



May 5, 2018

To: Rondella Hawkins, Telecommunications & Regulatory Affairs Officer

From: Rudy Rodriguez  Financial Analyst, Department of Telecommunications & Regulatory Affairs

Re: Review and Analysis of Texas Gas Service Gas Reliability Infrastructure Program Rate Filing to the City of Austin dated March 2, 2018

The purpose of this memorandum is to present the results of the review and analysis of Texas Gas Service's (TGS) Gas Reliability Infrastructure Program (GRIP) filing to the City of Austin (COA) dated March 2, 2018. This memorandum discusses the Texas utility statute that governs TGS GRIP filing, TGS GRIP filing schedules and work papers, the review and analysis of the TGS GRIP filing and the findings and conclusions related to our review and analysis.

Executive Summary

The 2018 filing is the 2nd TGS GRIP filing since TGS filed a complete rate case in the fall of 2016. The case was heard at the Railroad Commission of Texas GUD 10526 and resulted in a Unanimous Settlement Agreement that was approved by the Austin City Council on October 13, 2016.

The Gas Reliability Infrastructure Program allows gas utilities to seek interim rate relief for increases in utility infrastructure. The Texas Utilities Code (TUC) Section 103.301 titled *Interim Adjustment for Changes in Investment* governs the filing submitted by TGS. The details of the statute are discussed in the background section of this memo.

TGS' current GRIP revenue requirement of \$3,288,369 is shown in Table 1 of this memorandum, and includes rate components allowed by Texas utility statutes, including return on net plant investment (i.e., TGS Direct, Corporate and TGS Division), federal income tax expense, and other plant related costs including depreciation expense and ad valorem (i.e., property) tax expense for the period January 1, 2017 through December 31, 2017. The reason for the increase in TGS GRIP revenue requirement from that approved by the most recent rate case relates to the increase in net plant investment (i.e., TGS direct and corporate/division allocated plant in service and completed construction not classified plant) occurring during the period January 1, 2017 through December 31, 2017.

Table 1 – TGS Central Texas Revenue Requirement (GRIP Schedule 1)

TEXAS GAS SERVICE COMPANY
CENTRAL TEXAS SERVICE AREA
INTERIM COST RECOVERY AND RATE ADJUSTMENT
CHANGES FROM JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

SUMMARY

LINE NO.	DESCRIPTION	NET CHANGES THROUGH 12/31/2017	RECOMMENDED 12/31/2017	ADJUSTMENTS
1	Change in Net Investment - (Schedule 2, Line 8)	\$28,107,733	\$28,107,733	-
2	Authorized Return Approved in most recent Rate Case* - (Schedule 4)	7.308%	7.308%	0.000%
3	Change in Return on Net Investment - (Line 1 times Line 2)	\$2,054,043	\$2,054,043	-
4	Change in Depreciation Expense - (Schedule 3, Line 61)	579,394	579,394	-
5	Change in Ad Valorem Tax - (Schedule 5, Line 3)	225,498	225,498	-
6	Change in Federal Income Taxes - (Schedule 6, Line 10)	869,880	869,880	-
7	Total Change in Revenue Requirement at 35% FIT Rate	\$3,728,814	\$3,728,814	-
8	Total Change from 35% FIT Rate to 21% FIT Rate	(440,446)	(440,446)	-
9	Total Change in Revenue Requirement at 21% FIT Rate	\$3,288,369	\$3,288,369	\$0

The costs associated with TGS plant investment for the Central Texas Service Area are shown in plant investment reports filed by TGS as part of its COA GRIP rate application. The majority of the \$28.1 million of TGS net plant additions during calendar year 2017 relates to distribution and Transmission plant assets recorded to the following Federal Energy Regulatory Commission (FERC) plant accounts.

CHANGE IN NET INVESTMENT

DESCRIPTION	CHANGE IN NET INVESTMENT (c)
GROSS PLANT IN SERVICE	
Intangible Plant	\$0
Transmission Plant	692,157
Distribution Plant	32,892,472
General Plant	(2,406,141)
Rule 8.209 Regulatory Asset Balance	(1,910,718)
Gross Plant in Service	\$29,267,770
Net Depreciation & Amortization Reserves	(1,160,037)
Net Plant in Service - Adjusted Direct and Allocated Corporate & Division	\$28,107,733

TGS has provided some of the specific types of direct and corporate/division allocated plant in service and completed construction projects that benefit Central Texas Service Area customers and the rationale for such expenditures in Appendix 1 of this memorandum.

