

**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. 22-KGSG- 112-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 respectfully seeks revisions to its Gas System Reliability Surcharge (“GSRs”) tariff approved in Docket No. 09-KGSG-199-TAR (the “199 Docket”). Kansas Gas Service’s GSRs tariff allows the Company’s rates and charges to be adjusted to recover costs from eligible infrastructure system investments. As a result of the Company’s most recent general rate case, Docket No. 18-KGSG-560-RTS (the “560 Docket”), the Company’s GSRs tariff was reset to zero, and then updated in Docket 20-KGSG-090-TAR (the “090 Docket”), and in Docket 21-KGSG-094-TAR (the “094 Docket”). In support of its Application, Kansas Gas Service states the following to the State Corporation Commission of the State of Kansas (“Commission”):

I. Description of Applicant and Communications

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:

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II. Petition

3. Kansas Gas Service respectfully requests the Commission authorize the Company to change its GSRS rate schedules to recover costs of eligible infrastructure system investments.

A. Legal Authorization¹

4. In 2006, Senate Bill 414, referred to as the Gas Safety and Reliability Policy Act, was passed into law. In 2018, Senate Bill 279 amended the Gas Safety and Reliability Policy Act. Together, these acts create the GSRS framework the Company operates under. Pursuant to K.S.A. 66-2203(a), a natural gas public 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 investments.

5. K.S.A. 66-2202 defines eligible infrastructure system investments, and further details the specific types of natural gas utility plant projects recoverable under a GSRS.

¹ The summaries of applicable Kansas Statutes contained in this section are not intended to alter the statutory standards GSRS Petitions are subject to. These summaries are intended to highlight the statutory authorization for GSRS Petitions and introduce core elements Kansas Gas Service's Petition.

6. K.S.A. 66-2203(a) establishes minimum and maximum thresholds of total annualized GSRS revenues. In the instant matter, the Commission may not approve Kansas Gas Service's proposed GSRS if the total annualized revenues are below the lesser of \$1,000,000 or 1/2%, or exceed 20%, of Kansas Gas Service's base revenue from the Company's most recent general rate proceeding (i.e., the 560 Docket).

7. K.S.A. 66-2203(b) through (d) set forth the maximum duration a GSRS may be in effect between general rate proceedings.

8. K.S.A. 66-2204(a) requires Kansas Gas Service file a Petition with the Commission to change its GSRS, include proposed rate schedules and supporting documentation, and serve a copy of the Petition on the Commission's Staff and the Citizens' Utility Ratepayer Board.

9. K.S.A. 66-2204(b)(1) through (4) outline statutory deadlines for the Commission and its Staff.

10. K.S.A. 66-2204(c) limits how often Kansas Gas Service may petition to change its GSRS.

11. K.S.A. 66-2204 contains additional provisions detailing how: (1) the Commission determines the appropriate pretax revenue, (2) how the GSRS charge must be allocated among Kansas Gas Service's customers, rate caps, and true-ups (3) how Kansas Gas Service's GSRS resets to zero in general rate proceedings and other accounting-related functions, (4) how GSRS filings are not considered rate increases subject to K.S.A. 66-117, and (5) how approval of petitions such as Kansas Gas Service's do not bind or limit future actions by the Commission.

B. Request

12. Every year, and in the provision of natural gas utility service, Kansas Gas Service is required to relocate and replace certain segments of its system. Additionally, Kansas Gas Service invests in both physical and cybersecurity to protect assets. 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.

13. K.S.A. 66-2202(d), as amended, defines "eligible infrastructure system investments" as: Natural gas public utility plant projects that:

- (1) Do not increase revenues by directly connecting the infrastructure investments 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.

K.S.A. 66-2202(f), as amended, defines "Natural gas public utility plant projects as:

(f) "natural gas utility plant projects" consist of the following:

- (1) Mains, meters, valves, service lines, regulator stations, vaults and other pipeline system components installed to replace, upgrade or modernize obsolete facilities, including, but not limited to, installation to comply with state or federal safety requirements replacing existing facilities;
- (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 including, but not limited to, projects undertaken to comply with state or federal safety requirements;
- (3) facility relocations required due to construction or improvement of a highway, road, street, public 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 public utility;

(4) system security costs including allocated corporate costs incurred by a natural gas public utility; and

(5) investments made in accordance with the utility's safety and risk management programs;

14. Anthony Cellitti, Manager of Engineering for Kansas Gas Service, describes how categories (1), (2), (4), and (5) are generally considered safety related projects. Likewise, Mr. Cellitti describes how category (3) is generally considered governmental relocation projects.

15. Anthony Cellitti, Manager of Engineering for Kansas Gas Service, discusses several types of projects eligible for recovery in his Direct Testimony as attached hereto and supported by Exhibits APC-1, APC-2, APC-3, and APC-4. The first group includes 817 projects comprised of system replacements and investments and system security specifically, projects related to physical security. These projects are identified in Exhibit APC-1 and may be considered “safety related” projects. The second group consists of 243 government mandated relocation projects that have not been fully reimbursed to the natural gas utility. These projects are identified in Exhibit APC-2 and may be considered “governmental relocation projects.” Both types of projects are eligible for inclusion in a GSRS filing because they meet the definition of “natural gas utility plant projects” set in K.S.A. 66-2202. Exhibits APC-1 and APC-2 show the location, project description, work order number, unitization date, and cost for each of the projects. The project list (i.e., Exhibit APC-1) also refers to the state or federal pipeline safety requirement(s) that prompted the project(s). Similarly, the governmental relocation project list (i.e., 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, 2020 and June 30, 2021.

16. Mr. Cellitti also describes Exhibit APC-3, which summarizes blanket work orders related to service line replacements and projects completed to address safety concerns, obsolete facilities, 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. These projects are identified in Exhibit APC-3 and may be considered “safety related” projects. As Mr. Cellitti notes, these projects are eligible for recovery under K.S.A. 66-2202(f)(1) or (3) in the same manner as projects identified in Exhibits APC-1 and APC-2. The projects identified in Exhibit APC-3 were also unitized between July 1, 2020 and June 30, 2021.

17. As set forth in the Commission’s Order in the 199 Docket, Mr. Cellitti uses Exhibit APC-4 to provide further explanation for safety related projects identified in Exhibit APC-1 included (in whole or in part) due to monitoring conducted in compliance with 49 C.F.R. § 192.613(b).

18. Mr. Niyo Little Thunder Pearson Sr., ONE Gas, Inc.’s, Supervisor for Cybersecurity, summarizes a group of safety-related projects in his Direct Testimony. System security costs, according to K.S.A. 66-2202(f)(4), also include “allocated corporate costs incurred by a natural gas public utility.” K.S.A. 66-2202(i) defines system security as:

capital expenditures to protect a utility’s capital assets, including both physical assets and cyber assets, such as networks, computers, servers, operating systems, storage programs and data, from attack, damage or unauthorized use and access.

Mr. Pearson Sr. describes seven system security projects that are identified in Exhibit NLP-1. Like Mr. Cellitti's sponsored projects, Mr. Pearson Sr.'s satisfy the definition of natural gas public utility plant projects recoverable through a GSRS.

19. 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. Pursuant to 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 090 Docket and those additional projects identified in this Application is \$164,482,331. The proposed GSRS revenue requirement associated with the projects approved in the 090 Docket and the 094 Docket, the additional projects identified in this Application, plus the true-up of the authorized revenue in the 094 Docket is \$19,351,723. The incremental requested revenue requirement is \$7,618,998.

20. As noted above, GSRS petitions are subject to minimum and maximum total revenue thresholds. 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 of \$1,000,000, is applicable to this filing. The Company's requested incremental revenue increase of \$7,618,998, accordingly satisfies the minimum threshold requirement. Likewise, the total requested revenue requirement is below the maximum threshold

requirement of 20% of the most recent base revenue approved in the utility's most recent general rate proceeding.

21. The Stipulated Settlement Agreement approved in Kansas Gas Service's most recent rate case (the 560 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 9.0984%, gross of tax. Due to the elimination of the state corporate income tax applicable to utilities as a result of the Senate Substitute for House Bill No. 2585, the carrying charge has been reduced to 8.6012%. This return was used in the calculation of the revenue requirement as shown in Exhibit LME-1.

22. In this Application, Kansas Gas Service has also included the true-up of revenue recovered under the current GSRS through June 2021 versus the revenue approved to be recovered in the 094 Docket as approved by the Commission on November 17, 2020. This amount is shown in Exhibit LME-2.

23. Exhibits LME-3 and LME-4 detail the rate base calculations for those projects identified in this Application. 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 investments; and, accumulated deferred income taxes associated with the eligible infrastructure system investments.

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

25. 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 560 Docket.

26. 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 \$0.80 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 \$0.80 per residential customer over the most recent filing of a GSRS.

The proposed GSRS surcharge yields a \$0.78 per meter, per month surcharge increase for a residential customer, which is below the statutory maximum monthly increase of \$0.80.

27. Exhibit LME-7 is the revised GSRS tariff page reflecting the recalculated GSRS rates. Ms. Eaton confirms none of the costs included in Exhibits APC 1 through 3 were included in Kansas Gas Service's last general rate filing (the 560 Docket).

III. Conclusion

28. Since filing its GSRS last year, Kansas Gas Service has continued to make safety related investments in its system and respond to governmental relocation projects. The costs of these projects were prudently incurred, do not increase revenues by connecting new customers, are in service and used and required to be used, and were not included in Kansas Gas Service's most recent general rate case. The projects included in this Petition satisfy the statutory definitions of projects recoverable under a GSRS, and this Petition satisfies the statutory elements necessary to recover the costs of these projects. Kansas Gas Service respectfully requests it be permitted to recover revenue of \$19,351,723 through its GSRS, representing an incremental revenue requirement increase of \$7,618,998.

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, and any other relief the Commission deems just and reasonable.

Respectfully submitted,

/s/ **Robert Elliott Vincent**

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In the Matter of the Application of Kansas)
Gas Service, A Division of ONE Gas, Inc., for)
Approval By The Commission for a Gas) DOCKET NO. 22-KGSG-____-TAR
System Reliability Surcharge per K.S.A.)
66-2201 through 66-2204.)

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. 22-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., (“Kansas Gas
6 Service” or “Company”). I hold the position 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 a 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 (a predecessor to Kansas Gas Service)
13 as an engineer. Since then, my career has been involved in the natural gas distribution
14 business. I have had several positions in engineering and operations. Since 1997, I
15 have been a Manager of Engineering for Kansas Gas Service. I am a Licensed
16 Professional Engineer in the states of Kansas, 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,

1 Ms. Lorna Eaton provides direct testimony on the calculation of the GSRS revenue
2 and the surcharge amounts by customer class and Mr. Niyo Little Thunder Pearson,
3 Sr. supports the inclusion of corporate system security investments.

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

5 A. Yes. I am sponsoring Exhibits APC-1, APC-2, APC-3, and APC-4. These exhibits are
6 a summary and explanation of the projects being included within the proposed GSRS.

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

8 A. Kansas Gas Service is a division of ONE Gas, Inc., and provides natural gas
9 distribution service to approximately 645,000 customers in more than 360
10 communities in Kansas. Approximately 590,000 of Kansas Gas Service's customers
11 are residential customers, with the remaining balance comprised of non-residential -
12 general service sales customers and transportation customers. Kansas Gas Service's
13 natural gas system includes approximately 13,000 miles of distribution and
14 transmission lines.

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

16 A. In 2006, Senate Bill 414, the Gas Safety and Reliability Act, was passed into law. The
17 law was amended in 2018 by Senate Bill 279 to expand the definition of what types of
18 investment are eligible for inclusion within the surcharge. Pursuant to K.S.A. 66-
19 2203(a), as amended:

20 a natural gas public utility providing gas service may file a petition and
21 proposed rate schedules with the commission to establish or change
22 GSRS rate schedules that will allow for the adjustment of the natural
23 gas public utility's rates and charges to provide for the recovery of costs
24 for eligible infrastructure system investments.

25 The GSRS allows natural gas public utilities to recover expenses associated with
26 eligible infrastructure replacements incurred between rate cases through a surcharge.

1 **Q. HOW ARE “ELIGIBLE INFRASTRUCTURE SYSTEM INVESTMENTS” DEFINED?**

2 A. K.S.A. 66-2202(d), as amended, defines “eligible infrastructure system investments”
3 as natural gas public utility plant projects that:

4 (1) Do not increase revenues by directly connecting the infrastructure
5 investments to new customers;

6 (2) are in service and used and required to be used; and

7 (3) were not included in the natural gas public utility’s rate base in its
8 most recent general rate case.

9 **Q. HOW ARE NATURAL GAS UTILITY PLANT PROJECTS IDENTIFIED IN THE**
10 **STATUTE?**

11 A. K.S.A. 66-2202(f), as amended, outlines five separate categories of natural gas utility
12 plant projects.

13 **Q. CAN YOU OUTLINE THESE CATEGORIES?**

14 A. Yes. The first, K.S.A. 66-2202(f)(1), as amended, is for:

15 Mains, meters, valves, service lines, regulator stations, vaults and other
16 pipeline system components installed to replace, upgrade or modernize
17 obsolete facilities, including, but not limited to, installation to comply
18 with state or federal safety requirements replacing existing facilities.

19 The second, K.S.A. 66-2202(f)(2), as amended, is for:

20 Main relining projects, service line insertion projects, joint
21 encapsulation projects and other similar projects extending the useful
22 life or enhancing the integrity of pipeline system components including,
23 but not limited to, projects undertaken to comply with state or federal
24 safety requirements.

25 The third, K.S.A. 66-2202(f)(3), as amended, is for:

1 Facility relocations required due to construction or improvement of a
2 highway, road, street, public way or other public work by or on behalf
3 of the United States, this state, a political subdivision of this state or
4 another entity having the power of eminent domain provided that the
5 costs related to such projects have not been reimbursed to the natural
6 gas public utility.

7 The fourth, K.S.A. 66-2202(f)(4), as amended, is for:

8 System security costs including allocated corporate costs incurred by a
9 natural gas public utility.

10 The fifth, K.S.A. 66-2202(f)(5), as amended, is for:

11 Investments made in accordance with the utility's safety and risk
12 management programs.

13 **Q. IS THERE A WAY TO GENERALLY CLASSIFY THESE TYPES OF PROJECTS?**

14 A. Yes. Categories 1, 2, 4 and 5 identified above are generally classified under the
15 heading of a safety related project within this Application, while component 3 is
16 generally classified as a governmental relocation project. Company witness Mr.
17 Pearson will be discussing a subset of projects classified under category 4, related to
18 system security projects.

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

21 A. Exhibit APC-1, as attached hereto, identifies safety related projects recoverable under
22 K.S.A. 66-2202(f)(1), (f)(2), (f)(4), and (f)(5). Exhibit APC-2, as attached hereto,
23 identifies governmental relocation projects recoverable under K.S.A. 66-2202(f)(3).
24 Both exhibits provide a project description, work order number, unitization date, and
25 cost for each of the projects. The project list contained in Exhibit APC-1, also includes
26 a reference to the compliance section of state or federal pipeline safety requirements

1 where applicable. Similarly, the governmental relocation project list identifies the
2 governmental entity requiring the relocation activity. The projects identified in Exhibits
3 APC-1 and APC-2 were unitized between July 1, 2020 and June 30, 2021.

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

5 A. Exhibit APC-3, as attached hereto, identifies projects that have been accounted for as
6 blanket work orders for service line replacement projects and a limited group of non-
7 service line projects. Blanket work orders are used to account for costs of projects
8 with relatively small dollar amounts and similarity. Expenses related to the
9 replacement of service lines meets both criteria and are therefore included in blanket
10 work orders. These service line replacement projects are small projects where the
11 Company has replaced the service line from the main in the street to the house as a
12 result of either a safety concern or a public improvement project. As such, these
13 projects are eligible for recovery under K.S.A. 66-2202(f)(1) or (3) in the same manner
14 as projects identified in Exhibits APC-1 and APC-2. The projects identified in Exhibit
15 APC-3 were unitized between July 1, 2020 and June 30, 2021.

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

17 A. The Commission's Order in the Company's initial GSRS filing, Docket No. 09-KGSG-
18 199-TAR ("199 Docket"), directed Kansas Gas Service to provide an expanded
19 explanation of projects included in the Company's GSRS pursuant to 49 C.F.R. §
20 192.613.¹ Exhibit APC-4, as attached hereto, provides the explanation for those
21 projects identified in Exhibit APC-1 that reference 49 C.F.R. § 192.613. I provide an
22 explanation of the applicability of this section to service line replacements later in my
23 testimony.

¹ "If KGS uses Title 49 C.F.R. Part 192.613 as the criteria for projects meeting this definition, then the GSRS Application shall include documentation supporting the determination that the projects were in "unsatisfactory condition" and therefore applicable for inclusion under Title 49 C.F.R. Part 192.613." Order, Docket No. 09-KGSG-199-TAR, Ordering Clause (A) (Dec. 18, 2008). See *also* id. at ¶6.

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

3 A. The projects included in Exhibits APC-1, APC-2, and APC-3 were unitized and
4 included on the books as “plant in service” during the period beginning on July 1, 2020,
5 through June 30, 2021. As referenced in Ms. Eaton’s testimony, none of the costs
6 included in Exhibits APC-1, APC-2, and APC-3 were included in Kansas Gas Service’s
7 base rates from its most recent general rate case – Docket No. 18-KGSG-560-RTS
8 (“560 Docket”).

9 **Q. GENERALLY, WHAT SAFETY RELATED REGULATIONS ARE REFERENCED BY**
10 **KANSAS GAS SERVICE IN CONSIDERING A PROJECT’S INCLUSION IN THIS**
11 **GSRs FILING?**

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

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

18 A. Each project identified in Exhibit APC-1, attached hereto, was undertaken to comply
19 with state or federal safety requirements. The column marked “Regulation” in Exhibit
20 APC-1, identifies the regulations from Title 49 of the Code of Federal Regulations,
21 which were adopted by the Commission in K.A.R. 82-11-4, when applicable. Among
22 the applicable regulations are 49 C.F.R. §§: 192.455, 192.457, 192.487, and 192.613.
23 Also referenced in APC-1, are certain Commission dockets that address safety such
24 as Docket Nos.: 11-KGSG-177-TAR, 12-KGSG-721-TAR, 14-KGSG-100-MIS, 15-
25 GIMG-343-GIG, and 18-KGSG-317-CPL. I explain the safety related regulations and
26 government mandated relocations for service lines in more detail later in my testimony.

