



**Kansas
Gas Service™**

A Division of ONE Gas

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State Corporation Commission
of Kansas

August 24, 2018

Kansas Corporation Commission
Attention: Lynn M. Retz, Secretary to Commission
1500 Arrowhead Road
Topeka, Kansas 66604

Re: Application for Gas System Reliability Surcharge

Dear Ms. Retz:

On behalf of Kansas Gas Service, a division of ONE Gas, Inc. ("Kansas Gas Service"), I am providing notice of the electronic filing of Kansas Gas Service's *Application* for approval of a gas system recovery surcharge ("GSRS"). An electronic copy is attached hereto for your convenience.

Please don't hesitate to reach out to me if you have any questions or concerns regarding this notification.

Respectfully Submitted,

Judy Jenkins Hitchye
Managing Attorney

Enclosures

cc: KCC Staff
KCC Docket Room

**BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

In the Matter of the Application of Kansas)	
Gas Service, a Division of ONE Gas, Inc.)	
for Approval by the Commission for a)	Docket No. 19-KGSG- <u>088</u> -TAR
Gas System Reliability Surcharge per)	
K.S.A. 66-2201 through 66-2204)	

APPLICATION

Kansas Gas Service, a Division of ONE Gas, Inc., (“Kansas Gas Service” or “Company”) pursuant to K.S.A. 66-2201, *et seq.*, hereby submits for filing, revisions to its Gas System Reliability Surcharge (GSRS) tariff which was originally approved in Docket No. 09-KGSG-199-TAR (the “199 Docket”). The GSRS tariff schedule is designed to allow for the adjustment of Kansas Gas Service’s rates and charges to provide for the recovery of costs for eligible infrastructure system replacements. As a result of the Company’s most recent general rate case, Docket No. 16-KGSG-491-RTS (the “491 Docket”) the tariff was reset to zero, and was then updated in Docket No. 18-KGSG-093-TAR (the “093 Docket”). In support of its Application, Kansas Gas Service states as follows:

1. Kansas Gas Service is a natural gas public utility operating in the State of Kansas pursuant to certificates of convenience and necessity issued by the Commission. Kansas Gas Service’s principal place of business in the state of Kansas is located at: 7421 West 129th Street, Overland Park, Kansas 66213.
2. Pleadings, notices, orders and other correspondence and communications regarding the Application should be sent to:

Judy Jenkins Hitchye, Managing Attorney
Kansas Gas Service
A Division of ONE Gas, Inc.
7421 W. 129th Street
Overland Park, Kansas 66213

Janet Buchanan
Director of Rates & Regulatory Reporting
Kansas Gas Service
A Division of ONE Gas, Inc.
7421 W. 129th Street
Overland Park, Kansas 66213

3. In 2006, Senate Bill 414, the Gas Safety and Reliability Act, was passed into law. Under this law, a utility “may file a petition and proposed rate schedules with the commission to establish or change GSRS rate schedules that will allow for the adjustment of the natural gas public utility’s rates and charges to provide for the recovery of costs for eligible infrastructure system replacements.”

4. Every year Kansas Gas Service, in the provision of natural gas utility service, is required to relocate and replace certain segments of its system. Kansas Gas Service’s GSRS tariff, which is the subject of this Application, allows the Company to recover the expenses associated with these projects between rate cases through a surcharge.

5. K.S.A. 66-2202 defines “eligible infrastructure system replacement” as: “Natural gas public utility plant projects that: (1) Do not increase revenues by directly connecting the infrastructure replacement to new customers; (2) are in service and used and required to be used; and (3) were not included in the natural gas public utility’s rate base in its most recent general rate case.”

6. There are two groups of projects being submitted in this filing. Anthony Cellitti, Manager of Engineering for Kansas Gas Service, summarizes these projects in his Direct Testimony as attached hereto and supported by Exhibits APC-1, APC-2, APC-

3 and APC-4. The first group includes 121 projects comprised of safety related system replacements. These projects are identified in Exhibit APC-1.

The second group consists 127 government mandated relocation projects that have not been fully reimbursed to the natural gas utility. These projects are identified in Exhibit APC-2.

Both types of projects are eligible for inclusion in a GSRS filing. Exhibits APC-1 and APC-2 show the location, project description, work order number, unitization date and cost for each of the projects. The safety related project list (*see*, Exhibit APC-1) also includes a reference to the compliance section of the state or federal pipeline safety requirements that prompted the replacements of the existing facilities. The governmental relocation project list (*see*, Exhibit APC-2) also identifies the governmental entity requiring the relocation activity. The projects, identified in Exhibits APC-1 and APC-2, were unitized between July 1, 2017 and June 30, 2018.

Exhibit APC-3, summarizes blanket work orders related to service line replacements and projects completed to address safety concerns and/or in conjunction with government projects. Blanket work orders are used to account for costs of projects that are of relatively small dollar amounts and are homogenous. The projects identified in Exhibit APC-3 were also unitized between July 1, 2017 and June 30, 2018.

Finally, as set forth in the Commission's Order in the 199 Docket, Exhibit APC-4 provides further explanations for those safety related projects identified in Exhibit APC-1 that are included (in whole or in part) due to monitoring conducted in compliance with 49 CFR § 192.613(b). The Company confirms that none of the costs included in Exhibits APC 1-3 were included in Kansas Gas Service's last general rate filing, the 491 Docket.

7. The inclusion criteria for the safety related projects, according to K.S.A. 66-2202 (f) (1) and (2), are as follows: “(1) Mains, valves, service lines, regulator stations, vaults and other pipeline system components installed to comply with state or federal safety requirements as replacements for existing facilities; and (2) main relining projects, service line insertion projects, joint encapsulation projects and other similar projects extending the useful life or enhancing the integrity of pipeline system components undertaken to comply with state or federal safety requirements.”

8. The inclusion criteria for the road relocation projects, according to K.S.A. 66-2202(f) (3) are as follows: “facility relocations required due to construction or improvement of a highway, road, street, public right of way or other public work by or on behalf of the United States, this state, a political subdivision of this state or another entity having the power of eminent domain provided that the costs related to such projects have not been reimbursed to the natural gas utility.” Kansas Gas Service has only included projects meeting either criteria for consideration in this filing.

9. Lorna M. Eaton, Manager, Rates and Regulatory, for Kansas Gas Service, summarizes the financial and accounting aspects of the projects Kansas Gas Service proposes to recover. Ms. Eaton also discusses the proposed GSRS tariff in her Direct Testimony, as supported by Exhibits LME-1 through LME-7, attached hereto and incorporated by reference. Pursuant to the provisions of K.S.A. 66-2204, Exhibit LME-1 shows the proposed increase to rate base and the calculation of the GSRS revenue requirement. The net GSRS rate base resulting from projects approved in the 093 Docket and those additional projects identified in this Application is \$45,619,939. The proposed

GSRS revenue requirement associated with projects approved in the 093 Docket and the additional projects identified in this Application is \$5,251,239.

10. Pursuant to K.S.A. 66-2203(a), “the commission may not approve a GSRS to the extent it would produce total annualized GSRS revenues below the lesser of \$1,000,000 or ½% of the natural gas public utility’s base revenue level approved by the commission in the natural gas public utility’s most recent general rate proceeding.” Based on Kansas Gas Service’s most recent general rate proceeding, the lower amount totals to \$1,000,000. The Company’s requested revenue increase of \$2,377,953, accordingly satisfies the threshold requirement.

11. The Stipulated Settlement Agreement in Kansas Gas Service’s most recent rate case, the 491 Docket, sets forth the provisions for the carrying charge to be applied to recoverable investments for Kansas Gas Service’s GSRS filing. The Stipulation provides that the carrying charge applicable to GSRS is 9.74%, gross of tax. Due to a reduction in the federal corporate income tax rate from the Tax Cuts and Jobs Act of 2017, the carrying charge has been reduced to 8.33% as part of the Settlement Agreement between Kansas Gas Service, the Staff of the Kansas Corporation Commission and the Citizens’ Utility Ratepayer Board in Docket No. 18-GIMX-248-GIV.¹ This return was used in the calculation of the revenue requirement as shown in Exhibit LME-1.

12. In this Application, Kansas Gas Service has also included the true-up of revenue recovered under the current GSRS through June 2018 versus the revenue approved to be recovered in the 093 Docket as approved by the Commission on November 16, 2017. This amount is shown in Exhibit LME-2.

¹ Appendix 1, “Regulatory Liability – GSRS” attached to the Settlement Agreement approved by the Commission in an Order dated May 15, 2018, in Docket No. 18-GIMX-248-GIV.

13. Exhibits LME-3 and LME-4 detail the rate base calculations for those projects identified in this Application along with updates to those projects approved in the 093 Docket. The components of the rate base calculation include: Gross Plant (which is the original cost of all eligible projects); accumulated depreciation associated with the eligible infrastructure system replacements; and, accumulated deferred income taxes associated with the eligible infrastructure system replacements.

14. Exhibit LME-5 shows the calculation of depreciation expense for those projects identified in this Application.

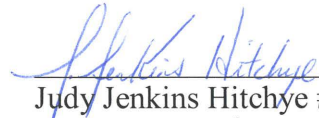
15. Exhibit LME-6 shows the allocation of the GSRS revenue by class. The customer class allocation is calculated pursuant to the Stipulated Settlement Agreement in the 491 Docket.

16. K.S.A. 66-2204 (e) (1) states: “A GSRS shall be charged to customers as a monthly fixed charge and not based on volumetric consumption. The monthly charge shall not increase more than \$.40 per residential customer over the base rates in effect for the initial filing of a GSRS. Thereafter, each filing shall not increase the monthly charge more than \$.40 per residential customer over the most recent filing of a GSRS.” The proposed GSRS surcharge yields a \$0.24 per meter, per month surcharge increase for a residential customer, which is below the statutory maximum monthly increase of \$0.40.

17. Exhibit LME-7 is the revised GSRS tariff page reflecting the recalculated GSRS rates.

WHEREFORE, for the reasons set forth herein, Kansas Gas Service respectfully requests that the Commission issue an Order approving the Application and the modified Gas System Reliability Surcharge Rider, as set forth in Exhibit LME-7.

KANSAS GAS SERVICE
A DIVISION OF ONE GAS, INC.

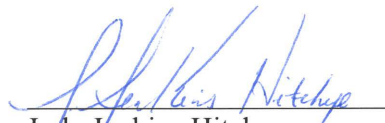


Judy Jenkins Hitchye #23300
7421 West 129th Street
Overland Park, Kansas 66213
(913) 319-8617
ITS ATTORNEY

VERIFICATION

STATE OF KANSAS)
) ss
COUNTY OF JOHNSON)

Judy Jenkins Hitchye of lawful age, being first duly sworn upon oath, deposes and states: That she is an attorney for Kansas Gas Service, a Division of ONE Gas, Inc.; that she has read the above and foregoing *Application* and that the statements therein contained are true according to her knowledge, information and belief.


Judy Jenkins Hitchye

Subscribed and sworn before me this 24 day of August, 2018.




Notary Public

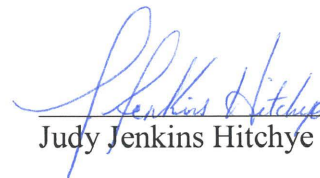
My Appointment Expires: June 21, 2022

CERTIFICATE OF SERVICE

I hereby certify that a copy of the above and foregoing *Application* was mailed this 24th day of August, 2018, addressed to:

David Nickel
Consumer Counsel
Citizens' Utility Ratepayer Board
1500 SW Arrowhead Road
Topeka, KS 66604

Amber Smith
Chief Litigation Counsel
Kansas Corporation Commission
1500 SW Arrowhead Road
Topeka, KS 66604-4027


Judy Jenkins Hitchye

In the Matter of the Application of)
Kansas Gas Service, A Division)
of ONE Gas, Inc., for Approval By)
The Commission for a Gas)
System Reliability Surcharge per)
K.S.A. 66-2201 through 66-2204)

DOCKET NO. 19-KGSG-____-TAR

DIRECT TESTIMONY
OF
ANTHONY P. CELLITTI
ON BEHALF OF
KANSAS GAS SERVICE
A DIVISION OF ONE GAS, INC.

DIRECT TESTIMONY
OF
ANTHONY P. CELLITTI
KANSAS GAS SERVICE
DOCKET NO. 19-KGSG-____-TAR

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Anthony P. Cellitti. My business address is 11401 West 89th Street,
3 Overland Park, Kansas 66214.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Kansas Gas Service, a Division of ONE Gas, Inc. I hold the position
6 of Manager of Engineering.

7 **Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL**
8 **EXPERIENCE.**

9 A. I have a Bachelor of Science and a Master of Science in Civil Engineering from the
10 University of Kansas. I also have Master of Business Administration from Rockhurst
11 University. Upon completion of my undergraduate degree in 1982, I began
12 employment with The Gas Service Company as an engineer. Since then my career
13 has been involved in the natural gas distribution business. I have had several positions
14 in engineering and operations. Since 1997, I have been a Manager of Engineering for
15 Kansas Gas Service. I am a Licensed Professional Engineer in the states of Kansas,
16 Missouri, and Oklahoma.

17 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

18 A. The purpose of my testimony is to support the eligibility of infrastructure system
19 replacement and/or enhancement projects included in Kansas Gas Service's
20 proposed Gas System Reliability Surcharge (GSRS). In addition to my testimony, Ms.

1 Lorna Eaton provides direct testimony on the calculation of the GSRS revenue and
2 the surcharge amounts by customer class.

3 **Q. ARE YOU SPONSORING ANY EXHIBITS?**

4 A. Yes. I am sponsoring Exhibits APC-1, APC-2, APC-3 and APC-4. These exhibits are
5 a summary and explanation of the projects being included in this proposal.

6 **Q. PLEASE PROVIDE A BRIEF OVERVIEW OF KANSAS GAS SERVICE.**

7 A. Kansas Gas Service is a division of ONE Gas, Inc., providing natural gas distribution
8 services to approximately 636,000 customers in more than 360 communities. Of this
9 amount, approximately 580,000 are residential customers, with the balance comprised
10 of non-residential general service sales customers and transportation customers.
11 Kansas Gas Service operates a system which includes approximately 13,000 miles of
12 distribution and transmission lines.

13 **Q. WHAT IS A GAS SYSTEM RELIABILITY SURCHARGE?**

14 A. In 2006, Senate Bill 414, the Gas Safety and Reliability Act, was passed into law.
15 Under this law, a utility may file a petition and proposed rate schedules with the
16 Commission to establish or change GSRS rate schedules that will allow for the
17 adjustment of the natural gas public utility's rates and charges to provide for the
18 recovery of costs for eligible infrastructure system replacements. Each year a utility is
19 required to relocate and replace certain segments of its system. The GSRS will allow
20 the utility to recover these expenses between rate cases through a surcharge.

21 **Q. HOW ARE "ELIGIBLE INFRASTRUCTURE SYSTEM REPLACEMENTS"**
22 **DEFINED?**

23 A. K.S.A. 66-2202(d)(1) defines "eligible infrastructure system replacement" as natural
24 gas public utility plant projects that: (1) Do not increase revenues by directly
25 connecting the infrastructure replacement to new customers; (2) are in service and

1 used and required to be used; and (3) were not included in the natural gas public
2 utility's rate base in its most recent general rate case.

3 **Q. HOW ARE NATURAL GAS UTILITY PLANT PROJECTS IDENTIFIED IN THE**
4 **STATUTE?**

5 A. K.S.A. 66-2202(f) provides that natural gas utility plant projects shall consist of one of
6 the following categories: (1) Mains, valves, service lines, regulator stations, vaults and
7 other pipeline system components installed to comply with state or federal safety
8 requirements as replacements for existing facilities; (2) main relining projects, service
9 line insertion projects, joint encapsulation projects and other similar projects extending
10 the useful life or enhancing the integrity of pipeline system components undertaken to
11 comply with state or federal safety requirements; and (3) facility relocations required
12 due to construction or improvement of a highway, road, street, public way or other
13 public work by or on behalf of the United States, this state, a political subdivision of
14 this state or another entity having the power of eminent domain provided that the costs
15 related to such projects have not been reimbursed to the natural gas public utility.
16 Components 1 and 2 identified above are generally classified under the heading of a
17 safety related project within this Application, while component 3 is generally classified
18 as a governmental relocation project.

19 **Q. WHAT KINDS OF PROJECTS ARE INCLUDED IN KANSAS GAS SERVICE'S**
20 **GSRs PROPOSAL?**

21 A. Exhibit APC-1 identifies those projects that qualify as a safety-related project under
22 K.S.A. 66-2202 sections (f)(1) and (2). Exhibit APC-2 identifies those projects that
23 qualify as governmental relocation projects under K.S.A. 66-2202(f)(3). Both exhibits
24 provide a project description, work order number, unitization date and cost for each of
25 the projects. The safety-related project list in Exhibit APC-1 also includes a reference
26 to the compliance section of the state or federal pipeline safety requirements. The

1 governmental relocation project list also identifies the governmental entity requiring
2 the relocation activity. The projects identified in Exhibits APC-1 and APC-2 were
3 unitized between July 1, 2017 and June 30, 2018.

4 **Q. PLEASE EXPLAIN EXHIBIT APC-3.**

5 A. Exhibit APC-3 identifies projects that have been accounted for as blanket work orders
6 for service line replacement projects and a limited group of non-service line projects.
7 Blanket work orders are used to account for costs of projects with relatively small dollar
8 amounts and similarity. Replacement of service lines meets both criteria and are
9 therefore accounted for within blanket work orders. These service line replacement
10 projects are small projects where the Company has replaced the service line from the
11 main in the street to the house as a result of either a safety concern or a public
12 improvement project. As such, these projects are eligible for recovery under K.S.A.
13 66-2202 sections (f)(1) or (2) in the same manner as projects identified in Exhibits
14 APC-1 and APC-2. The projects identified in Exhibit APC-3 were unitized between
15 July 1, 2017 and June 30, 2018. The service line replacements have also been
16 identified by safety category or government mandated relocation category.

17 **Q. PLEASE EXPLAIN EXHIBIT APC-4.**

18 A. The Commission's Order in our initial GSRS filing, Docket No. 09-KGSG-199-TAR (the
19 "199 Docket"), directed Kansas Gas Service to provide an expanded explanation of
20 projects included under the GSRS pursuant to 49 CFR 192.613. Exhibit APC-4
21 provides the explanation for those projects identified in Exhibit APC-1 that reference
22 section 192.613 of the Code of Federal Regulations. I will provide an explanation of
23 the applicability of section 192.613 to the service line replacements later in my
24 testimony.

1 **Q ARE PROJECTS OTHER THAN SAFETY-RELATED AND GOVERNMENT-**
2 **MANDATED RELOCATONS, WHICH MEET THE INCLUSION CRITERIA LISTED**
3 **ABOVE, INCLUDED IN THIS GSRs APPLICATION?**

4 A. No. Only projects meeting the two criteria previously mentioned are being submitted
5 for consideration in this filing.

