Electronically Filed in TPUC Docket Room on December 2, 2020 at 1:13 p.m.

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December 2, 2020

Chairman Kenneth C. Hill
ATTN: Ectory Lawless, Docket Clerk
Tennessee Public Utility Commission
502 Deaderick Street, 4th Floor
Nashville, TN 37243

20-00131

Re: Chattanooga Gas Company
Petition for Approval of Pipe Replacement Program

Dear Chairman Hill:

Please find attached for filing a Petition by Chattanooga Gas Company to address a multiyear pipe replacement program and to seek approval for its implementation. The Petition is supported by the direct testimony from Paul Leath accompanied by 4 exhibits and supported by the direct testimony from Archie Hickerson accompanied with 1 exhibit.

The original and four copies of the filing will be placed in the mail to the TPUC Docket Clerk accompanied with a $25.000 check for the filing fee.

A courtesy copy of this filing has been provided to the Consumer Advocate.

Yours truly,

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BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION
NASHVILLE, TENNESSEE

December 2, 2020

IN RE:	)	
	)	**Docket No.**
CHATTANOOGA GAS COMPANY	)	
PETITION FOR APPROVAL OF ITS	)	**20-00131**
PIPE REPLACEMENT PROGRAM	)	
	)	

CHATTANOOGA GAS COMPANY
PETITION FOR APPROVAL OF ITS
PIPE REPLACEMENT PROGRAM

Chattanooga Gas Company ("CGC" or "Company"), pursuant to Tennessee Code Annotated Section 65-5-103, Rules 1220-04-01-.01, 1220.04-01-.09, 1220-04-05-.47 and 1220-04-05-.48, and the Orders of the Tennessee Public Utility Commission ("TPUC" or "Commission"), hereby files its Petition for Approval of its natural gas Pipe Replacement Program ("PRP"). Specifically, CGC is seeking approval to replace certain identified vintage natural gas mains and service lines pursuant to a specific schedule along with the authority to request approval to recover the actual annual cost for such PRP expenditures through CGC's annual review mechanism[1] ("ARM"). To be clear, CGC by this Petition is ***not*** seeking to recover any expenditures in this docket. Rather, since the proposed PRP will not commence until sometime in

[1] CGC's annual review mechanism was approved in Docket No. 19-00047 and the Commission's *Order Approving Settlement Agreement*, issued October 7, 2019 ("ARM Order"), and as that ARM Order or process may be modified from time to time by the Commission.

2021, the first cost recovery will be sought in CGC's 2022 ARM docket which will reflect 2021 actual costs. CGC's PRP will improve and enhance the long-term safety and reliability of CGC's natural gas system and will enable the Company to better meet the needs of its current and future customers. In support of this Petition, CGC states as follows:

I. INTRODUCTION

1. CGC is incorporated under the laws of the State of Tennessee and has been engaged in the business of transporting, distributing, and selling natural gas in the greater Chattanooga and Cleveland, Tennessee areas within Hamilton and Bradley Counties for over one hundred years. CGC is a public utility pursuant to the laws of the State of Tennessee, and its public utility operations, including its rates, terms, and conditions of service, are subject to the jurisdiction of this Commission. CGC is a wholly owned subsidiary of Southern Company Gas, a natural gas holding company that is the parent company of regulated natural gas utilities in Georgia, Illinois, and Virginia in addition to CGC in Tennessee. CGC's principal office and place of business is located at 2207 Olan Mills Drive, Chattanooga, Tennessee 37421.

2. All correspondence and communication with respect to this Petition should be sent to the following on behalf of CGC:

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II. NATURAL GAS PIPELINE REPLACEMENT BACKGROUND

3. The pipeline system used in the distribution of natural gas by CGC to its customers is the culmination of an extensive national pipeline network owned and operated by multiple entities that begins at the well head and ends at the customer's meter. This natural gas pipeline infrastructure is engineered to last for decades, and the long useful lives of this infrastructure are reflected in long depreciation schedules for most pipeline assets. This is especially important from a customer standpoint since most of the natural gas system is buried underground, and the cost of initially trenching or directionally boring to build out the system can be expensive, especially in established commercial and residential communities. Moreover, replacing aging pipeline systems can be more costly and complicated undertakings, especially since replacements should not unnecessarily interrupt service to customers or otherwise interfere with roadways and other utility infrastructure.