1 **Q. WHAT TYPES OF PROJECTS ARE INCLUDED IN EXHIBIT APC-1 OF KANSAS**
2 **GAS SERVICE’S GSRS APPLICATION?**

3 A. There are eight categories of projects included in Kansas Gas Service’s request in
4 Exhibit APC-1. The total expenditure for all projects is \$30,577,700. These categories
5 consist of:

- 6 1) 3-5-3 PROGRAM REPLACEMENT;
- 7 2) BARE STEEL MAIN REPLACEMENT;
- 8 3) BARE STEEL SERVICE LINE REPLACEMENT;
- 9 4) CATHODIC PROTECTION;
- 10 5) CONTINUING SURVEILLANCE;
- 11 6) PHYSICAL SECURITY;
- 12 7) PIPELINE SYSTEM COMPONENTS; and
- 13 8) PRESSURE AND MEASUREMENT (OBSCOLESCENCE).

14 **Q. PLEASE DISCUSS THE “3-5-3 REPLACEMENT PROJECTS” CATEGORY.**

15 A. Pursuant to the Commission’s Order in Docket No. 14-KGSG-100-MIS, Kansas Gas
16 Service developed a program to replace problematic protected bare steel main. Under
17 the 3-5-3 program, Kansas Gas Service identifies cathodically protected bare steel
18 distribution main segments which have experienced three or more leaks within a block
19 (approximately 500 feet) over the past three years. Exhibit APC-1 identifies those
20 distribution segments which have been replaced pursuant to this program. The total
21 capital expenditure for 3-5-3 replacement projects identified in Exhibit APC-1 is
22 \$477,036.

23 **Q. PLEASE EXPLAIN THE CATEGORY IDENTIFIED AS “BARE STEEL MAIN**
24 **REPLACEMENT.”**

25 A. Senate Bill No. 279, among other things, amended K.S.A. 66-2202(f)(1) to include
26 projects that replaced, upgraded, or modernized obsolete facilities – including

1 installations replacing existing facilities necessary to comply with state or federal
2 safety requirements. Kansas Gas Service is replacing bare steel mains which are
3 deemed obsolete. Mains are specifically identified in K.S.A. 66-2202(f)(1), as
4 amended. Kansas Gas Service is following section 1600 of its Operations and
5 Maintenance Standards to prioritize replacement work. The total capital expenditure
6 for the Bare Steel Main Replacement identified in Exhibit APC-1 is \$15,790,107.

7 **Q. PLEASE EXPLAIN THE CATEGORY IDENTIFIED AS “BARE STEEL SERVICE**
8 **LINE REPLACEMENT”.**

9 A. Pursuant to Docket No.11-KGSG-177-TAR and Senate Bill No. 279, which among
10 other things, amended K.S.A. 66-2202(f)(1) and was summarized above, Kansas Gas
11 Service is replacing bare steel service lines which are deemed obsolete. Service lines
12 are specifically identified in K.S.A. 66-2202(f)(1), as amended. Kansas Gas Service
13 is following section 1600 of its Operations and Maintenance Standards to prioritize
14 replacement work. The total capital expenditure for the Bare Steel Service
15 Replacement identified in Exhibit APC-1 is \$248,692.

16 **Q. PLEASE EXPLAIN THE CATEGORY IDENTIFIED AS “CATHODIC PROTECTION.”**

17 A. 49 C.F.R. § 192.457 requires pipelines installed prior to August 1, 1971, be
18 cathodically protected in areas where active corrosion is found. The job activities
19 identified in Exhibit APC-1, under the heading Cathodic Protection, represents projects
20 undertaken by Kansas Gas Service that involve the cathodic protection of our facilities.
21 These activities are required by regulation and reduce the possibility of corrosion of
22 pipes, thereby significantly reducing the chance for leaks and risk to the general public.
23 Many of these project tasks were performed pursuant to 49 C.F.R. § 192.457 for
24 pipelines installed prior to August 1, 1971. A portion of the pipeline projects were also
25 performed pursuant to 49 C.F.R. § 192.455 as certain sections of the identified
26 segments have had main sections replaced after August 1, 1971. The activities

1 identified in these projects included the installation of new facilities that we determined
2 to more efficiently reduced corrosion on the pipelines. The total capital expenditure
3 for the Cathodic Protection projects identified in Exhibit APC-1 is \$715,511.

4 **Q. PLEASE EXPLAIN THE CATEGORY IDENTIFIED AS “CONTINUING**
5 **SURVEILLANCE.”**

6 A. 49 C.F.R. § 192.613 requires each operator to have a procedure for continuing
7 surveillance of its facilities to determine and take appropriate action concerning
8 changes in class location, failures, leakage history, corrosion, substantial changes in
9 cathodic protection requirements, and other unusual operating and maintenance
10 conditions. The rule also requires that if a segment of pipe is determined to be in
11 unsatisfactory condition (but no immediate hazard exists), the operator shall initiate a
12 program to recondition or phase out the segment involved. However, if the segment
13 cannot be reconditioned or phased out, the operator shall reduce the maximum
14 allowable operating pressure in accordance with 49 C.F.R. § 192.619(a) and (b). The
15 job activities identified in Exhibit APC-1, under the heading of Continuing Surveillance,
16 represent projects undertaken by Kansas Gas Service that involve phasing out pipe
17 segments determined to be in unsatisfactory condition but where no immediate hazard
18 exists. The total capital expenditure for the Continuing Surveillance projects identified
19 in Exhibit APC-1 is \$10,017,063.

20 **Q. PLEASE DISCUSS THE PROJECTS UNDER THE CATEGORY “PHYSICAL**
21 **SECURITY.”**

22 A. Senate Bill No. 279, among other things, created K.S.A. 66-2202(f)(4). Pursuant to
23 this section, system security costs incurred by a natural gas public utility may be
24 included in a GSRS filing. K.S.A. 66-2202(i) defines “system security,” in part, as
25 “capital expenditures to protect a utility’s capital assets, including both physical assets
26 and cyber assets.” Projects identified in Exhibit APC-1 as “Physical Security” are those

1 projects that the Company undertook to protect physical assets. The investments
2 were made to implement electronic security measures by adding access control,
3 surveillance, intrusion detection, fencing, lighting and secure cabinet enclosures. The
4 total capital expenditure related to physical security investments is \$77,520.

5 **Q. PLEASE DISCUSS THE PROJECTS INCLUDED UNDER THE CATEGORY**
6 **“PIPELINE SYSTEM COMPONENTS.”**

7 A. Pursuant to Senate Bill No. 279, which among other things, amended K.S.A. 66-
8 2202(f)(1) and was summarized above, Kansas Gas Service is replacing pipeline
9 system components, such as odorizers and compressor valves that are obsolete. The
10 total capital expenditure for Pipeline System Component(s) replacement identified in
11 Exhibit APC-1 is \$2,103,334.

12 **Q. PLEASE EXPLAIN THE PROJECTS LISTED UNDER CATEGORY “PRESSURE**
13 **AND MEASUREMENT (OBSOLESCENCE).”**

14 A. Pursuant to Senate Bill No. 279, which among other things, amended K.S.A. 66-
15 2202(f)(1) and was summarized above, Kansas Gas Service is replacing pipeline
16 system components, such as meters and regulators needed for ongoing operations.
17 The total capital expenditure for Pressure & Measurement components identified in
18 Exhibit APC-1 is \$1,148,435.

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

21 A. Exhibit APC-2 identifies each governmentally mandated relocation project included in
22 this GSRS filing. The Exhibit provides a description and location of the project, the
23 unitization date of the project, the cost of the project, and the governmental entity
24 which required the relocation of our facilities. The total expenditure for all projects
25 identified in Exhibit APC-2 is \$9,573,544.

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

3 A. As stated above, the projects in this category relate to the replacement of service lines
4 from the main in the street to the house. These service line replacements have been
5 implemented for safety and government relocation reasons. The safety related
6 reasons are two-fold. The service lines themselves may need to be replaced because
7 of deficiencies in the service line such as leaks or corrosion. The service lines are
8 also replaced for safety related reasons tied to safety related replacements of the main
9 in the streets. For example, if a main must be replaced as part of the 3-5-3 program,
10 it becomes necessary to also replace the steel unprotected service lines and reconnect
11 existing PE service lines. When the main is replaced in the street, the existing service
12 line is disconnected and thus is no longer useful unless reconnected. Typically, the
13 cost to cathodically protect and reconnect the steel unprotected service line to the new
14 main will exceed the cost of simply installing a new service line. Similar to the
15 replacement of a service line due to replacement of a main for safety reasons, service
16 lines are also replaced when the main is relocated as a result of a government
17 mandated road relocation project. In these situations, the main must be replaced as
18 well as replacing or extending the existing service lines which have been rendered
19 useless through being disconnected from the old main as a result of the road
20 relocation. Again, the cost to cathodically protect and reconnect steel unprotected
21 service lines to the new main will exceed the cost of simply installing a new PE service
22 line.

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

24 A. In the box under the heading "Blanket Service Line Summary," I have listed the
25 categories supporting the service line replacements. If a service line replacement is
26 due to a safety related requirement, the applicable safety related code requirement is

1 listed. If the service line replacement is due to a Public Improvement project, I have
2 identified it as such. The Exhibit then sets forth the dollar value and number of service
3 lines replaced by year and category. For example, the “Routine Replacement – Leak”
4 category had \$744,955 in service line replacement costs involving 294 service lines.
5 In the box under the heading “Non-Service Line Related Blanket Summary,” there are
6 three categories of blanket non-service line projects which I will explain below.

7 **Q. PLEASE EXPLAIN EACH OF THE SERVICE LINE REPLACEMENT CATEGORIES**
8 **IDENTIFIED IN EXHIBIT APC-3.**

9 A. I have placed the safety related service line replacements at the beginning of the
10 Blanket Service Line Summary in Exhibit APC-3 and service line replacements for
11 public improvements at the bottom of the Blanket Service Line Summary. The first
12 safety category, “Routine Replacement-Leak”, includes the replacement of service
13 lines that were replaced due to leakage classified under the leak classification
14 guidelines found in 49 C.F.R. § 192.703 (and subject to 49 C.F.R. § 192.453(b)) which
15 requires that unprotected steel service lines found to have active corrosion, shall either
16 be protected or replaced. As shown in Exhibit APC-3, during the period beginning July
17 1, 2020 through June 30, 2021, 294 service lines were replaced at a cost of \$744,955
18 for this category.

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

21 A. This category includes replacement of unprotected steel service lines that were not
22 leaking. The unprotected steel service lines were replaced to comply with various
23 regulations including 49 C.F.R. § 192.613(b) which requires piping found to be
24 unsatisfactory be phased out or replaced. Replacement reasons include issues such
25 as the: service line’s tap was exposed during maintenance of main and corrosion was
26 found requiring replacement pursuant to 49 C.F.R. § 192.453(b); service line was

1 exposed during pot-holing and corrosion was found requiring replacement per 49
2 C.F.R. § 192.453(b); service line was under the influence of soil subsidence found
3 through patrolling and required replacement pursuant to 49 C.F.R. § 192.721; and
4 current location of the service line was found to be too shallow and required
5 replacement pursuant to 49 C.F.R. § 192.613. All service lines included in this
6 category are subject to 49 C.F.R. § 192.453, which will inevitably trigger replacement
7 of all unprotected steel lines by regulation. These service lines were also replaced
8 pursuant to the Commission's Order in the 177-Docket, in accordance with the service
9 line replacement program. As shown in Exhibit APC-3, during the period beginning
10 July 1, 2020 through June 30, 2021, the Company replaced 8,836 service lines at a
11 cost of \$22,389,204 for this category.

12 **Q. PLEASE EXPLAIN THE "PUBLIC IMPROVEMENT" CATEGORY.**

13 A. As explained in my testimony above related to Exhibit APC-2, government mandated
14 relocation projects require the Company to relocate its mains in the street. The costs
15 of government mandated relocation projects are recoverable pursuant to K.S.A. 66-
16 2202(f)(3). When performing main relocation (which is the installation of new main)
17 Kansas Gas Service will install new service line piping to reconnect existing plastic
18 services and will also replace the unprotected steel service lines with new plastic
19 service lines. These service line replacements may have also resulted from a direct
20 conflict with a governmental relocation project where no conflict existed with the main
21 piping. In these cases, only the service line needed to be replaced, whereas the main
22 did not need to be replaced. As shown in Exhibit APC-3, during the period July 1,
23 2020 through June 30, 2021, Kansas Gas Service replaced 12 service lines at a cost
24 of \$30,406 for this category.

25 **Q. PLEASE EXPLAIN THE CATEGORIES IN THE BOX FOR "NON-SERVICE LINE**
26 **RELATED BLANKET."**

1 A. These blanket costs address small projects other than service lines. The first group,
2 “install anodes,” is GSRS eligible pursuant to K.S.A. 66-2202(f)(1) and 49 C.F.R. §§
3 192.455 and 192.457. The total capital expenditure for these projects is \$838,301.
4 These anodes represent projects which involve ten anodes or less and thus are
5 included in a blanket work order. The other category, “Weld Sleeve High Resist
6 Couplings” includes installation of weld sleeves over high resistance couplings which
7 are required pursuant to either 49 C.F.R. §§ 192.457 or 192.455, to reduce the
8 possibility of corrosion of pipes, thereby significantly reducing the chance for leaks and
9 risk to the general public. The total capital expenditure for these projects is \$153,822.

10 The last category includes our meter costs related to our meter changeout
11 program. Pursuant to the General Terms and Condition 9.02.03, Kansas Gas Service
12 is required to routinely test its meters. Kansas Gas Service uses a meter sampling
13 program to determine which meters need to be replaced because of possible
14 inaccuracy and failures to meet current industry standards. The total capital
15 expenditure for these projects is \$11,817,589.

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

17 A. Exhibit APC-4 sets forth the applicability of section 49 C.F.R. § 192.613 to those safety
18 related projects identified in Exhibit APC-1. There are 68 (sixty eight) projects that are
19 identified in APC-1, whose inclusion as a safety related project is eligible for recovery
20 under K.S.A. 66-2202(f)(1), pursuant to 49 C.F.R. § 192.613, in whole or in part.

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

22 A. Yes, it does at the current time.

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

ANTHONY P. CELLITTI

Subscribed and sworn to before me this 26th day of August, 2021.

[Signature]

NOTARY PUBLIC

My Appointment Expires:

6/5/22



Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
1	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	4/1/2021	3533	054	010188	Retire 287' of 2" BS and 212' of 2" CS main. 4th St & Ohio Ave, Holton, KS. Install 510' of 2" PE main. This project is being completed to remove leaking pipe and qualifies as a 3-5-3 replacement project.	3760	\$ 41,607
2	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	5/25/2021	3521	054	010243	3-5-3 Bare Steel Replacement - Waterworks Rd and Old KC Rd - To Install: 1000' 2" PE Main To Retire: 916' 2" BS Main 30' 2" CS Main. There are 7 PE SL tie overs.	3760	\$ 40,607
3	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	5/25/2021	3521	054	010243	3-5-3 Bare Steel Replacement - Waterworks Rd and Old KC Rd - To Install: 1000' 2" PE Main To Retire: 916' 2" BS Main 30' 2" CS Main. There are 7 PE SL tie overs.	3800	\$ 265
4	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	4/1/2021	3522	054	011558	Retire 600' 6" BS main. 7th St & Kindelberger Rd, Kansas City, KS. Install 330' 1.25" service line. This work is to eliminate a leak on the 6" BS main that runs along 7th St between Sunshine Rd and Kindelberger Rd on the 3-5-3 replacement program. We will isolate the approximately 600' section of 6" BS Main and install a temporary service line to 3255 N. 7th St customer. We will do a full replacement of the 6" main in the future.	3760	\$ 149,479
5	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	4/1/2021	3522	054	011558	Retire 600' 6" BS main. 7th St & Kindelberger Rd, Kansas City, KS. Install 330' 1.25" service line. This work is to eliminate a leak on the 6" BS main that runs along 7th St between Sunshine Rd and Kindelberger Rd on the 3-5-3 replacement program. We will isolate the approximately 600' section of 6" BS Main and install a temporary service line to 3255 N. 7th St customer. We will do a full replacement of the 6" main in the future.	3765	\$ 1,378
6	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	4/1/2021	3522	054	011558	Retire 600' 6" BS main. 7th St & Kindelberger Rd, Kansas City, KS. Install 330' 1.25" service line. This work is to eliminate a leak on the 6" BS main that runs along 7th St between Sunshine Rd and Kindelberger Rd on the 3-5-3 replacement program. We will isolate the approximately 600' section of 6" BS Main and install a temporary service line to 3255 N. 7th St customer. We will do a full replacement of the 6" main in the future.	3769	\$ 2,013
7	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	4/1/2021	3522	054	011558	Retire 600' 6" BS main. 7th St & Kindelberger Rd, Kansas City, KS. Install 330' 1.25" service line. This work is to eliminate a leak on the 6" BS main that runs along 7th St between Sunshine Rd and Kindelberger Rd on the 3-5-3 replacement program. We will isolate the approximately 600' section of 6" BS Main and install a temporary service line to 3255 N. 7th St customer. We will do a full replacement of the 6" main in the future.	3800	\$ 58,699
8	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	5/25/2021	3721	054	012345	BS Main Replacement - 30th St & Bonn, Wichita - Retire 330' of 2" UPBS main identified in the 3-5-3 program and as part of the 2020 annual work plan projects. Install 330' of 2" PE main. This project was identified as part of the 3-5-3 program in the 3rd quarter of 2016 and was approved for the 2020 Annual Work Plan. 10 PE service lines will be tied over.	3760	\$ 20,697
9	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	5/25/2021	3721	054	012345	BS Main Replacement - 30th St & Bonn, Wichita - Retire 330' of 2" UPBS main identified in the 3-5-3 program and as part of the 2020 annual work plan projects. Install 330' of 2" PE main. This project was identified as part of the 3-5-3 program in the 3rd quarter of 2016 and was approved for the 2020 Annual Work Plan. 10 PE service lines will be tied over.	3769	\$ 653
10	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	5/25/2021	3721	054	012345	BS Main Replacement - 30th St & Bonn, Wichita - Retire 330' of 2" UPBS main identified in the 3-5-3 program and as part of the 2020 annual work plan projects. Install 330' of 2" PE main. This project was identified as part of the 3-5-3 program in the 3rd quarter of 2016 and was approved for the 2020 Annual Work Plan. 10 PE service lines will be tied over.	3800	\$ 37,005
11	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	8/14/2020	3721	054	012358	BS Main Replacement - Larry Ln & S Elpyco Ave, Wichita - Retire 250' of 2" APBS main in poor condition producing multiple leaks. Install 300' of 2" PE main. This project was identified in the 3/5/3 program during the 3rd quarter of 2016 and was approved for the 2020 Annual Work Plan. 2 PE service lines will be tied over.	3760	\$ 18,279
12	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	8/14/2020	3721	054	012358	BS Main Replacement - Larry Ln & S Elpyco Ave, Wichita - Retire 250' of 2" APBS main in poor condition producing multiple leaks. Install 300' of 2" PE main. This project was identified in the 3/5/3 program during the 3rd quarter of 2016 and was approved for the 2020 Annual Work Plan. 2 PE service lines will be tied over.	3769	\$ 1,211
13	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	8/14/2020	3721	054	012358	BS Main Replacement - Larry Ln & S Elpyco Ave, Wichita - Retire 250' of 2" APBS main in poor condition producing multiple leaks. Install 300' of 2" PE main. This project was identified in the 3/5/3 program during the 3rd quarter of 2016 and was approved for the 2020 Annual Work Plan. 2 PE service lines will be tied over.	3800	\$ 5,666
14	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	2/25/2021	3541	055	010384	Retire 683' 2" BS and 85' 2" CS main. SW Garden Ln & SW Mission Ave, Topeka, KS. Install 900' 2" PE main. 3-5-3 replacement project.	3760	\$ 59,215
15	3-5-3 Program Replacement	KCC Docket No. 14-KGSG-100-MIS and 192.613 (b)	2/25/2021	3541	055	010384	Retire 683' 2" BS and 85' 2" CS main. SW Garden Ln & SW Mission Ave, Topeka, KS. Install 900' 2" PE main. 3-5-3 replacement project.	3800	\$ 40,262
	3-5-3 Program Replacement Total								\$ 477,036
16	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3651	053	010082	LOCATION: 1205 Bluemont - Aggieville Hotel, Manhattan, KS Install: 500' - 2" PE Retire: 300' - 4" BS, 100' - 4" CS, and 100' - 2" CS.	3760	\$ 45,027