6 **Q. WHEN WERE THE PROJECTS INCLUDED IN EXHIBITS APC-1, APC-2 AND APC-**
7 **3 COMPLETED?**

8 A. The projects included in Exhibits APC-1 and APC-2 were unitized and included on the
9 books as 'plant in service' during the period beginning July 2017 through June 2018.
10 As referenced in Ms. Eaton's testimony, none of the costs included in Exhibits APC-1,
11 APC-2 and APC-3 were included in Kansas Gas Service's rate case in Docket No. 16-
12 KGSG-491-RTS (the "491 Docket").

13 **Q. GENERALLY, WHAT SAFETY RELATED REGULATIONS ARE REFERENCED BY**
14 **KANSAS GAS SERVICE IN CONSIDERING A PROJECT'S INCLUSION IN THIS**
15 **GSRs FILING?**

16 A. The referenced regulations are contained in 49 CFR Part 192, Transportation of
17 Natural and Other Gas by Pipeline: Minimum Federal Safety Standards, and those
18 Kansas Administrative Regulations (K.A.R.s) applicable to jurisdictional natural gas
19 pipelines within the State of Kansas.

20 **Q. SPECIFICALLY, WHAT REGULATIONS ARE ASSOCIATED WITH THE SAFETY-**
21 **RELATED REPLACEMENT PROJECTS IN THIS FILING?**

22 A. Each project identified in Exhibit APC-1, was undertaken to comply with state or
23 federal safety requirements. The column marked "Safety Regulation" in Exhibit APC-
24 1, identifies the regulations from Title 49 of the Code of Federal Regulations, which
25 were adopted by the Kansas Corporation Commission in K.A.R. 82-11-4. Among the
26 applicable regulations are 49 CFR sections: 192.455, 192.457, 192.487, and 192.613.

1 Also referenced in APC-1, are certain Kansas Corporation dockets that address safety
2 such as Docket 11-KGSG-177-TAR, 12-KGSG-721-TAR, and 14-KGSG-100-MIS. I
3 will explain the safety related regulations and government mandated relocations for
4 service lines in more detail later in my testimony.

5 **Q. WHAT TYPES OF SAFETY RELATED PROJECTS ARE INCLUDED IN EXHIBIT**
6 **APC-1 OF KANSAS GAS SERVICE'S REQUEST?**

7 A. There are five categories of safety related projects included in Kansas Gas Service's
8 request in Exhibit APC-1. The total expenditures for all projects are \$5,345,967.
9 These categories consist of:

- 10 1) 3-5-3 PROGRAM REPLACEMENT;
- 11 2) CAST IRON REPLACEMENT;
- 12 3) CATHODIC PROTECTION;
- 13 4) CONTINUING SURVEILLANCE; and
- 14 5) OGS ops 2.1612R.

15 **Q. MR. CELLITTI, PLEASE DISCUSS THE 3-5-3 REPLACEMENT PROJECTS**
16 **DESCRIBED IN THE GSRS QUALIFICATIONS OF EXHIBIT APC-1.**

17 A. Pursuant to the Commission's Order in Docket No. 14-KGSG-100-MIS, Kansas Gas
18 Service developed a program to replace problematic protected bare steel main. Under
19 the 3-5-3 program, Kansas Gas Service identifies cathodically protected bare steel
20 distribution main segments which have experienced three or more leaks within a block
21 (approximately 500 feet) over the past three years. Exhibit APC-1 identifies those
22 distribution segments which have been replaced pursuant to this program. The total
23 capital expenditures for the 3-5-3 projects identified in Exhibit APC-1 are \$30,086.

24
25

1 **Q. PLEASE DESCRIBE THE CAST IRON REPLACEMENT ACTIVITIES SET FORTH**
2 **IN EXHIBIT APC-1.**

3 A. Section 192.613(b) states that if a pipeline is determined to be in unsatisfactory
4 condition but no immediate hazard exists, the operator shall initiate a program to
5 recondition or phase out the segment involved. As addressed in KCC Docket No. 12-
6 KGSG-721-TAR, Kansas Gas Service is proceeding with its program under section
7 192.613(b) to replace all cast iron pipes throughout our distribution system. The total
8 capital expenditures for the Cast Iron Replacement projects identified in Exhibit APC-
9 1 are \$4,129,964.

10 **Q. PLEASE EXPLAIN THE CATEGORY IDENTIFIED AS CATHODIC PROTECTION.**

11 A. Section 192.457 requires that pipelines installed prior to August 1, 1971, shall be
12 cathodically protected in areas where active corrosion is found. The job activities
13 identified in Exhibit APC-1 under the heading of Cathodic Protection represent those
14 projects undertaken by Kansas Gas Service that involve the cathodic protection of our
15 facilities. These activities are required by regulation and reduce the possibility of
16 corrosion of pipes, thereby significantly reducing the chance for leaks and risk to the
17 general public. Many of these projects were performed pursuant to section 192.457
18 for pipelines installed prior to August 1, 1971. A portion of the pipeline projects were
19 also performed pursuant to section 192.455 as certain sections of the identified
20 segments have had main sections replaced after August 1, 1971. The activities
21 identified in these projects were done to install new facilities that we determined more
22 efficiently reduced corrosion on the pipelines. The total capital expenditures for the
23 Cathodic Protection projects identified in Exhibit APC-1 are \$395,764.

1 **Q. PLEASE EXPLAIN THE CATEGORY IDENTIFIED AS CONTINUING**
2 **SURVEILLANCE.**

3 A. Section 192.613 requires each operator to have a procedure for continuing
4 surveillance of its facilities to determine and take appropriate action concerning
5 changes in class location, failures, leakage history, corrosion, substantial changes in
6 cathodic protection requirements, and other unusual operating and maintenance
7 conditions. It also requires that if a segment of pipe is determined to be in
8 unsatisfactory condition (but no immediate hazard exists), the operator shall initiate a
9 program to recondition or phase out the segment involved. However, if the segment
10 cannot be reconditioned or phased out, the operator shall reduce the maximum
11 allowable operating pressure in accordance with sections 192.619(a) and (b). The job
12 activities identified in Exhibit APC-1 under the heading of Continuing Surveillance
13 represent those projects undertaken by Kansas Gas Service that involve phasing out
14 of pipe segments determined to be in unsatisfactory condition but where no immediate
15 hazard exists. The total capital expenditures for the Continuing Surveillance projects
16 identified in Exhibit APC-1 are \$561,881.

17 **Q. PLEASE EXPLAIN THE CATEGORY IDENTIFIED AS SECTION OGS OPS**
18 **2.1612R.**

19 A. Pursuant to the Commission's Order in Docket No. 11-KGSG-177-TAR ("177 Docket"),
20 Kansas Gas Service developed its service line replacement program to replace an
21 average of 10,000 bare steel service lines per year. Pursuant to section 192.613(b),
22 Kansas Gas Service modified Section 1855 of its Operation and Maintenance Manual
23 to comply with the regulation, which was later renamed Section OGS ops 2.1612R.
24 As part of this program, Section OGS ops 2.1612R was modified to provide that
25 unprotected bare steel mains should also be replaced in conjunction with the
26 replacement of multiple bare steel or unprotected bare steel residential service lines.

1 Section OGS ops 2.1612R further states that protected steel mains, which operated
2 as unprotected mains before the application of cathodic protection, and supply multiple
3 Program Service Lines or Yard Lines, may be replaced in conjunction with the
4 replacement of bare steel service lines based upon the service history and continued
5 serviceability of the cathodically protected steel main. The projects identified in Exhibit
6 APC-1, lines 89 through 119, were performed in accordance with this provision of
7 section OGS ops 2.1612R of the Operating and Maintenance Manual. The total capital
8 expenditures for the section OGS ops 2.1612R projects identified in Exhibit APC-1 are
9 \$208,900.

10 **Q. PLEASE PROVIDE AN EXPLANATION FOR EXHIBIT APC-2 RELATING TO**
11 **GOVERNMENTALLY MANDATED RELOCATION PROJECTS.**

12 A. Exhibit APC-2 identifies each governmentally mandated relocation project included in
13 this GSRS filing. The Exhibit provides a description and location of the project, the
14 unitization date of the project, the cost of the project and the governmental entity which
15 required the relocation of our facilities. The total expenditure for all projects identified
16 in Exhibit APC-2 is \$4,784,773.

17 **Q. ARE THE COSTS IDENTIFIED ON LINES 65, 68, 105, AND 106 IN APC-1, AND**
18 **LINE 94 IN EXHIBIT APC-2 THE TOTAL COSTS OF THE JOB ORDERS INCURRED**
19 **BY THE COMPANY?**

20 A. No. These projects were included in rate base in the 491 Docket based upon their
21 actual costs incurred through June 2016. The costs reflected in these lines represent
22 that portion of the project costs in excess of the actual costs through June 2016. The
23 projects listed above were reduced by the amount KCC Staff included in rate base in
24 the 491 Docket.

1 **Q. ARE THE COSTS IDENTIFIED ON LINE 73 OF EXHIBIT APC-1, AND LINES 32, 52,**
2 **55, 66, 86, 114, AND 116 IN EXHIBIT APC-2, THE ACTUAL COSTS OF THE JOB**
3 **ORDERS INCURRED BY THE COMPANY?**

4 A. No. The costs identified are less than the actual costs incurred by the Company.
5 Consistent with previous Staff recommendations, KGS has reduced the requested
6 cost recovery of these projects to the estimated costs that would have been incurred
7 had KGS done a like-kind replacement. The pipe diameter installed for each of these
8 projects was greater than the diameter of the pipe replaced. The cost included for
9 these job orders reflects the cost for a similarly sized pipe as the one replaced. In prior
10 GSRS filings, Staff has requested that KGS identify the cost of similarly sized pipe
11 being replaced, which we have done here. The increased size of the pipe is
12 appropriate to address load or pressure concerns, but we have only asked to recover
13 the cost to replace similarly sized pipe and the appropriate amount of footage.

14 **Q. PLEASE PROVIDE FURTHER DETAILS REGARDING THE COMPANY'S SERVICE**
15 **LINE REPLACEMENT PROGRAM IDENTIFIED IN EXHIBIT APC-3.**

16 A. As stated above, the projects in this category relate to the replacement of service lines
17 from the main in the street to the house. These service line replacements have been
18 implemented for safety and government relocation reasons. The safety related
19 reasons are two-fold. The service lines themselves may need to be replaced because
20 of deficiencies in the service line such as leaks or corrosion. The service lines are
21 also replaced for safety related reasons tied to safety related replacements of the main
22 in the streets. For example, if a main must be replaced as part of the 3-5-3 program,
23 it becomes necessary to also replace the steel unprotected service lines and reconnect
24 existing PE service lines. When the main is replaced in the street, the existing service
25 line is disconnected and thus is no longer useful unless reconnected. Typically, the
26 cost to cathodically protect and reconnect the steel unprotected service line to the new

1 main will exceed the cost of simply installing a new service line. Similar to the
2 replacement of a service line due to replacement of a main for safety reasons, service
3 lines are also replaced when the main is relocated as a result of a government
4 mandated road relocation project. In these situations, the main must be replaced as
5 well as replacing or extending the existing service lines which have been rendered
6 useless through being disconnected from the old main as a result of the road
7 relocation. Again, the cost to cathodically protect and reconnect steel unprotected
8 service lines to the new main will exceed the cost of simply installing a new PE service
9 line.

10 **Q. PLEASE EXPLAIN THE STRUCTURE OF EXHIBIT APC-3.**

11 A. In the box under the heading "Blanket Service Line Summary," I have listed the
12 categories supporting the service line replacements. If a service line replacement is
13 due to a safety related requirement, the applicable safety related code requirement is
14 listed. If the service line replacement is due to a Public Improvement project, I have
15 identified it as such. The Exhibit then sets forth the dollar value and number of service
16 lines replaced by year and category. For example, the "Routine Replacement – Leak"
17 category had \$1,187,154 in service line replacement costs involving 703 service lines.
18 In the box under the heading "Non-Service Line Related Blanket Summary," there are
19 two categories of blanket non-service line projects which I will explain below.

20 **Q. PLEASE EXPLAIN EACH OF THE SERVICE LINE REPLACEMENT CATEGORIES**
21 **IDENTIFIED IN EXHIBIT APC-3?**

22 A. I have placed the safety related service line replacements at the beginning of the
23 Blanket Service Line Summary in Exhibit APC-3 and service line replacements for
24 public improvements at the bottom of the Blanket Service Line Summary. The first
25 safety category, "Routine Replacement-Leak", includes the replacement of service
26 lines that were replaced due to leakage classified under the leak classification

1 guidelines found in section 192.703 and subject to section 192.453(b) which requires
2 that unprotected steel service lines found to have active corrosion, shall either be
3 protected or replaced. As shown in Exhibit APC-3, during the period beginning July 1,
4 2017 through June 30, 2018, 703 service lines were replaced at a cost of \$1,187,154
5 for this category.

6 **Q. PLEASE EXPLAIN THE “ROUTINE REPLACEMENT – NON-LEAKING**
7 **UNPROTECTED PIPE” CATEGORY.**

8 A. This category includes replacement of unprotected steel service lines that were not
9 leaking. The unprotected steel service lines were replaced to comply with various
10 regulations including section 192.613(b) which requires that piping found to be
11 unsatisfactory must be phased out or replaced. Replacement reasons include issues
12 such as the: service line’s tap was exposed during maintenance of main and corrosion
13 was found requiring replacement pursuant to section 192.453(b); service line was
14 exposed during pot-holing and corrosion was found requiring replacement per section
15 192.453(b); service line was under the influence of soil subsidence found through
16 patrolling and required replacement pursuant to section 192.721; and current location
17 of the service line was found to be too shallow and required replacement pursuant to
18 section 192.613. All service lines included in the category are subject to section
19 192.453, which will inevitably trigger replacement of all unprotected steel lines by
20 regulation. These service lines were also replaced pursuant to the Commission’s
21 Order in the 177-Docket in accordance to the service line replacement program. As
22 shown in Exhibit APC-3, during the period beginning July 1, 2017 through June 30,
23 2018, 9,677 service lines were replaced at a cost of \$16,398,064 for this category.

1 **Q. PLEASE EXPLAIN THE “PUBLIC IMPROVEMENT” CATEGORY.**

2 A. As explained in my testimony above related to Exhibit APC-2, government mandated
3 relocation projects require the Company to relocate its mains in the street and are
4 qualified for recovery pursuant to K.S.A. 66-2202(f)(3). When performing main
5 relocation (which is the installation of new main) Kansas Gas Service will install new
6 service line piping to reconnect to existing plastic services and also replace the
7 unprotected steel service lines with new plastic service lines. These service line
8 replacements may have also resulted from a direct conflict with a governmental
9 relocation project where no conflict existed with the main piping. In these cases, only
10 the service line needed to be replaced, whereas the main did not need to be replaced.
11 As shown in Exhibit APC-3, during the period July 1, 2017 through June 30, 2018,
12 KGS replaced 94 service lines at a cost of \$159,751 for this category.

13 **Q. PLEASE EXPLAIN THE CATEGORIES IN THE BOX FOR “NON-SERVICE LINE**
14 **RELATED BLANKET.”**

15 A. These blanket costs address small projects other than service lines. The first group,
16 “install anodes,” is GSRS eligible pursuant to sections 192.455 and 192.457. The total
17 capital expenditures for these projects are \$1,209,140. These anodes represent
18 projects which involve ten anodes or less and thus are included in a blanket work
19 order. The other category, “Weld Sleeve High Resist Couplings” includes installation
20 of weld sleeves over high resistance couplings which are required pursuant to either
21 sections 192.457 or 192.455, to reduce the possibility of corrosion of pipes, thereby
22 significantly reducing the chance for leaks and risk to the general public. The total
23 capital expenditures for these projects are \$64,443.

24 **Q. PLEASE EXPLAIN EXHIBIT APC-4?**

25 A. Exhibit APC-4 sets forth the applicability of section 192.613 to those safety related
26 projects identified in Exhibit APC-1. There are 121(one hundred twenty-one) projects

1 that are identified in APC-1, whose inclusion as a safety related project is eligible for
2 recovery under K.S.A. 66-2201 pursuant to section 192.613, in whole or in part.

3 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

4 A. Yes.


VERIFICATION

STATE OF KANSAS)
) ss.
COUNTY OF JOHNSON)

Anthony P. Cellitti, being duly sworn upon his oath, deposes and states that he is Manager of Engineering for Kansas Gas Service, a Division of ONE Gas, Inc.; that he has read and is familiar with the foregoing Direct Testimony filed herewith; and that the statements made therein are true to the best of his knowledge, information, and belief.


ANTHONY P. CELLITTI

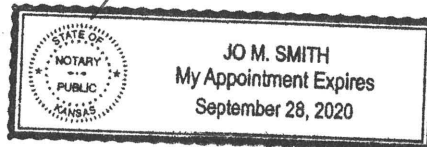
Subscribed and sworn to before me this 24 day of August, 2018.