TGS proposes a \$28.1 million increase in net plant investment. A complete list of all changes in TGS direct and allocated TGS net plant investment account balances during calendar year 2017, including the Rule 8.209 Regulatory Asset, are shown in Appendix 2. A net change of -\$1,910,718 is in Rule 8.209 Regulatory Asset. Inclusion of this regulatory asset in TGS 2017 GRIP filings is appropriate and in accordance with regulatory statutes governing gas utility rates approved by the Railroad Commission of Texas.

All GRIP schedules are mathematically accurate and properly compute TGS central Texas GRIP revenue requirement and associated rate design to customer classes using the rate design methodology approved by the COA in TGS previous central Texas rate filing approved by the COA. Therefore, the new tariffs are recommended for the approval by the City Council.



Review and Analysis of Texas Gas Service Gas Reliability Infrastructure Program Rate Filing to the City of Austin dated March 2, 2018

Background

Utility Statute Governing TGS GRIP Filing

On March 2, 2018, TGS submitted a GRIP filing to the COA requesting interim rate adjustments for increases in return (income) dollars and federal income tax expense resulting from TGS increases in TGS plant investment as well as increases in plant related costs such as depreciation expense and property tax expense. These increases in TGS costs occurred subsequent to TGS' most recent rate filing approved by the COA, and represent increases in costs incurred for the period January 1, 2017 through December 31, 2017. This GRIP filing represents TGS's second GRIP filing since their last general rate case in 2016. The Texas Utilities Code (TUC) Section 103.301 titled *Interim Adjustment for Changes in Investment* governs the filing submitted by TGS. TUC §104.301 includes the following provisions:

- A gas utility that has filed a rate case under Subchapter C within the preceding two years may file with the regulatory authority a tariff or rate schedule that provides for an interim adjustment in the utility's monthly customer charge or initial block rate to recover the cost of changes in the investment in service for gas utility services. The adjustment shall be allocated among the gas utility's classes of customers in the same manner as the cost of service was allocated among classes of customers in the utility's latest effective rates for the area in which the tariff or rate schedule is implemented.
- The gas utility shall file the tariff or rate schedule, or the annual adjustment under Subsection (c), with the regulatory authority at least 60 days before the proposed implementation date of the tariff, rate schedule, or annual adjustment. The gas utility shall provide notice of the tariff, rate schedule, or annual adjustment to affected customers by bill insert or direct mail not later than the 45th day after the date the utility files the tariff, rate schedule, or annual adjustment with the regulatory authority. During the 60-day period, the regulatory authority may act to suspend the implementation of the tariff, rate schedule, or annual adjustment for up to 45 days.
- The amount the gas utility shall adjust the utility's rates upward or downward under the tariff or rate schedule each calendar year is based on the difference between the value of the invested capital for the preceding calendar year and the value of the invested capital for the calendar year preceding that calendar year. The value of the invested capital is equal to the original cost of the investment at the time the investment was first dedicated to public use minus the accumulated depreciation related to that investment.

- A gas utility may only adjust the utility's rates under the tariff or rate schedule for the return on investment, depreciation expense, ad valorem taxes, revenue related taxes, and incremental federal income taxes related to the difference in the value of the invested capital as determined under Subsection (b). The return on investment, depreciation, and incremental federal income tax factors used in the computation must be the same as the factors reflected in the final order issued by or settlement agreement approved by the regulatory authority establishing the gas utility's latest effective rates for the area in which the tariff or rate schedule is implemented.
- A gas utility that implements a tariff or rate schedule under this section shall file with the regulatory authority an annual report describing the investment projects completed and placed in service during the preceding calendar year and the investments retired or abandoned during the preceding calendar year. The annual report shall also state the cost, need, and customers benefited by the change in investment.
- In addition to the report required under Subsection (e), the gas utility shall file with the regulatory authority an annual earnings monitoring report demonstrating the utility's earnings during the preceding calendar year.
- If a gas utility that implements a tariff or rate schedule under this section does not file a rate case under Subchapter C before the fifth anniversary of the date on which the tariff or rate schedule takes effect, the gas utility shall file a rate case under that subchapter not later than the 180th day after that anniversary in relation to any rates subject to the tariff or rate schedule.

The COA has 60 days to review and evaluate the GRIP filing before the proposed rates may be implemented. In addition, the COA can suspend rate implementation for an additional 45 days. COA did suspend implementation of TGS rates from early May 2018 to about mid-June 2018.