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
17	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3651	053	010082	LOCATION: 1205 Bluemont - Aggieville Hotel, Manhattan, KS Install: 500' - 2" PE Retire: 300' - 4" BS, 100' - 4" CS, and 100' - 2" CS.	3800	\$ 26,893
18	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3651	053	010082	LOCATION: 1205 Bluemont - Aggieville Hotel, Manhattan, KS Install: 500' - 2" PE Retire: 300' - 4" BS, 100' - 4" CS, and 100' - 2" CS.	3805	\$ 18,639
19	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3651	053	010086	Retire 304 ft of 1 1/4 in APBS. N 2nd and W Mission, St. Marys, KS. Install 300' 2 in PE main. The BS main has a low corrosion read and is deteriorating.	3760	\$ 23,381
20	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3651	053	010086	Retire 304 ft of 1 1/4 in APBS. N 2nd and W Mission, St. Marys, KS. Install 300' 2 in PE main. The BS main has a low corrosion read and is deteriorating.	3800	\$ 3,965
21	Bare Steel Main Replacement	K.S.A. 66-2202	8/31/2020	3831	053	010101	BS Main Replacement - Clarence & Bennett, Iola - Retire 213' of 2" BS main after a customer discovered the main intertwined in a tree row's root system that was being removed. Install 200' of 2" PE main.	3760	\$ 2,381
22	Bare Steel Main Replacement	K.S.A. 66-2202	10/2/2020	3641	053	010117	BS & CS Main Replacement - 2nd & Elm, Salina - Retire 70' of APCS, 37' of 2" BS and 16' of 2" PE main due to an isolated section of steel main having corrosion deficiencies. Install 155' of 2" PE.	3760	\$ 6,450
23	Bare Steel Main Replacement	K.S.A. 66-2202	10/23/2020	3622	053	010123	BS Main Replacement - 109 Parke, Pratt - Retire 228' of 1.25" BS main due to build over and encroachment. Install 64' of 2" PE main. 4 BS service line renewals. Someone built over our main which sits in a private easement. We need to relocate our main asap so that we don't have to have someone survey the line everyday.	3760	\$ 10,938
24	Bare Steel Main Replacement	K.S.A. 66-2202	10/23/2020	3622	053	010123	BS Main Replacement - 109 Parke, Pratt - Retire 228' of 1.25" BS main due to build over and encroachment. Install 64' of 2" PE main. 4 BS service line renewals. Someone built over our main which sits in a private easement. We need to relocate our main asap so that we don't have to have someone survey the line everyday.	3800	\$ 9,064
25	Bare Steel Main Replacement	K.S.A. 66-2202	8/25/2020	3622	053	010126	BS Main Replacement - 210 W 1st St, Cunningham - Retire 14' of 2" BS main due to leak and minimal remaining wall thickness on existing steel main. Install 126' of 2" PE main. We found fizzer leaks on 2" bare steel we could not weld off or clamp due to it being just under the old tap and less than .140 wall pipe	3760	\$ 10,459
26	Bare Steel Main Replacement	K.S.A. 66-2202	10/2/2020	3761	053	010147	BS Main Replacement - California & Oak, Columbus - Retire 360' of 2" BS main due to isolation and obsolescence. Install 360' of 2" PE main. 6 services will be tied over.	3760	\$ 10,731
27	Bare Steel Main Replacement	K.S.A. 66-2202	10/2/2020	3761	053	010147	BS Main Replacement - California & Oak, Columbus - Retire 360' of 2" BS main due to isolation and obsolescence. Install 360' of 2" PE main. 6 services will be tied over.	3800	\$ 1,682
28	Bare Steel Main Replacement	K.S.A. 66-2202	7/28/2020	3761	053	010149	BS Main Replacement - Pennsylvania & Olive, Columbus - Retire 275' of 3" BS main due to obsolescence and isolation. Install 300' of 4" PE main. 2 services will be tied over.	3760	\$ 5,431
29	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3641	053	010151	Main Relocation & BS Main Abandonment, 1923 Simmons St, Salina - Retire 50' of 2" BS main located underneath a permanent structure. Relocate and Install 50' of 2" PE main. Miller Pipeline will relocate the 2" BS main behind 1923 Simmons st. Salina, KS due to it going underneath a non movable structure. Replace about 50' of 2" BS with 2" PE.	3800	\$ 5,722
30	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3541	053	010339	Retire 280' 4" CS, 1290' - 6" BS, 420' - 6" CS, and 890' - 2" BS main. 2nd & Lawrence to 2nd & California; 8th & Chandler to 8th & Locust, Topeka, KS. Install 2350' 2" PE and 1700' 4" PE main. This project is a 2020 bare steel replacement program project.	3760	\$ 247,968
31	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3541	053	010339	Retire 280' 4" CS, 1290' - 6" BS, 420' - 6" CS, and 890' - 2" BS main. 2nd & Lawrence to 2nd & California; 8th & Chandler to 8th & Locust, Topeka, KS. Install 2350' 2" PE and 1700' 4" PE main. This project is a 2020 bare steel replacement program project.	3800	\$ 57,340
32	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3541	053	010339	Retire 280' 4" CS, 1290' - 6" BS, 420' - 6" CS, and 890' - 2" BS main. 2nd & Lawrence to 2nd & California; 8th & Chandler to 8th & Locust, Topeka, KS. Install 2350' 2" PE and 1700' 4" PE main. This project is a 2020 bare steel replacement program project.	3820	\$ 662
33	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3541	053	010339	Retire 280' 4" CS, 1290' - 6" BS, 420' - 6" CS, and 890' - 2" BS main. 2nd & Lawrence to 2nd & California; 8th & Chandler to 8th & Locust, Topeka, KS. Install 2350' 2" PE and 1700' 4" PE main. This project is a 2020 bare steel replacement program project.	3830	\$ 3,390
34	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3522	053	011116	Retire 900' 2" BS main. Edith Ave, Kansas City, KS. Install 900' 2" PE main. There is a class 2 leak on a 2" BS main that requires a permanent repair.	3760	\$ 65,817
35	Bare Steel Main Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	4/20/2021	3522	053	011221	Retire 28' of 16" Bare Steel main (1947 vintage). 10th & Sunshine, Kansas City, KS. Install (1) 12" Kerotest Model-1 gate valve and piping to support valve installation to include 20' of 12" CS main and 8' of 16" CS main. KGS pipe line is shorted and badly deteriorated.	3765	\$ 183,042
36	Bare Steel Main Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	4/20/2021	3522	053	011221	Retire 28' of 16" Bare Steel main (1947 vintage). 10th & Sunshine, Kansas City, KS. Install (1) 12" Kerotest Model-1 gate valve and piping to support valve installation to include 20' of 12" CS main and 8' of 16" CS main. KGS pipe line is shorted and badly deteriorated.	3800	\$ 71,788
37	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3522	053	011232	Retire 258' 4" BS main. 42nd St & Hagemann St, Kansas City, KS. Install 20' 4" CS main. This work is being done to replace the additional feed to DRS 2206-0300-D so that three valves in a deteriorating and collapsing pit can be classified as non-essential.	3760	\$ 11,348
38	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3522	053	011232	Retire 258' 4" BS main. 42nd St & Hagemann St, Kansas City, KS. Install 20' 4" CS main. This work is being done to replace the additional feed to DRS 2206-0300-D so that three valves in a deteriorating and collapsing pit can be classified as non-essential.	3765	\$ 4,693
39	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3522	053	011232	Retire 258' 4" BS main. 42nd St & Hagemann St, Kansas City, KS. Install 20' 4" CS main. This work is being done to replace the additional feed to DRS 2206-0300-D so that three valves in a deteriorating and collapsing pit can be classified as non-essential.	3769	\$ 1,453
40	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3721	053	011253	Install: 300' of 2" PE Retire: 300' of 2" RPCS. 4 S/L replacements and 1 tie-over. Unmapped regulator at Pawnee & Walnut. This project will remove this unidentified regulator and replace coated steel main and the bare steel services. If we have to tear out the alley, extensive paving repairs will be required.	3760	\$ 20,264

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
41	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3721	053	011253	Install: 300' of 2" PE Retire: 300' of 2" RPCS. 4 S/L replacements and 1 tie-over. Unmapped regulator at Pawnee & Walnut. This project will remove this unidentified regulator and replace coated steel main and the bare steel services. If we have to tear out the alley, extensive paving repairs will be required.	3800	\$ 7,922
42	Bare Steel Main Replacement	K.S.A. 66-2202	9/14/2020	3643	054	010065	BS Main Replacement - 4th & Montana, Scandia - Retire 20' of 3" BS and 450' of 2" BS main due to main exposure from rainfall. Install 470' of 2" PE main.	3760	\$ 9,032
43	Bare Steel Main Replacement	K.S.A. 66-2202	9/14/2020	3643	054	010065	BS Main Replacement - 4th & Montana, Scandia - Retire 20' of 3" BS and 450' of 2" BS main due to main exposure from rainfall. Install 470' of 2" PE main.	3800	\$ 30
44	Bare Steel Main Replacement	K.S.A. 66-2202	10/27/2020	3643	054	010068	BS Main Replacement - Center & Parallel, Clifton - Retire 205' of 2" BS due to exposed main. Lower and install 205' of 2" PE main. 1 BS service line renewal.	3760	\$ 8,276
45	Bare Steel Main Replacement	K.S.A. 66-2202	10/27/2020	3643	054	010068	BS Main Replacement - Center & Parallel, Clifton - Retire 205' of 2" BS due to exposed main. Lower and install 205' of 2" PE main. 1 BS service line renewal.	3800	\$ 4,624
46	Bare Steel Main Replacement	K.S.A. 66-2202	10/27/2020	3643	054	010068	BS Main Replacement - Center & Parallel, Clifton - Retire 205' of 2" BS due to exposed main. Lower and install 205' of 2" PE main. 1 BS service line renewal.	3820	\$ 1,452
47	Bare Steel Main Replacement	K.S.A. 66-2202	10/27/2020	3643	054	010073	BS Main Replacement - 720 Campbell Ave, Clyde - Retire 60' of 2" BS main due to leak on existing main segment. Install 20' of 2" PE main.	3760	\$ 5,094
48	Bare Steel Main Replacement	K.S.A. 66-2202	10/27/2020	3643	054	010073	BS Main Replacement - 720 Campbell Ave, Clyde - Retire 60' of 2" BS main due to leak on existing main segment. Install 20' of 2" PE main.	3800	\$ 57
49	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3653	054	010126	Retire 55' of 1 1/4" APBS. S 14th St alley between Westpark Ct and Roanoke St, Seneca, KS. Install 55' 2" PE main. Replace street crossing due to leak (16-5993).	3760	\$ 3,299
50	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3653	054	010127	Retire 337 ft of 2-inch APBS and 78 ft of 2-inch APCS main. alley South of Lorain St Between S 5th and S 4th St, Seneca, KS. Install 455' 2" PE main. This work order will be to permanently repair the class 2 leak on the main.	3760	\$ 14,912
51	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3653	054	010127	Retire 337 ft of 2-inch APBS and 78 ft of 2-inch APCS main. alley South of Lorain St Between S 5th and S 4th St, Seneca, KS. Install 455' 2" PE main. This work order will be to permanently repair the class 2 leak on the main.	3769	\$ 192
52	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3653	054	010127	Retire 337 ft of 2-inch APBS and 78 ft of 2-inch APCS main. alley South of Lorain St Between S 5th and S 4th St, Seneca, KS. Install 455' 2" PE main. This work order will be to permanently repair the class 2 leak on the main.	3800	\$ 475
53	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3653	054	010130	Retire 277 ft of 2 in BS and 372 ft of 1 1/4 BS and 6 ft of 2 in CS. S 4th & State St, Westmoreland, KS. Install 520' 2" PE main. This project will replace a temporary leak repair of a 1.25" threaded coupling.	3760	\$ 15,646
54	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3653	054	010130	Retire 277 ft of 2 in BS and 372 ft of 1 1/4 BS and 6 ft of 2 in CS. S 4th & State St, Westmoreland, KS. Install 520' 2" PE main. This project will replace a temporary leak repair of a 1.25" threaded coupling.	3800	\$ 8,709
55	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3653	054	010132	East property line of 202 E Railroad Ave to 106 E Railroad Ave Install: 510' of 2" PE Retire: 510' of 2" BS. 3 Service Tie Overs Corrosion leak @ 202 E. Railroad replaced but rest of bare steel is pitted and deteriorating.	3760	\$ 22,658
56	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3653	054	010132	East property line of 202 E Railroad Ave to 106 E Railroad Ave Install: 510' of 2" PE Retire: 510' of 2" BS3 Service Tie Overs Corrosion leak @ 202 E. Railroad replaced but rest of bare steel is pitted and deteriorating.	3800	\$ 70
57	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3653	054	010133	401 C St Washington, Ks Install: 540' Of 2" PE Retire: 540' of 2"BS We have a #2 leak at 401 C st in Washington. The leak is out under the brick street and has a very large spread. There will be 4 service tie overs.	3760	\$ 26,055
58	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3653	054	010134	Marysville - Broadway Ave & S 7th - Alley: Install: 360' - 4" PE. Retire: 360' - 6"BS. Replace 6" BS because main meets replacement guidelines with wall thickness less than 30 percent in places. This project is classified as DIMP. Rectifier #0844 will be retired. This project is a 2-way feed.	3760	\$ 76,520
59	Bare Steel Main Replacement	192.487 and K.S.A. 66-2202	6/24/2021	3653	054	010134	Marysville - Broadway Ave & S 7th - Alley: Install: 360' - 4" PE. Retire: 360' - 6"BS. Replace 6" BS because main meets replacement guidelines with wall thickness less than 30 percent in places. This project is classified as DIMP. Rectifier #0844 will be retired. This project is a 2-way feed.	3760	\$ 2,415
60	Bare Steel Main Replacement	192.487 and K.S.A. 66-2202	6/24/2021	3653	054	010134	Marysville - Broadway Ave & S 7th - Alley: Install: 360' - 4" PE. Retire: 360' - 6"BS. Replace 6" BS because main meets replacement guidelines with wall thickness less than 30 percent in places. This project is classified as DIMP. Rectifier #0844 will be retired. This project is a 2-way feed.	3769	\$ 846
61	Bare Steel Main Replacement	192.487 and K.S.A. 66-2202	6/24/2021	3653	054	010134	Marysville - Broadway Ave & S 7th - Alley: Install: 360' - 4" PE. Retire: 360' - 6"BS. Replace 6" BS because main meets replacement guidelines with wall thickness less than 30 percent in places. This project is classified as DIMP. Rectifier #0844 will be retired. This project is a 2-way feed.	3800	\$ 3,438
62	Bare Steel Main Replacement	192.487 and K.S.A. 66-2202	6/24/2021	3653	054	010134	Marysville - Broadway Ave & S 7th - Alley: Install: 360' - 4" PE. Retire: 360' - 6"BS. Replace 6" BS because main meets replacement guidelines with wall thickness less than 30 percent in places. This project is classified as DIMP. Rectifier #0844 will be retired. This project is a 2-way feed.	3800	\$ 12,730
63	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3653	054	010135	Prairie St and 5th St - Manhattan, KS. Bare Steel Replacement. Retire: 490 feet of 2 inch BS Main and 86 feet of 2 inch CS Main. Install: 546 feet of 2 inch PE Main. Tie-over: 6 ea Service Lines. This project is being performed as part of the Bare Steel Main Replacement Project.	3760	\$ 29,456
64	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3653	054	010135	Prairie St and 5th St - Manhattan, KS. Bare Steel Replacement. Retire: 490 feet of 2 inch BS Main and 86 feet of 2 inch CS Main. Install: 546 feet of 2 inch PE Main. Tie-over: 6 ea Service Lines. This project is being performed as part of the Bare Steel Main Replacement Project.	3800	\$ 872
65	Bare Steel Main Replacement	K.S.A. 66-2202	1/29/2021	3651	054	010145	Seth Child & Amherst, Manhattan, KS. There are two class 3 leaks on the HPD 8" bare steel main South of the tee at the linear trail. Replace 70' of 8" bare steel with 70' of 8" coated steel.	3765	\$ 52,359
66	Bare Steel Main Replacement	K.S.A. 66-2202	1/29/2021	3651	054	010145	Seth Child & Amherst, Manhattan, KS. There are two class 3 leaks on the HPD 8" bare steel main South of the tee at the linear trail. Replace 70' of 8" bare steel with 70' of 8" coated steel.	3769	\$ 1,208
67	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3911	054	010145	Install 1,830' of 2" PE to replace 1,550' of 4" RPBS and 120' of 4" RPCS along Alleghany St. and along W 3rd Ave. This will move the main out from rear property easements and into road ROW. This project will replace 24 service lines and will increase the operating pressure from 16 Oz. to 33 PSIG. This project is part of the 2019 AWP.	3760	\$ 108,191

