments that NGDCs should use a 3-year average to perform the UFG calculation, we believe a 3 year average methodology or similar statistical evaluation could be utilized during 1307(f) proceeding or GCR filings provided that the NGDC proves the need for the deviation and obtains Commission approval. In summary, 52 Pa. Code Section 59.111(c)(3) allows for deviation from the annual metrics contingent upon an NGDC providing convincing proof of the need. The Commission would make clear that distribution metrics will not change how NGDCs recover their distribution system losses for their PGC or GCR filings, except to note that the distribution metric may be used to set a maximum recovery for distribution UFG.

The Commission would note that historical UFG levels are publicly available through the reports mentioned in the Proposed Rulemaking Order. In addition, the Proposed Rulemaking Order provides public historical data on all PGC companies. Therefore, the Commission will deny the request of OSBA to have the NGDCs provide five years of historical UFG performance with its initial 1307(f) or GCR filing. Subject to our discovery regulations, the availability of the reports discussed above does not preclude discovery on this or related historical UFG data.

52 Pa. Code Section 59.111(c)(2) Reporting

In the Proposed Rulemaking Order, we determined to develop a template for the reporting of UFG as a part of the Annual Report to maintain consistency across all NGDCs. Proposed Rulemaking Order at 4-5. We also acknowledged that NGDCs provide UFG data to the Commission in three forms and discussed how the inconsistencies and errors of the current reports interfere with our ability to fulfill our statutory mandates, *infra. Id.* at 7-8. The Proposed Rulemaking Order expressly provided that “annual reports will now mandate accurate and uniform UFG reporting.” *Id.* at 2. We added that we initiated the instant rulemaking to establish regulations regarding UFG reporting requirements and standards. *Id.* To assist in this effort, we specifically referenced the existing Gas Account—Natural Gas Schedule 505 report submitted to the Commission as a part of each NGDC’s Annual Report. *Id.* at 4.

While many commenters expressed strong opinions on an appropriate reporting period, discussed in detail above, none discussed how the Commission might provide the preferred August 31 reporting period and at the same time achieve the statutory mandates of the Public Utility Code. Similarly, commenters did not provide meaningful suggestions on how to ameliorate the difficulties we identified in the existing UFG reports, or suggest how to reconcile existing reports, particularly Gas Account—Natural Gas Schedule 505, with our stated goal of improved UFG monitoring.

Resolution

As we explained in the Proposed Rulemaking, and elaborate on here, the existing Gas Account—Natural Gas Schedule 505 report is insufficient to address our concerns with UFG, particularly in terms of its system-wide approach. In addition, the adoption of a UFG reporting period ending August 31, without more, would cause Schedule 505 to become unsynchronized with most, if not all, the data in the NGDC Annual Report. Furthermore, various Commission Bureaus use the granular data of Schedule 505 NGDC for purposes other than that of monitoring UFG.

Therefore, to achieve the result we seek, 52 Pa. Code Section 59.111(c)(2) will require the facility-specific UFG reports presented in Appendix A of this Order. While the templates are similar to Gas Account—Natural Gas Schedule 505, the Appendix A reports are designed to address the inconsistencies and errors that have hindered our past efforts to uniformly address UFG. The use of these templates is a reasonable means to achieve both the near-unanimous request for a reporting period end-date coinciding with low NGDC throughput, *i.e.*, August 31 and our statutory goals. NGDCs will file these reports with the Secretary’s Bureau by September 30th to report data from the prior 12 month period ending August 31.

As we discussed above, the Public Utility Code authorizes the Commission to require NGDCs to file periodic reports to inform the Commission on matters it is required to oversee. 66 Pa.C.S. § 504. While the Commission could require the Appendix A reports via Commission Order, we believe including the reporting requirement within 52 Pa. Code Section 59.111(c)(2) the better long-term approach because all natural gas market participants will be on notice of the filing requirement.