The GRIP statute required TGS to file a complete rate case no later than November 2016. TGS filed on June 20, 2016. TGS consolidated the South Texas Service Area into its Central Texas Service Area that includes the cities of Austin, Bee Cave, Buda, Cedar Park, Dripping Springs, Kyle, Lakeway, Rollingwood, Sunset Valley and Westlake Hills and the surrounding non-incorporate areas. The consolidation added the cities of Cuero, Gonzales, Luling, Lockhart, Shiner, Yoakum and Nixon and their associated non-incorporated areas. The consolidation was approved by the RRC and subsequently by the City Council when they approved the settlement of rate case.

Review and Analysis of TGS GRIP Filing

The review and analysis of the TGS GRIP filing was to determine:

- whether TGS is earning less than its authorized rate of return on rate base for the twelve months ended December 31, 2017;
- whether TGS GRIP filing was prepared in accordance with TUC GRIP filing statutes and requirements;
- whether TGS direct GRIP project descriptions relate to TGS Central Texas Service Area and to the customers who benefited from such projects and that the project activity costs for the GRIP period (January 1, 2017 through December 31, 2017) were adequately reported in the TGS filing;
- whether ONE Gas Corporate and TGS Division project descriptions are reasonable as allocated to the TGS Central Texas Service Area and to the customers who benefited from such projects and that the project activity costs for the GRIP period (January 1, 2017 through December 31, 2017) were adequately reported in the TGS filing;
- whether plant asset account balances and related accumulated depreciation account balances at 12/31/2017 were properly derived from the books, records, and/or fixed asset reports of TGS, ONE Gas Corporate and TGS Division and reported in the TGS GRIP filing;
- whether ratemaking adjustments related to the TGS previous Central Texas Service Area GRIP filing as approved by the COA were properly reflected in the current TGS GRIP filing as appropriate;
- whether ONE Gas corporate and TGS division allocation factors used to allocate plant asset balances to the Central Texas Service Area were reasonable in relation to those factors used in TGS previous Central Texas Service Area GRIP filing approved by the COA;
- whether all TGS GRIP schedules, work papers, and reports were mathematically accurate and computed the correct revenue requirement for the Central Texas Service Area; and
- whether the TGS Central Texas Service Area revenue requirement as assigned to customer class was computed correctly based on the rate design methodology used in TGS previous Central Texas Service Area GRIP filing as approved by the COA.

TGS GRIP Filing Schedules, Workpapers, and other Reports

To comply with the provisions of TUC §104.301, TGS filed certain schedules, workpapers, reports and revised customer tariffs (collectively referred to as the TGS GRIP filing) with the COA and other cities to implement new customer rates. The TGS GRIP schedules, workpapers, reports are described as follows:

- *Schedule 1 – TGS Central Texas Service Area Interim Cost and Rate Adjustment Changes from January 1, 2017 through December 31, 2017 Summary* – this schedule summarizes the change in return resulting from increases in net plant investment, and changes in other costs including depreciation expense, ad valorem (i.e., property taxes) and federal income taxes.
- *Schedule 2 – TGS Central Texas Service Area Interim Cost and Rate Adjustment Changes from January 1, 2017 through December 31, 2017 Change in Net Investment* - this schedule presents the change in net investment (i.e., gross plant in service and completed construction not classified less accumulated depreciation) summarized as intangible, distribution plant, and general plant. This schedule also includes the Rule 8.209 Regulatory Asset balance.
 - *Schedule 2a -TGS Central Texas Service Area Interim Cost and Rate Adjustment Changes from January 1, 2017 through December 31, 2017 – Changes in Net Plant – Direct and Allocated Corporate and TGS Division* - this schedule presents the change in net plant (i.e., gross plant in service and completed construction not classified less accumulated depreciation) costs by primary Federal Energy Regulatory Account (FERC) Uniform System of Accounts classification for TGS direct and allocated ONE Gas corporate and TGS division net plant costs.
 - *Schedule 2b -TGS Central Texas Service Area Interim Cost and Rate Adjustment Changes from January 1, 2017 through December 31, 2017 – Change in Plant In Service (101) – Direct and Allocated Corporate and TGS Division* – this schedule presents the change in plant in service (i.e., Acct. 101) for TGS direct and ONE Gas corporate and TGS division plant.
 - *Schedule 2c -TGS Central Texas Service Area Interim Cost and Rate Adjustment Changes from January 1, 2017 through December 31, 2017 – Change in CCNC (106) – Direct and Allocated Corporate and TGS Division* – this schedule presents the change in completed construction not classified costs (i.e., Acct. 106) for TGS direct and ONE Gas corporate and TGS division costs.
 - *Schedule 2d -TGS Central Texas Service Area Interim Cost and Rate Adjustment Changes from January 1, 2017 through December 31, 2017 – Change in Accumulated Depreciation and Amortization – Direct and Allocated Corporate and TGS Division* – this schedule presents the change in the accumulated depreciation and amortization account balances for TGS direct and ONE GAS corporate and TGS division plant.