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
68	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3911	054	010145	Install 1,830' of 2" PE to replace 1,550' of 4" RPBS and 120' of 4" RPCS along Alleghany St. and along W 3rd Ave. This will move the main out from rear property easements and into road ROW. This project will replace 24 service lines and will increase the operating pressure from 16 Oz. to 33 PSIG. This project is part of the 2019 AWP.	3800	\$ 54,152
69	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3651	054	010146	Retire 320'-4" BS, 130'-2" BS, 650'-8" BS main. 3rd & Vattier, Manhattan, KS. Install 650'-6" PE, 550'-2" PE main. This project is to replace 1912 vintage BS main.	3760	\$ 96,989
70	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3651	054	010146	Retire 320'-4" BS, 130'-2" BS, 650'-8" BS main. 3rd & Vattier, Manhattan, KS. Install 650'-6" PE, 550'-2" PE main. This project is to replace 1912 vintage BS main.	3800	\$ 6,949
71	Bare Steel Main Replacement	K.S.A. 66-2202	9/16/2020	3911	054	010158	BS Main Replacement - 3rd & Washington, El Dorado - Retire 740' of 6" APBS and 60' of 4" PE main to permanently repair a clamped leak. Install 390' of 2" PE main. A class 3 leak was found on a section of 6" APBS along 3rd St. The leak was clamped and the decision was made to remove this 740' section of 6" BS that only serves 4 customers. Four services will be affected and all will be 3/4" PE Tie-overs.	3760	\$ 23,731
72	Bare Steel Main Replacement	K.S.A. 66-2202	9/16/2020	3911	054	010158	BS Main Replacement - 3rd & Washington, El Dorado - Retire 740' of 6" APBS and 60' of 4" PE main to permanently repair a clamped leak. Install 390' of 2" PE main. A class 3 leak was found on a section of 6" APBS along 3rd St. The leak was clamped and the decision was made to remove this 740' section of 6" BS that only serves 4 customers. Four services will be affected and all will be 3/4" PE Tie-overs.	3800	\$ 3,559
73	Bare Steel Main Replacement	K.S.A. 66-2202	8/18/2020	3911	054	010159	BS Main Replacement - 3rd and Regier, Elbing - Retire 670' of 2" BS main to permanently replace corroded main with a temporarily repaired leak. Install 670' of 2" PE main. LK2020-10003663. One service will be affected and will need to be tied-over to the new main.	3760	\$ 23,970
74	Bare Steel Main Replacement	K.S.A. 66-2202	8/18/2020	3911	054	010159	BS Main Replacement - 3rd and Regier, Elbing - Retire 670' of 2" BS main to permanently replace corroded main with a temporarily repaired leak. Install 670' of 2" PE main. LK2020-10003663. One service will be affected and will need to be tied-over to the new main.	3769	\$ 1,174
75	Bare Steel Main Replacement	K.S.A. 66-2202	8/18/2020	3911	054	010159	BS Main Replacement - 3rd and Regier, Elbing - Retire 670' of 2" BS main to permanently replace corroded main with a temporarily repaired leak. Install 670' of 2" PE main. LK2020-10003663. One service will be affected and will need to be tied-over to the new main.	3800	\$ 7,592
76	Bare Steel Main Replacement	K.S.A. 66-2202	1/15/2021	3911	054	010161	To install 40 feet of 2 inch coated steel main in backyard easement. To retire 40 feet of 3 inch of RPBS main in the backyard easement. KGS crews found a shed built over the 3 inch RPBS main in the rear easement of 417 N Ohio El Dorado, KS. The existing service line will tie over into the new 2 inch coated steel main.	3765	\$ 12,407
77	Bare Steel Main Replacement	K.S.A. 66-2202	1/15/2021	3911	054	010161	To install 40 feet of 2 inch coated steel main in backyard easement. To retire 40 feet of 3 inch of RPBS main in the backyard easement. KGS crews found a shed built over the 3 inch RPBS main in the rear easement of 417 N Ohio El Dorado, KS. The existing service line will tie over into the new 2 inch coated steel main.	3769	\$ 787
78	Bare Steel Main Replacement	K.S.A. 66-2202	1/15/2021	3911	054	010161	To install 40 feet of 2 inch coated steel main in backyard easement. To retire 40 feet of 3 inch of RPBS main in the backyard easement. KGS crews found a shed built over the 3 inch RPBS main in the rear easement of 417 N Ohio El Dorado, KS. The existing service line will tie over into the new 2 inch coated steel main.	3800	\$ 681
79	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3911	054	010163	W 6th Ave & N Frazier St To install: 2200 feet of 2" PE main along Frazier. To retire: 1400 feet of 4" APBS main along the alleys between Alleghany St & Frazier St and 1400 feet of 2" APBS main between Frazier St & Summit St. This work is required because this project is a part of the 2021 AWP.	3760	\$ 83,776
80	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3911	054	010163	W 6th Ave & N Frazier St To install: 2200 feet of 2" PE main along Frazier. To retire: 1400 feet of 4" APBS main along the alleys between Alleghany St & Frazier St and 1400 feet of 2" APBS main between Frazier St & Summit St. This work is required because this project is a part of the 2021 AWP.	3769	\$ 501
81	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3911	054	010163	W 6th Ave & N Frazier St To install: 2200 feet of 2" PE main along Frazier. To retire: 1400 feet of 4" APBS main along the alleys between Alleghany St & Frazier St and 1400 feet of 2" APBS main between Frazier St & Summit St. This work is required because this project is a part of the 2021 AWP.	3800	\$ 241,192
82	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3533	054	010183	Retire 68' of 2" BS, 1347' of 6" BS, 458' of 2" CS and 403' of 6" CS. 9th St & Main St, Atchison, KS. Install 390' of 6" CS, 1375' of 6" PE and 540' of 2" PE. This project has been submitted and approved for the 2019 annual work plan and contributes towards the total bare steel replacement services and bare steel main needed for 2019.	3760	\$ 582,706
83	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3533	054	010183	Retire 68' of 2" BS, 1347' of 6" BS, 458' of 2" CS and 403' of 6" CS. 9th St & Main St, Atchison, KS. Install 390' of 6" CS, 1375' of 6" PE and 540' of 2" PE. This project has been submitted and approved for the 2019 annual work plan and contributes towards the total bare steel replacement services and bare steel main needed for 2019.	3765	\$ 175,473
84	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3533	054	010183	Retire 68' of 2" BS, 1347' of 6" BS, 458' of 2" CS and 403' of 6" CS. 9th St & Main St, Atchison, KS. Install 390' of 6" CS, 1375' of 6" PE and 540' of 2" PE. This project has been submitted and approved for the 2019 annual work plan and contributes towards the total bare steel replacement services and bare steel main needed for 2019.	3800	\$ 13,552
85	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3533	054	010187	Retire 20' of 2" BS main. E 1st St & Sindel Dr, Holton, KS. Install 20' of 2" CS main. This project is being completed due to a repair to remove bad pipe and couplings.	3765	\$ 2,933
86	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3533	054	010189	Retire 114' of 2" BS main. 8th St & Nebraska Ave, Holton, KS. Install 120' of 2" PE main. This project is being completed to permanently repair a class 1 leak.	3760	\$ 32,634
87	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3533	054	010189	Retire 114' of 2" BS main. 8th St & Nebraska Ave, Holton, KS. Install 120' of 2" PE main. This project is being completed to permanently repair a class 1 leak.	3800	\$ 6,495
88	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3533	054	010190	Retire 155' of 2" BS main. 520 Atchison St, Oskaloosa, KS. Install 160' of 2" PE main to permanently repair a class 1 leak.	3760	\$ 8,083
89	Bare Steel Main Replacement	K.S.A. 66-2202	11/24/2020	3542	054	010198	Hartford - Replace 125'-2" RPBS main due to leakage at Grand Ave and College St (602 College St), Installed 146' 2" CS.	3765	\$ 5,056
90	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3635	054	010199	BS Main Replacement - Grimes and Loomis, McPherson - Retire 496' of 2" APBS and 42' of APCS main due to leak on existing main segment. Install 660' of 2" PE main.	3760	\$ 7,598
91	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3635	054	010199	BS Main Replacement - Grimes and Loomis, McPherson - Retire 496' of 2" APBS and 42' of APCS main due to leak on existing main segment. Install 660' of 2" PE main.	3769	\$ 190
92	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3635	054	010199	BS Main Replacement - Grimes and Loomis, McPherson - Retire 496' of 2" APBS and 42' of APCS main due to leak on existing main segment. Install 660' of 2" PE main.	3800	\$ 796

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
93	Bare Steel Main Replacement	K.S.A. 66-2202	10/27/2020	3542	054	010200	Location: Alley W of Pearson, 8th - 5ft E of Alley between Pearson and Schofield and 16ft N C/L 8th and 150ft East. Reason: Valve is broken and leaking. We will be replacing the valve with a 2in weld gate valve. We will also be replacing 150ft of 2in BS Main with 2in CS main in a rectified system, this will tie into CS main. The main that we are replacing is in poor condition as well. SOP: 40psi MAOP: 40psi Main was installed in 1955 and is 2in RPBS.	3765	\$ 9,713
94	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3542	054	010201	BS Main Replacement - Replace 1276' of 2" BS main due to corrosion. After multiple leaks over the years and the inability to weld on the pipe any longer, the main will be replaced with 2" PE by NPL. There will be 23 service tie overs and 15 BS service replacements. Existing main Installed in 1950.	3760	\$ 59,736
95	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3542	054	010201	BS Main Replacement - Replace 1276' of 2" BS main due to corrosion. After multiple leaks over the years and the inability to weld on the pipe any longer, the main will be replaced with 2" PE by NPL. There will be 23 service tie overs and 15 BS service replacements. Existing main Installed in 1950.	3800	\$ 238
96	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3542	054	010201	BS Main Replacement - Replace 1276' of 2" BS main due to corrosion. After multiple leaks over the years and the inability to weld on the pipe any longer, the main will be replaced with 2" PE by NPL. There will be 23 service tie overs and 15 BS service replacements. Existing main Installed in 1950.	3800	\$ 61,086
97	Bare Steel Main Replacement	K.S.A. 66-2202	10/23/2020	3635	054	010203	DRS Retirement & BS Main Replacement - Smoky Valley Rd & 9th Ave, Lindsborg - Retire 120' of 4" BS main to abandon DRS setting no longer serving any customers. DRS setting is unstable and 4" BS main has multiple assumed couplings. Install 120' of 4" RPCS main.	3765	\$ 20,749
98	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3635	054	010209	BS Main Replacement - 533 S Main, Galva - Retire 50' of 2" APBS main to permanently repair a clamped leak. Install 50' of 2" PE main. Permanently repair clamped leak by replacing roughly 50' of existing shallow 2" APBS with new 2"PE main installed at standard depth.	3760	\$ 2,655
99	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3635	054	010209	BS Main Replacement - 533 S Main, Galva - Retire 50' of 2" APBS main to permanently repair a clamped leak. Install 50' of 2" PE main. Permanently repair clamped leak by replacing roughly 50' of existing shallow 2" APBS with new 2"PE main installed at standard depth.	3769	\$ 522
100	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3635	054	010212	Install: 1,150' of 2" PE. Retire: 1,635' of 2" APBS, 76' of 2" APCS, and DRSS/L Affected: 1 BS SL and 10 PE SL.	3760	\$ 47,706
101	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3635	054	010212	Install: 1,150' of 2" PE. Retire: 1,635' of 2" APBS, 76' of 2" APCS, and DRSS/L Affected: 1 BS SL and 10 PE SL.	3800	\$ 8,278
102	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3635	054	010215	BS Main Replacement - 1901 E 1st, McPherson - Retire 171' of 2" BS and 123 of 2" CS main due to leak on existing main segment. Install 320 of 2" PE main. A leak was found in the center of the street with a hot spot that is approx 35' x 10'. There is also a phone box in the ground south of the leak right over the top of our main where it goes to cross the street with multiple wires coming out of it. LK2019-10009980	3760	\$ 9,284
103	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3635	054	010215	BS Main Replacement - 1901 E 1st, McPherson - Retire 171' of 2" BS and 123 of 2" CS main due to leak on existing main segment. Install 320 of 2" PE main. A leak was found in the center of the street with a hot spot that is approx 35' x 10'. There is also a phone box in the ground south of the leak right over the top of our main where it goes to cross the street with multiple wires coming out of it. LK2019-10009980	3769	\$ 559
104	Bare Steel Main Replacement	K.S.A. 66-2202	10/23/2020	3622	054	010245	BS Main Replacement - N Chariton Ave & E C Ave, Kingman - Retire 170' of 4" BS main due to exposed main. Lower and install 170' of 4" PE main.	3760	\$ 36,337
105	Bare Steel Main Replacement	K.S.A. 66-2202	10/23/2020	3622	054	010245	BS Main Replacement - N Chariton Ave & E C Ave, Kingman - Retire 170' of 4" BS main due to exposed main. Lower and install 170' of 4" PE main.	3800	\$ 8,675
106	Bare Steel Main Replacement	K.S.A. 66-2202	2/25/2021	3761	054	010249	BS Main Replacement - 10th & Pine, Pittsburg - Retire 270' of 3" BS main due to isolation and obsolescence. Install 280' of 4" PE main.	3760	\$ 15,752
107	Bare Steel Main Replacement	K.S.A. 66-2202	2/25/2021	3761	054	010249	BS Main Replacement - 10th & Pine, Pittsburg - Retire 270' of 3" BS main due to isolation and obsolescence. Install 280' of 4" PE main.	3800	\$ 6,921
108	Bare Steel Main Replacement	K.S.A. 66-2202	7/1/2020	3642	054	010253	BS Main Replacement - Kansas & Hobart, Glen Elder - Retire 24' of 2" PE, 87' of 2" CS, 25' of 4" CS, 1,821 of 2" BS, 1,189' of 4" BS main. Install 1,350' of 2" PE and 1,450' of 4" PE main as part of the 2019 annual work plan projects. 17 PE service tie-overs and 1 PE service renewal.	3760	\$ 140,937
109	Bare Steel Main Replacement	K.S.A. 66-2202	7/1/2020	3642	054	010253	BS Main Replacement - Kansas & Hobart, Glen Elder - Retire 24' of 2" PE, 87' of 2" CS, 25' of 4" CS, 1,821 of 2" BS, 1,189' of 4" BS main. Install 1,350' of 2" PE and 1,450' of 4" PE main as part of the 2019 annual work plan projects. 17 PE service tie-overs and 1 PE service renewal.	3800	\$ 4,431
110	Bare Steel Main Replacement	K.S.A. 66-2202	10/20/2020	3761	054	010254	BS Main Replacement - Mead and Broadway, Pittsburg - Retire 473' of 2" BS main with leak on existing main segment. Install 470' of 2" PE main.	3760	\$ 11,272
111	Bare Steel Main Replacement	K.S.A. 66-2202	10/20/2020	3761	054	010254	BS Main Replacement - Mead and Broadway, Pittsburg - Retire 473' of 2" BS main with leak on existing main segment. Install 470' of 2" PE main.	3800	\$ 438
112	Bare Steel Main Replacement	K.S.A. 66-2202	9/21/2020	3642	054	010255	BS Main Replacement - Main & High, Mankato - Retire 279' of 4" PRCS, 137' of 2" RPCS, 1,878' of 4" RPBS, 339' of 3" RPBS, 19' of 2" RPBS and 90' of 2" PE main as part of the 2019 annual work plan projects. Install 2,600' of 4" PE main and 50' of 2" PE main. 40 PE service tie-overs.	3760	\$ 175,199
113	Bare Steel Main Replacement	K.S.A. 66-2202	9/21/2020	3642	054	010255	BS Main Replacement - Main & High, Mankato - Retire 279' of 4" PRCS, 137' of 2" RPCS, 1,878' of 4" RPBS, 339' of 3" RPBS, 19' of 2" RPBS and 90' of 2" PE main as part of the 2019 annual work plan projects. Install 2,600' of 4" PE main and 50' of 2" PE main. 40 PE service tie-overs.	3800	\$ 9,832
114	Bare Steel Main Replacement	K.S.A. 66-2202	10/20/2020	3761	054	010259	BS Main Replacement - 11th and Stillwell, Pittsburg - Retire 259' of 1.25" BS main with a significant leak history. Install 265' of 2" PE main. There have been leaks documented on this section of main in the past (LK06-73141). 4 services will be affected.	3760	\$ 6,523
115	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3831	054	010264	Original CUE: 10600Parsons - 28th and Appleton - Abandon 378' of BS Main. Install 390' of 2" PE, and remove (pending corrosion approval) 4 test stations. Work will be estimated by KGS Crews10 Services will be affected	3760	\$ 16,808
116	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3831	054	010264	Original CUE: 10600Parsons - 28th and Appleton - Abandon 378' of BS Main. Install 390' of 2" PE, and remove (pending corrosion approval) 4 test stations. Work will be estimated by KGS Crews10 Services will be affected	3800	\$ 1,106