In addition, we do not intend to revise Gas Account—Natural Gas Schedule 505 as a part of this rulemaking other than to require a consistent definition for computing UFG on a system-wide basis. Maintaining Gas Account—Natural Gas Schedule 505 as a part of the NGDC Annual Reports in parallel with the reports of Appendix A will allow for enhanced analysis of UFG in service of our statutory goals. In addition, as is typical with any new performance analysis, parallel review of Appendix A and Gas Account—Natural Gas Schedule 505 will enable robust troubleshooting if unanticipated circumstances arise regarding Appendix A reports. Similarly, Appendix A data will work to inform our 66 Pa.C.S. Section 1307(f) proceedings and those proceedings may serve as a litmus to determine if the availability of Appendix A data justifies the elimination of duplicative reporting, if any. In short, while we do not eliminate the schedule at this time, we will consider revising or eliminating Gas Account—Natural Gas Schedule 505 in the future based on the results of our efforts here.

52 Pa. Code Section 59.111(c)(3) Exclusion

EAP, PECO, and Peoples commented that the Commission should retain discretion to determine that cost recovery may be allowable despite an NDGC failure to meet the metric. EAP Comments at 8. Furthermore, PECO observed that the Commission appears to be embodying an approach similar to what it adopted in its water conservation guidelines. PECO Comments at 8. Based upon proceedings in cases related to lost water, specifically *Dauphin Consolidated Water Co. v. PA. P.U.C.*, 423 A.2d 1357 (Pa. Commw. Ct. 1980), and *Pa. P.U.C. v. Fawn Lake Forest Water Company*, Docket No. R-912117 (August 31, 1992), PECO proposed that Section 59.111(c)(3) be revised to read:

Unaccounted-for-gas should be kept within reasonable levels. Levels above the applicable annual targets set forth in Section 52.111(c)(1) will be presumed to be excessive absent evidence to the contrary. IF an NGDC’s actual UFG exceeds such an applicable target, that NGDC should be prepared to demonstrate that its experience is both normal and reasonable for it

PECO Comments at 10.

OSBA commented that the proposed 52 Pa. Code Section 59.111(c)(3) will require NGDCs to identify and quantify specific uncontrollable factors that result in poor performance and show that these factors were beyond NGDC control. In its support, OSBA characterizes this as a shift in the burden of proving unreasonable UFG performance from ratepayers to NGDCs. OSBA Reply Comments at 3.

Pike is concerned that uniformly applying the proposed regulations to all NGDCs, regardless of size, could have a disproportionate adverse effect on smaller NGDCs, such as Pike. Pike urges the Commission to allow small NGDCs to exclude major nature-related (*e.g.*, floods,

storms) and third-party incidents from the UFG calculation. Pike Comments at 1-2. OSBA disagrees, stating that if a small NGDC experiences an unusual event, it should provide evidence to that effect in its annual proceeding, quantifying the impact of the event and demonstrating that the event was beyond the reasonable control of the NGDC. OSBA also states that a blanket exemption as proposed by Pike would allow smaller NGDCs to bypass the metric. OSBA Reply Comments at 5.

Resolution

As noted by commenters and in earlier discussions, the Commission developed the provision within 52 Pa. Code Section 59.111(c)(3) for unforeseen or uncontrollable factors. As OSBA pointed out, this provision requires the requesting NGDC to provide proof to obtain compensation for UFG levels in excess of the metric. In addition, the Commission agrees with PECO that this section was developed with a similar intent as the Commission's Water Conservation Guidelines pursuant to 52 Pa. Code Section 65.20(4). Since PECO's suggested language aligns with the Commission's intent and provides clarity, the Commission adopts the PECO language as modified below.

Unaccounted-for-gas [**should be kept within reasonable levels.**] levels above the applicable annual targets set forth in Section 52.111(c)(1) [**will**] **shall** be presumed to be excessive absent evidence to the contrary **and may not be recovered within the current or future PGC or GCR filings.** If an NGDC's actual UFG exceeds [**such**] an applicable target, [**that**] the NGDC [**should**] **may [be prepared to]** demonstrate that its level of UFG is warranted [**experience is both normal and reasonable for it**].