- *Schedule 3 - Central Texas Service Area Interim Cost and Rate Adjustment Changes from January 1, 2017 through December 31, 2017 – Change in Depreciation and Amortization Expense – Direct and Allocated Corporate and TGS Division* – this schedule summarizes the net changes in depreciation and amortization expense account balances for plant in service and completed construction not classified plant for TGS direct and ONE Gas corporate and TGS division plant.
- *Schedule 4 – TGS Central Texas Service Area Interim Cost and Rate Adjustment – Cost of Capital* – this schedule shows the cost of capital and capital structure approved in the most recent central Texas rate case with test year ended 12/31/2015 filed with the COA and the RRC.
- *Schedule 5 – TGS Central Texas Service Area Interim Cost and Rate Adjustment Changes from January 1, 2017 through December 31, 2017 – Change in Ad Valorem Tax* – this schedule shows the computation of the 2017 effective property tax rate and the change in property taxes for the period January 1, 2017 through December 31, 2017.
- *Schedule 6 – TGS Central Texas Service Area Interim Cost and Rate Adjustment Changes from January 1, 2017 through December 31, 2017 – Change in Federal Income Tax* – this schedule shows the computations of the December 31, 2013 federal income tax expense as approved by the COA in the TGS last GRIP filing and the change in expense for the period January 1, 2017 through December 31, 2017.
- *Schedule 7 – TGS Central Texas Service Area Interim Cost and Rate Adjustment Changes from January 1, 2017 through December 31, 2017 – Change in Customer Charge by Customer Class* – this schedule shows the rate design computations to assign the GRIP revenue requirement to the customer charge for each customer class.
- *TGS Central Texas Service Area Interim Cost and Rate Adjustment Changes from January 1, 2017 through December 31, 2017 – Investment Report – Summary of CTX Direct Plant in Service (101 & 106) Project Activity* – this report includes all plant in service and completed construction not classified project related to the Central Texas Service Area and the costs incurred for each project for the period January 1, 2017 through December 31, 2017. Each project includes a project description as well as the customers benefiting from the project. This report also includes adjustments to plant costs related to TGS previous GRIP filing as approved by the COA.
- *TGS Central Texas Service Area Interim Cost and Rate Adjustment Changes from January 1, 2017 through December 31, 2017 – Investment Report – Summary of Corporate Plant in Service (101 & 106) Project Activity* – this report includes all plant in service and completed construction not classified project activity related to ONE Gas Corporate and the costs incurred for each project for the period January 1, 2017 through December 31, 2017 as allocated to the Central Texas Service Area. Each project includes a project description as well as the customers benefiting from the project. This report

also includes adjustments to project costs related to TGS previous GRIP filing approved by the COA, as well as other adjustments to project costs to recognize changes in corporate allocation percentages occurring between January 1, 2017 and December 31, 2017.

- *TGS Central Texas Service Area Interim Cost and Rate Adjustment Changes from January 1, 2017 through December 31, 2017 – Investment Report – Summary of TGS Division Plant in Service (101 & 106) Project* – this report includes all plant in service and completed construction not classified project activity related to TGS Division and the costs incurred for each project for the period January 1, 2017 through December 31, 2017, as allocated to the Central Texas Service Area. Each project includes a project description as well as the customers benefiting for the project.
- *TGS Central Texas Service Area Interim Cost and Rate Adjustment Twelve Months Ended December 31, 2017 – Earnings Report* – this report together with supporting schedules and work papers shows TGS calculations of its earned return on rate base for the twelve months ended December 31, 2017 for its Central Texas Service Area. Schedule A shows that TGS earned return on rate base for the twelve months ended December 31, 2017 is 6.316% which is below the 7.308% allowed return approved in the most recent June 20, 2016 TGS central Texas rate case approved by the RRC and the COA.