NOTARY PUBLIC

My Appointment Expires:

9/28/2020



A	B	C	D	E	F	G	H	I	J
Line No.	GSRs Qualification	Safety Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC Account Number	Cost
1	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	9/18/2017	3811	053	10081	3-5-3: El: Galena - 13th, Amherst to Madison: Replace 320' of 2" BS with 2" TF, removing 3 past leaks.	37650	\$13,074
2	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	11/15/2017	3811	054	10159	3-5-3: GSRs El: Galena - 12th & Baker: Retired 1341' 2" BS, 177' 3" BS, & 36' 2" CS on 12th, 200' 1.25" BS main on Baker. Retired DRS 2516-0017. Installed 208' 4" PE, 267' 2" PE & 26' 2" CS. Replaced 3" obsolete BS pipe with 4" PE & 1 1/4" BS main w/2" PE.	37600	\$14,457
3	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	11/15/2017	3811	054	10159	3-5-3: GSRs El: Galena - 12th & Baker: Retired 1341' 2" BS, 177' 3" BS, & 36' 2" CS on 12th, 200' 1.25" BS main on Baker. Retired DRS 2516-0017. Installed 208' 4" PE, 267' 2" PE & 26' 2" CS. Replaced 3" obsolete BS pipe with 4" PE & 1 1/4" BS main w/2" PE.	37650	\$2,555
	3-5-3 Program Replacement Total								\$30,086
4	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	9/18/2017	3643	053	10012	CI Replacement - Miltonvale- Alley S of W Ash from E R/W of W 4th - Replace 96' BS and 9' CI with 105' of 2" PE main	37600	\$3,449
5	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	10/17/2017	3541	053	10192	CI Replacement - Story & SW Waite. Retire 1143' of 4" CI, 585' of 6" CI and Install 1550' of 2" PE and Retire District Reg # 3101-10138.	37600	\$52,094
6	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	3/30/2018	3541	053	10211	CI Replacement - Kensington and Plass. Retire 1752'-4" CI and 295'-2" BS, Install 2047'-4" PE main.	37600	\$90,909
7	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3541	053	10212	CI Replacement - Retire 571' 4" CI, 323' 6" CI, 882' 10" CI, 527' 10" APCS, 22' 4" APCS. Install 4" & 2" PE on 10th between Webster & Wayne Topeka. There is some existing main that requires MOP Increase.	37600	\$189,335
8	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	2/27/2018	3541	053	10214	CI Replacement PH 4 17th St Collins and Cambell Retire 5685' of cast iron. Install 6050' new 2" PE, and 15' of 2" PE	37600	\$213,144
9	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	9/18/2017	3541	053	10215	CI replacement PH 3 Collins from 17th to 18th replace approx 600' of 4 of CI with approx 600' of 4" PE	37600	\$21,188
10	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3541	053	10217	CI Replacement - Retire 1516' 10" CI & 472' 10" CS, Install 630' 2" PE 1650' 6" PE on Wayne between SW 10th & 11th & on SW 11th between Mac Vicar & Wayne.	37600	\$103,483
11	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3541	053	10217	CI Replacement - Retire 1516' 10" CI & 472' 10" CS, Install 630' 2" PE 1650' 6" PE on Wayne between SW 10th & 11th & on SW 11th between Mac Vicar & Wayne.	37650	\$992
12	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	1/31/2018	3721	053	10527	CI Replacement - 1st & Mathewson - Retire 270'-8" cast iron pipe and replace with 270' - 4" PE	37600	\$54,004
13	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	1/31/2018	3721	053	10527	CI Replacement - 1st & Mathewson - Retire 270'-8" cast iron pipe and replace with 270' - 4" PE	37690	\$7,504
14	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/11/2018	3721	053	10549	CI Replacement - Retire 880' of 4" CI, 64' of 8" APCS, 362' of 4" APCS, and 385' of 2" BS. Install 1965' of 2" PE near English and Crestway in Wichita.	37600	\$69,572
15	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/11/2018	3721	053	10549	CI Replacement - Retire 880' of 4" CI, 64' of 8" APCS, 362' of 4" APCS, and 385' of 2" BS. Install 1965' of 2" PE near English and Crestway in Wichita.	37690	\$4,893

A	B	C	D	E	F	G	H	I	J
Line No.	GSRS Qualification	Safety Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC Account Number	Cost
16	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	12/21/2017	3522	053	10568	CI Replacement - Install 3700' 2" PE and 100' 4" PE main. Retire 2037' 12" CI, 1194' 8" CI, 1267' 6" CI, 112' 8" CS, 54' 6" CS, and 20' 2" PE main due to United Govt of Wyandotte Kansas City bike trail project. 3rd phase of the 3 phase project. 12th & Argentine	37600	\$311,222
17	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	1/24/2018	3541	054	10581	2017 CI Replacement Phases 1 & 2. Retire 3600' of CI and install 3600' 2" PE. Located south of SW 17th & Stone, 17th & Arnold, 17th & Pembroke, and 18th & Pembroke.	37600	\$98,956
18	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	3/30/2018	3541	054	10583	CI Replacement - REV Lindenwood btwn Auburndale & 2nd & 2nd btwn Lindenwood & Jewell. Retire total of 1192' of CI, Install 1109' of 2" PE, 345' 4" PE. Retire 121' 4" CI, 860' 6" CI, 273' 4" BS, 59' 6" BS, 42' 6" CS	37600	\$99,798
19	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3541	054	10584	CI Replacement - Lafayette Street, 6th to 10th Retire 219' - 4" CI and 625' - 6" CI. Install 924' - 2" PE main.	37600	\$30,586
20	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/11/2018	3541	054	10585	CI Replacement - 12th & Woodward - Replace 1351' - 6" CI, Install 1385' - 2" PE main for CI replacement.	37600	\$65,661
21	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/11/2018	3541	054	10585	CI Replacement - 12th & Woodward - Replace 1351' - 6" CI, Install 1385' - 2" PE main for CI replacement.	37650	\$2,122
22	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	1/25/2018	3541	054	10586	CI Replacement - 6th and Lamar, Retire 434' - 4" CI, 384' - 2" BS. Install 987' - 2" PE, 302' - 4" PE & MOP increase 519' - 4" PE. Increasing length to tie into higher pressure main.	37600	\$66,130
23	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3541	054	10590	CI Replacement - KGS Topeka 54 NDP CI Repl Ph 10 Wayne from Huntoon to 17th Replace approx 2900' of 10" CI, lay 2600' of 2" PE and 300' of 4" PE	37600	\$110,718
24	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	4/30/2018	3541	054	10591	CI Replacement - SW Medford Avenue from SW 13th St to SW 15th St. To Install: 860' of 2" MDPE, Retire: 860' of 4" CI. Pressure: 12oz currently, to be changed to 45 PSIG system.	37600	\$47,558
25	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	3/30/2018	3541	054	10596	CI Replacement - PH 5 Macvicar from 6th to 8th. Replace 734' of 6" Cast Iron with 750' of 6" PE.	37600	\$81,122
26	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	3/30/2018	3541	054	10596	CI Replacement - PH 5 Macvicar from 6th to 8th. Replace 734' of 6" Cast Iron with 750' of 6" PE.	37690	\$2,070
27	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3541	054	10601	CI Replacement - Ph 8 SW Huntoon from Warren to Wayne. Retire total of 2317' of CI (1307' of 10", 502' of 6", 508' of 4"), 727' of 10" CS, 100' of 6" BS, 64' of 6" CS, 230' of 2" BS. Install 2235' - 4" PE and 980' - 2" PE.	37600	\$112,806
28	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/25/2018	3541	054	10604	CI Replacement - 17th & Jefferson. Retire 2040' 6" CI, 712' 4" CI, 240' 3" APCS, 270' - 2" APCS. Install 3262' 4" PE. System will remain low pressure. 7 BS servcies	37600	\$99,214
29	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/18/2018	3721	053	10646	CI Replacement - S. Martinson and Dayton CI Project 11 - Install 1060' of 2" PE . Retire a total of 1133' (12 OZ) 2" main: 789' of CI, 67' of CS, 277' of PE, uprate to 33 psig. 5 BS renewals	37600	\$47,703
30	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/18/2018	3721	053	10646	CI Replacement - S. Martinson and Dayton CI Project 11 - Install 1060' of 2" PE . Retire a total of 1133' (12 OZ) 2" main: 789' of CI, 67' of CS, 277' of PE, uprate to 33 psig. 5 BS renewals	37690	\$2,630
31	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/18/2018	3721	053	10646	CI Replacement - S. Martinson and Dayton CI Project 11 - Install 1060' of 2" PE . Retire a total of 1133' (12 OZ) 2" main: 789' of CI, 67' of CS, 277' of PE, uprate to 33 psig. 5 BS renewals	38000	\$5,102

A	B	C	D	E	F	G	H	I	J
Line No.	GSRS Qualification	Safety Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC Account Number	Cost
32	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/18/2018	3721	053	10653	CI Replacement -Retire 4,145' of low pressure cast iron along with 16,334' of steel, and 912' of PE on Woodlawn & 9th. To replace this pipe, 17,000' of 2" PE and 1,350' of 4" PE connected to the 45 psig system will be installed. Abandon DRS 2801-0205 due to obsolescence. 49 BS SL's.	37600	\$392,959
33	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/18/2018	3721	053	10653	CI Replacement -Retire 4,145' of low pressure cast iron along with 16,334' of steel, and 912' of PE on Woodlawn & 9th. To replace this pipe, 17,000' of 2" PE and 1,350' of 4" PE connected to the 45 psig system will be installed. Abandon DRS 2801-0205 due to obsolescence. 49 BS SL's.	37650	\$551
34	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/18/2018	3721	053	10653	CI Replacement -Retire 4,145' of low pressure cast iron along with 16,334' of steel, and 912' of PE on Woodlawn & 9th. To replace this pipe, 17,000' of 2" PE and 1,350' of 4" PE connected to the 45 psig system will be installed. Abandon DRS 2801-0205 due to obsolescence. 49 BS SL's.	37690	\$7,215
35	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/18/2018	3721	053	10653	CI Replacement -Retire 4,145' of low pressure cast iron along with 16,334' of steel, and 912' of PE on Woodlawn & 9th. To replace this pipe, 17,000' of 2" PE and 1,350' of 4" PE connected to the 45 psig system will be installed. Abandon DRS 2801-0205 due to obsolescence. 49 BS SL's.	38000	\$69,266
36	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	3/14/2018	3721	053	10660	CI Replacement - Minneapolis Ave and E 15th St N in Wichita KS. Install 1252' of 2" PE on high pressure (48#). Retire 1152' of low pressure (OZ) 4" pipe consisting of 563' of 4" CI, 467' of 4" BS, 33' of 3" BS and 122' of 4" CS. 14 BS SL's	37600	\$28,881
37	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	3/14/2018	3721	053	10660	CI Replacement - Minneapolis Ave and E 15th St N in Wichita KS. Install 1252' of 2" PE on high pressure (48#). Retire 1152' of low pressure (OZ) 4" pipe consisting of 563' of 4" CI, 467' of 4" BS, 33' of 3" BS and 122' of 4" CS. 14 BS SL's	38000	\$5,327
38	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	1/24/2018	3721	053	10662	CI Replacement - Replace 397' of 4" CI main with 397' of 4" PE on Washington & English as part of the 2017 C55 annual work plan.This work will affect 9 commercial services of which 7 are already PE and the remaining 2 are BS.	37600	\$72,319
39	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	1/24/2018	3721	053	10662	CI Replacement - Replace 397' of 4" CI main with 397' of 4" PE on Washington & English as part of the 2017 C55 annual work plan.This work will affect 9 commercial services of which 7 are already PE and the remaining 2 are BS.	37650	\$940
40	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	1/24/2018	3721	053	10662	CI Replacement - Replace 397' of 4" CI main with 397' of 4" PE on Washington & English as part of the 2017 C55 annual work plan.This work will affect 9 commercial services of which 7 are already PE and the remaining 2 are BS.	37690	\$6,586
41	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	1/24/2018	3721	053	10662	CI Replacement - Replace 397' of 4" CI main with 397' of 4" PE on Washington & English as part of the 2017 C55 annual work plan.This work will affect 9 commercial services of which 7 are already PE and the remaining 2 are BS.	38000	\$490
42	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/18/2018	3522	053	10664	CI Replacement - 8th & Parallel - To install 2,200' 4" PE and 1,800' 2" PE main and retire 4917' CI main, 608' CS and 236' PE main. The main is being replaced due to Wyandotte's Mill and Overlay Project Area 1-59.	37600	\$102,096
43	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/18/2018	3721	053	10685	CI Replacement - Install 5660' of 2" PE on high pressure main and 190' of 2" PE on low pressure main to replace 7490' of main (388' - 8" CI, 192' - 8" CS, 179' - 8" BS, 2469' - 6" BS, 599' - 6" CS, 263' - 5" BS, 1641' - 4" CS, 1295' - 4" BS, 37' - 4" APBS) on Topeka & Lincoln.	37600	\$426,139
44	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/18/2018	3721	053	10685	CI Replacement - Install 5660' of 2" PE on high pressure main and 190' of 2" PE on low pressure main to replace 7490' of main (388' - 8" CI, 192' - 8" CS, 179' - 8" BS, 2469' - 6" BS, 599' - 6" CS, 263' - 5" BS, 1641' - 4" CS, 1295' - 4" BS, 37' - 4" APBS) on Topeka & Lincoln.	37690	\$28,888
45	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/18/2018	3721	053	10685	CI Replacement - Install 5660' of 2" PE on high pressure main and 190' of 2" PE on low pressure main to replace 7490' of main (388' - 8" CI, 192' - 8" CS, 179' - 8" BS, 2469' - 6" BS, 599' - 6" CS, 263' - 5" BS, 1641' - 4" CS, 1295' - 4" BS, 37' - 4" APBS) on Topeka & Lincoln.	38000	\$89,648
46	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/1/2018	3721	053	10694	CI Replacement. The cast iron at Central & Piatt will be killed out. Install 3659' of 4" PE and 7566' of 2" PE. Retire 2897' of CI, 2544' CS, 5356' of BS. The regulator station will also be decommissioned, project will be upgraded to 48psig.	37600	\$529,063
47	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/1/2018	3721	053	10694	CI Replacement. The cast iron at Central & Piatt will be killed out. Install 3659' of 4" PE and 7566' of 2" PE. Retire 2897' of CI, 2544' CS, 5356' of BS. The regulator station will also be decommissioned, project will be upgraded to 48psig.	37690	\$3,561
48	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	6/1/2018	3721	053	10694	CI Replacement. The cast iron at Central & Piatt will be killed out. Install 3659' of 4" PE and 7566' of 2" PE. Retire 2897' of CI, 2544' CS, 5356' of BS. The regulator station will also be decommissioned, project will be upgraded to 48psig.	38000	\$59,548

A	B	C	D	E	F	G	H	I	J
Line No.	GSRS Qualification	Safety Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC Account Number	Cost
49	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3721	054	12018	CI Replacement - Glendale & Lewis - Retire 1,620' of 4" CI, 630' of 6" RPCS, 219' of 4" RPCS, and 73' of 4" PE on oz pressure. Install 2,650' of 2" PE on 48 psig as part of the cast iron replacement program.	37600	\$95,631
50	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3721	054	12018	CI Replacement - Glendale & Lewis - Retire 1,620' of 4" CI, 630' of 6" RPCS, 219' of 4" RPCS, and 73' of 4" PE on oz pressure. Install 2,650' of 2" PE on 48 psig as part of the cast iron replacement program.	38000	\$21,423
51	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3721	054	12040	CI Replacement - Abandon 38'-8" cast iron pipe at the NE corner of E 9th St North & Edgemoor St. Install 10' of 4" CS.	37690	\$7,788
52	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3721	054	12042	CI Replacement - Retire 225' of CI and 478' of BS main in the rear easement between Orme St and Kellogg Dr East of Volusia St. Install 550' of 4" PE.	37600	\$44,028
53	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3721	054	12042	CI Replacement - Retire 225' of CI and 478' of BS main in the rear easement between Orme St and Kellogg Dr East of Volusia St. Install 550' of 4" PE.	38000	\$2,945
54	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3721	054	12047	CI Replacement - Glenn & Munnell Streets. Retire 278'- 4" CI, 30'-4" BS, and 246'-2" BS. Install: 550' of 2" PE along S. Glenn Ave. between Munnell and Kellogg.	37600	\$28,223
55	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3721	054	12047	CI Replacement - Glenn & Munnell Streets. Retire 278'- 4" CI, 30'-4" BS, and 246'-2" BS. Install: 550' of 2" PE along S. Glenn Ave. between Munnell and Kellogg.	37690	\$2,586
56	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3721	054	12047	CI Replacement - Glenn & Munnell Streets. Retire 278'- 4" CI, 30'-4" BS, and 246'-2" BS. Install: 550' of 2" PE along S. Glenn Ave. between Munnell and Kellogg.	38000	\$10,030
57	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3721	054	12056	CI Replacement - Replace 40' of 8" CI, 77' of 4" CI, 21' of 4" Bare Steel, and 80' and 23' of 8" Bare Steel with 80' of 6" Thin Film at Douglas & Bluff as part of the 2018 Cast Iron Replacement Project.	37650	\$62,979
58	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3721	054	12056	CI Replacement - Replace 40' of 8" CI, 77' of 4" CI, 21' of 4" Bare Steel, and 80' and 23' of 8" Bare Steel with 80' of 6" Thin Film at Douglas & Bluff as part of the 2018 Cast Iron Replacement Project.	37690	\$2,076
59	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3721	054	12056	CI Replacement - Replace 40' of 8" CI, 77' of 4" CI, 21' of 4" Bare Steel, and 80' and 23' of 8" Bare Steel with 80' of 6" Thin Film at Douglas & Bluff as part of the 2018 Cast Iron Replacement Project.	38000	\$274
60	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	4/30/2018	3721	054	12061	CI Replacement - Replace 182'-4" cast iron and 32'-4" bare steel pipe with 220'-4" MD plastic pipe at the intersection of S. Broadway & Kinkaid Streets in Wichita.	37600	\$13,841
61	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	4/30/2018	3721	054	12061	CI Replacement - Replace 182'-4" cast iron and 32'-4" bare steel pipe with 220'-4" MD plastic pipe at the intersection of S. Broadway & Kinkaid Streets in Wichita.	37690	\$2,680
62	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3721	054	12071	CI Replacement - Replace 175' of 8" Cast Iron, 45' of 6" BS, and 230' of 4" BS, and Install appx 183' of 6" PE, 65' of 4" PE, and 242' of 2" PE on Oakwood & Hillcrest as part of the 2018 C55 Cast Iron Replacement Project.	37600	\$15,329
63	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3721	054	12071	CI Replacement - Replace 175' of 8" Cast Iron, 45' of 6" BS, and 230' of 4" BS, and Install appx 183' of 6" PE, 65' of 4" PE, and 242' of 2" PE on Oakwood & Hillcrest as part of the 2018 C55 Cast Iron Replacement Project.	37690	\$2,214
64	Cast Iron Replacement	KCC Docket No. 12-KGSG-721-TAR and 192.613 (b)	5/31/2018	3721	054	12071	CI Replacement - Replace 175' of 8" Cast Iron, 45' of 6" BS, and 230' of 4" BS, and Install appx 183' of 6" PE, 65' of 4" PE, and 242' of 2" PE on Oakwood & Hillcrest as part of the 2018 C55 Cast Iron Replacement Project.	38000	\$473
	Cast Iron Replacement Total								\$4,129,964