The Commission agrees with OSBA in that the events highlighted by Pike (i.e., storm, third party damage not the fault of the NGDC, etc.) are beyond the control of the NGDC and would therefore be recoverable. However, any NGDC making such a claim would need to show proof that the event negatively affected UFG performance. Adequate proof would provide enough justification to allow NGDC recovery of UFG costs in excess of that permitted by the presumption at 52 Pa. Code Section 59.111(c)(3).

52 Pa. Code Section 59.111(c)(3) Create a Positive Incentive for Superior Performance

In essence, Pike characterizes the UFG metric as all stick, no carrot. Pike, therefore, encourages the Commission to consider establishing positive incentives that reward NGDCs for superior performance in reducing UFG levels. Pike cited jurisdictions such as New York where such provisions are currently available. Pike Comments at 1-2.

OSBA supports incentive-sharing mechanisms for UFG reductions as such mechanisms allow some balance between penalties for poor performance and rewards for superior performance. Nevertheless, OSBA cautions that such mechanisms should be carefully developed considering future improvements in relation to past performance. Finally, OSBA iterates that while implementation of such mechanisms might be premature at this time, further studies should be done. OSBA Reply Comments at 4-5.

Resolution

The Commission agrees with OSBA on this issue. While some sort of incentive sharing mechanism could work to enhance UFG performance, implementation of this type of process is premature at this time.

Metering Production

Dominion commented that conflicts of interest can arise when an NGDC production affiliate meters its own supply. More specifically, Dominion suggested that every NGDC should be required to separately meter all gas inputs into their system through a meter that they own or control, and for which they have sole calibration and maintenance responsibility. Dominion Comments at 3. PIOGA agrees with Dominion in that NGDCs should be required to meter affiliate production, but caveats that non-affiliates should be able to meter their own production. PIOGA also asserts that this concern may align better with a rulemaking on production/gathering UFG. PIOGA Reply Comments at 2-3.

In contrast, PECO and Peoples argue in their Reply Comments that appropriate safeguards on production affiliates will ensure accuracy. In addition, both companies offer that there are cost implications to the Dominion proposal.

Resolution

The Commission notes that the purchase and sale of gas between or among integrated gas companies, particularly between regulated and non-regulated affiliates, is subject to enhanced regulatory oversight under 66 Pa.C.S. Sections 1317(b) and 1318(b). In addition, the Commission has identified clear policies covering the relationships between NGDCs and affiliates at 52 Pa. Code Section 69.192. The Commission generally agrees with Dominion that an NGDC should ensure the accuracy of quantities of gas entering its system. However, the Commission does not believe the only way to accomplish this is by requiring NGDCs to exercise full control over the metering of production affiliates. Thus, the Commission agrees with PECO and Peoples that there are methods, procedures, checks and balances that can provide the same level of accuracy. Moreover, 52 Pa. Code Section 59.111(b)(3) states that, "Gas received, gas delivered and adjustments must represent actual gas quantities. Estimates may be provided but must be clearly identified and have supporting justification, assumptions and calculations." The Commission also agrees that this issue may be better handled in other proceedings, as suggested by PIOGA. Therefore, the Commission believes that the regulations within Annex A addresses Dominion's concern at this time and no additional provisions to Annex A are needed.

Benefits of Improved UFG

ICG urges the Commission to ensure that the benefits of UFG reductions flow back to the appropriate customers. ICG contends that most transportation customers are paying retaining rates to accommodate UFG and therefore should also receive the related benefits of NGDCs' service improvements through reduced retention rates.

Resolution

Since retention rates are established based upon various factors including UFG, any reduction in UFG should translate into a reduction in retention rates in general. Therefore, reductions in UFG will benefit all customer classes, including transportation customers. In addition,

the proposed rulemaking states “the metric and disallowance for any ‘excess’ loss above the proposed standard would shift the financial burden of any ‘excess lost gas’ from the ratepayer to the utility.” Therefore, an NGDC, that was disallowed cost recovery for UFG in excess of the metric (cost absorbed by utility), that eventually improves to meet the metric, would also realize a cost saving by not having to pay for disallowed UFG costs. In addition, the Commission notes that any disallowed UFG recovery should not shift among rate classes, be incorporated into retention or waived retention rates, or otherwise shift into other rates.