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
117	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3831	054	010267	BS Main Replacement - Labette & Carson, Cherryvale - Retire 238' of 4" BS, 630' of 3" BS and 5' of 4" PE main to repair a leak on a segment of pipe under RR tracks. Project was created for system reliability and to assist with the extended time for ROW approvals on RR property. Install 2,750' of 4" PE main.	3760	\$ 173,296
118	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3831	054	010267	BS Main Replacement - Labette & Carson, Cherryvale - Retire 238' of 4" BS, 630' of 3" BS and 5' of 4" PE main to repair a leak on a segment of pipe under RR tracks. Project was created for system reliability and to assist with the extended time for ROW approvals on RR property. Install 2,750' of 4" PE main.	3765	\$ 43,306
119	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3831	054	010268	BS Main Abandonment - 24th & Morton, Parsons - Retire 372' of BS main to remove isolated and dead end segment of main. Install 415' of 2" PE main. 4 Services will be affected.	3800	\$ 7,806
120	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3831	054	010268	BS Main Abandonment - 24th & Morton, Parsons - Retire 372' of BS main to remove isolated and dead end segment of main. Install 415' of 2" PE main. 4 Services will be affected.	3800	\$ 110
121	Bare Steel Main Replacement	K.S.A. 66-2202	1/29/2021	3622	054	010270	BS Main Replacement - School and Alley between Pine and Thompson - Replace deteriorated 560' of 3" and 60' of 2" RPBS main with 800' of new 2" PE. This project will affect 17 total services of which 11 are BS and will be renewed while the remaining 6 are PE and will be tied over.	3760	\$ 34,677
122	Bare Steel Main Replacement	K.S.A. 66-2202	1/29/2021	3622	054	010270	BS Main Replacement - School and Alley between Pine and Thompson - Replace deteriorated 560' of 3" and 60' of 2" RPBS main with 800' of new 2" PE. This project will affect 17 total services of which 11 are BS and will be renewed while the remaining 6 are PE and will be tied over.	3800	\$ 20,716
123	Bare Steel Main Replacement	K.S.A. 66-2202	9/21/2020	3622	054	010271	Main Replacement -479 NW 10TH ST, PRATT - Retire 20' of 6" RPCS main with inadequate pressure test records. Install 20' of 6" RPCS. Worked in conjunction with the 6" RPBS dedicated airport line renewal at the same address. (LK2019-10226845)	3765	\$ 29,565
124	Bare Steel Main Replacement	K.S.A. 66-2202	1/15/2021	3831	054	010271	BS Main Replacement - North Blvd & 26th St, Parsons - Retire 75' of 1.25" BS, 148' of 1.25" PE, 333' 1.5", 1,364 of 2" BS, 289' of 2" CS, 2,118 of 2" PE, 1,100' of 3" BS, 389' of 3" CS, 367' of 3.5" BS, 4,785 of 4" BS, 591' of 4" CS, 1,799' of 4" PE and 40' of 5" BS main as part of the 2019 annual work plan projects. Install 12,765 of 2" PE main.	3760	\$ 387,043
125	Bare Steel Main Replacement	K.S.A. 66-2202	1/15/2021	3831	054	010271	BS Main Replacement - North Blvd & 26th St, Parsons - Retire 75' of 1.25" BS, 148' of 1.25" PE, 333' 1.5", 1,364 of 2" BS, 289' of 2" CS, 2,118 of 2" PE, 1,100' of 3" BS, 389' of 3" CS, 367' of 3.5" BS, 4,785 of 4" BS, 591' of 4" CS, 1,799' of 4" PE and 40' of 5" BS main as part of the 2019 annual work plan projects. Install 12,765 of 2" PE main.	3800	\$ 102,345
126	Bare Steel Main Replacement	K.S.A. 66-2202	9/14/2020	3622	054	010272	BS Main Replacement - 300 N Henderson, Cunningham - Retire 24' of 2" BS main due to leak on existing main segment. Install 24' of 2" CS main.	3765	\$ 1,622
127	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3622	054	010274	Retire: 769' of 2", 3", and 4" RPBS and 352' of 2" RPCS and APCS in suburban location type operating at 12 oz. Install: 1,920' of 2" PE operating at 40 psig. SL: 20 BS SL Renewals and 9 PE Tie Overs.	3760	\$ 69,420
128	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3622	054	010274	Retire: 769' of 2", 3", and 4" RPBS and 352' of 2" RPCS and APCS in suburban location type operating at 12 oz. Install: 1,920' of 2" PE operating at 40 psig. SL: 20 BS SL Renewals and 9 PE Tie Overs.	3769	\$ 313
129	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3622	054	010274	Retire: 769' of 2", 3", and 4" RPBS and 352' of 2" RPCS and APCS in suburban location type operating at 12 oz. Install: 1,920' of 2" PE operating at 40 psig. SL: 20 BS SL Renewals and 9 PE Tie Overs.	3800	\$ 53,330
130	Bare Steel Main Replacement	K.S.A. 66-2202	7/1/2020	3761	054	010279	BS Main Replacement - 10th & Burke, Fort Scott - Retire 1,800' of 2" APBS and 200' of 4" APBS main. Install 1,000' of 4" PE main due to watered off mains freezing and causing outages during winter. This will include 19 service line tie overs. This project is being completed because of issues with watering off and freezing during the winter.	3760	\$ 99,324
131	Bare Steel Main Replacement	K.S.A. 66-2202	7/1/2020	3761	054	010279	BS Main Replacement - 10th & Burke, Fort Scott - Retire 1,800' of 2" APBS and 200' of 4" APBS main. Install 1,000' of 4" PE main due to watered off mains freezing and causing outages during winter. This will include 19 service line tie overs. This project is being completed because of issues with watering off and freezing during the winter.	3769	\$ 1,052
132	Bare Steel Main Replacement	K.S.A. 66-2202	7/1/2020	3761	054	010279	BS Main Replacement - 10th & Burke, Fort Scott - Retire 1,800' of 2" APBS and 200' of 4" APBS main. Install 1,000' of 4" PE main due to watered off mains freezing and causing outages during winter. This will include 19 service line tie overs. This project is being completed because of issues with watering off and freezing during the winter.	3800	\$ 30,111
133	Bare Steel Main Replacement	K.S.A. 66-2202	1/15/2021	3761	054	010282	Fort Scott - 913 E 3rd - Abandon 270' of 2" APBS Main and Install 275' of 2" PE. There was a leak found on a 2" Long Barrel Dressor and a 2" Split Sleeve will not fit. The pipe is only 18" deep. The leak number is:LK2019-10132987.	3760	\$ 28,440
134	Bare Steel Main Replacement	K.S.A. 66-2202	1/15/2021	3761	054	010282	Fort Scott - 913 E 3rd - Abandon 270' of 2" APBS Main and Install 275' of 2" PE. There was a leak found on a 2" Long Barrel Dressor and a 2" Split Sleeve will not fit. The pipe is only 18" deep. The leak number is:LK2019-10132987.	3765	\$ 135
135	Bare Steel Main Replacement	K.S.A. 66-2202	1/15/2021	3761	054	010282	Fort Scott - 913 E 3rd - Abandon 270' of 2" APBS Main and Install 275' of 2" PE. There was a leak found on a 2" Long Barrel Dressor and a 2" Split Sleeve will not fit. The pipe is only 18" deep. The leak number is:LK2019-10132987.	3780	\$ 328
136	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3831	054	010285	BS Main Replacement - Durr Ave & Lincoln, Parsons - Retire 2,770' total feet of 2",3" and 4" BS, 383' total feet of 2" and 4", and 387' total feet of 2" and 4" PE main as part of the 2020 annual work plan projects. Install 1,500' of 2" PE main. There 32 PE service tieovers.	3760	\$ 22,437
137	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3831	054	010285	BS Main Replacement - Durr Ave & Lincoln, Parsons - Retire 2,770' total feet of 2",3" and 4" BS, 383' total feet of 2" and 4", and 387' total feet of 2" and 4" PE main as part of the 2020 annual work plan projects. Install 1,500' of 2" PE main. There 32 PE service tieovers.	3800	\$ 7,395
138	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3831	054	010286	There is an obsolete low pressure system contain 2" UPBS, 1 1/4" RPCS, 2" APCS, and 2 "PE in a suburban area in Parsons, KS that needs to be replaced and upgraded. We will install 1750' of 2" PE. This is a low pressure system at 20ozs or 1.25 psigs. and will be upgraded to operate a new SOP of 40 psig. There are a total of 40 services affected by this replacement and upgrade, 1 BS renewal and 39 PE Tie overs.	3760	\$ 119,346
139	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3831	054	010286	There is an obsolete low pressure system contain 2" UPBS, 1 1/4" RPCS, 2" APCS, and 2 "PE in a suburban area in Parsons, KS that needs to be replaced and upgraded. We will install 1750' of 2" PE. This is a low pressure system at 20ozs or 1.25 psigs. and will be upgraded to operate a new SOP of 40 psig. There are a total of 40 services affected by this replacement and upgrade, 1 BS renewal and 39 PE Tie overs.	3800	\$ 54,066
140	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3761	054	010289	BS Main Replacement - 18th & Cleveland, Baxter Springs - Retire 180' of 2" APBS main with a cathodic deficiency. Install 185' of 2" PE main.	3760	\$ 4,536
141	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3761	054	010289	BS Main Replacement - 18th & Cleveland, Baxter Springs - Retire 180' of 2" APBS main with a cathodic deficiency. Install 185' of 2" PE main.	3800	\$ 75

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
142	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3831	054	010289	Bronson - Wright Street and State Street - Abandon 145' of 2" APBS and 3' of 2" PE. Install 150' of 2" PE KGS Crews will tie into existing 2" PE that runs east and west along Wright Street to the west of State Street. KGS Crews will travel approximately 150' east along Wright Street and tie into existing 2" APBS located on the east side of State Street. Work is being done to clear a temporary repair that was caused by a leaking coupling.	3760	\$ 2,412
143	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3831	054	010290	Welda - Carlyle St and Iola St - Replace APBS Main Abandon 293' of 2" APBS and 30' of 2" PE. Install 255' of 2" PE. There was a leak found on this section of pipe: LK2019-10065393. KGS Crews will tie into existing 2" RPBS that runs north and south along Iola Street. KGS Crews will extend the main with 2" PE for approximately 55' to the south. KGS Crews will extend the main west with 2" PE for approximately 200' then tie into existing 2" PE main that runs north and south. KGS Crews will install A/P Test Station Asset: 9002070389 There are two service line tie overs associated with this work order: 661029 - 18854 S Humboldt 661028 - 18520 SW Iola Street	3760	\$ 3,790
144	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3831	054	010290	Welda - Carlyle St and Iola St - Replace APBS Main Abandon 293' of 2" APBS and 30' of 2" PE. Install 255' of 2" PE. There was a leak found on this section of pipe: LK2019-10065393. KGS Crews will tie into existing 2" RPBS that runs north and south along Iola Street. KGS Crews will extend the main with 2" PE for approximately 55' to the south. KGS Crews will extend the main west with 2" PE for approximately 200' then tie into existing 2" PE main that runs north and south. KGS Crews will install A/P Test Station Asset: 9002070389 There are two service line tie overs associated with this work order: 661029 - 18854 S Humboldt 661028 - 18520 SW Iola Street	3800	\$ 131
145	Bare Steel Main Replacement	K.S.A. 66-2202	7/1/2020	3761	054	010291	BS Main Replacement - Lowell Rd & SE 72nd St, Lowell - Retire 60' of 2" RPBS main and install 65' of 2" PE main due to multiple exposed couplings on existing main segment.	3760	\$ 5,710
146	Bare Steel Main Replacement	K.S.A. 66-2202	5/13/2021	3831	054	010292	BS Main Replacement - 1003 W Hickory, Gas City - Retire 95' of 2" UPBS main due to leak on exiting main segment. Install 110' of 2" PE main.	3760	\$ 8,986
147	Bare Steel Main Replacement	K.S.A. 66-2202	5/13/2021	3831	054	010292	BS Main Replacement - 1003 W Hickory, Gas City - Retire 95' of 2" UPBS main due to leak on exiting main segment. Install 110' of 2" PE main.	3769	\$ 577
148	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3761	054	010296	BS Main Replacement - Lindburg and Pine, Pittsburg - Retire 484' of 2" APBS, 226' of 2" APCS and 78' of 2" PE main due to 2 BS service taps located under trees. Install 499' of 2" PE main. 2 BS service line renewals.	3760	\$ 40,904
149	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3761	054	010296	BS Main Replacement - Lindburg and Pine, Pittsburg - Retire 484' of 2" APBS, 226' of 2" APCS and 78' of 2" PE main due to 2 BS service taps located under trees. Install 499' of 2" PE main. 2 BS service line renewals.	3800	\$ 22,089
150	Bare Steel Main Replacement	K.S.A. 66-2202	7/1/2020	3621	054	010297	BS Main Replacement - 422 E. 5th, Kinsley - Retire 250' of 2" RPBS main due to leak on existing main and exposed coupling. Install 260' of 2" PE main. A leak was found where there was a band clamp that had been fabricated at a 1.25" side tap off of the 2" RPBS main at 422 E 5th.	3760	\$ 6,872
151	Bare Steel Main Replacement	K.S.A. 66-2202	7/1/2020	3621	054	010297	BS Main Replacement - 422 E. 5th, Kinsley - Retire 250' of 2" RPBS main due to leak on existing main and exposed coupling. Install 260' of 2" PE main. A leak was found where there was a band clamp that had been fabricated at a 1.25" side tap off of the 2" RPBS main at 422 E 5th.	3800	\$ 86
152	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3761	054	010297	Retire 470' of 2" UPBS, 13' of 3" APCS, 423' of 4" APBS, 1155' of 4" UPBS, 134' of 4" APCS, 286' of 4" PE, 150' of 2" PE and 619' of 6" UPBS. Install 1693' of 2" PE and 1360' of 4" PE. Tie over 42 PE residential service lines and 4 PE commercial service lines. This project was approved for the 2020 Annual Work Plan. KGS will be replacing several sections of gas main extending from Ford Ave south to Centennial Dr along Broadway in Pittsburg.	3760	\$ 204,115
153	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3761	054	010297	Retire 470' of 2" UPBS, 13' of 3" APCS, 423' of 4" APBS, 1155' of 4" UPBS, 134' of 4" APCS, 286' of 4" PE, 150' of 2" PE and 619' of 6" UPBS. Install 1693' of 2" PE and 1360' of 4" PE. Tie over 42 PE residential service lines and 4 PE commercial service lines. This project was approved for the 2020 Annual Work Plan. KGS will be replacing several sections of gas main extending from Ford Ave south to Centennial Dr along Broadway in Pittsburg.	3769	\$ 904
154	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3761	054	010297	Retire 470' of 2" UPBS, 13' of 3" APCS, 423' of 4" APBS, 1155' of 4" UPBS, 134' of 4" APCS, 286' of 4" PE, 150' of 2" PE and 619' of 6" UPBS. Install 1693' of 2" PE and 1360' of 4" PE. Tie over 42 PE residential service lines and 4 PE commercial service lines. This project was approved for the 2020 Annual Work Plan. KGS will be replacing several sections of gas main extending from Ford Ave south to Centennial Dr along Broadway in Pittsburg.	3800	\$ 46,580
155	Bare Steel Main Replacement	K.S.A. 66-2202	8/4/2020	3621	054	010298	BS Main Replacement - 3117 Forest, Great Bend - Retire 70' of 2" APBS main in conflict with a new concrete approach. Lower and install 70' of 2" PE main	3760	\$ 4,368
156	Bare Steel Main Replacement	K.S.A. 66-2202	8/18/2020	3621	054	010299	BS Main Replacement - 320 2nd St, Otis - Retire 70' of 2" RPBS main located under a customer's garage. Install and relocate 70' of 2" PE main.	3760	\$ 5,910
157	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3621	054	010300	BS Main Replacement - 406 W 4th, St John - Retire 432' of 2" RPBS main with significant external corrosion and multiple leaks on existing main. Install 245' of 2" PE main and 190' of 2" CS main. (LK2020-10097524)	3760	\$ 5,279
158	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3621	054	010300	BS Main Replacement - 406 W 4th, St John - Retire 432' of 2" RPBS main with significant external corrosion and multiple leaks on existing main. Install 245' of 2" PE main and 190' of 2" CS main. (LK2020-10097524)	3765	\$ 5,513
159	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3621	054	010300	BS Main Replacement - 406 W 4th, St John - Retire 432' of 2" RPBS main with significant external corrosion and multiple leaks on existing main. Install 245' of 2" PE main and 190' of 2" CS main. (LK2020-10097524)	3800	\$ 33
160	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3532	054	010301	Install: 8-ft of 4-in CS main Retire: 8-ft of 4-in BS main In the alley near 11th and Main St., Sabetha KS, there is a leaking fitting that can not be permanently fixed. A permanent bypass will be built to resolve the leaking fitting.	3765	\$ 4,096
161	Bare Steel Main Replacement	K.S.A. 66-2202	9/14/2020	3621	054	010301	BS Main Replacement - 211 6th, St John - Retire 306' of 2" RPBS main to permanently fix a temporarily repaired leak located under pavement. Install 306' of 2" PE main.	3760	\$ 9,640
162	Bare Steel Main Replacement	K.S.A. 66-2202	1/29/2021	3621	054	010303	BS Main Replacement - 1617 Madison, Great Bend - Retire 125' of 1.25" APBS main with significant external corrosion. Install 125' of 2" PE main. Work being performed in conjunction with bare steel service line replacements in close proximity to the above address.	3760	\$ 1,774
163	Bare Steel Main Replacement	K.S.A. 66-2202	8/4/2020	3761	054	010303	BS Main Replacement - 305 S Cherokee, Girard - Retire 125' of 2" RPBS main due to leak on existing main segment. Install 130' of 2" RPBS main. KGS Crews located a leak on this section of pipe (LK2020-10081928). There will be two service line tie overs associated with this work order.	3765	\$ 7,025