4. As pipeline networks have grown over the decades, the manufacturing processes and materials used for those pipelines have also evolved. Over time, this has meant a progression in pipeline materials. CGC's system reflects the use of different pipeline materials over time, from

cast iron pipe that was utilized for much of the twentieth century, to various forms of uncoated steel pipe and later coated and cathodically protected steel, to different types of plastic pipe. CGC over the years has generally sought to use cost-effective and appropriate materials and technologies for the construction of its natural gas system.

5. At some point natural gas pipeline infrastructure must be replaced. The materials used in the pipe can naturally break down or decline with age. The interaction of the pipe with moisture and other underground elements, along with the effects of seasonal weather freezing and contractions, can have negative effects over time. Above ground impacts such as vibration caused by roadway or building construction, vehicle weight loading, and trenching or boring by other utilities installing or repairing underground facilities can also impose inadvertent stress or damage to pipes or their coatings. Cumulatively, corrosion, cracks, or breaks can occur leading to leaks, which raise potential safety concerns as well as adverse environmental impacts. Modern materials and construction practices can prevent or mitigate many of these problems. Further, CGC participates in the Tennessee811 locate program, utilizes various public awareness programs to "call before you dig," and employs an extensive leak detection program all for the purpose of helping to protect and maintain the integrity of its natural gas pipe system.

6. Similarly, bare steel pipe is susceptible to corrosion. Recognizing these problems, the installation of bare steel began to be phased out in the 1960s as coated steel methods became more successful and plastic pipe became more popular.[2]

7. Recognizing the various issues with cast iron and bare steel pipe, federal advisories to monitor and replace these materials have also evolved over the last several decades. In 1971 a

[2] *See*, the United States Department of Transportation, Pipeline and Hazardous Materials Safety Administration, "Bare Steel Inventory, Background and History," available at https://www.phmsa.dot.gov/data-and-statistics/pipeline-replacement/bare-steel-inventory.

federal directive made coatings for steel pipe mandatory, effectively obsoleting bare steel.[3] In the 1990s PHMSA began issuing notices regarding potential issues and safety considerations for cast iron pipe.[4] Finally, in late 2009, PHMSA directed operators to create and implement by August 2011 a Distribution Integrity Management Program ("DIMP"). Under the DIMP guidelines, operators must evaluate the specific characteristics of the pipe in their systems and the operating environment for those pipelines to identify threats, to evaluate risks, and to take measures to reduce risks.[5]

8. Over the last 15 years, CGC has undertaken a significant effort to remove cast iron and bare steel pipe from its system. In CGC's 2006 rate case, CGC proposed a Bare Steel and Cast Iron Replacement Program to recover the costs of replacing the remaining 82 miles of bare steel and cast iron main and related services separate from base rates through a tracker.[6] While the proposed tracker was not a part of the Company's eventual rate settlement, CGC did commit to replace approximately 21 miles of bare steel and cast iron pipe through December 31, 2010.[7] In CGC's 2009 rate case, the Company's witnesses testified that CGC was on track to complete that 4-year program. In addition, CGC proposed the removal of additional cast iron and bare steel pipe, approximately 59 additional miles to be completed in the next ten years, meaning CGC would replace a total of some 80 miles of pipe over a thirteen year period.[8] CGC reported in its 2018 rate

[3] *Id*.
[4] See, footnote 3 above.
[5] See, footnotes 3 and 4 above.
[6] Docket No. 06-00175, Petition for Approval of Adjustment of its Rates and Charges, Comprehensive Rae Design Proposal, and Revised Tariff, at 5, para. 15 (June 30, 2006); *see also*, Direct Testimony of Richard Lonn, at 3-8 (June 30, 2006).
[7] Docket No. 06-00175, Phase I Settlement Agreement Order, at page 10 (Settlement Agreement, paragraph 20, at page 5 (Nov. 17, 2007).
[8] Docket No. 09-00183, CGC Witness Lindsey Direct Testimony, at pages 17-18, and CGC Witness Hanson Direct Testimony, at 16, 23.

case that the Company was on track to complete this multiyear project in 2019.[9] At its annual capital expenditures budget presentation to the Commission in early 2020, Paul Leath, CGC's Director, Regional Operations, reported that the cast iron and bare steel replacement program was completed.[10]

9. The cast iron and bare steel replacement program has been a success for CGC and its customers by improving the safety and reliability of the system. But while CGC has removed and replaced what was considered at the time to be the most at risk pipe in its system, this does not mean that the remainder of the system is free from the effects of ageing pipe or that all of its aging infrastructure has been removed from its system. Further data and research regarding pipeline materials has been shared within the industry and has led to new and better understandings as to how various pipeline materials perform over time. The process of evaluating the safety of CGC's distribution system, and the integrity of the pipeline materials is an ongoing evaluation process. Indeed, as CGC's cast iron and bare steel replacement program was winding down, the Company was evaluating the next round of targeted pipe replacements.