Negative Numbers Can be Reasonable

OSBA states that negative UFG levels are possible due to metering errors and estimated adjustments for billing cycles, temperature and pressure, and so should not be automatically viewed by the Commission as inaccurate or unreasonable. OSBA Comments at 4.

PECO supports the OSBA view on negative UFG levels. According to PECO, negative UFG levels are possible based on the components mentioned by OSBA as well as the distribution system type in question. PECO, therefore, recommends that the Commission properly review all reported UFG levels, especially negative UFG levels, to ascertain the reasonableness of such levels. PECO Reply Comments at 3.

Resolution

The Commission generally agrees with both OSBA and PECO that negative UFG levels are possible due to several factors as highlighted by both OSBA and PECO. However, any negative number indicates the presence of controllable variables leading to that condition (whether or not it is prudent to eliminate the negative causing condition). Therefore, the Commission emphasizes that NGDCs should strive to minimize such errors so that negative UFG levels can be averted, if possible, in their reporting.

Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on October 11, 2011, the Commission submitted a copy of the notice of proposed rulemaking, published at 42 Pa.B. 6637 (October 20, 2012), to IRRC and the Chairpersons of the House Consumer Affairs Committee and the Senate Consumer Protection and Professional Licensure Committee for review and comment.

Under section 5(c) of the Regulatory Review Act, IRRC and the House and Senate Committees were provided with copies of the comments received during the public comment period, as well as other documents when requested. In preparing the final-form rulemaking, the Department has considered all comments from IRRC, the House and Senate Committees and the public.

Under section 5.1(j.2) of the Regulatory Review Act (71 P. S. § 745.5a(j.2)), on June 19, 2013, the final-form rulemaking was deemed approved by the House and

Senate Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on June 20, 2013, and approved the final-form rulemaking.

Conclusion

Accordingly, pursuant to Sections 501, 504, 523, 1301, 1501, and 1504, of the Public Utility Code, 66 Pa.C.S. Sections 501, 504, 523, 1301, 1501, and 1504, and Sections 201 and 202 of the Act of July 31, 1968, P. L. 769 No. 240, 45 P. S. §§ 1201 and 1202, and the regulations promulgated thereunder, at 1 Pa. Code Sections 7.1 and 7.2, and 7.5; Section 204(b) of the Commonwealth Attorneys Act, 71 P. S. § 732.204(b); Section 745.5 of the Regulatory Review Act, 71 P. S. § 745.5; and Section 612 of The Administrative Code of 1929, 71 P. S. § 232, and the regulations promulgated thereunder at 4 Pa. Code Sections 7.231—7.234, the Commission proposes adoption of the final-form regulations establishing a uniform definition and metric for unaccounted-for-gas, as noted and set forth in Annex A. *Therefore,*

It Is Ordered That:

1. The regulations of the Commission, 52 Pa. Code Chapter 59, are amended by adding § 59.111 to read as set forth in Annex A.
2. The Secretary shall submit this order and Annex A to the Office of Attorney General for approval as to legality.
3. The Secretary shall submit this Order and Annex A to the Governor’s Budget Office for review of fiscal impact.
4. The Secretary shall submit this Order and Annex A for review by the designated standing committees of both houses of the General Assembly, and for review and approval by IRRC.
5. The Secretary shall deposit this Order and Annex A with the Legislative Reference Bureau for publication in the *Pennsylvania Bulletin* and shall serve the Order on all jurisdictional natural gas distribution companies.
6. The regulations embodied in Annex A shall become effective upon publication in the *Pennsylvania Bulletin*.
7. The contact person for legal issues related to this rulemaking is Shaun A. Sparks, Law Bureau, (717) 787-3464. The contact person for technical matters for this proposed rulemaking is Nathan Paul, Bureau of Audits, (717) 214-8249. Alternate formats of this document are available to persons with disabilities and may be obtained by contacting Sherri DelBiondo, Regulatory Coordinator, Law Bureau, (717) 772-4597.