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
164	Bare Steel Main Replacement	K.S.A. 66-2202	8/4/2020	3761	054	010303	BS Main Replacement - 305 S Cherokee, Girard - Retire 125' of 2" RPBS main due to leak on existing main segment. Install 130' of 2" RPCS main. KGS Crews located a leak on this section of pipe (LK2020-10081928). There will be two service line tie overs associated with this work order.	3800	\$ 1,286
165	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3761	054	010305	Main Abandonment - 112 Grant Ave, Baxter Springs - Retire 155' of 6" APBS & 17' of 2" APBS main due to class 1 leak from cracked weld. Install 175' of 2" PE main.	3760	\$ 11,328
166	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3761	054	010305	Main Abandonment - 112 Grant Ave, Baxter Springs - Retire 155' of 6" APBS & 17' of 2" APBS main due to class 1 leak from cracked weld. Install 175' of 2" PE main.	3800	\$ 1,304
167	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3621	054	010306	Main Abandonment - 9th & Frey, Great Bend - Retire 147' of 4" APBS and 105' of 4" ABCS main that dead ends. Install 175' of 2" PE main. 2 BS service line replacements. Crew is in the area replacing bare steel services lines.	3760	\$ 10,714
168	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3621	054	010306	Main Abandonment - 9th & Frey, Great Bend - Retire 147' of 4" APBS and 105' of 4" ABCS main that dead ends. Install 175' of 2" PE main. 2 BS service line replacements. Crew is in the area replacing bare steel services lines.	3800	\$ 2,538
169	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3621	054	010306	Main Abandonment - 9th & Frey, Great Bend - Retire 147' of 4" APBS and 105' of 4" ABCS main that dead ends. Install 175' of 2" PE main. 2 BS service line replacements. Crew is in the area replacing bare steel services lines.	3820	\$ 2,139
170	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3621	054	010307	Retire: 80' of 2" RPBSInstall: 80' of 2" PE Pressure System SOP = 26 psig MAOP = 55 psig. Justification: A crew was in the area replacing BS service lines when they dug up a coupling on RPBS main but was too close to the existing SL tap to tub. The decision was made to go ahead and replace a short section of main in the dirt alley to eliminate the coupling.	3760	\$ 2,926
171	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3621	054	010307	Retire: 80' of 2" RPBSInstall: 80' of 2" PE Pressure System SOP = 26 psig MAOP = 55 psig. Justification: A crew was in the area replacing BS service lines when they dug up a coupling on RPBS main but was too close to the existing SL tap to tub. The decision was made to go ahead and replace a short section of main in the dirt alley to eliminate the coupling.	3800	\$ 6,246
172	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3621	054	010307	Retire: 80' of 2" RPBSInstall: 80' of 2" PE Pressure System SOP = 26 psig MAOP = 55 psig. Justification: A crew was in the area replacing BS service lines when they dug up a coupling on RPBS main but was too close to the existing SL tap to tub. The decision was made to go ahead and replace a short section of main in the dirt alley to eliminate the coupling.	3820	\$ 541
173	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3761	054	010314	APBS Main Replacement - Empire Street & Jefferson St, Galena - Retire 35' of 4" APCS and 1,025' of 2" APBS main due to leak on existing main segment. Install 1,050' of 2" PE main. Galena.	3760	\$ 19,615
174	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3761	054	010314	APBS Main Replacement - Empire Street & Jefferson St, Galena - Retire 35' of 4" APCS and 1,025' of 2" APBS main due to leak on existing main segment. Install 1,050' of 2" PE main. Galena.	3800	\$ 107
175	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3761	054	010317	BS Main Replacement - 307 E Willow, Girard - Retire 41' of 6" RPBS main due to class 1 leak on section of main. Install 45' of 4" RPCS main. KGS Crews found a Class 1 leak on this section of pipe (LK2021-10076813).	3765	\$ 6,134
176	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3761	054	010321	Pittsburg - 1215 E 10th - Replace APBS Main - Install approximately 120' of 2" APCS - Abandon 110' of 2" APBSKGS Crews located at leak on this section of pipe - LK2021-10067918. There is a split on the bottom too thick to weld.KGS Crews will tie into existing 2" APCS in front of 1215 E 10th and travel west for approximately 120' with 2" APCS. KGS Crews will then tie into existing 2" APCS.	3765	\$ 5,916
177	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3761	054	010321	Pittsburg - 1215 E 10th - Replace APBS Main - Install approximately 120' of 2" APCS - Abandon 110' of 2" APBSKGS Crews located at leak on this section of pipe - LK2021-10067918. There is a split on the bottom too thick to weld.KGS Crews will tie into existing 2" APCS in front of 1215 E 10th and travel west for approximately 120' with 2" APCS. KGS Crews will then tie into existing 2" APCS.	3800	\$ 1,314
178	Bare Steel Main Replacement	K.S.A. 66-2202	10/20/2020	3741	054	010351	BS Main Replacement - W Maple & Jefferson, Wellington - Retire 194' of 4.5" RPBS main due to deterioration and having a significant leak history. Install 194' of 4" PE main. LK03-53217 LK05-69829 LK06-72604 LKX6-59302	3760	\$ 40,659
179	Bare Steel Main Replacement	K.S.A. 66-2202	1/29/2021	3631	054	010373	Install 450' of 6" PE to the replace the existing 450' of 6" unprotected bare steel. Multiple dresser couplings were located after a class 3 leak was found. (LK2019-10025068)	3760	\$ 49,493
180	Bare Steel Main Replacement	K.S.A. 66-2202	1/29/2021	3631	054	010373	Install 450' of 6" PE to the replace the existing 450' of 6" unprotected bare steel. Multiple dresser couplings were located after a class 3 leak was found. (LK2019-10025068)	3769	\$ 337
181	Bare Steel Main Replacement	K.S.A. 66-2202	1/29/2021	3631	054	010373	Install 450' of 6" PE to the replace the existing 450' of 6" unprotected bare steel. Multiple dresser couplings were located after a class 3 leak was found. (LK2019-10025068)	3800	\$ 3,896
182	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3641	054	010377	BS Main Replacement - South St & Santa Fe St, Salina - Retire 2115' of vintage 8" RPBS main as part of the 2020 annual work plan projects. Install 2125' of 8" RPCS and 40' of 2" RPCS main.	3765	\$ 428,304
183	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3641	054	010380	Main Replacement - Pacific & 7th, Salina - Retire 1,790' of APBS, 29' of 4" PE, 106' of 4" APCS, 743' of 4" APBS, 196' of 2" PE, 170' of 2" APCS, 3,288' of 2" APBS and 63' of 1.25" APCS main as part of the 2020 annual work plan projects. Install 20' of 6" PE, 2,660' of 4" PE, and 4,125' of 2" PE main. 34 BS/CS service line renewals.	3760	\$ 305,082
184	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3641	054	010380	Main Replacement - Pacific & 7th, Salina - Retire 1,790' of APBS, 29' of 4" PE, 106' of 4" APCS, 743' of 4" APBS, 196' of 2" PE, 170' of 2" APCS, 3,288' of 2" APBS and 63' of 1.25" APCS main as part of the 2020 annual work plan projects. Install 20' of 6" PE, 2,660' of 4" PE, and 4,125' of 2" PE main. 34 BS/CS service line renewals.	3800	\$ 76,183
185	Bare Steel Main Replacement	K.S.A. 66-2202	8/31/2020	3642	054	010380	BS Main Replacement - 901 E 4th, Ellsworth - Retire 200' of 2" BS main due to leak on exiting main under pavement. Install 200' of 2" PE main. Leak# LK2020-10122175	3760	\$ 12,490
186	Bare Steel Main Replacement	K.S.A. 66-2202	1/29/2021	3631	054	010383	This project will replace 679' of 6" UPBS, 882' of 6" RPBS, and 126' of 6" APCS in Hutchinson's Central Business District. The segments of main to be replaced lay in the alley south of E Ave A between S Walnut St and S Plum St in Hutchinson KS and will be replaced with 1800' of 6" PE, 80' of 4" PE, and 80' of 2" PE. This project will affect 51 total small diameter services. 11 are BS and will be renewed with PE while the remaining 40 are already PE and will be tied over to the new PE main.	3760	\$ 177,131
187	Bare Steel Main Replacement	K.S.A. 66-2202	1/29/2021	3631	054	010383	This project will replace 679' of 6" UPBS, 882' of 6" RPBS, and 126' of 6" APCS in Hutchinson's Central Business District. The segments of main to be replaced lay in the alley south of E Ave A between S Walnut St and S Plum St in Hutchinson KS and will be replaced with 1800' of 6" PE, 80' of 4" PE, and 80' of 2" PE. This project will affect 51 total small diameter services. 11 are BS and will be renewed with PE while the remaining 40 are already PE and will be tied over to the new PE main.	3800	\$ 66,551
188	Bare Steel Main Replacement	K.S.A. 66-2202	7/1/2020	3641	054	010383	BS Main Replacement - 688 Mentor Rd, Mentor - Retire 62' of 2" APBS and 118' of 1.25" APBS main. Install 200' of 2" PE main due to leak on existing main. Leak # LK2020-10031165	3760	\$ 8,620

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
189	Bare Steel Main Replacement	K.S.A. 66-2202	7/1/2020	3641	054	010383	BS Main Replacement - 688 Mentor Rd, Mentor - Retire 62' of 2" APBS and 118' of 1.25" APBS main. Install 200' of 2" PE main due to leak on existing main. Leak # LK2020-10031165	3800	\$ 167
190	Bare Steel Main Replacement	K.S.A. 66-2202	10/23/2020	3631	054	010385	BS Main Replacement - 19th and Washington, Hutchinson - Retire 355' of 6" BS, 646' of 4" BS, 62' of 4" APCS, and 172' of 4" & 6" PE main as part of the 2020 annual work plan projects. Install 1,600' of 2" PE main. 1 BS service line renewal. 22 PE service lines and 1 BS service line will be affected by this project.	3760	\$ 45,103
191	Bare Steel Main Replacement	K.S.A. 66-2202	10/23/2020	3631	054	010385	BS Main Replacement - 19th and Washington, Hutchinson - Retire 355' of 6" BS, 646' of 4" BS, 62' of 4" APCS, and 172' of 4" & 6" PE main as part of the 2020 annual work plan projects. Install 1,600' of 2" PE main. 1 BS service line renewal. 22 PE service lines and 1 BS service line will be affected by this project.	3800	\$ 78,411
192	Bare Steel Main Replacement	K.S.A. 66-2202	10/23/2020	3631	054	010385	BS Main Replacement - 19th and Washington, Hutchinson - Retire 355' of 6" BS, 646' of 4" BS, 62' of 4" APCS, and 172' of 4" & 6" PE main as part of the 2020 annual work plan projects. Install 1,600' of 2" PE main. 1 BS service line renewal. 22 PE service lines and 1 BS service line will be affected by this project.	3830	\$ 918
193	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3642	054	010385	This project will replace 893' of 4" protected bare steel in Beloit with 840' of 4" APCS.	3765	\$ 94,053
194	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3642	054	010385	This project will replace 893' of 4" protected bare steel in Beloit with 840' of 4" APCS.	3800	\$ 594
195	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3642	054	010385	This project will replace 893' of 4" protected bare steel in Beloit with 840' of 4" APCS.	3805	\$ 6,584
196	Bare Steel Main Replacement	K.S.A. 66-2202	8/18/2020	3641	054	010386	BS Main Replacement - 817 Cedar St, Salina - Retire 250' of 2" BS main due to leak on existing main with multiple uncovered fittings. Install 250' of 2" PE main. Crews went out to fix a cathodic issue at 817 Cedar St Salina, KS. When the dug up the area that was causing the issue they found a leak and well as dressers and add fittings.	3760	\$ 7,276
197	Bare Steel Main Replacement	K.S.A. 66-2202	8/18/2020	3641	054	010386	BS Main Replacement - 817 Cedar St, Salina - Retire 250' of 2" BS main due to leak on existing main with multiple uncovered fittings. Install 250' of 2" PE main. Crews went out to fix a cathodic issue at 817 Cedar St Salina, KS. When the dug up the area that was causing the issue they found a leak and well as dressers and add fittings.	3800	\$ 1,763
198	Bare Steel Main Replacement	K.S.A. 66-2202	9/28/2020	3631	054	010387	DRS Replacement & BS Main Replacement - Madison and Ave F, Hutchinson - Retire 1,130' of 2" UPBS, 550' of 2" APCS, and 53' of 2" PE main to eliminate an isolated low pressure system and remove all of the unprotected bare steel operating from DRS 0029. Install 960' of 2" PE main. 7 total PE services will be tied over to the new 2" PE main and 2 PE services will be retested.	3760	\$ 45,847
199	Bare Steel Main Replacement	K.S.A. 66-2202	9/28/2020	3631	054	010387	DRS Replacement & BS Main Replacement - Madison and Ave F, Hutchinson - Retire 1,130' of 2" UPBS, 550' of 2" APCS, and 53' of 2" PE main to eliminate an isolated low pressure system and remove all of the unprotected bare steel operating from DRS 0029. Install 960' of 2" PE main. 7 total PE services will be tied over to the new 2" PE main and 2 PE services will be retested.	3765	\$ 434
200	Bare Steel Main Replacement	K.S.A. 66-2202	9/28/2020	3631	054	010387	DRS Replacement & BS Main Replacement - Madison and Ave F, Hutchinson - Retire 1,130' of 2" UPBS, 550' of 2" APCS, and 53' of 2" PE main to eliminate an isolated low pressure system and remove all of the unprotected bare steel operating from DRS 0029. Install 960' of 2" PE main. 7 total PE services will be tied over to the new 2" PE main and 2 PE services will be retested.	3800	\$ 9,166
201	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3642	054	010387	RPBS Main Replacement - 604 E Main, Glasco - Retire 100' of 3" RPBS main embedded in concrete bridge, badly deteriorated, and needing permanent repairs to existing leak. Install 140' of 4" PE main. LK2021-10045557	3760	\$ 7,224
202	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3641	054	010388	BS Main Replacement - 13th & Elm, Salina - Retire 300' of 2" BS main due to cathodic protection down reads on existing main segment. Install 300' of 2" PE main. Will replace about 300' of 2" BS due to poor cathodic protection.	3760	\$ 10,383
203	Bare Steel Main Replacement	K.S.A. 66-2202	10/23/2020	3631	054	010391	BS Main Replacement - Barns Lake Rd and Vada, Obeeville - Retire 150' of 2" APBS main due to leaking gate valve on existing main segment. Install 150' of 2" PE main. 1 PE SL Tie Over	3760	\$ 14,007
204	Bare Steel Main Replacement	K.S.A. 66-2202	10/23/2020	3631	054	010391	BS Main Replacement - Barns Lake Rd and Vada, Obeeville - Retire 150' of 2" APBS main due to leaking gate valve on existing main segment. Install 150' of 2" PE main. 1 PE SL Tie Over	3800	\$ 310
205	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3641	054	010392	BS Main Replacement - 4th-Walnut-Mulberry, Salina - Retire 400' of 2" UPBS main as part of the 2021 annual work plan projects. Install 400' of 2" PE main.T	3760	\$ 12,260
206	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3641	054	010396	BS Main Replacement - 645 E Crawford, Salina - Retire 135' of 1.5" APBS and 130' of APCS main in conjunction with a recently repaired and to eliminate antiquated main. Install 260' of 2" PE main. 1 BS service line renewal.	3760	\$ 8,000
207	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3641	054	010396	BS Main Replacement - 645 E Crawford, Salina - Retire 135' of 1.5" APBS and 130' of APCS main in conjunction with a recently repaired and to eliminate antiquated main. Install 260' of 2" PE main. 1 BS service line renewal.	3800	\$ 2,372
208	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3641	054	010396	BS Main Replacement - 645 E Crawford, Salina - Retire 135' of 1.5" APBS and 130' of APCS main in conjunction with a recently repaired and to eliminate antiquated main. Install 260' of 2" PE main. 1 BS service line renewal.	3820	\$ 614
209	Bare Steel Main Replacement	K.S.A. 66-2202	1/29/2021	3631	054	010400	Retire: 140' of 6" UPBS and 48' of APCS. Install: 300' of 6" PE. 10 services will be affected by this work and will be tied over. (1 SL is BS).	3760	\$ 25,513
210	Bare Steel Main Replacement	K.S.A. 66-2202	1/29/2021	3631	054	010400	Retire: 140' of 6" UPBS and 48' of APCS. Install: 300' of 6" PE. 10 services will be affected by this work and will be tied over. (1 SL is BS).	3800	\$ 18,182
211	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3631	054	010401	Retire: 1,065' of 4" RPBS, 50' of 2" RPBS, and 126' of RPCS in business district. Install: 1,150' of 4" PE and 250' of 2" PESL: 5 PE services will be tied over.	3760	\$ 78,366
212	Bare Steel Main Replacement	K.S.A. 66-2202	6/15/2021	3631	054	010401	Retire: 1,065' of 4" RPBS, 50' of 2" RPBS, and 126' of RPCS in business district. Install: 1,150' of 4" PE and 250' of 2" PESL: 5 PE services will be tied over.	3800	\$ 4,683
213	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3631	054	010402	Install: 615' of 4" PE and 215' of 2" PE. Retire: 470' of 4" UPBS and 58' of 4" APCS. SL: 11 PE tie overs and 2 BS renewals.	3760	\$ 46,698
214	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3631	054	010402	Install: 615' of 4" PE and 215' of 2" PE. Retire: 470' of 4" UPBS and 58' of 4" APCS. SL: 11 PE tie overs and 2 BS renewals.	3800	\$ 21,567
215	Bare Steel Main Replacement	K.S.A. 66-2202	1/15/2021	3741	054	010436	BS Main Replacement - 915 S 1st St, Arkansas City - Retire 6' of 2" BS main due to leak on existing main segment. Install 2' of 2" PE main.	3760	\$ 401
216	Bare Steel Main Replacement	K.S.A. 66-2202	1/15/2021	3741	054	010436	BS Main Replacement - 915 S 1st St, Arkansas City - Retire 6' of 2" BS main due to leak on existing main segment. Install 2' of 2" PE main.	3769	\$ 1,317
217	Bare Steel Main Replacement	K.S.A. 66-2202	3/1/2021	3741	054	010440	BS Main Replacement - 132 Random Rd, Arkansas City - Retire 20' of 2" BS main to permanently repair a leak on existing main segment. Install 20' of 2" CS main. LK2018-10152393	3765	\$ 7,373