Findings and Conclusions Related to TGS' Central Texas GRIP Filing

Based on our review of the TGS GRIP filing, including plant investment reports, earnings report and responses to all data requests, we conclude the following:

1. The TGS Earnings Monitoring Report for the Central Texas Service Area for the twelve months ended December 31, 2017 indicates that the TGS earned return on rate base (i.e., 6.316%) is below the authorized maximum rate of return of 7.308% on rate base authorized and approved by the COA in TGS most recent general rate case (test year ended 12/31/2015).
2. TGS GRIP filing is consistent with TUC §104.301;
3. The plant investment reports for central Texas Direct, Corporate and TGS Division plant projects filed to support plant asset cost activity and accumulated depreciation changes for the period January 1, 2017 through December 31, 2017 are mathematically accurate;
4. The TGS GRIP filing contains the appropriate plant asset and accumulated depreciation account balances, ratemaking adjustments and authorized rate of return approved by the RRC in TGS's Central Texas Service Area general rate case filing and by City Council;
5. The ratemaking adjustments are properly reflected in the current GRIP and other adjustments to 12/31/2017 plant asset account balances appear reasonable;
6. The ONE Gas corporate and TGS allocation methods used in the GRIP filing are consistent with those similar factors used in TGS previous central Texas GRIP filing as approved annually by the COA in 2011 – 2015.
7. GRIP schedules are mathematically accurate and properly compute TGS central Texas GRIP revenue requirement;
8. The rate design changed from previous GRIP filings and used the rate design to customer classes approved by the RRC and the COA in the 2016 settlement of TGS General Rate Case. The change combined the Sales and Transport customers for the purpose of designing rates.

List of Tables and Appendices

Table 1—TGS proposed and recommended revenue requirement applicable to the current central Texas service area for the period January 1, 2017 through December 31, 2017.

Table 2—Proposed rates by customer class.

Appendix 1—Brief description of the projects by FERC Chart of Accounts.

Appendix 2—Listing of Changes in Net Assets by FERC Accounts.



Table 1 – TGS Central Texas Revenue Requirement (GRIP Schedule 1)

TEXAS GAS SERVICE COMPANY
CENTRAL TEXAS SERVICE AREA
INTERIM COST RECOVERY AND RATE ADJUSTMENT
CHANGES FROM JANUARY 1, 2017 THROUGH DECEMBER 31, 2017

SUMMARY

LINE NO.	DESCRIPTION	NET CHANGES THROUGH 12/31/2017	RECOMMENDED 12/31/2017	ADJUSTMENTS
1	Change in Net Investment - (Schedule 2, Line 8)	\$28,107,733	\$28,107,733	-
2	Authorized Return Approved in most recent Rate Case* - (Schedule 4)	7.308%	7.308%	0.000%
3	Change in Return on Net Investment - (Line 1 times Line 2)	\$2,054,043	\$2,054,043	-
4	Change in Depreciation Expense - (Schedule 3, Line 61)	579,394	579,394	-
5	Change in Ad Valorem Tax - (Schedule 5, Line 3)	225,498	225,498	-
6	Change in Federal Income Taxes - (Schedule 6, Line 10)	869,880	869,880	-
7	Total Change in Revenue Requirement at 35% FIT Rate	\$3,728,814	\$3,728,814	-
8	Total Change from 35% FIT Rate to 21% FIT Rate	(440,446)	(440,446)	-
9	Total Change in Revenue Requirement at 21% FIT Rate	\$3,288,369	\$3,288,369	\$0

Table 2 – TGS Central Texas Customer Charge History and Current Increase

**TEXAS GAS SERVICE COMPANY
CENTRAL TEXAS SERVICE AREA
INTERIM COST RECOVERY AND RATE ADJUSTMENT
TARIFF CHANGES FOR TEST YEARS 2016 THROUGH 2017
CHANGE IN CUSTOMER CHARGE BY CUSTOMER CLASS**

Rate Schedule - Customer Class	Approved Customer Charge	TGS Proposed	TGS Proposed
	Last Interim Adjustment	Current Interim Adjustment	Customer Charge
<u>Gas Sales</u>			
10 - Residential	\$ 16.61	\$ 0.88	\$ 17.49
20 - Commercial	\$ 43.79	\$ 3.76	\$ 47.55
30 - Industrial	\$ 215.77	\$ 44.99	\$ 260.76
40 - Public Authority	\$ 60.96	\$ 9.05	\$ 70.01
48 - Public Schools/Space Heating	\$ 113.96	\$ 9.05	\$ 123.01
CNG -1- Compressed Nat. Gas	\$ 110.25	\$ 45.53	\$ 155.78
Electric Cogeneration Rate	\$ 83.96	\$ 9.05	\$ 93.01