ROSEMARY CHIAVETTA,
Secretary

(Editor’s Note: For the text of the order of the Independent Regulatory Review Commission relating to this document, see 43 Pa.B. 3857 (July 6, 2013).)

Fiscal Note: Fiscal Note 57-289 remains valid for the final adoption of the subject regulations.

**Appendix
Reporting Unaccounted-For-Gas**

Distribution System

Specify units for quantity of gas X

A. Gas Received	
From Production Facilities	X
From Transmission Facilities	X
From Storage Facilities	X
From Interstate Pipelines directly into the Distribution System	X
From Other Sources (i.e., propane injections, etc.)	X
Total Gas Received by the Distribution System	X
B. Gas Delivered	
To Customers (i.e., Transportation Residential, Commercial, Industrial, etc.)	X
To Storage	X
To Transmission System	X
Total Gas Delivered by the Distribution System	X
C. Adjustment Examples	
Pressure/Temperature Adjustments	X
Located & Repaired Breaks in Mains & Services	X
Company use	X
Purging/Other Construction activities	X
Heat Content	X
Meter Read Cycle Adjustments	X
Other	X
Total Adjustments	X
D. Distribution UFG	
Total	A-B-C
E. Percent UFG	
Percentage	(D/A)*100%

Note: Additional categories can be added in sections A, B and C. However, a brief explanation of the added field is needed.

Transmission System Losses

Specify units for quantity of gas X

A. Gas Received	
From Interstate Pipelines	X
From Storage	X
From Distribution System	X
From Production/Gathering System	X
From Other	X
Total Gas Received by the Transmission System	X
B. Gas Delivered	
To Distribution System	X
To Customers/sold	X
To Interstate Pipeline	X
To Storage	X
Total Gas Delivered by the Transmission System	X

<i>C. Adjustment Examples</i>	
Pressure/Temperature Adjustments	X
Located & Repaired Breaks in Mains & Services	X
Company use	X
Purging/Other Construction activities	X
Heat Content	X
Meter Read Cycle Adjustments	X
Other	X
Total Adjustments	X
<i>D. Production Facility UFG</i>	
Total	A-B-C
<i>E. Percent UFG</i>	
Percentage	(D/A)*100%

Note: Additional categories can be added in sections A, B and C. However, a brief explanation of the added field is needed.

Storage System

Specify units for quantity of gas X

<i>A. Gas Received</i>	
From Production Facilities	X
From Transmission Facilities	X
From Distribution Facilities	X
From Interstate Pipelines directly into the Distribution System	X
Total Gas Received by the Storage System	X
<i>B. Gas Delivered</i>	
To Transmission System	X
To Distribution System	X
To other facilities	X
Sold	X
Total Gas Delivered by the Storage System	X
<i>C. Adjustment Examples</i>	
Company use	X
Storage Migration (+/-)	X
Heat Content	X
Located & Repaired Breaks	X
Other	X
Total Adjustments	X
<i>D. Storage UFG</i>	
Total	A-B-C
<i>E. Percent UFG</i>	
Percentage	(D/A)*100%

Note: Additional categories can be added in sections A, B and C. However, a brief explanation of the added field is needed.

Production/Gathering System Losses
Specify units for quantity of gas

X

A. Gas Received	
From Production Wells	X
From Other Gathering Systems	X
Total Gas Received by the Production/Gathering System	X
B. Gas Delivered	
To Distribution System	X
To Customers/sold	X
To Transmission System	X
Total Gas Delivered by the Production/Gathering System	X
C. Adjustment Examples	
Pressure/Temperature Adjustments	X
Located & Repaired Breaks in Mains & Services	X
Company use	X
Purging/Other Construction activities	X
Heat Content	X
Meter Read Cycle Adjustments	X
Other	X
Total Adjustments	X
D. Production Facility UFG	
Total	A-B-C
E. Percent UFG	
Percentage	(D/A)*100%

Note: Additional categories can be added in sections and C. However, a brief explanation of the added field is needed.