10. One part of this process is CGC's annual construction budget for pipe replacements due to road construction project relocations, mains renewals, and pressure improvements, which has as one of its effects the removal of older or potentially higher risk pipe from the system. Also, since 2010, the annual construction budget has normally included funds specifically targeted at pipeline integrity pursuant to the Company's DIMP mandated by PHMSA's pipeline safety

[9] Docket No. 18-00017, Transcript of Proceedings, Vol. IIA, at 108-109 (Cross of Jacob Ziliak by Vice Chair Hill, Mr. Ziliak, "[W]e're down to our last mile or so, and I don't have an exact number, but we anticipate completing the work in 2019, as agreed upon with our 2009 rate increase.") (Aug. 21, 2018).

[10] Undocketed, Tennessee Public Utilities Commission, Section 1, Item 2, Final Conference Agenda, March 9, 2020, available at https://www.tn.gov/content/dam/tn/publicutility/documents/agendas/2020/03092020.pdf..

regulations since 2009, as is discussed above. The DIMP renewals process is a data driven prioritization and implementation of pipe replacements for pipe that typically experiences greater volumes of leaks caused by corrosion, material/weld/equipment failure, and natural forces damage. As will be further discussed by CGC in this case, while the DIMP program over time will identify and remove a portion of the pipeline subject to this Petition, the DIMP is not projected to not remove all of the highest risk pipe CGC needs to replace in the next 15 years.

11. Besides the information gained through the DIMP and other Company processes, this Commission's own Natural Gas Pipeline Safety Division ("Division") conducts safety inspections and reviews pursuant to Tennessee and federal law and presents reports and direction to utilities for corrective action. On July 3, 2020, the Division reported to CGC on a pipeline safety evaluation that did not identify any violations. However, the Division advised that PHMSA Advisory Bulletin ADB-02-07 notes the susceptibility of certain older plastic pipe, known as Aldyl-A polyethylene pipe, to premature brittle-like cracking. Although the specific gas pipe reviewed by the Division in its investigation did not appear to exhibit any brittle-like cracking, in view of the potential issues associated with the older Aldyl-A pipe, the Division requested, among several directions, that CGC identify the Aldyl-A plastic pipe in CGC's system and develop and implement a five to seven year plan for the removal of all Aldyl-A pipe covered by the advisories from its system.

12. Aldyl-A pipe is a polyethylene pipeline product manufactured by DuPont using DuPont's proprietary Alathon 5040 polymer resin that was first introduced to the market in 1965. In 1970 DuPont began using an improved resin, Alathon 5043, until 1983. During the Alathon 5043 period, DuPont discovered that approximately 30%-40% of the Aldyl-A pipe made during 1970-1972 had what is now known as Low Ductile Inner Wall ("LDIW") characteristics that

resulted from excessive temperature settings during the extrusion process. The effect of this is that the inner surface of the pipe is more susceptible to cracking, known as slow crack growth or "brittle-like cracking," which results in reduced pipeline integrity and longevity. As this Aldyl-A pipe ages, the cracks that develop typically will at some point eventually release gas into the environment, which could potentially result in concentrations of the gas posing health, environmental, and fire and explosion safety hazards. The Gas Piping and Technology Committee provides guidance for grading leaks as hazardous or non-hazardous, with Grade 1 leaks representing an existing or probable hazard to persons or property requiring immediate repair or continuous action until the conditions are no longer hazardous. CGC monitors and responds to leaks based upon their grading and applicable regulations.