A	B	C	D	E	F	G	H	I	J
Line No.	GSRS Qualification	Safety Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC Account Number	Cost
65	Cathodic Protection	192.455, 192.457 and 192.613 (b)	5/31/2018	3741	053	10024 ⁽²⁾	The current deep well will be abandoned. The new anode bed will be move to the vacated railroad ROW near 11th and Rumsey.	37650	\$11,790
66	Cathodic Protection	192.455, 192.457 and 192.613 (b)	6/18/2018	3642	053	10053	Install 205' of 2" PE main and retire 205' of 2" CS and BS at 413 E 6th due to down read on CS and BS.	37600	\$7,697
67	Cathodic Protection	192.455, 192.457 and 192.613 (b)	6/18/2018	3642	053	10053	Install 205' of 2" PE main and retire 205' of 2" CS and BS at 413 E 6th due to down read on CS and BS.	38000	\$112
68	Cathodic Protection	192.455, 192.457 and 192.613 (b)	11/15/2017	3741	053	10058 ⁽²⁾	Replace 3" RPBS with 4" RPCS at the Intersection of 7th and Chestnut, Burden, Ks. 67042 to restore continuity to the rectified system.	37650	\$603
69	Cathodic Protection	192.455, 192.457 and 192.613 (b)	7/19/2017	3521	053	10080	Replace broken rectifier for 0168 in Paola to continue cathodic protection.	37650	\$1,973
70	Cathodic Protection	192.455, 192.457 and 192.613 (b)	11/30/2017	3521	053	10090	Rectifier 0599 - Replace the ground bed and rectifier in order to provide cathodic protecting for the city of Lyndon. The existing ground bed has been depleted.	37600	\$108
71	Cathodic Protection	192.455, 192.457 and 192.613 (b)	11/30/2017	3521	053	10090	Rectifier 0599 - Replace the ground bed and rectifier in order to provide cathodic protecting for the city of Lyndon. The existing ground bed has been depleted.	37650	\$27,977
72	Cathodic Protection	192.455, 192.457 and 192.613 (b)	1/17/2018	3533	054	10175	Replacing Rectifier and Groundbed on both sides of street at S.5th St & Iowa St. to continue cathodically protecting the low pressure system.	37650	\$28,994
73	Cathodic Protection	192.455, 192.457 and 192.613 (b)	7/3/2017	3741	054	10335 ⁽¹⁾	Poplar & N B St - Retire 362' of very corroded APBS main with 588' of 2" PE which includes relocating a section of main to serve two residential service lines that run across some one elses property and under a building.	37600	\$16,808
74	Cathodic Protection	192.455, 192.457 and 192.613 (b)	3/30/2018	3741	054	10342	Replace depleted ground bed at Rectifier #0512 in Wellington.	37650	\$10,074
75	Cathodic Protection	192.455, 192.457 and 192.613 (b)	11/30/2017	3721	053	10672	Replace depleted anode groundbed at 301 S Byers in Clearwater, KS for Rectifier Unit #0163. 18' S C/L Park, 8' W C/L Alley W of Byers. Asset# 9000006190	37650	\$23,465
76	Cathodic Protection	192.455, 192.457 and 192.613 (b)	9/27/2017	3721	053	10673	Replace depleted anode groundbed at 110 W Wood in Clearwater, KS for Rectifier Unit #0183. 31' N C/L Wood; 65' W C/L Tracy. Asset# 9000006191	37690	\$25,648
77	Cathodic Protection	192.455, 192.457 and 192.613 (b)	3/30/2018	3721	053	10674	Replace depleted groundbed for Rect #0591. Lies in alley behind 1727 S Seneca. Asset 9000006443.	37650	\$29,059
78	Cathodic Protection	192.455, 192.457 and 192.613 (b)	4/16/2018	3721	053	10675	Replace depleted groundbed for Rect #0561. Lies S of Pawnee, west of McLean Blvd. Also has coupon T/S at location. Asset 9000006531.	37650	\$34,174
79	Cathodic Protection	192.455, 192.457 and 192.613 (b)	3/30/2018	3721	053	10680	Replace depleted groundbed for Rect #0254 - 5955 N Hydraulic, Park City. 148' S C/L Beaumont; 44' W C/L N Hydraulic. Asset 9000006397.	37650	\$25,423
80	Cathodic Protection	192.455, 192.457 and 192.613 (b)	12/4/2017	3721	053	10681	Replace depleted groundbed for Rect #0904 - 25th and Meridian, Wichita. 28' N C/L 25th; 27' W C/L Meridian. Asset 9000006196.	37650	\$16,398
81	Cathodic Protection	192.455, 192.457 and 192.613 (b)	12/4/2017	3721	053	10682	Replace depleted groundbed for Rect #0905 - 29th and Meridian, Wichita. 201' N C/L 29th; 24' W C/L Meridian. Asset 9000006199.	37650	\$14,061

A	B	C	D	E	F	G	H	I	J
Line No.	GSRS Qualification	Safety Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC Account Number	Cost
82	Cathodic Protection	192.455, 192.457 and 192.613 (b)	4/16/2018	3721	053	10683	Replace depleted groundbed for Rect #0650 - Woodland Park Area - 632 W 20th St - Wichita. W of Parking Lot, S Side of Walking Path. Asset 9000006425.	37650	\$36,986
83	Cathodic Protection	192.455, 192.457 and 192.613 (b)	3/30/2018	3721	053	10691	Replace depleted groundbed for Deepwell Rect 0485 - 33rd and Seneca, Wichita. NW corner of 33rd and Seneca. Asset 9000006419.	37650	\$24,054
84	Cathodic Protection	192.455, 192.457 and 192.613 (b)	3/30/2018	3721	053	10692	Replace depleted groundbed for Deepwell Rect 0680 - Roosevelt and Murdock, south of MacDonald Park, south of Golf Course, next to creek) - Wichita. Asset 9000006432.	37650	\$31,390
85	Cathodic Protection	192.455, 192.457 and 192.613 (b)	3/30/2018	3721	053	10703	3637 W 21st St - Rect 0461 - Replace rectifier 0461 due to presence of chlorine. Compliance issue will be Aug 15, 2017.	37650	\$28,969
	Cathodic Protection Total								\$395,764
86	Continuing Surveillance	192.487 and 192.613 (b)	6/18/2018	3721	054	11938	Welders were unable to install a weld reinforcing sleeve due to localized corrosion resulting in a wall thickness loss of 70%. Install 350' of 2" PE at Countryside & Old Manor to replace the thin wall pipe and clear the leak that was temporarily fixed with clamp. 2 BS Service line renewals	37600	\$9,851
87	Continuing Surveillance	192.487 and 192.613 (b)	6/18/2018	3721	054	11938	Welders were unable to install a weld reinforcing sleeve due to localized corrosion resulting in a wall thickness loss of 70%. Install 350' of 2" PE at Countryside & Old Manor to replace the thin wall pipe and clear the leak that was temporarily fixed with clamp. 2 BS Service line renewals	37690	\$3,397
88	Continuing Surveillance	192.613 (b)	6/25/2018	3541	054	10575	3-5-3 BS replacement 11th between Washburn & Western. Install 2,721' of 10" T/F, 54' 8" T/F, 420' 4" PE, and 79' 2" PE main to retire 2,726' of 10" BS.	37600	\$15,459
89	Continuing Surveillance	192.613 (b)	6/25/2018	3541	054	10575	3-5-3 BS replacement 11th between Washburn & Western. Install 2,721' of 10" T/F, 54' 8" T/F, 420' 4" PE, and 79' 2" PE main to retire 2,726' of 10" BS.	37650	\$532,141
90	Continuing Surveillance	192.613 (b)	6/25/2018	3541	054	10575	3-5-3 BS replacement 11th between Washburn & Western. Install 2,721' of 10" T/F, 54' 8" T/F, 420' 4" PE, and 79' 2" PE main to retire 2,726' of 10" BS.	37690	\$1,034
	Continuing Surveillance Total								\$561,881
91	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	3/14/2018	3642	053	10039	Install 13' of 1 1/4" PE main on 7th & Elm to allow BS service to be renewed and new service to be run straight to the house versus at an angle like the previous service. This main was extended to serve an existing customer.	37600	\$253
92	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	3/12/2018	3911	053	10043	Service line at 134 E Shirley crosses a neighboring address. Install 150' 2" PE main to replace BS service line. BS service replacement requires that the main be relocated.	37600	\$6,350
93	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	10/17/2017	3643	054	10046	Replace 455' of 2 " BS Main with 445' of 2 " PE main in alley E of West St, N of 3rd St due to leakage. Replace 3 BS service lines.	37600	\$2,506
94	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	3/30/2018	3741	053	10078	Replace approximately 50' of 2" BS service line with new 2" PE at the Arkansas City Fire Department located at 115 S. D St. in Ark City, KS 67005.	38000	\$2,215
95	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	10/3/2017	3831	053	10082	Oswego Township - 11094 Wallace: Install 330' 2" PE and Retire 330' of 2" BS service and meter set.	37600	\$4,485
96	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	6/18/2018	3741	053	10084	Install 100' of 2" PE main at 1401 N Jefferson Ave to replace BS SL that cuts across neighboring property. Retire 50' of 3/4" BS service line. More installed than retired to avoid crossing neighboring property.	37600	\$7,433

A	B	C	D	E	F	G	H	I	J
Line No.	GSRS Qualification	Safety Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC Account Number	Cost
97	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	6/1/2018	3741	053	10086	Install 120' of 2" PE main on West Avocado to accommodate replacement of two existing BS service lines that cut across neighboring properties.	37600	\$3,287
98	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	4/30/2018	3761	053	10127	Pitt - 216 N Broadway: Install 180' 2" PE to retire isolated BS, replace 2 BS services.	37600	\$13,066
99	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	10/17/2017	3761	053	10129	Pitt - 1901 E 27th Terr: Install 58' - 2" PE new service line. Abandon old BS service.	38000	\$1,199
100	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	10/17/2017	3761	053	10129	Pitt - 1901 E 27th Terr: Install 58' - 2" PE new service line. Abandon old BS service.	38050	\$1,430
101	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	8/22/2017	3761	053	10131	8th & Chestnut - Install 20' of 2 " TF, retire 15' of 2 " CS along Chestnut near 8th St. This is to abandon an unneeded BS service line under a large tree. No replacement of BS service line at 722 W 8th	37650	\$3,379
102	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	1/24/2018	3761	053	10134	Pitt - 1901 E 27th Terr: Retirement of 8' of 4" CS to retire 1 BS SL. Install 8' of 4" CS.	37650	\$2,070
103	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	10/17/2017	3761	053	10135	300 E Lindburg - PSU Physical Plant. Replace 15' 2" BS service line with 15' 2" PE.	38000	\$4,388
104	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	3/12/2018	3761	053	10138	Pittsburg - 520 N Pine - Commercial SL Replacement. Replace 60' of Commercial 2" BS SL with 2" PE as part of the BS SL Replacement Program.	38000	\$1,033
105	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	10/17/2017	3522	053	10418 ⁽²⁾	Install 3,200' of 2" PE main along rear easement (south of 75th St) between Rainbow and State Line. Retire 1,700' of 2" APBS; 1,220' of 4" APBS and 250' of PE main. Replace 8 BS SL's. Phase 2 of 7 to replace large section of BS main and concentration of BS SL's	37600	\$36,642
106	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	9/27/2017	3522	053	10493 ⁽²⁾	75th Pl & Norwood - Replace and abandon 8,456' of mostly 1950's vintage PBS mains (2", 3", and 6") with 7740' - 2" PE and 1095' - 4" PE main. Replace 91 BS services.	37600	\$31,813
107	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	9/18/2017	3721	053	10611	Install 150' of 2" PE service at 302 SW 2nd due to existing service line on another customer's property & in conjunction with the BS SL replacement program.	37600	\$2,248
108	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	7/26/2017	3721	053	10613	125 N Market - Replace existing 4" BS S/L with 24' of 4" PE S/L inconjunction with BS service line program & relocate meter setting from the interior of the building to the exterior.	37600	\$5,320
109	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	7/26/2017	3721	053	10613	125 N Market - Replace existing 4" BS S/L with 24' of 4" PE S/L inconjunction with BS service line program & relocate meter setting from the interior of the building to the exterior.	37650	\$10,126
110	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	9/27/2017	3721	053	10620	401 N Meridian - Replace 566' of 4" BS and 18' of 2" BS SL with 450' of 1-1/4" PE SL and 106' of 2" PE YL at 1401 N. Meridian in conjunction BS service line replacement program	38000	\$5,192
111	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	9/27/2017	3721	053	10620	401 N Meridian - Replace 566' of 4" BS and 18' of 2" BS SL with 450' of 1-1/4" PE SL and 106' of 2" PE YL at 1401 N. Meridian in conjunction BS service line replacement program	38200	\$598
112	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	9/27/2017	3721	053	10620	401 N Meridian - Replace 566' of 4" BS and 18' of 2" BS SL with 450' of 1-1/4" PE SL and 106' of 2" PE YL at 1401 N. Meridian in conjunction BS service line replacement program	38300	\$298
113	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	9/18/2017	3721	053	10641	900 W Broadway St - This work will renew the existing 80' of 2" BS SL with a new 2" PE SL.	38000	\$2,702

A	B	C	D	E	F	G	H	I	J
Line No.	GSRs Qualification	Safety Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC Account Number	Cost
114	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	3/14/2018	3721	053	10706	340 S Broadway - Retire 10' of 2" BS SL and Replace with 10' of 2" PE.	38000	\$4,162
115	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	8/17/2017	3721	054	11913	Installing 90' of 2" PE to service residential customer at 812 Fairview. Replacing one BS SL in conjunction with the BS SL replacement program.	37600	\$3,434
116	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	9/27/2017	3721	054	11914	Installing 120' of 2" PE to service residential customers at 804 W 3rd and 301 Grandview in conjunction with the BS SL replacement program. Replacing 2 BS SL's.	37600	\$5,415
117	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	8/17/2017	3721	054	11920	Replace 480' of 2" bare steel with 2" PE to repair leaks spanning from E Wassall to 2657 S. Mosley south of the service line. There will be 9 BS services that will need to be replaced. This work will replace 2 temporary repairs done by leak clamp.	37600	\$14,695
118	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	8/17/2017	3721	054	11920	Replace 480' of 2" bare steel with 2" PE to repair leaks spanning from E Wassall to 2657 S. Mosley south of the service line. There will be 9 BS services that will need to be replaced. This work will replace 2 temporary repairs done by leak clamp.	37690	\$2,260
119	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	8/17/2017	3721	054	11920	Replace 480' of 2" bare steel with 2" PE to repair leaks spanning from E Wassall to 2657 S. Mosley south of the service line. There will be 9 BS services that will need to be replaced. This work will replace 2 temporary repairs done by leak clamp.	38000	\$348
120	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	5/11/2018	3721	054	12046	Replace leaking clamp & BS main. Retire about 300' of 4" RPBS, and install 350' of 4" PE along S. Oak to include 2460 S. Oak due to Class 1 leak on clamps and thin wall thickness found. (2) BS SL replacements	37600	\$24,920
121	OGS ops 2.1612R	KCC Docket No. 11-KGSG-177-TAR and 192.613 (b)	5/11/2018	3721	054	12046	Replace leaking clamp & BS main. Retire about 300' of 4" RPBS, and install 350' of 4" PE along S. Oak to include 2460 S. Oak due to Class 1 leak on clamps and thin wall thickness found. (2) BS SL replacements	38000	\$5,635
OGS ops 2.1612R Total									\$208,900
Grand Total									\$5,326,596

- (1) The costs associated with replacement of like for like pipe is included in this exhibit.
(2) The costs of these projects were reduced by the amount of the project that was in CWIP as of 6/30/16.

A Line No.	B GSRS Qualification	C Unitization Date	D Cost Center	E Function	F Job Order Number	G Description	H FERC Account Number	I Cost	J Government Authority
1	Public Improvement	11/30/17	3521	055	010109	To install 625 feet of 2" PE main and abandon 548' 2" BS, 78' 2" CS, and 10' 2" PE main between Hickory and Cedar due to conflict with the Ottawa sewer replacement project.	37600	\$20,096	City of Ottawa
2	Public Improvement	11/30/17	3521	055	010110	Replace 425' - 6" BS main with 430' - 4" PE main at Shawnee & Pearl, Paola, KS. The Miami County Detention Center is adding a new parking lot. Existing main is too shallow and new main will be installed 3.5 feet deeper.	37600	\$10,407	Miami County
3	Public Improvement	5/31/18	3521	055	010117	8th and Topeka. To Install: 415' 2" CS main, To Retire: 357' 2" BS main, 45' 2" CS main. This work is being done to replace the existing main along 8th street that is in conflict because it is too shallow and encased in curbs and driveways that are to be replaced by the city of Lyndon.	37650	\$19,722	City of Lyndon
4	Public Improvement	1/31/18	3522	055	010988	Install 4,460' - 4" PE and 635' - 2" PE on Merriam Ln from 24th to 35th due to conflict with street improvement project by KDOT in KCK. Retire 754' - 4" APCS, 3376' - 4" APBS, 38' - 4" PE, 231' - 2" APCS, 354' - 2" APBS, 175' - 2" PE, 36' - 1 1/4" PE.	37690	\$22,036	KDOT
5	Public Improvement	1/31/18	3522	055	010988	Install 4,460' - 4" PE and 635' - 2" PE on Merriam Ln from 24th to 35th due to conflict with street improvement project by KDOT in KCK. Retire 754' - 4" APCS, 3376' - 4" APBS, 38' - 4" PE, 231' - 2" APCS, 354' - 2" APBS, 175' - 2" PE, 36' - 1 1/4" PE.	37600	\$388,787	KDOT
6	Public Improvement	10/17/17	3522	055	011002	Lay 1,890' of 2" PE on 94th Ter & Haskins due to Lenexa public improvement project. Existing pipe is in conflict with new storm boxes. Retire total of 1779' main (727' of 3" BS, 868' of 2" BS, 30' 2" CS, 154' 2" PE). Tie-over 29 services. Renew 4 BS services.	37690	\$5,333	City of Lenexa
7	Public Improvement	10/17/17	3522	055	011002	Lay 1,890' of 2" PE on 94th Ter & Haskins due to Lenexa public improvement project. Existing pipe is in conflict with new storm boxes. Retire total of 1779' main (727' of 3" BS, 868' of 2" BS, 30' 2" CS, 154' 2" PE). Tie-over 29 services. Renew 4 BS services.	37600	\$65,753	City of Lenexa
8	Public Improvement	9/27/17	3522	055	011009	Install 4066 ft of 4" MDPE and 2" MDPE for Mission Hills Street Improvement Project. Retire 3905 ft of various types of Bare Steel, PE, and TF pipe (2231' of 6" BS, 1379' of 4" CS & BS) in conflict with the project on 63rd St from Stateline Rd to Mission Rd.	37690	\$5,329	City of Mission Hills
9	Public Improvement	9/27/17	3522	055	011009	Install 4066 ft of 4" MDPE and 2" MDPE for Mission Hills Street Improvement Project. Retire 3905 ft of various types of Bare Steel, PE, and TF pipe (2231' of 6" BS, 1379' of 4" CS & BS) in conflict with the project on 63rd St from Stateline Rd to Mission Rd.	37600	\$362,349	City of Mission Hills
10	Public Improvement	11/30/17	3522	055	011010	Install 900' - 4" PE main. Retire 822' - 4" APBS and 74' - 4" PE main due to conflicts with a 2016 Unified Government of Wyandotte Kansas City, KS mill and overlay project in Strong Ave between 39th & 42nd St.	37600	\$44,551	Unified Government of Wyandotte County
11	Public Improvement	8/31/17	3522	055	011015	Install 15' 6" CS, 15' 3" CS and a 20' 2" PE dogleg and retire 12' 6" CS, 10' 3" CS and 12' 2" PE main on 87th & Larsen due to conflict with the new storm sewers being installed by OP's 2015 Major Storm Sewer repairs project MS-1267	37600	\$5,695	City of Overland Park
12	Public Improvement	8/31/17	3522	055	011015	Install 15' 6" CS, 15' 3" CS and a 20' 2" PE dogleg and retire 12' 6" CS, 10' 3" CS and 12' 2" PE main on 87th & Larsen due to conflict with the new storm sewers being installed by OP's 2015 Major Storm Sewer repairs project MS-1267	37650	\$30,022	City of Overland Park
13	Public Improvement	10/17/17	3522	055	011017	To install 60' of 6" CS and 15' of 2" PE main and retire 10' 2" PE and 50' 6" CS main on 87th & Melrose to eliminate conflicts with the city of Overland Parks 2015 Major Storm Sewer Repairs.	37600	\$5,382	City of Overland Park
14	Public Improvement	10/17/17	3522	055	011017	To install 60' of 6" CS and 15' of 2" PE main and retire 10' 2" PE and 50' 6" CS main on 87th & Melrose to eliminate conflicts with the city of Overland Parks 2015 Major Storm Sewer Repairs.	37650	\$67,261	City of Overland Park
15	Public Improvement	11/30/17	3522	055	011018	87th & Stearns. Install 70' 6" CS, 40' 4" CS. Retire 60' 6" CS, 15' 4" CS, 15' 3" CS main due to conflict with the new storm sewer being installed for the City of Overland Park 2015 Major Storm Sewer Repairs MS-1267	37650	\$35,807	City of Overland Park
16	Public Improvement	11/30/17	3522	055	011022	Install 70' - 8" TF, 40' - 6" TF, 340' - 4" TF and 80' - 2" TF main. Retire 42' - 16" BS, 490' - 8" BS, 2,608' 4" BS and 485' - 4" APCS main due to conflict with UG of Wyandotte/KC 2016 mill and overlay on 42nd & Hagemann.	37690	\$7,867	Unified Government of Wyandotte County
17	Public Improvement	11/30/17	3522	055	011022	Install 70' - 8" TF, 40' - 6" TF, 340' - 4" TF and 80' - 2" TF main. Retire 42' - 16" BS, 490' - 8" BS, 2,608' 4" BS and 485' - 4" APCS main due to conflict with UG of Wyandotte/KC 2016 mill and overlay on 42nd & Hagemann.	37650	\$48,916	Unified Government of Wyandotte County
18	Public Improvement	12/21/17	3522	055	011025	Install 415 ft. 2" PE Main and Retire 200' of 3" CS and 200' 2" CS Main on 52nd Ter & Lakewood due to UG of Wyandotte/KC Stone Haven Storm Sewer project.	37600	\$17,257	Unified Government of Wyandotte County