Annex A

TITLE 52. PUBLIC UTILITIES

PART I. PUBLIC UTILITY COMMISSION

Subpart C. FIXED SERVICE UTILITIES

CHAPTER 59. GAS SERVICE

UNACCOUNTED-FOR-GAS

§ 59.111. Unaccounted-for-gas.

(a) *Definitions.* The following words and terms, when used in this section, have the following meanings, unless the text clearly indicates otherwise:

Adjustments—Gas used by an NGDC or city natural gas distribution operation for safe and reliable service, such as company use, calculable losses from construction, purging, storage migration, other temperature and pressure adjustments, and adjustments for heat content of natural gas.

Gas delivered—Gas provided by the distribution, transmission, storage or production/gathering facilities of an NGDC or city natural gas distribution operation, regardless of use, adjusted for temperature or pressure variations. This category includes quantities of gas consumed by an end user, exchange gas supplied to another utility, gas delivered to transportation customers or other gas delivered to a user other than the utility. When bill timing issues arise, an effort shall be made to reasonably estimate consumption.

Gas received—Gas that is supplied to the distribution, transmission, storage or production/gathering facilities of an NGDC or city natural gas distribution operation, regardless of use, adjusted for temperature or pressure variations. This category includes gas for sales, storage, transportation quantities, exchange gas received or other quantity of gas that otherwise enters the utility's facilities.

NGDC—Natural gas distribution company.

UFG—Unaccounted-for-gas—The difference between the total gas available from all sources and the total gas accounted for as sales, net interchange and company use. This difference includes leakage or other actual losses, discrepancies due to meter inaccuracies, variations of temperatures or pressures, or both, and other variants, particularly billing lag.

(b) *Calculation.*

(1) $UFG_x = \text{Gas Received}_x - \text{Gas Delivered}_x - \text{Adjustments}_x$

(2) $\%UFG_x = (UFG_x / \text{Gas Received}) * 100$

(3) X denotes the system type (distribution, transmission, storage or production/gathering). When possible, UFG must be computed and reported by system type.

(4) Gas received, gas delivered and adjustments must represent actual gas quantities. Estimates may be provided but must be clearly identified and have supporting justification, assumptions and calculations.

(5) Adjustments must be individually identified by category (such as company use, calculable losses from

construction, purging, storage migration, other temperature and pressure adjustments, and adjustments for heat content of natural gas). Adjustments must be supported by metered data, sound engineering practices or other quantifiable results that clearly support the utility's need for the adjustment. Adjustments must be consistent from filing to filing.

(6) The definition of "UFG" in subsection (a) and the calculation under this subsection apply to UFG filed with the Commission.

(c) *Metrics for distribution system losses.*

(1) Each NGDC and city natural gas distribution operation shall, at a minimum, reduce distribution system loss performance in accordance with the metrics in the following table, beginning with its first subsequent Purchased Gas Cost (PGC) or Gas Cost Rate (GCR) filing after August 11, 2014. The metric starts with 5% in the first year and decreases by 0.5% every year in the subsequent years until it reaches 3% as shown in the following table:

<i>Year</i>	<i>Percent UFG</i>
1	5.00%
2	4.50%
3	4.00%
4	3.50%
5	3.00%

(2) The distribution metrics shall be applied on an annual basis for the 12 months ending August 31. UFG reports, as described by the Commission and relating to this section, shall be filed by September 30th of each year.

(3) UFG levels above the applicable annual targets in paragraph (1) shall be presumed to be excessive absent evidence to the contrary and may not be recovered within the current or a future PGC or GCR filing. If an NGDC's actual UFG exceeds an applicable target, the NGDC may demonstrate that its level of UFG is warranted.

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