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
218	Bare Steel Main Replacement	K.S.A. 66-2202	11/3/2020	3741	054	010443	BS Main Replacement - 3rd and Central, Arkansas City - Retire 480' of 2" UPBS, 160' of 3" UPBS, 210' of 3" APCS main as part of the 2020 annual work plan projects. Install 850' of 4" PE main.	3760	\$ 79,997
219	Bare Steel Main Replacement	K.S.A. 66-2202	11/3/2020	3741	054	010443	BS Main Replacement - 3rd and Central, Arkansas City - Retire 480' of 2" UPBS, 160' of 3" UPBS, 210' of 3" APCS main as part of the 2020 annual work plan projects. Install 850' of 4" PE main.	3800	\$ 2,867
220	Bare Steel Main Replacement	K.S.A. 66-2202	8/25/2020	3741	054	010447	BS Main Replacement - 11117 E 4th, Wellington - Retire 65' of 2" APBS and 260' of 4" APBS main due to exposed main from erosion. Install 325' of 2" PE main.	3760	\$ 10,645
221	Bare Steel Main Replacement	K.S.A. 66-2202	8/25/2020	3741	054	010447	BS Main Replacement - 11117 E 4th, Wellington - Retire 65' of 2" APBS and 260' of 4" APBS main due to exposed main from erosion. Install 325' of 2" PE main.	3800	\$ 1,634
222	Bare Steel Main Replacement	K.S.A. 66-2202	3/1/2021	3741	054	010453	BS Main Replacement - 415 S 4th, Kiowa - Retire 242' of 2" RPBS main due to multiple homemade fittings preventing proper cathodic protection. Install 250' of 2" PE main.	3760	\$ 7,803
223	Bare Steel Main Replacement	K.S.A. 66-2202	3/1/2021	3741	054	010453	BS Main Replacement - 415 S 4th, Kiowa - Retire 242' of 2" RPBS main due to multiple homemade fittings preventing proper cathodic protection. Install 250' of 2" PE main.	3765	\$ 428
224	Bare Steel Main Replacement	K.S.A. 66-2202	3/1/2021	3741	054	010453	BS Main Replacement - 415 S 4th, Kiowa - Retire 242' of 2" RPBS main due to multiple homemade fittings preventing proper cathodic protection. Install 250' of 2" PE main.	3800	\$ 144
225	Bare Steel Main Replacement	K.S.A. 66-2202	3/1/2021	3741	054	010454	BS Main Replacement - 7th & Chestnut, Burden - Retire 363' of 3" main due to existing main segment with significant pitting and multiple uncovered leak clamps. Install 370' of 4" CS main.	3765	\$ 27,425
226	Bare Steel Main Replacement	K.S.A. 66-2202	3/1/2021	3741	054	010454	BS Main Replacement - 7th & Chestnut, Burden - Retire 363' of 3" main due to existing main segment with significant pitting and multiple uncovered leak clamps. Install 370' of 4" CS main.	3800	\$ 4,611
227	Bare Steel Main Replacement	K.S.A. 66-2202	10/20/2020	3741	054	010455	BS Main Replacement - 500 N Michigan, Oxford - Retire 10' of 3" RPBS with deteriorated fitting from previously abandoned service line. Install 10' of 4" CS main. This work is required because the existing main has deteriorated fitting attached to it previously served a service line that is now retired. In order to properly retire the obsolete/deteriorated service line connection, a small portion of main will need to be retired.	3765	\$ 8,465
228	Bare Steel Main Replacement	K.S.A. 66-2202	1/15/2021	3741	054	010457	Bare Steel Main Replacement: Replace approximately 400' of 2" RPBS with 250' of 2" PE. Two service lines will be affected. Both will need to be re-lit once flow has been re-established. SOP: 0.94 PSIGMAOP: 1 PSIG	3760	\$ 10,005
229	Bare Steel Main Replacement	K.S.A. 66-2202	5/25/2021	3741	054	010466	BS Main Replacement - Madison & B St, Arkansas City - Retire 90' of 4" BS & 2' of 2" Discoe main due to uncovered iron-welded short stop underneath concrete. Install 80' of 4" RPCS main.	3760	\$ 1,050
230	Bare Steel Main Replacement	K.S.A. 66-2202	5/25/2021	3741	054	010466	BS Main Replacement - Madison & B St, Arkansas City - Retire 90' of 4" BS & 2' of 2" Discoe main due to uncovered iron-welded short stop underneath concrete. Install 80' of 4" RPCS main.	3765	\$ 49,834
231	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3541	054	010662	Retire 331' - 2" BS, 63' - 2" CS. 2225 SW Mission, Topeka, KS. Install 390' - 2" PE main due to finding a leak at 2225 SW Mission.	3760	\$ 29,384
232	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3541	054	010662	Retire 331' - 2" BS, 63' - 2" CS. 2225 SW Mission, Topeka, KS. Install 390' - 2" PE main due to finding a leak at 2225 SW Mission.	3800	\$ 7,452
233	Bare Steel Main Replacement	K.S.A. 66-2202	10/23/2020	3541	054	010672	SW 2nd and Van Buren. Install approximately 440' of 4" PE and 250' of 2" PE to retire 177' of 6" APBS 1906 vintage. It will also retire 346' of 10" APCS and 204' of 4" PE. The existing connection of the 6" to the 10" was potholed and there are homemade fittings at this location thus the 10" main heading east will be retired along with the 6" BS. The City of Topeka is doing a sanitary sewer rehabilitation of an existing sanitary system that runs in an alley for most of the system from Crane to 8th street.	3760	\$ 84,991
234	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3541	054	010684	387 feet of 6 inch BS will be replaced with 400 feet of 4 inch PE along N Kansas Ave. 3 services will be renewed and tied over to this new 4 inch PE main. 2 are short residential tie overs and 1 is a commercial long side tie over. The regulators will need to be exchanged as the new main will be at 45psig instead of 0.75psig. 444 feet of protected BS will be retired along NW Central Ave. There are 6 leaks that will be removed on this project.	3760	\$ 28,576
235	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3541	054	010684	387 feet of 6 inch BS will be replaced with 400 feet of 4 inch PE along N Kansas Ave. 3 services will be renewed and tied over to this new 4 inch PE main. 2 are short residential tie overs and 1 is a commercial long side tie over. The regulators will need to be exchanged as the new main will be at 45psig instead of 0.75psig. 444 feet of protected BS will be retired along NW Central Ave. There are 6 leaks that will be removed on this project.	3800	\$ 11,786
236	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3541	054	010685	Retire 4423' 8" bare steel main. SW Tyler and SW 7th St, Topeka, KS. Install 4100' 6" PE, 375' 4" PE and 210' 2" PE main. This project is a 2020 bare steel replacement program project.	3760	\$ 523,684
237	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3541	054	010685	Retire 4423' 8" bare steel main. SW Tyler and SW 7th St, Topeka, KS. Install 4100' 6" PE, 375' 4" PE and 210' 2" PE main. This project is a 2020 bare steel replacement program project.	3769	\$ 672
238	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3541	054	010685	Retire 4423' 8" bare steel main. SW Tyler and SW 7th St, Topeka, KS. Install 4100' 6" PE, 375' 4" PE and 210' 2" PE main. This project is a 2020 bare steel replacement program project.	3800	\$ 186,602
239	Bare Steel Main Replacement	K.S.A. 66-2202	9/14/2020	3541	054	010686	Install: 1000 feet of 2 inch MDPE main Retire: 550 feet of 2 inch BS main 350 feet of 1 1/4 inch PE main in 2 inch steel casing 100 feet of 2 inch CS main Location: SW James B/T 19th and 21st, Topeka KS MAOP: 58 psi SOP: 45 psi A class 3 leak LK2019-10219464 was found at 2000 SW James in December 2019 and requires permanent repair. Two more class 3 leaks LK2020-10032413 LK2020-10032408 were found in February 2020 on the same street and the design was expanded to include these new leaks. This replacement encompasses all main on SW James between 21st and 19th.	3760	\$ 48,855
240	Bare Steel Main Replacement	K.S.A. 66-2202	9/14/2020	3541	054	010686	Install: 1000 feet of 2 inch MDPE main Retire: 550 feet of 2 inch BS main 350 feet of 1 1/4 inch PE main in 2 inch steel casing 100 feet of 2 inch CS main Location: SW James B/T 19th and 21st, Topeka KS MAOP: 58 psi SOP: 45 psi A class 3 leak LK2019-10219464 was found at 2000 SW James in December 2019 and requires permanent repair. Two more class 3 leaks LK2020-10032413 LK2020-10032408 were found in February 2020 on the same street and the design was expanded to include these new leaks. This replacement encompasses all main on SW James between 21st and 19th.	3800	\$ 6,861
241	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3541	054	010688	Retire 180' 2" BS and 10' 2" CS main. 1820 SW Mission Ave, Topeka, KS. Install 200' 2" PE main. This is a permanent repair for class 3 leak LK2019-10229627. The leaking BS main's wall is too thin.	3760	\$ 10,949
242	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3541	054	010688	Retire 180' 2" BS and 10' 2" CS main. 1820 SW Mission Ave, Topeka, KS. Install 200' 2" PE main. This is a permanent repair for class 3 leak LK2019-10229627. The leaking BS main's wall is too thin.	3765	\$ 7,940

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
243	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3541	054	010688	Retire 180' 2" BS and 10' 2" CS main. 1820 SW Mission Ave, Topeka, KS. Install 200' 2" PE main. This is a permanent repair for class 3 leak LK2019-10229627. The leaking BS main's wall is too thin.	3780	\$ 3,480
244	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3541	054	010688	Retire 180' 2" BS and 10' 2" CS main. 1820 SW Mission Ave, Topeka, KS. Install 200' 2" PE main. This is a permanent repair for class 3 leak LK2019-10229627. The leaking BS main's wall is too thin.	3800	\$ 7,929
245	Bare Steel Main Replacement	K.S.A. 66-2202	10/23/2020	3541	054	010690	This WO is to install approximately 10' of 2" PE to make a permanent repair for LK2020-10110353. Approximately 10' of 2" APBS main will be retired.	3760	\$ 5,403
246	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3541	054	010691	Retire 150' 2" BS main. 2424 SW James St, Topeka, KS. Install 150' 2" PE main. This work is being completed to repair leak LK 2020-10110353. This leak was found and temporarily fixed with a clamp. The wall thickness of the pipe does not allow a pumpkin to be used for permanent repair so the pipe was replaced.	3760	\$ 18,260
247	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3541	054	010693	207 SW Terr Dr - Topeka, KS. Deteriorated Main. Retire: 230 feet of 2 inch BS Main. Install: 230 feet of 2 inch PE Main. This project is to replace a bad spot found on the main while renewing a service line.	3760	\$ 14,263
248	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3541	054	010693	207 SW Terr Dr - Topeka, KS. Deteriorated Main. Retire: 230 feet of 2 inch BS Main. Install: 230 feet of 2 inch PE Main. This project is to replace a bad spot found on the main while renewing a service line.	3800	\$ 5,911
249	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3541	054	010694	19th St and McCalister St - Topeka, KS. Bare Steel Replacement. Retire: 541 feet of 2 inch BS Main, 93 feet of 2 inch CS Main. Install: 675 feet of 2 inch PE Main. Replace: 1 ea BS Service Line. Tie- over: 22 PE Service Lines. This project is being performed as part of the Bare Steel Replacement Program.	3760	\$ 46,730
250	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3541	054	010694	19th St and McCalister St - Topeka, KS. Bare Steel Replacement. Retire: 541 feet of 2 inch BS Main, 93 feet of 2 inch CS Main. Install: 675 feet of 2 inch PE Main. Replace: 1 ea BS Service Line. Tie- over: 22 PE Service Lines. This project is being performed as part of the Bare Steel Replacement Program.	3800	\$ 50,254
251	Bare Steel Main Replacement	K.S.A. 66-2202	4/27/2021	3541	054	010696	Retire 15' 2" BS main. 1705 SE JOHN ST, Topeka, KS. Install 15' 2" CS main. LK2018-1006971 can not be permanently repaired due to inadequate welding conditions. The section of pipe will be removed and replaced.	3765	\$ 4,393
252	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3541	054	010698	2830 SE Ohio Ave - Topeka, KS. Bare Steel Replacement. Retire: 230 feet of 2 inch BS Main. Install: 230 feet of 2 inch PE Main. This project is to address SR #s 2019-10174163 & 2019-10174171 service taps under trees on SE Ohio Ave, as the service line taps are located underneath trees at 2820 & 2830 SE Ohio Ave	3760	\$ 10,407
253	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3541	054	010698	2830 SE Ohio Ave - Topeka, KS. Bare Steel Replacement. Retire: 230 feet of 2 inch BS Main. Install: 230 feet of 2 inch PE Main. This project is to address SR #s 2019-10174163 & 2019-10174171 service taps under trees on SE Ohio Ave, as the service line taps are located underneath trees at 2820 & 2830 SE Ohio Ave	3800	\$ 16,387
254	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3522	054	011382	To Retire 1282' of 6" BS and 303' of 6" CS. 75th St & Nall Ave, Overland Park, KS. Install 1,585' of 6" PE. This project is a bare steel replacement project and contributes to the annual bare steel replacement program.	3760	\$ 184,917
255	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3522	054	011382	To Retire 1282' of 6" BS and 303' of 6" CS. 75th St & Nall Ave, Overland Park, KS. Install 1,585' of 6" PE. This project is a bare steel replacement project and contributes to the annual bare steel replacement program.	3765	\$ 2,481
256	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3522	054	011382	To Retire 1282' of 6" BS and 303' of 6" CS. 75th St & Nall Ave, Overland Park, KS. Install 1,585' of 6" PE. This project is a bare steel replacement project and contributes to the annual bare steel replacement program.	3800	\$ 169
257	Bare Steel Main Replacement	K.S.A. 66-2202	8/25/2020	3522	054	011546	85th and Lowell Ave Main Replacement - Class 2 Leak To Install: 500' 2" PE Main To Retire: 160' 3" BS Main, 147' 3" CS Main. This work is being done to replace the main at 85th and Lowell to eliminate a class 2 leak, LK2019-10150199. The leak is in the middle of the street. The main to deteriorated to eliminate the main with out replacing it. There are 4 service line tie overs.	3760	\$ 21,304
258	Bare Steel Main Replacement	K.S.A. 66-2202	8/25/2020	3522	054	011546	85th and Lowell Ave Main Replacement - Class 2 Leak To Install: 500' 2" PE Main To Retire: 160' 3" BS Main, 147' 3" CS Main. This work is being done to replace the main at 85th and Lowell to eliminate a class 2 leak, LK2019-10150199. The leak is in the middle of the street. The main to deteriorated to eliminate the main with out replacing it. There are 4 service line tie overs.	3769	\$ 677
259	Bare Steel Main Replacement	K.S.A. 66-2202	10/23/2020	3522	054	011553	3014/3015 S 46th St Leak Repair To Install: 150' 2" PE Main To Retire: 140' 3" BS Main. This work is being done to eliminate a segment of pipe that has a class 2 leak, Lk2020-10095681. System Pressure:SOP:45 psigMOP: 55 psigMAOP: 55 psig	3760	\$ 17,024
260	Bare Steel Main Replacement	K.S.A. 66-2202	8/27/2020	3522	054	011555	6315 Sherwood Ln - Leak Repair To Install: 50' 2" PE Main To Retire: 40' 2" BS Main This work is being done to replace a segment of main that has a class 2 leak on it under a driveway. The leak number is LK2020-10098875. System Pressure:SOP: 15 psigMOP: 15 psig MAOP: 15 psig	3760	\$ 12,371
261	Bare Steel Main Replacement	K.S.A. 66-2202	8/18/2020	3522	054	011559	Retire 205' 4" BS main. 2823 S 27th St, Kansas City, KS. Install 205' 4" PE main. This work order will be to install the permanent repair on the class 3 leaking pipe and the main is also shallow (12" deep) underneath the road.	3760	\$ 17,745
262	Bare Steel Main Replacement	K.S.A. 66-2202	8/18/2020	3522	054	011559	Retire 205' of 4" BS main, Install 205' of 4" PE main at 2823 S 27th St, Kansas City, KS. Install 205' of 4" PE main to eliminate the class 3 leak.	3769	\$ 1,476
263	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3522	054	011565	Retire 100' 2" BS main. 4311 W 78th Ter, Prairie Village, KS. Install 100' 2" PE main. The main was found to be shallow (1') so the main needs to be lowered.	3760	\$ 5,902
264	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3522	054	011567	Retire 70' 2" BS main. Tomahawk Rd and Tomahawk, Prairie Village, KS. Install 75' 2" PE main. This work is being done to replace the 2" BS main road crossing in order to repair the class 1 leak. The road crossing currently has 4 full circle bands on the main under with no way to weld split sleeves over them. The road crossing needs to be replaced.	3760	\$ 10,533
265	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3522	054	011567	Retire 70' 2" BS main. Tomahawk Rd and Tomahawk, Prairie Village, KS. Install 75' 2" PE main. This work is being done to replace the 2" BS main road crossing in order to repair the class 1 leak. The road crossing currently has 4 full circle bands on the main under with no way to weld split sleeves over them. The road crossing needs to be replaced.	3765	\$ 247
266	Bare Steel Main Replacement	K.S.A. 66-2202	9/14/2020	3721	054	012132	BS Main Replacement - 5th & Poplar, Newton - Retire 15' of 4" PE, 80' of RPBS, 206' of 6" RPBS, 109' of RPCS main as part of the 2019 annual work plan projects. Install 400' of 4" PE main. 1 BS service line renewal.	3760	\$ 29,419
267	Bare Steel Main Replacement	K.S.A. 66-2202	7/1/2020	3721	054	012143	BS Main Replacement - 2nd & Hydraulic, Wichita - Retire 842' of 4" BS, 391' of 2" BS, 615' of 4" CS, 397' of 4" PE, & 75' of 3" PE main. Install 1600' of 6" PE, 1600' of 4" PE, & 650' of 2" PE main as part of the 2019 annual work plan projects. 5 BS service line replacements. 29 PE SL Tie-Overs, 12 PE SL Replacements, 5 BS SL Replacements, and 1 CS SL Replacement. 1" PE SL replacements due to pipe not having a minimum design pressure of 60 psig.	3760	\$ 95,340