Rate Schedule - Customer Class	Approved Customer Charge	TGS Proposed	TGS Proposed
	Last Interim Adjustment	Current Interim Adjustment	Customer Charge
<u>T-1 Standard Transportation</u>			
Commercial	\$ 255.79	\$ 3.76	\$ 259.55
Industrial	\$ 415.77	\$ 44.99	\$ 460.76
Public Authority	\$ 83.96	\$ 9.05	\$ 93.01
Public Schools/Space Heating	\$ 213.96	\$ 9.05	\$ 223.01
CNG -1- Compressed Nat. Gas	\$ 135.25	\$ 45.53	\$ 180.78
Electric Cogeneration Rate	\$ 83.96	\$ 9.05	\$ 93.01

Appendix 1 – TGS Direct and Corporate/Division Allocated Plant in Service and Completed Construction
Project Descriptions Provided in Response to approved 2016 CTSA rate case

Plant in Service (101)

- Acct. 376 - Distribution Mains
 - Direct - The increase in activity for this account are primarily attributable to the following:
 - The replacement or relocation of mains, service, measuring and regulating station equipment, meter settings, valves, control equipment, replacement of cathodic protection equipment, equipment used to monitor gas quality, and monitoring and communicating pressures and volumes in response to Texas Gas Service's (TGS) efforts to continuously evaluate and modernize infrastructure. An example of a large improvement project is "REPL-WEST AUSTIN AREA CAST IRON REPLACEMENT". This project and others like it are essential for the safe and efficient operation of the TGS distribution system in the CTSA.
 - Distribution line extensions to connect new customers. This includes new pipelines and associated city gates and regulation equipment. The largest project completed in 2016 was the "CALITERRA PHASE I - INSTALL 6" HP X-52 STL MAIN ALONG HWY US 290 W. EXTENSION OF EXISTING 8" HP STL." TGS must provide main extensions from existing distribution lines to meet its service obligations as the CTSA continues to grow.
- Acct. 378 – Meas. & Re. Station - General
 - Direct - The increases in activity for this account are primary attributable to Labor, materials, regulators, etc. necessary to install and maintain regulating stations across the CTSA. An example of a project completed for this purpose is "HPD TRAUTWEIN ROAD REGULATOR STATION." This project was completed to replace an existing regulator station in response to TGS's efforts to provide safe and reliable service.
- Acct. 380 - Services
 - Direct - The increases in activity for this account are primary attributable to labor, material, regulators, etc. necessary to provide service from distribution and high pressure distribution mains to serve new customers. TGS must provide extensions to meet its service obligations as the population of the CTSA continues to grow. Projects also include replacement of existing services that are of obsolete materials. These services are often included in a "blanket" project. An example of a project completed for this purpose is the "BLANKET REPLACEMENT SERVICES."
- Acct. 381 – Meters

- Direct - The increases in activity for this account are primary attributable to labor, material, regulators, etc. necessary to provide service from distribution and high pressure distribution mains to serve new customers as well as replacement of existing meters that are obsolete. These meters are often included in “blanket” projects. Examples of projects completed for these purposes are “Meter Replacements” and “METER PURCHASE BLANKET”.
- Acct. 383 – House Regulators
 - Direct - The increases in activity for this account are primary attributable to labor, material, regulators, etc. necessary to provide service from distribution and high pressure distribution mains to serve new customers. TGS must provide extensions to meet its service obligations as the population of the CTSA continues to grow. These regulators are often included in “blanket” projects. An example of a project completed for this purpose is “BLANKET REGULATORS”.
- Acct. 385 – Indust. Meas. & Reg. Stat. Equipment
 - Direct - The increases in activity for this account are primary attributable to labor, material, regulators, etc., necessary to install regulator and measuring facilities to provide service to CTSA industrial customers. TGS provided service to many apartments, hospitals and schools to meet its service obligations. An example of such a project is “UMCB-CP-BRACKENRIDGE (SETON HEALTHCARE) -- 1400 EAST AVENUE.”
- Acct. 390.2 – Leasehold Improvements
 - Direct - The increases in activity for this account are primary attributable to the following:
 - Purchase of workstations to accommodate expanding workforce at the Austin Service Center.
 - Remediation of draining issues that were causing damage to equipment and facilities at the Austin Service Center.
 - Purchase of lighting fixtures for the Austin Service Center for increased visibility at night and to meet city code requirements for the neighborhood.
 - Corporate – The increase to 390.2 Leasehold Improvements PIS is primarily attributable to the construction and remodeling of current leaseholds to provide a flexible meeting space for employees, an on-site training environment, secure on-site storage, and other minor facility enhancements. The benefits of these projects include reducing expenditures associated with renting meeting spaces for functional department meetings, and an enhanced training environment for employees.
- Acct. 391 – Office Furniture & Equipment
 - Direct - The increases in activity for this account are primary attributable to the

purchase and installation of furniture for the expanding workforce at Austin Service Center.