A Line No.	B GSRS Qualification	C Unitization Date	D Cost Center	E Function	F Job Order Number	G Description	H FERC Account Number	I Cost	J Government Authority
19	Public Improvement	2/5/18	3522	055	011032	Location: 89th and Stateline. To install a 22' 10" CS dogleg and retire 22' 10" BS main due to the city of Leawood's new storm box being installed.	37690	\$11,897	City of Leawood
20	Public Improvement	2/5/18	3522	055	011032	Location: 89th and Stateline. To install a 22' 10" CS dogleg and retire 22' 10" BS main due to the city of Leawood's new storm box being installed.	37650	\$46,602	City of Leawood
21	Public Improvement	12/21/17	3522	055	011034	62nd & Ballentine, Shawnee. Install 150' 2" PE and 20' 2" CS main. Retire 68' 2" PE, 80' 2" BS due to conflicts with the new storm sewer being installed for Shawnee's Nieman Corridor South Storm Water Improvements.	37690	\$7,989	City of Shawnee
22	Public Improvement	12/21/17	3522	055	011034	62nd & Ballentine, Shawnee. Install 150' 2" PE and 20' 2" CS main. Retire 68' 2" PE, 80' 2" BS due to conflicts with the new storm sewer being installed for Shawnee's Nieman Corridor South Storm Water Improvements.	37600	\$8,282	City of Shawnee
23	Public Improvement	1/17/18	3522	055	011035	Install 1400 ft of 20" CS and 20' 16" CS and retire 1250' 24" CS on Riverview and Turner Diagonal due to the Unified Government of Wyandotte Riverfiew Avenue Bridge Replacement Project.	37650	\$225	Unified Government of Wyandotte County
24	Public Improvement	10/17/17	3522	055	011037	To install 350' 4" PE main and retire 224' 4" BS, 109' 4" CS, 10' 4" PE main due to a storm culvert wall collapse along Ensley Lane in Mission Hills.	37600	\$20,703	City of Mission Hills
25	Public Improvement	6/25/18	3522	055	011091	47th Ter. and Eby - Main Relocation. Install: 20' 2" CS main, Retire: 15' 2" CS main. This work is being done as part of the City of Merriam's CMP Rehab/Replacement project. The existing 2" CS is laying in an indention on the top of the existing CMP storm pipe and is in conflict.	37650	\$1,865	City of Merriam
26	Public Improvement	8/17/17	3531	055	010064	Kickapoo & Ottawa between N. Broadway and N. 7th, Leavenworth, relocate 100' - 2" PE Main for a City of Leavenworth storm pipe upgrade.	37600	\$4,019	City of Leavenworth
27	Public Improvement	8/17/17	3531	055	010067	Location: S 4th St and Marion St. Leavenworth, KS City Geometric Improvement project interferes with our existing main on Marion St. KGS Install: 117' of 2" PE, Retire: 97' 2" CS 485' of 1 1/4" CS (52 KA-4057-01)	37600	\$12,645	City of Leavenworth
28	Public Improvement	12/14/17	3533	055	010035	Replace 410' of 4" CS main with 500' of 4" CS Main located at the intersection of Saratoga Road and 190th Road. Doniphan County will be replacing the bridge at this location (Project T 433-3)	37650	\$50,958	Doniphan County
29	Public Improvement	7/3/17	3541	055	010300	Install 470' of 8" CS & 50' of 10" CS. Retire 470' of 8" CS & 50' of 10" CS in conflict with City of Topeka RD improvement at 37th & California and California & I470 overpass	37690	\$1,314	City of Topeka
30	Public Improvement	7/3/17	3541	055	010300	Install 470' of 8" CS & 50' of 10" CS. Retire 470' of 8" CS & 50' of 10" CS in conflict with City of Topeka RD improvement at 37th & California and California & I470 overpass	37650	\$217,813	City of Topeka
31	Public Improvement	3/30/18	3541	055	010303	Topeka Relocation on SW Urish Rd betw 17th & 21st in conflict with SN County Street Improvement Project# 701005-00. Replace 900' - 2" RPCS w/900' of 6" T/F, relocate 200' - 6" RPCS and relocate 160' - 4" PE.	37600	\$8,201	Shawnee County
32	Public Improvement	3/30/18	3541	055	010303 ⁽¹⁾	Topeka Relocation on SW Urish Rd betw 17th & 21st in conflict with SN County Street Improvement Project# 701005-00. Replace 900' - 2" RPCS w/900' of 6" T/F, relocate 200' - 6" RPCS and relocate 160' - 4" PE.	37650	\$78,919	Shawnee County
33	Public Improvement	8/31/17	3541	055	010306	38th and Stonybrook. Existing 2" PE main in conflict with installation of new culvert by the City of Topeka. Install 150' of 2" PE, Retire 150' of 2" PE to avoid conflict.	37600	\$8,468	City of Topeka
34	Public Improvement	8/31/17	3541	055	010307	Lower approx. 100' - 2" RPCS on 25th & Osborn, it is shallow and interfering with City of Topeka new curb and gutter.	37650	\$7,153	City of Topeka
35	Public Improvement	11/30/17	3541	055	010311	23rd & Massachusetts, Topeka. Install 200' of 2" PE & retire 200' of 2" BS that is too shallow for the City of Topeka road improvements.	37690	\$10,026	City of Topeka
36	Public Improvement	11/30/17	3541	055	010311	23rd & Massachusetts, Topeka. Install 200' of 2" PE & retire 200' of 2" BS that is too shallow for the City of Topeka road improvements.	37600	\$9,823	City of Topeka

A Line No.	B GSRS Qualification	C Unitization Date	D Cost Center	E Function	F Job Order Number	G Description	H FERC Account Number	I Cost	J Government Authority
37	Public Improvement	3/30/18	3541	055	010313	California from 29th to 33rd Road expansion for the City of Topeka will be in conflict with our 10" main at this location forcing the main to be relocated. Retire 2800' of 10" CS, Install 2800' of 10" CS.	37690	\$618	City of Topeka
38	Public Improvement	3/30/18	3541	055	010313	California from 29th to 33rd Road expansion for the City of Topeka will be in conflict with our 10" main at this location forcing the main to be relocated. Retire 2800' of 10" CS, Install 2800' of 10" CS.	37650	\$436,193	City of Topeka
39	Public Improvement	3/30/18	3541	055	010313	California from 29th to 33rd Road expansion for the City of Topeka will be in conflict with our 10" main at this location forcing the main to be relocated. Retire 2800' of 10" CS, Install 2800' of 10" CS.	37600	\$11,548	City of Topeka
40	Public Improvement	4/16/18	3541	055	010322	Oakley Rd move from 10th to 12th. Install 730' of 2" PE to eliminate long side services that are too shallow for City of Topeka road improvements. Existing water main in center of road makes replacing services as long sides impossible.	37600	\$29,609	City of Topeka
41	Public Improvement	8/31/17	3541	055	010323	SW 18th & Urish to remove 12' of 4" PE for sewer installation during road construction. Install 12' of 4" PE main after sewer is installed for road construction. 4" PE main relocated for City of Topeka Road Project	37600	\$14,317	City of Topeka
42	Public Improvement	5/31/18	3541	055	010325	Install 60' of 6" CS & 446' 4" CS at 37th & California existing main in conflict with City of Topeka roundabout, existing valve & main too shallow. Retire 30' of 6" CS and 260' of 4" CS. More main installed than retired due to location of feed.	37650	\$38,424	City of Topeka
43	Public Improvement	4/30/18	3541	055	010327	SE 29th & Fremont main in conflict with City of Topeka's new storm inlet. This work order is to relocate 90' of 2" PE in conflict with proposed storm inlet box for the City of Topeka's road improvement project. Contractor will relocate main at their expense.	37600	\$7,972	City of Topeka
44	Public Improvement	3/30/18	3541	055	010328	Retire 155' of 4" PE at 4834 Button Rd In conflict with City of Topeka proposed box bridge. Install 155' of 4" PE. Main will be cut out of way. Box will be installed and new main will be installed under.	37600	\$13,722	City of Topeka
45	Public Improvement	6/18/18	3541	055	010334	SW 28th & Fairlawn Rd, Topeka, KS. Install 170' - 4" FBE Coated Steel across SW Fairlawn Rd south of 28th St. Tie-over the 4" RPCS system across SW Fairlawn that was abandoned due conflicts with the City of Topeka's 2017 Storm Sewer Replacement project at SW 28th & Fairlawn	37650	\$23,552	City of Topeka
46	Public Improvement	1/17/18	3621	055	010029	Install 875' of 2" PE to relocate main feed into south Ellinwood. The existing feed is in conflict with a highway project being done by KDOT in the City of Ellinwood. 275' of 2" APCS will be abandoned and no services will be affected by this work.	37600	\$36,360	KDOT
47	Public Improvement	11/15/17	3621	055	010035	Lower about 80' of 4" steel pipe due to conflict with the City of Russel new Highway storm water sewer at S Fossil St & E Luray St	37650	\$16,562	City of Russel
48	Public Improvement	9/18/17	3635	055	010053	N. Centennial Bridge, north of US 56 HWY, McPherson, KS. Replace 180' - 2" CS with 180' - 2" PE main to eliminate conflict with City of McPherson bridge project.	37690	\$909	City of McPherson
49	Public Improvement	9/18/17	3635	055	010053	N. Centennial Bridge, north of US 56 HWY, McPherson, KS. Replace 180' - 2" CS with 180' - 2" PE main to eliminate conflict with City of McPherson bridge project.	37600	\$3,720	City of McPherson
50	Public Improvement	6/1/18	3635	055	010054	The City of McPherson is reconstructing E Gordy St between N Carrie St and N Lehmer St. 215' of APBS and 59' of APCS are shallow and in conflict. Install approximately 300' of new 2" PE to replace the main and 100' of 2" PE to allow the service to 1500 E Gordon St to be perpendicular to the main.	37690	\$1,420	City of McPherson
51	Public Improvement	6/1/18	3635	055	010054	The City of McPherson is reconstructing E Gordy St between N Carrie St and N Lehmer St. 215' of APBS and 59' of APCS are shallow and in conflict. Install approximately 300' of new 2" PE to replace the main and 100' of 2" PE to allow the service to 1500 E Gordon St to be perpendicular to the main.	37600	\$6,739	City of McPherson
52	Public Improvement	11/30/17	3635	055	010055 ⁽¹⁾	Relocate 120' of 2" APBS and 80' of 1.25" APBS main in rear easement w/260'- 4" PE main in road right of way due to a City of McPherson Sewer project near E Hulse Ave & N Myers St.	37600	\$11,687	City of McPherson
53	Public Improvement	1/17/18	3641	055	010081	Relocate the 2" PE gas main at the intersection of N Bridge St and E 1st St – Tescott. Main is in conflict with the Ottawa County bridge reconstruction project. Install 185' 2" PE, Retire 150' of 2" plastic gas main.	37600	\$2,723	Ottawa County
54	Public Improvement	10/17/17	3642	055	010034	Replace 80' of 2" PE with 80' of 2" PE across 10th in alley E of Walnut due to conflict with the City of Beloit street paving project.	37600	\$2,855	City of Beloit

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55	Public Improvement	10/17/17	3642	055	010035 ⁽¹⁾	Replace 1200' of 2" CS Main with 4" PE Main in W R/W of K-14 Hwy N of 10th St in conflict with City of Beloit Street Improvement Project.	37600	\$15,695	City of Beloit
56	Public Improvement	5/31/18	3651	055	010126	Install: 350' - 2" PE (add about 60' more than retiring so 1900 Sunset Ln service line will be straight) Retire: 182' - 1 1/4" CS and 104' - 1" CS due to conflict with road construction and sewer work being done by the city of Manhattan at Sunset Lane.	37690	\$9,264	City of Manhattan
57	Public Improvement	5/31/18	3651	055	010126	Install: 350' - 2" PE (add about 60' more than retiring so 1900 Sunset Ln service line will be straight) Retire: 182' - 1 1/4" CS and 104' - 1" CS due to conflict with road construction and sewer work being done by the city of Manhattan at Sunset Lane.	37600	\$34,225	City of Manhattan
58	Public Improvement	9/27/17	3721	055	010452	11212 E Kellogg, Wichita, KS - Replace 130' - 2" PE service to avoid conflict with a City of Wichita road construction project on Greenwich Rd, north of Kellogg.	38000	\$335	City of Wichita
59	Public Improvement	9/1/17	3721	055	010454	Abandon the 120' of 2" plastic service on the south side of the building at 11506 E Kellogg due to road construction by the City of Wichita and KDOT. Install 115' of 1 1/4" PE tied to the new 2" main in the easement north of the building.	38000	\$15,168	City of Wichita/KDOT
60	Public Improvement	8/31/17	3721	055	010457	Retire 1325' of 3" bare steel and 3" plastic pipe, install 1325' of 2" PE in the alley west of Waco from 17th to 19th St North. The City of Wichita is replacing the sanitary sewer in the alley and our gas mains will be in conflict with their excavation.	37600	\$23,720	City of Wichita
61	Public Improvement	8/31/17	3721	055	010457	Retire 1325' of 3" bare steel and 3" plastic pipe, install 1325' of 2" PE in the alley west of Waco from 17th to 19th St North. The City of Wichita is replacing the sanitary sewer in the alley and our gas mains will be in conflict with their excavation.	38000	\$449	City of Wichita
62	Public Improvement	10/17/17	3721	055	010458	This work will abandon a 5' - 3" APCS main and replace a 15' - 2" PE service line at Walnut and E First St in order to clear conflicts with the City of Newton's proposed new sanitary sewer. Install 30' - 2" PE service.	38000	\$5,720	City of Newton
63	Public Improvement	10/17/17	3721	055	010459	Replace and lower the 10' of 10" steel pipe in Pawnee Ave, just west of the Hwy I-135 bridge. The pipe was struck and damaged by Pearson Construction during a road construction project for the City of Wichita.	37650	\$11,620	City of Wichita
64	Public Improvement	10/17/17	3721	055	010461	Retire 4427' of CS main (3100' of 8" and 1327' of 6" CS main) and install 4418' of 8" CS main on 143rd St East & Kellogg due to conflict with city of Wichita street and storm water improvement project. All 8" installed to not interrupt cathodic protection on connected mains.	37690	\$1,603	City of Wichita
65	Public Improvement	10/17/17	3721	055	010461	Retire 4427' of CS main (3100' of 8" and 1327' of 6" CS main) and install 4418' of 8" CS main on 143rd St East & Kellogg due to conflict with city of Wichita street and storm water improvement project. All 8" installed to not interrupt cathodic protection on connected mains.	37600	\$3,839	City of Wichita
66	Public Improvement	10/17/17	3721	055	010461 ⁽¹⁾	Retire 4427' of CS main (3100' of 8" and 1327' of 6" CS main) and install 4418' of 8" CS main on 143rd St East & Kellogg due to conflict with city of Wichita street and storm water improvement project. All 8" installed to not interrupt cathodic protection on connected mains.	37650	\$385,698	City of Wichita
67	Public Improvement	12/14/17	3721	055	010462	Retire 2285' of 8" CS and 447' of 2" PE. Install 2285' of 8" TF CS and 447' of 2" PE. 127th St East between 13th & 21st St North that is in conflict with a Federal, City of Wichita, and Sedgwick County Road Improvement Project.	37690	\$1,802	City of Wichita and Sedgwick County
68	Public Improvement	12/14/17	3721	055	010462	Retire 2285' of 8" CS and 447' of 2" PE. Install 2285' of 8" TF CS and 447' of 2" PE. 127th St East between 13th & 21st St North that is in conflict with a Federal, City of Wichita, and Sedgwick County Road Improvement Project.	37600	\$5,455	City of Wichita and Sedgwick County
69	Public Improvement	12/14/17	3721	055	010462	Retire 2285' of 8" CS and 447' of 2" PE. Install 2285' of 8" TF CS and 447' of 2" PE. 127th St East between 13th & 21st St North that is in conflict with a Federal, City of Wichita, and Sedgwick County Road Improvement Project.	37650	\$218,588	City of Wichita and Sedgwick County
70	Public Improvement	1/17/18	3721	055	010464	The City of Wichita will be improving Tyler from 2nd St to Central which is in conflict with the existing 4" BS main. Replace 2000' of 4" BS with 2200' of 4" PE main. KGS will install a new 4" PE main on W side of Tyler from just S of 2nd up to Central to tie over existing service lines.	37690	\$1,880	City of Wichita
71	Public Improvement	1/17/18	3721	055	010464	The City of Wichita will be improving Tyler from 2nd St to Central which is in conflict with the existing 4" BS main. Replace 2000' of 4" BS with 2200' of 4" PE main. KGS will install a new 4" PE main on W side of Tyler from just S of 2nd up to Central to tie over existing service lines.	38000	\$3,793	City of Wichita
72	Public Improvement	1/17/18	3721	055	010464	The City of Wichita will be improving Tyler from 2nd St to Central which is in conflict with the existing 4" BS main. Replace 2000' of 4" BS with 2200' of 4" PE main. KGS will install a new 4" PE main on W side of Tyler from just S of 2nd up to Central to tie over existing service lines.	37600	\$99,253	City of Wichita