13. There is no way to visually identify LDIW Aldyl-A pipe, and there is no simple non-destructive test that may be employed in the field to distinguish LDIW Aldyl-A pipe from non-LDIW Aldyl-A pipe. As a consequence, Aldyl-A pipe manufactured prior to 1973 is considered to have low resistance to slow crack growth, adversely impacting its longevity. DuPont made further improvements to the resins used in the manufacturing of Aldyl-A pipe in 1983, 1988, and 1992, with the 1988-1992 vintage considered to have high relative resistance to slow crack growth, and the 1992-1999 to have very high relative resistance to slow crack growth.[11] Thus, Aldyl-A pipe manufactured since 1983 is generally not considered to be at risk or requiring

[11] "Hazard Analysis & Mitigation Report On Aldyl A Polyethylene Gas Pipelines in California," California Public Utilities Commission, Steve Haine, P.E., at 5-8 (June 11, 2014), available at https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Safety/Natural_Gas_Pipeline/Plans_and_Reports/AldylAReport.pdf#:~:text=Aldyl%C2%A0A%C2%A0pipeline%C2%A0products%C2%A0were%C2%A0first%C2%A0introduced%C2%A0to%C2%A0the%C2%A0market%C2%A0in%C2%A01965.%20%C2%A0%C2%A0The%C2%A0initial%C2%A0PE%C2%A0resin%C2%A0from,which%C2%A0Aldyl%C2%A0A%C2%A0was%C2%A0manufactured%C2%A0between%C2%A01965%C2%A0and%C2%A01970%C2%A0was%C2%A0Alathon%C2%A05040.%20Vintage%3A%C2%A0%C2%A01970%E2%80%901983.

replacement sooner than its projected useful life absent other adverse factors.

14. In responding to the Division, CGC evaluated the information regarding Aldyl-A pipe as well as other vintage plastic pipe. The Company also identified additional steel pipe, classified and reported as bare steel but which could be uncoated or using early coating processes that are now considered to be ineffective. Based upon this assessment, and consistent with the Division's direction to CGC, CGC identified the specific plastic and bare steel pipe considered to be at risk and requiring replacement sooner than its normal life expectancy, although some of this pipe is in excess of 40 and even 50 years old. CGC's proposal for a new pipe replacement program are detailed in the next section.

III. CGC'S PIPE REPLACEMENT PROGRAM

A. Overview

15. It is imperative to state that while the vintage plastic and bare steel pipe CGC is proposing to replace by this Petition may be susceptible to premature leaking issues, this does not mean that CGC's system is currently in imminent danger or that the system is unsafe to operate. Rather, much as was the case with the cast iron and bare steel previously removed, removal of the older Aldyl-A pipe and other vintage plastic pipe manufactured through 1983 along with the bare and ineffectively coated steel pipe in CGC's system needs to be done in a reasonable and responsible manner to help ensure the overall integrity of the system. In the interim, CGC's leak detection program will increase its frequency of surveying as directed by the Division. As always, CGC will timely address identified leaks as circumstances require. As the PRP progresses, CGC will reprioritize pipe replacement projects based upon the Company's periodic DIMP analysis and other operational considerations.

16. In addition to the system integrity gained by this process, replacing this vintage

pipe provides long term cost saving benefits. These benefits include reducing system leaks and spot repair costs while also enabling CGC to right-size otherwise currently undersized pipe so as to improve system pressure and flow characteristics, which helps existing customers and future customers that may want to connect to CGC's system. By replacing the Aldyl-A and other vintage plastic pipe along with the additional bare and ineffectively coated steel pipe on a timetable consistent with the request from the Pipeline Safety Staff, CGC can best balance costs with results. Through adoption of this program, CGC will be in the best position to ensure that it can continue to provide safe, reliable, and affordable natural gas to its customers.

17. Based upon the Division's investigation, subsequent conversations with the Commission's Staff, and CGC's own internal evaluations regarding potential at risk pipe in its system, CGC has developed a pipe replacement program ("PRP") to address the Aldyl-A pipe identified by the Commission Staff as well as other vintage plastic and bare and ineffectively coated steel pipe in CGC's system. This Petition sets forth the parameters and estimated costs of CGC's PRP, and requests that the Commission approve the need to replace the identified pipe and the schedule by which such pipe should be replaced.