- Acct. 391.6 – Purchased Software

- Corporate – The increases to 391.6 Purchased Software PIS is primarily due to:

- Implementation and enhancements of software systems, such as Vertex, an E-business tax solution; Enterprise Content Management (ECM), a lifecycle management system allowing business processes to be documented and automated, search and identification of duplicate documentation; Itron FCS replaced Itron MV-RS, allowing for enhanced security, smarter route planning for measurement collection, reliable and secured connectivity for closed field offices, and provide a modern infrastructure with fewer software limitations; and Advanced Security Option to fully encrypt company data stored within Oracle ERP.
- Network improvements such as purchasing routers and switches, devices that allow connection of one or more computers to other computers, or networked devices, to replace older routers that do not support current features and do not support faster network links and replace switches that are more susceptible to failure. New routers will improve speed, reliability while new switches will help prevent network downtime and assist with troubleshooting issues.
- Upgrade the network security such as bringing security technologies license levels to current environment sizing while upgrading the security environment to allow for more in depth monitoring, auditing of several of the Company's software systems.

These additions will help the company maintain the highest level of information technology stability, reliability, and security. If a system becomes unavailable, Company operations may be impaired. Thus, it is necessary to provide reliable computing services to minimize disruption to customers and employees providing either indirect support or direct service to customers through leak detection, emergency response, customer billing, dispatching and scheduling of service calls, and to protect sensitive customer information.

- Acct. 392 – Transportation Equipment

- Direct - The increases in activity for this account are primary attributable to replacing aging vehicles which are used in the field (vehicles over 7 years of age or with mileage over 125,000 miles). Vehicles were also purchased to accommodate additions to the CTSA field personnel. These vehicles are necessary to provide safe, uninterrupted service to customers.

- Acct. 394 – Tools, Shop & Garage

- Direct - The increases in activity for this account are primary attributable to the replacement or purchase of tools and equipment necessary to perform maintenance or installation of gas piping and related regulation and metering equipment. This

equipment is necessary for installations and replacements in the CTSA and to inspect and maintain existing infrastructure to comply with all state and federal regulations.

- Acct. 396 Major Work Equipment
 - Direct - The increases in activity for this account are primary attributable to the purchase of welding equipment and a backhoe for the CTSA.
- Acct. 397 – Communications Equipment
 - Direct - The increases in activity for this account are attributable to installed automatic meter readers for the provision of efficient and safe service to CTSA customers.

CCNC (106)

Acct. 376 - Mains

- Direct - The increases in activity for this account are attributable to the following:
 - The replacement or relocation of mains, service, measuring and regulating station equipment, meter settings, valves, control equipment, replacement of cathodic protection equipment, equipment used to monitor gas quality, monitoring and communicating pressures and volumes in response to TGS's efforts to continuously evaluate and modernize infrastructure. An example of a large improvement project is "REPL-HPD-NORTHEAST SOUTH AREA." This project replaced a key high pressure distribution steel pipeline to modernize it and increase its capacity to provide an improved level of reliability and service. This project and others like it are essential for the safe and efficient operation of the TGS distribution system in the CTSA.
 - Distribution line extensions to connect new customers. This includes new pipelines and associated city gates and regulation equipment. The largest project completed in 2016 was the "CALITERRA PHASE IV - INSTALL 6" IP PE MAIN ALONG RR 12 AND US 290 TO SERVE ARROWHEAD SUBDIVISION" project. Another example is the "FM 973 - ASPHALT INC" project. TGS must provide main extensions from existing distribution lines to meet its service obligations as the population of the CTSA continues to grow.
- Acct. 378 – Meas. & Reg. Stat. General
 - Direct - The increases in activity for this account are attributable to labor material, regulators, etc. necessary to install and maintain regulating stations across the CTSA. An example of a project completed for this purpose is "2012 BUDGET - REPL-TRAVIS HEIGHTS AREA." This project was completed to improve the monitoring of pressures and volumes in response to TGS's efforts to provide safe and reliable service.