A Line No.	B GSRS Qualification	C Unitization Date	D Cost Center	E Function	F Job Order Number	G Description	H FERC Account Number	I Cost	J Government Authority
73	Public Improvement	1/17/18	3721	055	010465	Hydraulic St (From 84th to 82nd St) Sedwick County Project being done to help with drainage along Hydraulic, from 84th St S to 82nd St S. Install: 1909' of 4" PE, 78' of 2" PE and Retire: 1775' of 4" PE, 30' of 2" PE, 70' of 6" CS	37600	\$50,169	Sedgwick County
74	Public Improvement	5/11/18	3721	055	010466	City of Wichita, KDOT Road Project at 45th St North & Hillside. Replace 160' 4" PE main due to conflict with KDOT project.	37600	\$17,371	City of Wichita/KDOT
75	Public Improvement	3/14/18	3721	055	010467	Butler County Road Improvement Project: Existing main in conflict with road construction. Lower and relocate 120' of 4" PE main, 165' of 6" TF steel and lower a section of existing 550' of 6" steel at S Andover Rd & SW 120th St.	37600	\$11,381	Butler County
76	Public Improvement	3/14/18	3721	055	010467	Butler County Road Improvement Project: Existing main in conflict with road construction. Lower and relocate 120' of 4" PE main, 165' of 6" TF steel and lower a section of existing 550' of 6" steel at S Andover Rd & SW 120th St.	37650	\$68,471	Butler County
77	Public Improvement	9/18/17	3721	055	010468	Nelson Dr between Harral and Fernell - Replace and relocate 185' of 2" PE main a min. of 7' to the east due to new storm pipe being installed as part of KDOT/Derby road improvement project.	37600	\$4,315	KDOT
78	Public Improvement	3/14/18	3721	055	010469	Install approx. 3800' of new 4" MD plastic pipe in east Douglas Ave and south in 127th St East to serve the KTA maintenance facility and two new KTA Toll Booths. Replace 3800' of 6" steel gas line in 127th St, south of Kellogg Ave that was displaced by road construction.	38000	\$2,329	KTA
79	Public Improvement	3/14/18	3721	055	010469	Install approx. 3800' of new 4" MD plastic pipe in east Douglas Ave and south in 127th St East to serve the KTA maintenance facility and two new KTA Toll Booths. Replace 3800' of 6" steel gas line in 127th St, south of Kellogg Ave that was displaced by road construction.	37600	\$121,520	KTA
80	Public Improvement	3/14/18	3721	055	010470	Install: 64' of 8" CS, Retire: 60' of 8" CS, Relocate a short section of 8" TF steel pipe at the NE corner of Meridian and Clays Streets in Valley Center. The existing pipe is in conflict with a proposed City of Valley Center Storm Water installation and must be relocated to clear construction conflicts.	37650	\$23,656	City of Calley Center
81	Public Improvement	3/14/18	3721	055	010471	The City of Wichita is replacing paving and regrading the ditches on E Bellaire Street between Bedford and Richfield Streets. Replace 390' 2" APCS main on the north side of Bellaire Street with 390' 2" MDPE due to conflict with city project.	37690	\$1,010	City of Wichita
82	Public Improvement	3/14/18	3721	055	010471	The City of Wichita is replacing paving and regrading the ditches on E Bellaire Street between Bedford and Richfield Streets. Replace 390' 2" APCS main on the north side of Bellaire Street with 390' 2" MDPE due to conflict with city project.	37600	\$3,239	City of Wichita
83	Public Improvement	12/21/17	3721	055	010472	Work will install 151' of 2" PE main and retire 151' of 2" PE main at 11516 E Kellogg Dr due to conflict with new storm pipe. Wildcat Construction contacted KGS because of conflict with the 2" PE main and the new storm pipe being installed for the Kellogg and Greenwich project for KTA.	37600	\$1,819	KTA
84	Public Improvement	11/3/17	3721	055	010474	4" PE elbow was damaged by Pearson Const. on 7/21/17. The elbow is too shallow and will be in the rock base for the new Nelson Dr. and Meadowlark City of Derby project. Replace elbow and Install 9' - 4" PE. Retire 8' - 4" PE.	37600	\$2,367	City of Derby
85	Public Improvement	3/12/18	3721	055	010475	This is a City of Haysville, Kansas street improvement project that will add paving, curb and gutters and drainage to an area that previously had gravel street paving. Replace 2" PE that is in conflict, install 2" MDPE at Dirick St.	37600	\$22,554	City of Haysville
86	Public Improvement	3/12/18	3721	055	010477 ⁽¹⁾	Install: 565' of 2" PE and Retire: 329' of 2" PE. City of Wichita is making paving, drainage and waterline Improvements at New York Ave from 14th to 15th. 2" PE Main in conflict with the new waterline. New 2" PE Main will be extended to capture two service lines that are on BS main.	37600	\$8,165	City of Wichita
87	Public Improvement	3/12/18	3721	055	010477	Install: 565' of 2" PE and Retire: 329' of 2" PE. City of Wichita is making paving, drainage and waterline Improvements at New York Ave from 14th to 15th. 2" PE Main in conflict with the new waterline. New 2" PE Main will be extended to capture two service lines that are on BS main.	38000	\$189	City of Wichita
88	Public Improvement	5/31/18	3721	055	010478	The City of Valley Center, KS is rebuilding 5th Street (aka 85th St North) from the Floodway Bridge, east to Fiddlers Creek St. Retire 1685' of 6" CS, install 1740' of 6" CS to south side of the street due to conflict with project.	37690	\$884	City of Valley Center
89	Public Improvement	5/31/18	3721	055	010478	The City of Valley Center, KS is rebuilding 5th Street (aka 85th St North) from the Floodway Bridge, east to Fiddlers Creek St. Retire 1685' of 6" CS, install 1740' of 6" CS to south side of the street due to conflict with project.	37650	\$121,541	City of Valley Center
90	Public Improvement	3/12/18	3721	055	010479	Install: 55' of 4" TF CS at Killarney and Doreen St, Retire: 50' of 4" APCS. KGS was notified by City of Wichita that the 4" APCS main was in conflict with a curb and gutter replacement project.	37690	\$1,258	City of Wichita

A Line No.	B GSRS Qualification	C Unitization Date	D Cost Center	E Function	F Job Order Number	G Description	H FERC Account Number	I Cost	J Government Authority
91	Public Improvement	3/12/18	3721	055	010479	Install: 55' of 4" TF CS at Killarney and Doreen St, Retire: 50' of 4" APCs. KGS was notified by City of Wichita that the 4" APCs main was in conflict with a curb and gutter replacement project.	37650	\$21,535	City of Wichita
92	Public Improvement	6/19/18	3721	055	010484	Install: 498' of 2" PE and Retire: 340' of 2" BS, 57' of 2" PE at Hoyt & Chamberlin. The City of Wichita is installing a drainage ditch. This ditch would leave approximately 6" of cover, which is not enough. 4 SL's will need to be tied-over, one will need to be replaced.	37690	\$3,112	City of Wichita
93	Public Improvement	6/19/18	3721	055	010484	Install: 498' of 2" PE and Retire: 340' of 2" BS, 57' of 2" PE at Hoyt & Chamberlin. The City of Wichita is installing a drainage ditch. This ditch would leave approximately 6" of cover, which is not enough. 4 SL's will need to be tied-over, one will need to be replaced.	37600	\$11,985	City of Wichita
94	Public Improvement	5/11/18	3741	055	010038 ⁽²⁾	Relocate 378' of 3" BS with 378' 4" TF CS on Elm & 3rd due to drainage ditch rebuild by the city of Burden and exposed pipe. Replacing with 4" because 3" pipe is obsolete.	37650	\$384	City of Burden
95	Public Improvement	1/17/18	3741	055	010040	Abandon approx. 1079' of various low pressure main and relocate 200' of 2" RPBS main on Washington & 3rd St that is in conflict with a sanitary sewer relocation for the City of Wellington, KS.	38000	\$227	City of Wellington
96	Public Improvement	1/17/18	3741	055	010040	Abandon approx. 1079' of various low pressure main and relocate 200' of 2" RPBS main on Washington & 3rd St that is in conflict with a sanitary sewer relocation for the City of Wellington, KS.	37650	\$56,002	City of Wellington
97	Public Improvement	1/17/18	3741	055	010040	Abandon approx. 1079' of various low pressure main and relocate 200' of 2" RPBS main on Washington & 3rd St that is in conflict with a sanitary sewer relocation for the City of Wellington, KS.	37800	\$4,787	City of Wellington
98	Public Improvement	3/30/18	3741	055	010043	This work will replace 180' of 3" RPBS main crossing Pine St at the alleys north and south of W 10th St with 163' of 4" RPCS due to conflict with a City of Harper road construction project.	37600	\$172	City of Harper
99	Public Improvement	3/30/18	3741	055	010043	This work will replace 180' of 3" RPBS main crossing Pine St at the alleys north and south of W 10th St with 163' of 4" RPCS due to conflict with a City of Harper road construction project.	37650	\$21,278	City of Harper
100	Public Improvement	6/18/18	3741	055	010044	Main too shallow at all crossings encompassed in the the City of Harper's road improvement project on 12th & Pine St. Retire 90' of 3" CS main, 90' of 3" BS and 90' of 3" BS. Install 270' of 4" CS to avoid conflict.	37650	\$25,366	City of Harper
101	Public Improvement	3/30/18	3741	055	010046	City of Wellington road improvement project. Retire 480' of 4" CS, Install 480' of 4" CS on Harvey St from Cherry to Elm. Given short notice we probed and discovered our facilities were very shallow and in conflict of their project.	37600	\$1,421	City of Wellington
102	Public Improvement	3/30/18	3741	055	010046	City of Wellington road improvement project. Retire 480' of 4" CS, Install 480' of 4" CS on Harvey St from Cherry to Elm. Given short notice we probed and discovered our facilities were very shallow and in conflict of their project.	37650	\$61,996	City of Wellington
103	Public Improvement	6/18/18	3911	055	010051	Replace a total of 2,481'-4" plastic, 1,607'-2" plastic, 1,655'-4" TF steel and 168'-2" TF steel pipe (6,037' total gas mains) on Ohio Street Rd. from Kelly Ave. to Frisco St. that are in conflict with new stormwater and paving plans. This is a KDOT, Butler County and City of Augusta street rehab project.	37600	\$128,066	KDOT
104	Public Improvement	6/18/18	3911	055	010051	Replace a total of 2,481'-4" plastic, 1,607'-2" plastic, 1,655'-4" TF steel and 168'-2" TF steel pipe (6,037' total gas mains) on Ohio Street Rd. from Kelly Ave. to Frisco St. that are in conflict with new stormwater and paving plans. This is a KDOT, Butler County and City of Augusta street rehab project.	37650	\$223,494	KDOT
105	Public Improvement	4/30/18	3521	055	010115	Osawatomie, KS. Install: 550' of 2" PE, Retire: 614' of 2" PE and 37' of 4" PE. This project is being done due the the 347th St Construction Project by Miami County. The main is too shallow for the purposed cuts.	37600	\$18,576	Miami County
106	Public Improvement	6/18/18	3522	055	011038	Grant St. (87th to 79th St) Install: 80' 4" CS Main, Retire: 80' OF 4" CS. This work is being done due to main being in conflict with the 2017 Neighborhood St. Recon Program project for the City of Overland Park.	37650	\$10,767	City of Overland Park
107	Public Improvement	6/18/18	3522	055	011039	Grant St. (87th to 79th St) Install: 100' OF 2" CS, Retire: 100' OF 2" CS. This work is being done due to main being in conflict with the 2017 Neighborhood St. Recon Program project for the City of Overland Park.	37650	\$11,554	City of Overland Park
108	Public Improvement	6/18/18	3522	055	011047	2017 Major Storm Sewer Repair-(Offset W99th & Metcalf C1) Install: 30' 4" CS Main, Retire: 30' OF 4" CS. This work is being done due to main being in conflict with the 2017 Major Storm Sewer Repair for the City of Overland Park.	37650	\$9,998	City of Overland Park

A Line No.	B GSRS Qualification	C Unitization Date	D Cost Center	E Function	F Job Order Number	G Description	H FERC Account Number	I Cost	J Government Authority
109	Public Improvement	6/18/18	3522	055	011048	2017 Major Storm Sewer Repair-(Offset W99th & Metcalf A2) Install: 30' 4" CS Main, Retire: 30' OF 4" CS. This work is being done due to main being in conflict with the 2017 Major Storm Sewer Repair for the City of Overland Park.	37650	\$11,785	City of Overland Park
110	Public Improvement	6/18/18	3522	055	011055	Install 45' 2" CS dog leg, retire 45' 2" CS at 5122 Longview Rd due to conflict with new 8'x4' stormwater curb inlet box and 14'x5' RCB being installed by the City of Shawnee.	37650	\$5,170	City of Shawnee
111	Public Improvement	3/14/18	3522	055	011058	Storm Drainage Improvements(Birch St) Install: 30' 2" CS Main, Retire: 30' OF 2" CS. This work is being done due to the Storm Drainage Improvements Project by the City of Roeland Park. Main will have to be offset so that the new government construction does not conflict with our main.	37650	\$5,028	City of Roeland Park
112	Public Improvement	4/30/18	3522	055	011074	Stilwell, KS Install: 200' of 2" PE, Retire: 200' of 2" PE At 201st Ter & Lamar. City of Stilwell will be installing a new concrete mattress and will be retiring the current retaining wall. KGS main will be in conflict with finished grade.	37600	\$1,883	City of Stilwell
113	Public Improvement	9/18/17	3541	055	010314	Install 350' of 6"CS to replace 350' of 6" RPCS in conflict with KTA bridge improvements at Topeka Blvd	37650	\$52,922	KTA
114	Public Improvement	11/30/17	3541	055	010315 ⁽¹⁾	Install 2596' of 4" PE, retire 2596' of 2" PE in conflict w/City of Topeka relocation of SE Fremont btwn 29th & 31st. 4" PE main is being installed vs 2" PE because there are plans to build several assisted living complexes on the NW corner of 31st & Fremont.	37600	\$72,744	City of Topeka
115	Public Improvement	5/31/18	3541	055	010318	Install 500' of 2" PE to feed customers on dead end system north of 29th Stinson Creek Crossing on SE Tecumseh Rd before abandoning 400' of 2" APCS during replacement of Shawnee County Bridge over Stinson Creek at 29th.	37600	\$44,702	Shawnee County
116	Public Improvement	3/14/18	3541	055	010320 ⁽¹⁾	Relocate main in conflict with the City of Topeka Road Improvement Project on SW Wanamaker from 4th to 6th. Install 2600' 4" PE, Retire 590' 4" PE and 1433' 2" PE.	37600	\$48,061	City of Topeka
117	Public Improvement	3/30/18	3541	055	010329	Retire 225' of 2" PE at 3929 NW Dondee Ln in conflict with City of Topeka proposed box bridge. Install 225' of 2" PE. Main will be cut out of way to make room for box installation.New main will be installed once construction is complete	37600	\$9,547	City of Topeka
118	Public Improvement	10/17/17	3541	055	010330	SW 31st & Wanamaker 2" RPCS & service is in conflict with City of Topeka's road improvements. Retire 30' of 2" RPCS, Install 195' of 2" PE will be installed to get main out of the way of the work.	38000	\$224	City of Topeka
119	Public Improvement	10/17/17	3541	055	010330	SW 31st & Wanamaker 2" RPCS & service is in conflict with City of Topeka's road improvements. Retire 30' of 2" RPCS, Install 195' of 2" PE will be installed to get main out of the way of the work.	37600	\$7,220	City of Topeka
120	Public Improvement	5/31/18	3541	055	010332	SW Hunttoon & Arvon Road Relocation project replace 1200' of 4" PE with 1200' of new 4" PE. This project is being initiated by the city of Topeka. The city is lowering the hill on Hunttoon and making major cut causing the main to be in conflict	37600	\$130,929	City of Topeka
121	Public Improvement	5/31/18	3651	055	010124	Government Relocation for new storm sewer along 4th St between Columbian & Walnut, Wamego. Install 1200' of 4" PE and 550' of 2" CS to replace 1200' of 4" PE and 550' of 2" CS.	37600	\$55,252	City of Wamego
122	Public Improvement	5/31/18	3651	055	010124	Government Relocation for new storm sewer along 4th St between Columbian & Walnut, Wamego. Install 1200' of 4" PE and 550' of 2" CS to replace 1200' of 4" PE and 550' of 2" CS.	37650	\$39,252	City of Wamego
123	Public Improvement	5/31/18	3651	055	010125	County Highway 406 - Marlatt Ave Manhattan, KS. Relocate 520' of 4" PE main. This is due to a bridge replacement and road paving by the city and county combined.	37600	\$4,678	City of Manhattan
124	Public Improvement	3/14/18	3652	055	010026	Relocate 524' of 2" PE main out of road right of way at Highway 77 and K-18 due to construction by KDOT and Junction City.	37600	\$21,390	KDOT
125	Public Improvement	3/14/18	3652	055	010027	Installing 1000' of 2" PE pipe to tie into workorder 051.055.3652.010026 due to job change by KDOT. This is part of relocating main out of the road right of way due to KDOT construction. Main has to be tied into feed on east side of highway instead of crossing highway at Oakridge Drive.	37600	\$28,314	KDOT
126	Public Improvement	4/16/18	3911	055	010052	To install 80'-2" plastic main at W. Central Ave and S Griffith St. El Dorado, Ks. Main to be relocated for the City of El Dorado Griffith Street Paving Project, El Dorado, Ks.	37600	\$2,580	City of El Dorado

A Line No.	B GSRS Qualification	C Unitization Date	D Cost Center	E Function	F Job Order Number	G Description	H FERC Account Number	I Cost	J Government Authority
127	Public Improvement	4/16/18	3911	055	010052	To install 80'-2" plastic main at W. Central Ave and S Griffith St. El Dorado, Ks. Main to be relocated for the City of El Dorado Griffith Street Paving Project, El Dorado, Ks.	37650	\$3,622	City of El Dorado
Grand Total								\$4,784,773	

(1) The costs associated with replacement of like for like pipe is included in this exhibit.

(2) The costs of these projects were reduced by the amount of the project that was in CWIP as of 6/30/16.

**KANSAS GAS SERVICE
A DIVISION OF ONE GAS
GAS SYSTEM RELIABILITY SURCHARGE**

EXHIBIT APC-3

Blanket Service Line Summary

Sum of Extended Costs		
ReplacementReason	July 2017 - June 2018	
	Cost	Line Installed
Routine Replacement - Leak - 192.703	\$1,187,154	703
Routine Replacement - Non Leaking Unprotected Pipe	\$16,398,064	9,677
Public Improvement	\$159,751	94
Grand Total	\$17,744,969	10,474

Non Service Line Related Blanket Summary

Other Blanket Costs	July 2017 - June 2018
	Cost
Install Anodes	\$1,209,140
Weld sleeve high resist couplings	\$64,443
Total	\$1,273,583

Line No.'s (1, 2 and 3) 3-5-3 Projects

Pursuant to 192.613(b): Each of these projects had protected bare steel mains which had 3 leaks or more in 3 years. Because 3-inch pipe size is considered non-standard, KGS installed 4-inch PE main.