18. In approving the PRP proposed in this Petition, CGC is **not** seeking approval for the recovery of any costs at this time, since the costs presented in this Petition are estimates and no actual costs have yet to be incurred. For cost recovery, CGC is requesting that the Commission allow CGC to seek recovery of its *actual costs* through its annual ARM Docket proceeding, which would address booked expenditures incurred for the prior calendar year based upon the approved PRP. With the Commission's approval of CGC's PRP in early 2021, this would mean that the first review of CGC's PRP costs would occur as a part of CGC's 2022 ARM filing that would present 2021 actual PRP costs. In each subsequent ARM proceeding CGC would include the actual PRP

costs for the prior calendar year pursuant to CGC's approved ARM. As a part of its ARM process each year, CGC anticipates providing such additional new schedules so that the PRP costs can be separately identified and tracked. At this time, by approving the need to replace the identified pipe and the overall schedule by which it will be replaced, with cost recovery through the ARM process, CGC can commence to implement is approved plan beginning in 2021, with the 2021 costs of the PRP considered in the annual ARM case beginning in 2022.

19. Based upon the Division's findings that Aldyl-A pipe should be removed, CGC updated its risk-based evaluation of all of the pipe in its system, approximately 1,675 miles of system main pipe. Utilizing the Division's criteria, CGC identified approximately 73 miles of mains that should be replaced in five to seven years by the PRP. Specifically, through this PRP, CGC would replace approximately 30 miles of pre-1974 vintage plastic main, 15 miles of mid-vintage (1974-1983) risk based plastic main, 3 miles of mid-vintage (1974-1983) neighborhood convenience plastic main[12], and 25 miles of ineffectively coated or bare steel main. The vintage plastic pipe identified for replacement includes Aldyl-A pipe as well as other plastic pipe of unknown specific type. The presently estimated cost to replace all 73 miles of mains under the PRP is approximately $118 million. This estimate also includes the cost to remove any associated service lines that run between the main being replaced and the customer meter if that service line is also made from one of the materials that CGC is replacing. Exhibit PCL-3 to Mr. Leath's testimony provides this estimated cost information.

20. In addition to CGC's proposal to replace this vintage plastic and steel pipe, outside

[12] What CGC is referring to as "neighborhood convenience" plastic pipe is pipe in an area where CGC is otherwise engaged in doing a renewal project and it is more cost effective to replace the additional vintage plastic pipe in the same area even though at that time the particular vintage plastic pipe may not be experiencing a high level of leaks.

of this Petition, and as a part of the Division's request to review additional pipe, CGC will be increasing its leak inspection program for 133 total miles of plastic pipe. In addition, CGC will be engaging in additional public awareness efforts through bill inserts, social media, and other channels to remind customers to "call 811 before you dig," the risks associated with build-overs, and to provide other information regarding the benefits of CGC replacement programs on safety, reliability, and reducing gas emissions.

B. Approve a 7-Year Replacement Schedule

21. The Division requested that CGC evaluate replacing the Aldyl-A pipe in five to seven years, and CGC is providing information for both 5-year and 7-year options in this Petition. Based upon this directive, CGC believes that a 7-year schedule is the most appropriate means of balancing customer cost impacts with safely operating the system while removing the vintage plastic and bare steel pipe in a timely manner. The LDIW issues for Aldyl-A were first identified by DuPont some 40 years ago, and PHMSA and state authorities have issued various advisories and directives over the years regarding both Aldyl-A pipe and bare steel pipe. Again, through ongoing leak surveying and monitoring, the pipe identified in CGC's PRP does not need to be immediately removed. But the propensity for the pipe CGC has identified for its PRP to leak increases over time the longer this pipe remains in the system. The prudent course is for CGC to remove this vintage pipe, and that the best timeline to accomplish such removals is on a 7-year schedule.

22. Additionally, CGC is providing information for 10-year and 15-year replacement schedules so the Commission can fully understand and assess the benefits of the different options and their potential impacts on customers and system integrity. In providing these additional options, the Commission needs to understand that in any given year or years CGC may need to

accelerate or otherwise modify its pipe replacement schedule and remove more pipe than projected in order to ensure system integrity and public safety.