- Acct. 380 – Services
 - Direct - The increases in activity for this account are attributable to labor, material, regulators, etc. necessary to provide service from distribution and high pressure distribution mains to serve new customers. TGS must provide extensions to meet its service obligations as the population of Central Texas continues to grow. Services for new customers are generally included in a “blanket” project such as “BLANKET WORK ORDER - NEW SERVICES.”
- Acct.381 – Meters
 - Direct -The increases in activity for this account are attributable to diaphragm meters, rotary meters, turbine meters, pressure compensating indexes, etc. needed for normal day-to-day meter sets, resets, replacements, etc. Meters for these purposes are generally included in a “blanket” project such as “METER PURCHASE BLANKET.” This project was completed to improve the monitoring of pressures and volumes in response to TGS’s efforts to provide safe and reliable service.



Appendix 2 – Central Texas Service Area changes from January 01, 2017 December 31, 2017

DESCRIPTION	TOTAL ADJUSTED NET PLANT @ 01/01/2017	TOTAL ADJUSTED NET PLANT @ 12/31/2017	CHANGE IN TOTAL ADJUSTED NET PLANT
INTANGIBLE PLANT			
(301) Organization	\$18,267	\$16,017	(\$2,250)
(302) Franchises & Consents	186	60	(126)
(303) Misc. Intangible	19,453	18,269	(1,184)
Total Intangible Plant	\$37,906	\$34,346	(\$3,560)
TRANSMISSION PLANT			
(367) Mains	3,004,882	3,645,004	640,122
(369) Meas & Reg Stations Equip	487,955	497,327	9,372
Total Transmission Plant	\$3,492,837	\$4,142,331	\$649,494
DISTRIBUTION PLANT			
(374) Land & Land Rights	\$80,682	\$84,047	\$3,365
(375.1) Structures & Improvements	4,354	3,649	(704)
(375.2) Other System Structures	916	916	-
(376) Mains	173,659,411	187,113,176	13,453,765
(376.9) Mains - Cathodic Protection	17,627,833	17,713,349	85,516
(378) Meas. & Reg. Station - General	7,428,358	7,941,471	513,113
(379) Meas. & Reg. Station - C.G.	748,749	732,316	(16,434)
(380) Services	84,803,793	98,566,266	13,762,473
(381) Meters	26,741,533	28,426,913	1,685,380
(382) Meter Installations	(5,845)	702	6,547
(383) House Regulators	3,195,068	3,377,331	182,262
(385) Indust. Meas. & Reg. Stat.	5,797,314	6,130,342	333,028
(386) Other Property on Customer	(33,021)	(21,119)	11,902
Total Distribution Plant	\$320,049,145	\$350,069,359	\$30,020,214
GENERAL PLANT			
(389) Land & Land Rights	\$10,309	\$10,309	(\$0)
(390.1) Structures & Improvements	(524,425)	(597,819)	(73,394)
(390.2) Leasehold Improvement	1,443,395	1,542,146	98,751
(391.1) Office Furniture & Equipment	755,762	875,230	119,468
(391.3) Office Machines	271,157	2,504	(268,653)
(391.4) Audio Visual Equipment	86,965	66,570	(20,395)
(391.6) Purchased Software	3,823,366	4,303,487	480,120
(391.6) Purchased Software (Banner)	1,219,435	830,427	(389,008)
(391.6) Purchased Software	61,986	56,941	(5,045)
(391.6) Maximo-Leak Detect Sys	149,247	124,126	(25,122)
(391.6) Journey - Employee - ODC	5,387,031	5,171,658	(215,373)
(391.6) Journey - Employee Count	149,089	135,701	(13,388)
(391.6) Ariba Software	4,300	3,822	(478)
(391.8) Micro Computer Equipment	163,971	217,969	53,997
(391.9) Computer & Electronic	2,606,175	2,484,418	(121,757)
(392.2) Transportation Equipment			
Pickup Trucks and Vans	5,462,112	5,070,880	(391,232)
(393) Stores Equipment	382	187	(195)
(394) Tools, Shop & Garage	2,554,136	2,692,370	138,233
(395) Laboratory Equipment	1,151	1,151	-
(396) Major Work Equipment	398,562	404,454	5,892
(397) Communication Equipment	10,064,243	10,052,813	(11,430)
(398) Miscellaneous General Plant	72,173	63,482	(8,691)
Total General Plant	\$34,160,522	\$33,512,824	(\$647,698)
Total Original Cost Plant in Service	\$357,740,410	\$387,758,860	\$30,018,450