Line No.'s (4 to 64) Cast Iron Replacement

Pursuant to 192.613(b) and KCC Docket No. 12-KGSG-721-TAR: Consistent with 192.613(b) code requirements, these pipe segments were phased out for safety reasons and replaced with the appropriate pipe.

Line No.'s (65 to 85) Cathodic Protection

Pursuant to 192.455, 192.457 and 192.613(b): Cathodic protection systems are required for buried steel mains. When a cathodic protection system is not economically feasible to install and maintain because of mechanical pipe connections and/or the main's physical location, the main will be determined to be in unsatisfactory condition and replaced. 3-inch bare steel, which is in unsatisfactory condition, will typically be replaced with 4-inch coated steel when cathodic protection continuity is needed, since 3-inch pipe size is considered a non-standard pipe size. Deep well rectifiers which generate chlorine gas are scheduled for replacement with other types of cathodic protection systems.

Line No.'s (86 and 87) Continuing Surveillance

Pursuant to 192.487, and 192.613(b): This project replaced a main that had lost more than 70% of its original wall thickness and it was more efficient to replace the entire main factoring in the replacement of two bare steel servicelines.

Line No.'s (88 to 90) Continuing Surveillance

Pursuant to 192.613(b): This project originated as a 3-5-3 and KGS had difficulty in finding a suitable tie-in location because the pipe being replaced was bare steel of 1906 vintage and had joint connection of Hammond couplings. This vintage pipe had an exceptionally long history of past repairs and was going to be under new city new pavement. Rather than leaving this problematic vintage bare steel main under a newly paved street, KGS installed new coated steel main to a point where suitable coated steel pipe was available for a tie-in.

Line No.'s (91 to 121) Programmed Bare Steel Services & Cathodic Protection

Pursuant to 192.613(b), OGS ops 2.1612R, 192.455 and 192.457 Program: Unprotected bare steel services are to be replaced. The mains supplying these services were predominately unprotected bare steel or bare steel originally installed without cathodic protection prior to 1971. In this case, the main was deemed unsatisfactory because of the expense of installing cathodic protection and the expense of replacing 21 bare steel services. Therefore, per code 192.613(b), 192.455, 192.457 and OGSops2.1612R, the main was replaced, relocated and bare steel services were replaced.

In the Matter of the Application of)
Kansas Gas Service, A Division)
of ONE Gas, Inc. for Approval By)
The Commission for a Gas)
System Reliability Surcharge per)
K.S.A. 66-2201 through 66-2204)

DOCKET NO. 19-KGSG-____-TAR

DIRECT TESTIMONY
OF
LORNA M. EATON
ON BEHALF OF
KANSAS GAS SERVICE
A DIVISION OF ONE GAS, INC

DIRECT TESTIMONY
OF
LORNA M. EATON
KANSAS GAS SERVICE
DOCKET NO. 19-KGSG-____-TAR

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Lorna M. Eaton. My business address is 7421 West 129th Street, Overland
3 Park, Kansas, 66213.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Kansas Gas Service, a Division of ONE Gas, Inc. ("KGS" or the
6 "Company"), as a Manager in the Rates and Regulatory Department.

7 **Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND BUSINESS**
8 **EXPERIENCE.**

9 A. I received a Bachelor of Science in Geology from Kansas State University in 1996 and
10 worked in the KSU Geology department following graduation. I began my employment
11 with KGS in 2000, as an Accountant in the General Accounting Department and moved
12 to the Financial Planning Department as a Budget Analyst. I joined the Rates and
13 Regulatory Department in 2010 as a Rates Analyst and began my current position in
14 June 2015.

15 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

16 A. Yes. I provided written testimony in Dockets 12-KGSG-835-RTS, 14-KGSG-111-
17 TAR, 15-KGSG-088-TAR, 16-KGSG-104-TAR, 16-KGSG-491-RTS ('491 Docket'), 18-
18 KGSG-093-TAR ('093 Docket') and 18-KGSG-560-RTS.

19 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

1 A. The purpose of my testimony is to support the calculation of the Gas System Reliability
2 Surcharge (GSRS) revenue requirement, the allocation of relevant costs to customer
3 classes, the development and design of GSRS rates, and the revised GSRS tariff rider.

4 **Q. ARE YOU SPONSORING ANY EXHIBITS?**

5 A. Yes. I am sponsoring Exhibits LME-1 through LME-7.

6 **Q. PLEASE EXPLAIN THE APPLICABLE GSRS REVENUE RATE PARAMETERS**
7 **CONTAINED IN THE GSRS STATUTE.**

8 A. K.S.A. 66-2203 provides parameters for GSRS filings. Pursuant to this statute, the
9 Commission may not approve a GSRS filing if it would produce annualized revenues
10 below the lesser of \$1,000,000 or ½% of the most recent base revenue approved in
11 the utility's most recent general rate proceeding. KCC Docket No. 16-KGSG-491-RTS
12 (the "491 Docket") represents the most recent proceeding for Kansas Gas Service.
13 The base revenue authorized for Kansas Gas Service was \$300,964,236, resulting in
14 a threshold of \$1,504,821. Thus, the minimum floor for Kansas Gas Service in a
15 GSRS filing is \$1,000,000, until KGS's next general base rate proceeding is
16 completed.

17 Exhibit LME-1 establishes the Kansas Gas Service Revenue Requirement at
18 \$5,251,239 thus meeting the minimum threshold. Similarly, the maximum annualized
19 GSRS revenues contemplated by the statute are capped at 10% of the most recent
20 base revenue approved in the utility's most recent general rate proceeding. Based on
21 the outcome of the 491 Docket, the GSRS recovery 'ceiling' for Kansas Gas Service
22 is currently \$30,096,424. Again, the requested GSRS revenue falls well within the
23 parameters established in the statute. Further, K.S.A. 66-2204 provides a 'rate' ceiling
24 of \$0.40 per month, per filing, by which the residential GSRS rate may increase in any

1 GSRs filing. Exhibit LME-6 sets forth the incremental residential GSRs charge of
2 \$0.24 per month, which is below the ceiling of \$0.40 per month.

3 **Q. WERE ANY OF THE COSTS INCLUDED WITHIN THIS GSRs REQUEST**
4 **CONTAINED IN RATE BASE WITHIN THE 491 DOCKET?**

5 **A.** No. The KCC Staff included¹ certain projects which were anticipated to be closed by
6 December 31, 2016, in existing base rates. The costs of projects that were included
7 in base rates have been subtracted from total GSRs project costs, such that this
8 GSRs filing only contains the net increase in costs for those projects included within
9 base rates.

10 **Q. PLEASE IDENTIFY THE ASPECTS OF THE GSRs CALCULATION.**

11 **A.** The GSRs application contains the following elements:

- 12 1. True-up of GSRs revenue requirement from projects included in the 093
13 Docket, due to the passage of time and to account for the change in income
14 tax rate;
- 15 2. Calculation of the over/under recovery of the previously authorized GSRs
16 revenue, based upon actual GSRs revenue recorded through June 2018, plus
17 projected revenue to be collected through November 2018;
- 18 3. The inclusion of safety related projects and government relocation
19 expenditures unitized during the period July 1, 2017 through June 30, 2018.
20 KGS witness Mr. Anthony Cellitti will discuss these projects; and
- 21 4. The inclusion of blanket work orders involving the replacement of service lines
22 and mains placed in service and unitized during the period between July 1,
23 2017 and June 30, 2018.

¹ The actual costs at June 30, 2017.

1 **Q. COULD YOU PLEASE EXPAND ON THE CUTOFF DATE USED TO DETERMINE**
2 **GSRS ELIGIBLE PROJECTS?**

3 A. Projects included in this filing were those that were both in service and unitized prior
4 to closing the Company's plant accounting records in June 2018. "Unitization," as
5 used in this filing, refers to the accounting process by which project costs are
6 accumulated and amounts are assigned to FERC accounts. Due to the accounting
7 tasks necessary to finalize a project, the unitization date occurs after a project is
8 actually in service.

9 **Q. PLEASE PROVIDE AN EXPLANATION OF EXHIBIT LME-1.**

10 A. Exhibit LME-1 summarizes the components of the GSRS Revenue Requirement
11 calculation. The calculation methods and components are consistent with those
12 required in K.S.A. 66-2204 sections (d)(1) through (8). As shown on Line 11, the total
13 GSRS Revenue Requirement is \$5,251,239. The revenue requirement identified in
14 Exhibit LME-1 incorporates all the aspects of the GSRS calculation as discussed
15 above.

16 **Q. HOW DID YOU DETERMINE THE CARRYING CHARGE FOR CALCULATING THE**
17 **GSRS REVENUE REQUIREMENT?**

18 A. The Stipulated Settlement Agreement approved by the Commission in the 491 Docket,
19 (Kansas Gas Service's most recent rate case), sets forth the provisions for the carrying
20 charge to be applied to recoverable investments for Kansas Gas Service's GSRS
21 filing. As a result of the federal corporate income tax rate change that occurred as
22 part of the Tax Cuts and Jobs Act of 2017, the carrying charge was revised to 8.33%.²

² See Appendix 1 of the Settlement Agreement between Kansas Gas Service, the Staff of the Kansas Corporation Commission, and the Citizens' Utility Ratepayer Board in Docket No. 18-GIMX-248-GIV.

1 This return was used in the calculation of the revenue requirement, as shown on
2 Exhibit LME-1.

3 **Q. PLEASE EXPLAIN THE PURPOSE OF EXHIBIT LME-2.**

4 A. Exhibit LME-2 summarizes the authorized GSRS revenue approved by the
5 Commission in the 093 Docket compared to the actual revenues generated from
6 December 2017 through June 2018, plus the estimated GSRS revenue for the period
7 of July through November 2018. As shown on Line 11, of Exhibit LME -2, the revenue
8 recovered from KGS' GSRS charge exceeds the authorized GSRS recoveries by
9 \$4,419. The over-recovery is used to reduce the proposed GSRS charges as shown
10 on Line 10 of LME-1.

11 **Q. PLEASE EXPLAIN EXHIBIT LME-3.**

12 A. Exhibit LME-3 identifies the GSRS Gross and Net Plant in Service by FERC account
13 for GSRS eligible expenditures, further classified by category of GSRS expenditure.
14 GSRS eligible projects are identified in K.S.A. 66-2202 sections (f)(1) through (3) and
15 are discussed in greater detail in the testimony of Company witness Mr. Cellitti.
16 Column (B) identifies the GSRS expenditures that were approved in the 093 Docket.
17 Column (C) identifies the proposed GSRS expenditures that relate to safety and
18 governmental relocation projects, and Column (D) identifies the proposed blanket
19 GSRS expenditures. The Accumulated Depreciation of \$1,616,323 associated with
20 this filing is shown in column (E) and Column (F) identifies the Net GSRS plant by
21 FERC account of \$55,561,547.

22 **Q. PLEASE SUMMARIZE EXHIBIT LME-4.**

23 A. Exhibit LME-4 identifies the Accumulated Depreciation of \$1,616,323 identified by
24 FERC Account and Accumulated Deferred Income Taxes of \$9,941,608 associated

1 with Kansas Gas Service's GSRS capital expenditures. The Accumulated Deferred
2 Income Tax (ADIT) balance represents the liability associated with GSRS investment
3 that is used to reduce GSRS Rate Base.

4 **Q. PLEASE EXPLAIN EXHIBIT LME-5.**

5 A. Exhibit LME-5 sets forth the calculation of annualized Depreciation Expense
6 associated with GSRS plant, split between safety and government relocation projects,
7 blanket service line projects, and projects approved in the 093 Docket. As shown on
8 line 40 of the Exhibit, the annualized Depreciation Expense is \$1,455,470.

9 **Q. PLEASE EXPLAIN EXHIBIT LME-6.**

10 A. Exhibit LME-6 allocates the GSRS revenue requirement to Kansas Gas Service's
11 customer classes as provided for in the agreed upon Stipulation in the 491 Docket as
12 required in the statute. Specifically, the GSRS Revenue Requirement is allocated to
13 each class based upon the proportion of its Pro-Forma revenue to total Pro-Forma
14 revenue as defined in Appendix B, of the Stipulation and Agreement approved in the
15 491 Docket. The revenue requirement by class is then divided by the number of billing
16 determinants for each class as defined in that same Appendix, to establish the monthly
17 rates (except for the LVTt and LVTK classes which is explained in greater detail below).

18 As shown in column G, the proposed monthly fixed rates by customer class
19 are as follows:

GSRS Proposed Rates	
Customer Class	Monthly Fixed Rate
RS – Residential Sales	\$0.53
GSS – General Sales Small	\$0.84
GSL – General Sales Large	\$2.01
GSTE – General Sales Transport Eligible	\$6.65
SGS – Small Generator Sales	\$0.93
GIS – Gas Irrigation Sales	\$2.13
STk -- Small Transportation Service “k” system	\$4.72
STt – Small Transportation Service “t” system	\$5.29
GITt – Gas Irrigation Transportation Service “t” system	\$4.67
LVTk – Large Volume Transportation Service “k” system	\$41.86*
LVTt –Large Volume T Transportation Service “t” system	\$153.84*
WT - Wholesale Transportation Service	\$79.13
SSR – Sales Service for Resale	\$8.98
CNG – Compressed Natural Gas Transportation Service	\$53.22
KGSSD – Kansas Gas Supply D	\$48.59

1

2 * Average monthly charge

3 **Q. EARLIER YOU MENTIONED THAT THE TWO LVT CLASSES WERE BEING**
4 **TREATED SEPARATELY. PLEASE DEFINE THESE CUSTOMER CLASSES,**
5 **EXPLAIN THE PROPOSED RATE STRUCTURE WITHIN THESE CLASSES, AND**
6 **EXPLAIN WHY DIFFERING TREATMENT IS APPROPRIATE.**

7 A. To be eligible for rates under either of these two classes, the customer must be a
8 transportation customer who has had, at a minimum, a peak delivery of 1,500 MCF

at a single location during any of the last twelve billing periods. The distinction between LVTK and LVTt is simply one of location, with the LVTt customers being served from KGS' transmission line, while LVTK customers are served off interstate transmission lines.

The customer usage within each of these classes is extremely broad, thus establishing one rate for the entire class would result in very disparate impacts. In an effort to minimize impacts across the LVTK and LVTt classes, the fixed monthly GSRS charge is applied to customers using various tiers tied to the 491 Stipulation. The specific LVTK and LVTt proposed rates by tier are shown below:

PROPOSED LVTK AND LVTT GSRS RATES BY TIER			
ANNUAL MCF USAGE		MONTHLY RATE	
MINIMUM	MAXIMUM	LVTK	LVTT
<10,000		\$9.60	\$30.00
10,001	20,000	\$22.25	\$46.20
20,001	40,000	\$42.00	\$128.00
>40,000		\$147.00	\$352.65

This rate methodology was approved in Docket Nos. 09-KGSG-199-TAR, 10-KGSG-155-TAR, 11-KGSG-177-TAR, 12-KGSG-138-TAR, 14-KGSG-111-TAR, 15-KGSG-088-TAR, 16-KGSG-104-TAR and 18-KGSG-093-TAR.

Q. WHAT IS THE PURPOSE OF EXHIBIT LME-7?

A. Exhibit LME-7 is the GSRS tariff page, revised to reflect the recalculated rates.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

VERIFICATION

STATE OF KANSAS)
) ss.
COUNTY OF JOHNSON)

Lorna M. Eaton, being duly sworn upon her oath, deposes and states that she is Manager, Rates and Regulatory Department for Kansas Gas Service, a Division of ONE Gas, Inc.; that she has read and is familiar with the foregoing Direct Testimony filed herewith; and that the statements made therein are true to the best of her knowledge, information, and belief.



Lorna M. Eaton

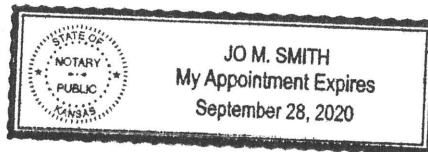
Subscribed and sworn to before me this 24 day of August 2018.



NOTARY PUBLIC

My appointment Expires:

9/28/2020



Kansas Gas Service
A Division of ONE Gas

Gas System Replacement Surcharge

Exhibit LME-1

	(A)	(B)	(C)	(D)	(E)	(F)
Line No.	Summary	GSRS Projects - Docket No. 18- KGSG-093-TAR	New GSRS Safety & Govt. Relocation Projects	New GSRS Blanket Work Orders	Grand Total	Source
1	Original Cost	\$ 28,047,950	\$ 10,111,369	\$ 19,018,551	\$ 57,177,870	Schedule LME-3
2	<i>Less: Accumulated Depreciation</i>	<u>\$ (1,143,032)</u>	<u>\$ (184,172)</u>	<u>\$ (289,119)</u>	<u>\$ (1,616,323)</u>	Schedule LME-4
3	Net Plant in Service	\$ 26,904,917	\$ 9,927,197	\$ 18,729,432	\$ 55,561,547	
4	<i>Less: Accumulated Deferred Income Taxes</i>	<u>\$ (6,125,468)</u>	<u>\$ (1,353,226)</u>	<u>\$ (2,462,913)</u>	<u>\$ (9,941,608)</u>	Schedule LME-4
5	Net GSRS Rate Base	\$ 20,779,449	\$ 8,573,971	\$ 16,266,519	\$ 45,619,939	
6	Carrying Charge ⁽¹⁾	<u>8.33%</u>	<u>8.33%</u>	<u>8.33%</u>	<u>8.33%</u>	
7	Pre-Tax Required Return	\$ 1,730,949	\$ 714,220	\$ 1,355,017	\$ 3,800,187	Line 5 * Line 6
8	Depreciation Expense	\$ 731,342	\$ 178,957	\$ 545,171	\$ 1,455,470	Schedule LME-5
9	GSRS Revenue Requirement (Annual)				<u><u>\$ 5,255,657</u></u>	Line 7 + 8
10	Plus (Minus): Over-Recovered Balance from Docket No. 18- KGSG-093-TAR				<u>\$ (4,419)</u>	Schedule LME-2
11	Revised GSRS Annualized Revenue Requirement				\$ 5,251,239	Line 9 + 10

(1) Carrying Charge of 9.74% gross of tax was established in Docket 16-KGSG-491-RTS. A change in the federal income tax rate lowers the rate of return to 8.33%.