23. With respect to proposing four different time periods for CGC's PRP plan, besides mileage the primary difference is the monthly impact on each customer's bill. In general, CGC would divide the 73 miles of pipe to be replaced fairly evenly over 5, 7, 10, and 15 years, resulting in yearly averages of pipe to be replaced of approximately 14.6, 10.4, 7.3, and 4.9 miles, respectively. For comparison purposes only, in the table below CGC has set forth the cumulative cost per month rate increase for the average R-1 customer under each of the four schedules:

Scheduled Years	**Avg. Cost/Year**	**Cumulative Cost/Month Avg. R-1 Customer[13]**
5-Year Program	$19.0 Million	$7.36
7-Year Program	$13.6 Million	$7.26
10-Year Program	$9.5 Million	$7.12
15-Year Program	$6.3 Million	$6.61

The assumptions underlying these numbers are further detailed in Mr. Hickerson's prefiled direct testimony accompanying this Petition.

24. Regardless of the schedule chosen, as circumstances may require, CGC may adjust the miles of pipe to be replaced up or down annually, based upon both leak detection information and other external information. For example, CGC already has a higher than historic average construction budget for the next several years due to various already scheduled operational needs, such as expiring gas supply contracts requiring gas supply enhancements and various pressure improvement projects. Given other construction priorities in the next few years, assuming the

[13] CGC Witness Archie Hickerson, Exhibit ARH-1.

increased leak tests do not indicate any critical needs, it may be appropriate for CGC to replace fewer miles in the first year or two of the PRP under the seven-year schedule than the schedule would otherwise indicate, and then the miles being replaced may be accelerated in later years. All of the different factors would be evaluated each year during CGC's budgeting process in scheduling specific PRP pipe to be replaced.

25. Another consideration in choosing a specific schedule is the relationship of the PRP plan to CGC's annual construction budget. Through the normal DIMP process, some of the 73 miles likely will be replaced in the coming years outside of the PRP. The current CGC capital plan for the next 5 years anticipates approximately $3.9 million per year in pipe replacements that may address some of the same pipe that is covered by the PRP. Whether the pipe to be replaced under the PRP is removed under the PRP plan or the annual capital plan/DIMP process, the cost to remove the 73 miles of the identified pipe is estimated to be $118 million. To the extent pipe identified by the PRP plan is removed pursuant to the annual capital plan/DIMP process, such removals merely shift the costs for accounting purposes. Thus, the longer the pipe replacement schedule chosen for the PRP, the fewer miles of pipe that would need to be replaced under the PRP because some vintage plastic and bare steel pipe would have already been replaced as a part of the DIMP process through the regularly authorized annual construction expenditures. However, it remains necessary to undertake the PRP because even at 15 years, not all of the vintage plastic and bare steel pipe that needs to be replaced will be replaced under the DIMP program alone.

26. Based upon the information provided, CGC is requesting that the Commission approve its PRP for seven years. In approving CGC's recommended 7-year schedule, or any schedule, such approval needs to come with the understanding that the specific amount of pipe to be replaced in individual years may be subject to modification as circumstances dictate. However,

the objective shall be to complete the PRP in the number of years approved by the Commission.

C. Cost Recovery Through the Annual ARM Docket

27. CGC is not seeking the recovery of any costs by the Petition. Rather, CGC believes that the most efficient and cost-effective way for CGC's PRP costs to be evaluated is through the annual ARM docket process approved by the Commission in Docket No. 19-00047 and the Commission's Order Approving Settlement Agreement issued October 7, 2019, along with any subsequent modifications to CGC's ARM that may be approved prior to each year's annual ARM filing. By utilizing the ARM process, the Commission will be utilizing an established and well documented process. With the ARM, the Commission will be evaluating for cost recovery only the actual pipe replacement expenditures for the prior year. By approving this Petition, the Commission will be approving the appropriateness of replacing the identified vintage plastic and bare steel pipe, the number of years over which such pipe should be recovered, and that actual costs be recovered through each year's ARM case.

28. In order to appropriately review CGC's PRP costs for the prior year though the ARM process, CGC shall provide one or more additional PRP-specific schedules that clearly identify the pipeline replaced and the actual associated costs for that replacement for the calendar year. In addition, while CGC is already obligated under its ARM to provide its budget and other construction data for the next year, CGC will further supplement the budget filing as appropriate to separately itemize the specific budgeted PRP expenditures with information indicating any variance from the amounts scheduled under the approved PRP. Further, in the ARM filing CGC shall provide a PRP variance report reflecting any increases or decreases in the mileage replaced each year and such additional information regarding why the mileage increased or decreased. If the Commission requires any further additional documentation be provided, either in this docket

or as a result of an annual rate review in one of CGC's ARM dockets, then CGC shall certainly comply with such requirements.