**Kansas Gas Service
A Division of ONE Gas**

Gas System Reliability Surcharge

Exhibit LME-2

GSRS Over/Under Cumulative Recovery for 2018

			(A)
			GSRS Recoveries
1	December 2017 Recoveries		\$237,325
2	January 2018 Recoveries		\$241,473
3	February 2018 Recoveries		\$240,923
4	March 2018 Recoveries		\$240,303
5	April 2018 Recoveries		\$240,041
6	May 2018 Recoveries		\$239,973
7	June 2018 Recoveries		\$238,622
8	Jul-Nov 2018 GSRS Projected Recoveries		\$1,199,043.54
9	<u>Total Cumulative GSRS Recoveries</u>		<u>\$2,877,705</u>
10	2018 GSRS Rev. Requirement		\$2,873,286
11	Total Amount Over Recovered through November 2018		<u><u>\$4,419</u></u>

Kansas Gas Service
A Division of ONE Gas

Exhibit LME-3

Gas System Reliability Surcharge

Plant in Service

(A)			(B)	(C)	(D)	(E)	(F)
Line No.	Account	Account Title	GSRS Projects Docket No. 18- KGSG-093-TAR	GSRS Projects Safety and Govt. Relocation	GSRS Blanket Work Orders	Less: Accumulated Depreciation	Net Plant
1	367	Mains	2,112,355			69,028	2,043,327
2	374.2	Rights of Way	-			-	-
3	376	Mains - Plastic	2,179,005	6,089,687		215,276	8,053,416
4	376.5	Mains - Metallic	1,417,904	3,486,041		83,031	4,820,914
5	376.9	Mains - Cathodic Protection	892,780	208,583	1,209,140	35,721	2,274,781
6	378	Meas. and reg. sta. equip. - general	210,398	4,787		8,769	206,416
7	379	Meas. and reg. sta. equip. - city gate	-			-	-
8	380	Services - Plastic	21,205,856	319,945	17,809,412	1,299,448	38,035,765
9	380.5	Services - Metallic	-	1,430		(96,493)	97,922
10	381	Meters	-			-	-
11	382	Meter installations	19,070	598		1,138	18,530
12	383	House Regulators	10,583	298		404	10,476
13	Total		\$ 28,047,950	\$ 10,111,369	\$ 19,018,551	\$ 1,616,323	\$ 55,561,547

**Kansas Gas Service
A Division of ONE Gas**

Gas System Reliability Surcharge

Exhibit LME-4

Accumulated Depreciation and Accumulated Deferred Income Tax

Accumulated Depreciation

(A)			(B)	(C)	(D)	(E)
Line No.	Account	Account	GSRS Projects Docket No. 18- KGSG-093-TAR	GSRS Projects Safety and Govt. Relocation	GSRS Blanket Work Orders	Total Accumulated Depreciation
1	367	Mains	69,028			\$ 69,028
2	374.2	Rights of Way				\$ -
3	376	Mains - Plastic	85,371	129,905		\$ 215,276
4	376.5	Mains - Metallic	33,145	49,886		\$ 83,031
5	376.9	Mains - Cathodic Protection	19,016	3,680	13,026	\$ 35,721
6	378	Meas. and reg. sta. equip. - general	8,649	120		\$ 8,769
7	379	Meas. and reg. sta. equip. - city gate				\$ -
8	380	Services - Plastic	1,005,716	2,982	290,750	\$ 1,299,448
9	380.5	Services - Metallic	(79,398)	(2,438)	(14,657)	\$ (96,493)
10	381	Meters				\$ -
11	382	Meter installations	1,110	28		\$ 1,138
12	383	House Regulators	395	9		\$ 404
13	Total		\$ 1,143,032	\$ 184,172	\$ 289,119	\$ 1,616,323

Accumulated Deferred Income Tax Liability

Line No.	Account	GSRS Projects Docket No. 18- KGSG-093-TAR	GSRS Projects Safety and Govt. Relocation	GSRS Blanket Work Orders	Total ADIT
1	Total	\$ (6,125,468)	\$ (1,353,226)	\$ (2,462,913)	\$ (9,941,608)

Kansas Gas Service
A Division of ONE Gas

Gas System Reliability Surcharge

Exhibit LME-5

Depreciation Expense Safety and Government Relocation			Gross GSRS Additions (A)	Less: GSRS Retirements (B)	Net Depreciable GSRS Plant (C)(A+B)	Depreciation Rate (D)	Annualized Depreciation (E)
Act. No.							
1	367	Mains	-	-	-	1.85%	-
2	374.2	Rights of Way	-	-	-	1.38%	-
3	376	Mains - Plastic	6,089,687	205,062	5,884,625	2.26%	132,993
4	376.5	Mains - Metallic	3,486,041	771,696	2,714,346	1.67%	45,330
5	376.9	Mains - Cathodic Protection	208,583	-	208,583	1.67%	3,483
6	378	Meas. and reg. sta. equip. - general	4,787	675	4,112	2.34%	96
7	379	Meas. and reg. sta. equip. - city gate	-	-	-	1.93%	-
8	380	Services - Plastic	319,945	242,629	77,316	3.11%	2,405
9	380.5	Services - Metallic	1,430	150,257	(148,827)	3.61%	(5,373)
10	381	Meters	-	-	-	2.49%	-
11	382	Meter installations	598	-	598	3.02%	18
12	383	House Regulators	298	-	298	1.94%	6
13	Total		10,111,369	1,370,319	8,741,050		178,957

Depreciation Expense Depreciation Expense - Blanket Work Orders			Gross GSRS Additions (A)	Less: GSRS Retirements (B)	Net Depreciable GSRS Plant (C)(A+B)	Depreciation Rate (D)	Annualized Depreciation (E)
Act. No.							
14	367	Mains	-	-	-	1.85%	-
15	374.2	Rights of Way	-	-	-	1.38%	-
16	376	Mains - Plastic	-	-	-	2.26%	-
17	376.5	Mains - Metallic	-	-	-	1.67%	-
18	376.9	Mains - Cathodic Protection	1,209,140	-	1,209,140	1.67%	20,193
19	378	Meas. and reg. sta. equip. - general	-	-	-	2.34%	-
20	379	Meas. and reg. sta. equip. - city gate	-	-	-	1.93%	-
21	380	Services - Plastic	17,809,412	-	17,809,412	3.11%	553,873
22	380.5	Services - Metallic	-	800,403	(800,403)	3.61%	(28,895)
23	381	Meters	-	-	-	2.49%	-
24	382	Meter installations	-	-	-	3.02%	-
25	383	House Regulators	-	-	-	1.94%	-
26	Total		19,018,551	800,403	18,218,148		545,171

Depreciation Expense Projects Included in 18-KGSG-093-TAR			Gross GSRS Additions (A)	Less: GSRS Retirements (B)	Net Depreciable GSRS Plant (C)(A+B)	Depreciation Rate (D)	Annualized Depreciation (E)
Act. No.							
27	367	Mains	2,112,355	159,916	1,952,438	1.85%	36,120
28	374.2	Rights of Way	-	-	-	1.38%	-
29	376	Mains - Plastic	2,179,005	29,014	2,149,991	2.26%	48,590
30	376.5	Mains - Metallic	1,417,904	224,597	1,193,306	1.67%	19,928
31	376.9	Mains - Cathodic Protection	892,780	-	892,780	1.67%	14,909
32	378	Meas. and reg. sta. equip. - general	210,398	454	209,944	2.34%	4,913
33	379	Meas. and reg. sta. equip. - city gate	-	-	-	1.93%	-
34	380	Services - Plastic	21,205,856	-	21,205,856	3.11%	659,502
35	380.5	Services - Metallic	-	1,479,258	(1,479,258)	3.61%	(53,401)
36	381	Meters	-	-	-	2.49%	-
37	382	Meter installations	19,070	-	19,070	3.02%	576
38	383	House Regulators	10,583	-	10,583	1.94%	205
39	Total		28,047,950	1,893,240	26,154,709		731,342

40 Total Depreciation Expense

1,455,470

Kansas Gas Service
A Division of ONE Gas

Gas System Reliability Surcharge
Development of GSRS Rate

Exhibit LME-6

Line No.	Customer Class (A)	Pro-Forma Revenue - Docket No. 16-KGSG-491- RTS (B)	% of Revenue Requirement Responsibility (C)	GSRS Revenue Requirement (Based upon ratio of pro- forma revenue to total revenue) (D)	Customers Per - 16- KGSG-491-RTS Settlement - Appendix B (E)	GSRS Annual Charge (F)	GSRS Monthly Charge (G)
1	Residential Sales RS	\$ 213,124,451	70.814%	3,718,606	579,541	\$ 6.42	\$ 0.53
2	General Sales Svc. Small	21,413,774	7.115%	373,629	36,849	\$ 10.14	\$ 0.84
3	General Sales Svc. Large	16,486,451	5.478%	287,656	11,905	\$ 24.16	\$ 2.01
4	General Sales Svc. Transport Eligible	2,589,120	0.860%	45,175	566	\$ 79.81	\$ 6.65
5	Small Generator Sales SGS	413,412	0.137%	7,213	649	\$ 11.11	\$ 0.93
6	Gas Irrigation Sales GIS	329,639	0.110%	5,752	225	\$ 25.56	\$ 2.13
7	Small Transportation STk	10,899,050	3.621%	190,167	3,357	\$ 56.65	\$ 4.72
8	Small Transportation STt	4,074,630	1.354%	71,094	1,120	\$ 63.48	\$ 5.29
9	Gas Irrigation Transportation GITt	1,631,731	0.542%	28,471	508	\$ 56.04	\$ 4.67
10	1) Large Volume Transportation LVTk #	13,157,202	4.372%	229,567	457	\$ 502.34	\$ 41.86
11	2) Large Volume Transportation LVT #	15,024,509	4.992%	262,148	142	\$ 1,846.12	\$ 153.84
12	Wholesale Transportation WT t #	1,578,180	0.524%	27,536	29	\$ 949.52	\$ 79.13
13	Sales Service for Resale SSR	98,864	0.033%	1,725	16	\$ 107.81	\$ 8.98
14	CNG	109,805	0.036%	1,916	3	\$ 638.63	\$ 53.22
15	Kansas Gas Supply D	33,418	0.011%	583	1	\$ 583.08	\$ 48.59

15	Total	\$ 300,964,236	100%	\$ 5,251,239
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16 1) Note: Residential Class Limited to annual increase of \$.40/month over the most recent GSRS filing.

	Annual Increase	Cumulative Rate
17 2018 GSRS Rate - Residential	\$ 0.29	\$ 0.29
18 2019 GSRS Rate - Residential	\$ 0.24	\$ 0.53
19 Total Residential Rate		\$ 0.53

20 * Average Rates - Specific Rates for LVTK and LVTT Shown Below

21 # Includes flex revenue.

1) LVTK Rate Development	Minimum MCF Usage	Maximum	Customer Numbers - 491 Settlement plus June 2018 Flex Customers	Monthly Charge	Annual Tier Revenue
Tiers	(a)	(b)	(c)	(d)	(e) (c*d*12)
1	-	10,000	189	9.60	\$ 21,773
2	10,001	20,000	110	22.25	\$ 29,370
3	20,001	40,000	67	42.00	\$ 33,768
4	40,001	Any	82	147.00	\$ 144,648
Pro-Forma LVTK Revenue				229,567	\$ 229,559
2) LVTT Rate Development	Minimum MCF Usage	Maximum	Customer Numbers - 491 Settlement plus June 2018 Flex Customers	Monthly Charge	Annual Tier Revenue
Tiers	(a)	(b)	(c)	(d)	(e) (c*d*12)
1	-	10,000	34	\$ 30.00	\$ 12,240
2	10,001	20,000	38	\$ 46.20	\$ 21,067
3	20,001	40,000	25	\$ 128.00	\$ 38,400
4	40,001	Any	45	\$ 352.65	\$ 190,431
Pro-Forma LVTT Revenue				262,148	\$ 262,138

THE STATE CORPORATION COMMISSION OF KANSAS

Index 44.1

Kansas Gas Service, a Division of ONE Gas, Inc.

SCHEDULE GSRS

All Rate Areas

Replacing Sheet 1 Filed November ~~29~~~~16~~2017

No supplement or separate understanding shall modify the tariff as shown herein.

Sheet 1 of 2

Gas System Reliability Surcharge Rider**Availability**

This rider is applicable to every bill for service provided under each of the Company's sales and transportation rate schedules except where not permitted under a separately negotiated contract with a customer. Not applicable to bills for As-Available Gas Sales Service or Interruptible Gas Transportation Service.

Net Monthly Charge

The Gas System Reliability Surcharge (GSRS) shall be a fixed monthly amount calculated as the applicable GSRS times the number of meters serving the customer's account, as indicated by the total number of Service Charges billed.

RS	Residential Sales Service	\$	0.29 <u>0.53</u>
GSS	General Sales Service Small	\$	0.46 <u>0.84</u>
GSL	General Sales Service Large	\$	1.10 <u>2.01</u>
GSTE	General Sales Service Transport Eligible	\$	3.64 <u>6.65</u>
SGS	Small Generator Sales Service	\$	0.51 <u>0.93</u>
KGSSD	Kansas Gas Supply D	\$	26.59 <u>48.59</u>
GIS	Gas Irrigation Sales Service	\$	1.17 <u>2.13</u>
SSR	Sales Service Resale	\$	4.92 <u>8.98</u>
STk	Small Transportation Service (k)	\$	2.58 <u>4.72</u>
STt	Small Transportation Service (t)	\$	2.89 <u>5.29</u>
LVTk	Large Volume Transportation Service (k)		
Annual Use:	Below 10,000 Mcf	\$	5.25 <u>9.60</u>
	10,001 Mcf – 20,000 Mcf	\$	12.15 <u>22.25</u>
	20,001 Mcf – 40,000 Mcf	\$	23.00 <u>42.00</u>
	Above 40,001 Mcf	\$	80.50 <u>147.00</u>
LVTt	Large Volume Transportation Service (t)		
Annual Use:	Below 10,000 Mcf	\$	16.50 <u>30.00</u>
	10,001 Mcf – 20,000 Mcf	\$	25.35 <u>46.20</u>
	20,001 Mcf – 40,000 Mcf	\$	70.00 <u>128.00</u>
	Above 40,001 Mcf	\$	193.00 <u>352.65</u>
WTt	Wholesale Transportation Service (t)	\$	43.30 <u>79.13</u>
GITt	Gas Irrigation Transportation Service (t)	\$	2.56 <u>4.67</u>
CNG	Compressed Natural Gas General Transportation	\$	29.12 <u>53.22</u>

Issued: November 16, 2016Effective: December 1, 2017By: /s/

Janet L. Buchanan, Director – Regulatory Affairs

18-KGSG-093-TARApprovedKansas Corporation CommissionDecember 1, 2017/s/ Lynn M. Retz

THE STATE CORPORATION COMMISSION OF KANSAS

Index 44.2

Kansas Gas Service, a Division of ONE Gas, Inc.

SCHEDULE GSRS

All Rate Areas

Replacing Sheet 2 Filed November ~~2916, 2016~~2017

No supplement or separate understanding shall modify the tariff as shown herein.

Sheet 2 of 2

Gas System Reliability Surcharge Rider**Definitions and Conditions**

1. The provisions of this GSRS Rider are intended to recover charges for natural gas public utility plant projects pursuant to K.S.A. 66-2201 through K.S.A. 66-2204.
2. The GSRS shall be reflected on a customer's bill as a separate line item.
3. The Annual Use for customers served under a Large Volume Transportation (LVT) rate schedule shall be the total volumes billed to the applicable meter in the 12 months ending the most recent April 30. Company may rely on estimated historical usage or projected volumes to establish Annual Use when actual usage is not available
4. At the end of each twelve-month calendar period a GSRS is in effect, Company shall reconcile the difference between the revenues resulting from that GSRS and the pre-tax revenues found by the Commission to be appropriate for that period. Company shall calculate a GSRS adjustment which shall, upon Commission approval, recover or refund the difference.
5. All provisions of this rider are subject to changes made by order of the Commission.

Issued:	November 16, 2016	18-KGSG-093-TAR Approved Kansas Corporation Commission December 1, 2017 /S/ Lynn M. Retz
Effective:	December 1, 2017	
By:	/S/	
Janet L. Buchanan, Director – Regulatory Affairs		

THE STATE CORPORATION COMMISSION OF KANSAS

Index 44.1

Kansas Gas Service, a Division of ONE Gas, Inc.

SCHEDULE GSRS

All Rate Areas

Replacing Sheet 1 Filed November 16, 2017

No supplement or separate understanding shall modify the tariff as shown herein.

Sheet 1 of 2

Gas System Reliability Surcharge Rider**Availability**

This rider is applicable to every bill for service provided under each of the Company's sales and transportation rate schedules except where not permitted under a separately negotiated contract with a customer. Not applicable to bills for As-Available Gas Sales Service or Interruptible Gas Transportation Service.

Net Monthly Charge

The Gas System Reliability Surcharge (GSRS) shall be a fixed monthly amount calculated as the applicable GSRS times the number of meters serving the customer's account, as indicated by the total number of Service Charges billed.

RS	Residential Sales Service	\$	0.53
GSS	General Sales Service Small	\$	0.84
GSL	General Sales Service Large	\$	2.01
GSTE	General Sales Service Transport Eligible	\$	6.65
SGS	Small Generator Sales Service	\$	0.93
KGSSD	Kansas Gas Supply D	\$	48.59
GIS	Gas Irrigation Sales Service	\$	2.13
SSR	Sales Service Resale	\$	8.98
STk	Small Transportation Service (k)	\$	4.72
STt	Small Transportation Service (t)	\$	5.29
LVTk	Large Volume Transportation Service (k)		
Annual Use:	Below 10,000 Mcf	\$	9.60
	10,001 Mcf – 20,000 Mcf	\$	22.25
	20,001 Mcf – 40,000 Mcf	\$	42.00
	Above 40,001 Mcf	\$	147.00
LVTt	Large Volume Transportation Service (t)		
Annual Use:	Below 10,000 Mcf	\$	30.00
	10,001 Mcf – 20,000 Mcf	\$	46.20
	20,001 Mcf – 40,000 Mcf	\$	128.00
	Above 40,001 Mcf	\$	352.65
WTt	Wholesale Transportation Service (t)	\$	79.13
GITt	Gas Irrigation Transportation Service (t)	\$	4.67
CNG	Compressed Natural Gas General Transportation	\$	53.22

Issued: _____ Effective: _____ By: _____ Janet L. Buchanan, Director – Regulatory Affairs	
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THE STATE CORPORATION COMMISSION OF KANSAS

Index 44.2

Kansas Gas Service, a Division of ONE Gas, Inc.

SCHEDULE GSRS

All Rate Areas

Replacing Sheet 2 Filed November 16, 2017

No supplement or separate understanding shall modify the tariff as shown herein.

Sheet 2 of 2

Gas System Reliability Surcharge Rider**Definitions and Conditions**

1. The provisions of this GSRS Rider are intended to recover charges for natural gas public utility plant projects pursuant to K.S.A. 66-2201 through K.S.A. 66-2204.
2. The GSRS shall be reflected on a customer's bill as a separate line item.
3. The Annual Use for customers served under a Large Volume Transportation (LVT) rate schedule shall be the total volumes billed to the applicable meter in the 12 months ending the most recent April 30. Company may rely on estimated historical usage or projected volumes to establish Annual Use when actual usage is not available
4. At the end of each twelve-month calendar period a GSRS is in effect, Company shall reconcile the difference between the revenues resulting from that GSRS and the pre-tax revenues found by the Commission to be appropriate for that period. Company shall calculate a GSRS adjustment which shall, upon Commission approval, recover or refund the difference.
5. All provisions of this rider are subject to changes made by order of the Commission.

<p>Issued: _____</p> <p>Effective: _____</p> <p>By: _____</p> <p>Janet L. Buchanan, Director – Regulatory Affairs</p>	
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