29. In presenting this case to the Commission, CGC has provided estimated cumulative R-1 rate impacts information for each of the 4 scheduling options. While this is a useful mechanism for comparison purposes, it is for informational purposes only; CGC is not seeking approval for any specific cost recovery/rate design in this docket. CGC recognizes that under the ARM Order, no specific rate design is specified. Rather, the ARM Order allows CGC, any parties, or the Commission to propose a rate design, with the Commission picking an appropriate rate design for the cost recovery methodology based upon the record presented in each individual ARM case. To be clear, in requesting that CGC be allowed to utilize the ARM process, the actual cost recovery mechanism for the approved PRP costs shall be addressed as a part of CGC's rate design proposal in each ARM Docket reflecting the total proposed increase/decrease in rates for that year.

30. As set forth herein and in the supporting testimony and exhibits, CGC requests that it be permitted to recover its actual prior year PRP costs through its annual ARM docket filings. Such approval includes those additional PRP schedules and documentation that the Commission may approve. In addition, the cost recovery mechanism for the PRP cost recovery shall be addressed each year as a part of CGC's rate design proposal as is set forth in the ARM Order.

D. Testimony and Supporting Documentation

31. In support of this Petition and the approval of CGC's PRP schedule and cost recovery, CGC is including as a part of its case the following direct testimony and accompanying exhibits, which are incorporated herein by reference:

a. **Direct Testimony Witness Paul Leath, Regional Director of Operations, Chattanooga Gas.** Mr. Leath's testimony provides an overview of the case, the background for CGC's prior cast iron and bare steel replacement programs, CGC's DIMP program, CGC's evaluation and response to the Commission's investigation and how CGC determined which pipe should be replaced under this PRP, information regarding CGC's overall construction plan and how that relates to the PRP, information on the different proposed schedules, and why CGC believes the proposed 7-year schedule is the most appropriate. Mr. Leath's exhibits include:

- PCL -1, PRP Overview.
- PCL-2, System Map, CGC Aldyl-A Era Pipe.
- PCL-3, Estimated PRP Replacement Costs.
- PCL-3, PRP-DIMP Cost Split (Estimated).

b. **Direct Testimony and Exhibits Witness Archie Hickerson, Director-Rates and Tariff Administration, Southern Company Gas.** Mr. Hickerson's testimony and exhibits address the estimated costs of the PRP and customer impacts of the four proposed schedules, and how and why the existing CGC ARM process should be utilized as the PRP cost recovery mechanism each year for the recovery of the prior year's actual costs. Mr. Hickerson has one exhibit, Exhibit ARH-1, which is the estimated cumulative R-1 customer impacts of the PRP based upon 5, 7, 10, and 15-year schedules.

32. The information provided by CGC's witnesses through their testimony and exhibits establishes the need to replace the identified Aldyl-A and other vintage plastic and bare or

ineffectively coated steel pipe and associated service lines within CGC's service territory, the appropriateness of replacing such pipe on a 7-year schedule, and the use of the CGC ARM process to address actual cost recovery.

IV. CONCLUSION

WHEREFORE, CGC respectfully prays that based upon the pleadings and documents submitted by CGC:

1. The Commission find that the Aldyl-A pipe and other vintage plastic and bare/ineffectively coated steel pipe identified herein should be replaced, and that this replacement is necessary and prudent for the long-term safety and reliability of CGC's natural gas system.

2. The Commission approve the replacement of the Aldyl-A pipe and other vintage plastic and bare/ineffectively coated steel pipe identified herein based upon the proposed 7-year schedule, or such other schedule as the Commission may authorize.

3. The Commission find that in approving a specific replacement schedule that CGC retains the flexibility to modify the amount of pipe to be replaced each year based upon the facts and circumstances each year, consistent with the safe and reliable operation of the system.

4. The Commission approve utilization of CGC's ARM case each year for the recovery of CGC's actual PRP-related costs for the prior calendar year.

5. The Commission approve CGC providing such additional schedules and documentation with its annual ARM filing necessary to reasonably segregating, identifying, and cataloguing its PRP costs. In addition, in providing its annual budget as a part of its ARM filing, that CGC shall also separately and sufficiently identify its budgeted PRP costs for informational purposes.

6. CGC be granted such other and/or further relief as may be warranted.

Respectfully submitted,

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