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
268	Bare Steel Main Replacement	K.S.A. 66-2202	7/1/2020	3721	054	012143	BS Main Replacement - 2nd & Hydraulic, Wichita - Retire 842' of 4" BS, 391' of 2" BS, 615' of 4" CS, 397' of 4" PE, & 75' of 3" PE main. Install 1600' of 6" PE, 1600' of 4" PE, & 650' of 2" PE main as part of the 2019 annual work plan projects. 5 BS service line replacements. 29 PE SL Tie-Overs, 12 PE SL Replacements, 5 BS SL Replacements, and 1 CS SL Replacement. 1" PE SL replacements due to pipe not having a minimum design pressure of 60 psig.	3800	\$ 35,357
269	Bare Steel Main Replacement	K.S.A. 66-2202	7/1/2020	3721	054	012176	BS Main Replacement - 24th St. N. & Kansas, Wichita - Retire 321' of 2" APBS main and install 360' of 2" PE main due to leak on existing main segment. Leak LK17-28854 which was temporarily repaired on 1/8/19 by tightening a mechanical end cap. There is not adequate room to abandon the mechanical end cap without replacing the surrounding 2" APBS. There will be a total of 10 service Tie- Overs.	3769	\$ 1,343
270	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012226	11th & Topeka - 2019 C55 BS Main Replacement. Replace 1600' of 6" unprotected BS, 10' of 6" APCS, and 5' of 2" APCS with 540' of 4" PE and 60' of 2" PE. Project includes 6 BS service renewals, 13 PE service tie-overs, 1 PE service renewal, and 2 PE service abandonments.	3760	\$ 54,521
271	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012226	11th & Topeka - 2019 C55 BS Main Replacement Replace 1600' of 6" unprotected BS, 10' of 6" APCS, and 5' of 2" APCS with 540' of 4" PE and 60' of 2" PE. Project includes 6 BS service renewals, 13 PE service tie-overs, 1 PE service renewal, and 2 PE service abandonments.	3769	\$ 1,048
272	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012226	11th & Topeka - 2019 C55 BS Main Replacement. Replace 1600' of 6" unprotected BS, 10' of 6" APCS, and 5' of 2" APCS with 540' of 4" PE and 60' of 2" PE. Project includes 6 BS service renewals, 13 PE service tie-overs, 1 PE service renewal, and 2 PE service abandonments.	3800	\$ 68,746
273	Bare Steel Main Replacement	K.S.A. 66-2202	9/16/2020	3721	054	012309	BS Main Replacement - 2nd & Mathewson, Wichita - Retire 307' of 4" APBS as part of the 2020 annual work plan projects. Install 325' of 4" PE main. 2 BS service line renewals. One CS service and two BS services will be renewed. Two PE services will be tied over.	3760	\$ 23,573
274	Bare Steel Main Replacement	K.S.A. 66-2202	9/16/2020	3721	054	012309	BS Main Replacement - 2nd & Mathewson, Wichita - Retire 307' of 4" APBS as part of the 2020 annual work plan projects. Install 325' of 4" PE main. 2 BS service line renewals. One CS service and two BS services will be renewed. Two PE services will be tied over.	3800	\$ 9,846
275	Bare Steel Main Replacement	K.S.A. 66-2202	9/16/2020	3721	054	012310	BS Main Replacement - 2nd & Ohio, Wichita - Retire 340' of 4" BS and 75' of 2" BS main as part of the 2020 annual work plan projects. Install 350' of 4" PE main. 1 BS service line renewal. One CS service and one BS service will be renewed. Three PE services will be tied over.	3760	\$ 28,767
276	Bare Steel Main Replacement	K.S.A. 66-2202	9/16/2020	3721	054	012310	BS Main Replacement - 2nd & Ohio, Wichita - Retire 340' of 4" BS and 75' of 2" BS main as part of the 2020 annual work plan projects. Install 350' of 4" PE main. 1 BS service line renewal. One CS service and one BS service will be renewed. Three PE services will be tied over.	3800	\$ 7,285
277	Bare Steel Main Replacement	K.S.A. 66-2202	9/16/2020	3721	054	012310	BS Main Replacement - 2nd & Ohio, Wichita - Retire 340' of 4" BS and 75' of 2" BS main as part of the 2020 annual work plan projects. Install 350' of 4" PE main. 1 BS service line renewal. One CS service and one BS service will be renewed. Three PE services will be tied over.	3820	\$ 1,625
278	Bare Steel Main Replacement	K.S.A. 66-2202	9/16/2020	3721	054	012310	BS Main Replacement - 2nd & Ohio, Wichita - Retire 340' of 4" BS and 75' of 2" BS main as part of the 2020 annual work plan projects. Install 350' of 4" PE main. 1 BS service line renewal. One CS service and one BS service will be renewed. Three PE services will be tied over.	3830	\$ 146
279	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012314	BS Main Replacement - Riverview St & W 2nd St, Wichita - Retire 546' of 2" RPBS main as part of the 2020 annual work plan projects. Install 575' of 2" PE main.	3760	\$ 28,918
280	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012314	BS Main Replacement - Riverview St & W 2nd St, Wichita - Retire 546' of 2" RPBS main as part of the 2020 annual work plan projects. Install 575' of 2" PE main.	3769	\$ 358
281	Bare Steel Main Replacement	K.S.A. 66-2202	9/21/2020	3721	054	012315	BS Main Replacement - 3rd & Broadway, Wichita - Retire 534' of 6" UPBS main as part of the 2020 annual work plan projects. Install 534' of 6" PE. 2 services lines will be affected by this work.	3760	\$ 107,250
282	Bare Steel Main Replacement	K.S.A. 66-2202	9/21/2020	3721	054	012315	BS Main Replacement - 3rd & Broadway, Wichita - Retire 534' of 6" UPBS main as part of the 2020 annual work plan projects. Install 534' of 6" PE. 2 services lines will be affected by this work.	3769	\$ 787
283	Bare Steel Main Replacement	K.S.A. 66-2202	9/21/2020	3721	054	012315	BS Main Replacement - 3rd & Broadway, Wichita - Retire 534' of 6" UPBS main as part of the 2020 annual work plan projects. Install 534' of 6" PE. 2 services lines will be affected by this work.	3800	\$ 5,595
284	Bare Steel Main Replacement	K.S.A. 66-2202	9/21/2020	3721	054	012315	BS Main Replacement - 3rd & Broadway, Wichita - Retire 534' of 6" UPBS main as part of the 2020 annual work plan projects. Install 534' of 6" PE. 2 services lines will be affected by this work.	3805	\$ 3,138
285	Bare Steel Main Replacement	K.S.A. 66-2202	9/21/2020	3721	054	012316	BS Main Replacement - 3rd & Topeka, Wichita - Retire 528' of 6" UPBS main as part of the 2020 annual work plan projects. Install 528' of 4" PE main.	3760	\$ 72,489
286	Bare Steel Main Replacement	K.S.A. 66-2202	9/21/2020	3721	054	012316	BS Main Replacement - 3rd & Topeka, Wichita - Retire 528' of 6" UPBS main as part of the 2020 annual work plan projects. Install 528' of 4" PE main.	3800	\$ 13,404
287	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012317	BS Main Replacement - Central & New York, Wichita - Retire 230' of 4" BS as part of the 2020 annual work plan projects. Install 115' of 4" PE main. 1 BS service line renewal.	3760	\$ 40,282
288	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012317	BS Main Replacement - Central & New York, Wichita - Retire 230' of 4" BS as part of the 2020 annual work plan projects. Install 115' of 4" PE main. 1 BS service line renewal.	3765	\$ 12,387
289	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012317	BS Main Replacement - Central & New York, Wichita - Retire 230' of 4" BS as part of the 2020 annual work plan projects. Install 115' of 4" PE main. 1 BS service line renewal.	3800	\$ 6,610
290	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3721	054	012319	As part of the 2020 C55 annual work plan this project will replace 225' of 8" UPBS & 22' of 8" APCS with 250' of 6" PE in the Wichita Business District. 1 commercial service line will be affected and tied over.	3760	\$ 117,925
291	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3721	054	012319	As part of the 2020 C55 annual work plan this project will replace 225' of 8" UPBS & 22' of 8" APCS with 250' of 6" PE in the Wichita Business District. 1 commercial service line will be affected and tied over.	3769	\$ 1,285
292	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3721	054	012319	As part of the 2020 C55 annual work plan this project will replace 225' of 8" UPBS & 22' of 8" APCS with 250' of 6" PE in the Wichita Business District. 1 commercial service line will be affected and tied over.	3800	\$ 7,356

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
293	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012320	This project was approved for the 2020 Annual Work Plan. This project will replace 750' of 2" unprotected bare steel in West Wichita with 100' of 2" PE. This project will affect 10 services. Zero services are BS steel, while the other 10 services are PE and will be tied over to the new main.	3760	\$ 43,014
294	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012320	This project was approved for the 2020 Annual Work Plan. This project will replace 750' of 2" unprotected bare steel in West Wichita with 100' of 2" PE. This project will affect 10 services. Zero services are BS steel, while the other 10 services are PE and will be tied over to the new main.	3800	\$ 8,076
295	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012323	BS Main Replacement - 21st St and Yale, Wichita - Retire 574' of 12" APBS, 109' of 8" APBS, and 338' of 6" BS main as part of the 2020 annual work plan projects. Install 1,050' of 8" APCS. 1 BS service line renewal.	3760	\$ 1,750
296	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012323	BS Main Replacement - 21st St and Yale, Wichita - Retire 574' of 12" APBS, 109' of 8" APBS, and 338' of 6" BS main as part of the 2020 annual work plan projects. Install 1,050' of 8" APCS. 1 BS service line renewal.	3765	\$ 279,617
297	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012323	BS Main Replacement - 21st St and Yale, Wichita - Retire 574' of 12" APBS, 109' of 8" APBS, and 338' of 6" BS main as part of the 2020 annual work plan projects. Install 1,050' of 8" APCS. 1 BS service line renewal.	3769	\$ 1,893
298	Bare Steel Main Replacement	K.S.A. 66-2202	9/21/2020	3721	054	012324	BS Main Replacement - Douglas & Main St, Wichita - Retire 78' of 6" BS, 117' of 6" RPCS, 796' of 8" RPBS and 918' of 8" RPCS main as part of the 2020 annual work plan projects. Install 900' of 2" PE main. 3 BS service line renewals. The main being replaced is located in a business district.	3760	\$ 109,613
299	Bare Steel Main Replacement	K.S.A. 66-2202	9/21/2020	3721	054	012324	BS Main Replacement - Douglas & Main St, Wichita - Retire 78' of 6" BS, 117' of 6" RPCS, 796' of 8" RPBS and 918' of 8" RPCS main as part of the 2020 annual work plan projects. Install 900' of 2" PE main. 3 BS service line renewals. The main being replaced is located in a business district.	3800	\$ 20,125
300	Bare Steel Main Replacement	K.S.A. 66-2202	9/21/2020	3721	054	012324	BS Main Replacement - Douglas & Main St, Wichita - Retire 78' of 6" BS, 117' of 6" RPCS, 796' of 8" RPBS and 918' of 8" RPCS main as part of the 2020 annual work plan projects. Install 900' of 2" PE main. 3 BS service line renewals. The main being replaced is located in a business district.	3805	\$ 1,637
301	Bare Steel Main Replacement	K.S.A. 66-2202	9/22/2020	3721	054	012329	BS Main Replacement - Lincoln & Oliver, Wichita - Retire 575' of 6" UPBS and 40' of 6" APCS main as part of the 2020 annual work plan projects. Install 630' of 6" PE main. 3 services will need to be tied over to the new main.	3760	\$ 104,273
302	Bare Steel Main Replacement	K.S.A. 66-2202	9/22/2020	3721	054	012329	BS Main Replacement - Lincoln & Oliver, Wichita - Retire 575' of 6" UPBS and 40' of 6" APCS main as part of the 2020 annual work plan projects. Install 630' of 6" PE main. 3 services will need to be tied over to the new main.	3769	\$ 1,312
303	Bare Steel Main Replacement	K.S.A. 66-2202	9/22/2020	3721	054	012329	BS Main Replacement - Lincoln & Oliver, Wichita - Retire 575' of 6" UPBS and 40' of 6" APCS main as part of the 2020 annual work plan projects. Install 630' of 6" PE main. 3 services will need to be tied over to the new main.	3800	\$ 19,119
304	Bare Steel Main Replacement	K.S.A. 66-2202	9/16/2020	3721	054	012331	BS Main Replacement - 2625 S West, Wichita - Retire 28' of 2" BS and 13' of 3" BS main due to leak on existing main segment. Install 45' of 2" PE main..For this repair we will tie in to the UPBS to the north, east and west of the leak.	3760	\$ 5,143
305	Bare Steel Main Replacement	K.S.A. 66-2202	8/18/2020	3721	054	012332	BS Main Replacement - Mentor & Hiram, Wichita - Retire 165' of 3" APCS, 260' of 3" BS and 100' of 4" BS main as part of the 2020 annual work plan projects. Install 350' of 2" PE main. One PE service will be tied over.	3760	\$ 18,149
306	Bare Steel Main Replacement	K.S.A. 66-2202	8/18/2020	3721	054	012332	BS Main Replacement - Mentor & Hiram, Wichita - Retire 165' of 3" APCS, 260' of 3" BS and 100' of 4" BS main as part of the 2020 annual work plan projects. Install 350' of 2" PE main. One PE service will be tied over.	3800	\$ 295
307	Bare Steel Main Replacement	K.S.A. 66-2202	8/18/2020	3721	054	012332	BS Main Replacement - Mentor & Hiram, Wichita - Retire 165' of 3" APCS, 260' of 3" BS and 100' of 4" BS main as part of the 2020 annual work plan projects. Install 350' of 2" PE main. One PE service will be tied over.	3820	\$ 1,502
308	Bare Steel Main Replacement	K.S.A. 66-2202	8/18/2020	3721	054	012332	BS Main Replacement - Mentor & Hiram, Wichita - Retire 165' of 3" APCS, 260' of 3" BS and 100' of 4" BS main as part of the 2020 annual work plan projects. Install 350' of 2" PE main. One PE service will be tied over.	3830	\$ 494
309	Bare Steel Main Replacement	K.S.A. 66-2202	8/27/2020	3721	054	012333	BS Main Replacement - 1907 S Hydraulic, Wichita - Retire 90' of 4" PE main to permanently repair a clamped leak on the existing main segment. Install 100' of 2" PE main. Leak number is LK2019-10087033. 3 PE SERVICE TIE OVERS	3760	\$ 15,499
310	Bare Steel Main Replacement	K.S.A. 66-2202	8/27/2020	3721	054	012333	BS Main Replacement - 1907 S Hydraulic, Wichita - Retire 90' of 4" PE main to permanently repair a clamped leak on the existing main segment. Install 100' of 2" PE main. Leak number is LK2019-10087033. 3 PE SERVICE TIE OVERS	3769	\$ 1,706
311	Bare Steel Main Replacement	K.S.A. 66-2202	8/27/2020	3721	054	012333	BS Main Replacement - 1907 S Hydraulic, Wichita - Retire 90' of 4" PE main to permanently repair a clamped leak on the existing main segment. Install 100' of 2" PE main. Leak number is LK2019-10087033. 3 PE SERVICE TIE OVERS	3800	\$ 14,335
312	Bare Steel Main Replacement	K.S.A. 66-2202	9/22/2020	3721	054	012339	BS Main Replacement - Matthewson Ave & Douglas Ave, Wichita - Retire 145' of 8" UPBS and 176' of 8" APCS main as part of the 2020 annual work plan projects. Install 350' of 6" PE main. 1 BS service line abandonment. 4 Commercial Service lines will be affected and tied over. 1 Bare Steel Commercial Service line will be abandoned.	3760	\$ 121,650
313	Bare Steel Main Replacement	K.S.A. 66-2202	9/22/2020	3721	054	012339	BS Main Replacement - Matthewson Ave & Douglas Ave, Wichita - Retire 145' of 8" UPBS and 176' of 8" APCS main as part of the 2020 annual work plan projects. Install 350' of 6" PE main. 1 BS service line abandonment. 4 Commercial Service lines will be affected and tied over. 1 Bare Steel Commercial Service line will be abandoned.	3800	\$ 3,402
314	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012340	BS Main Replacement - Lewis & Waterman, Wichita - Retire 444' of 6" UPBS main as part of the 2020 annual work plan projects. Install 500' of 6" PE and 20' of 4" PE main. This project will affect one 3 inch coated steel service line which will be replaced with a new 4 inch PE service.	3760	\$ 117,582
315	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012340	BS Main Replacement - Lewis & Waterman, Wichita - Retire 444' of 6" UPBS main as part of the 2020 annual work plan projects. Install 500' of 6" PE and 20' of 4" PE main. This project will affect one 3 inch coated steel service line which will be replaced with a new 4 inch PE service.	3765	\$ 285
316	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012340	BS Main Replacement - Lewis & Waterman, Wichita - Retire 444' of 6" UPBS main as part of the 2020 annual work plan projects. Install 500' of 6" PE and 20' of 4" PE main. This project will affect one 3 inch coated steel service line which will be replaced with a new 4 inch PE service.	3769	\$ 1,517
317	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012340	BS Main Replacement - Lewis & Waterman, Wichita - Retire 444' of 6" UPBS main as part of the 2020 annual work plan projects. Install 500' of 6" PE and 20' of 4" PE main. This project will affect one 3 inch coated steel service line which will be replaced with a new 4 inch PE service.	3800	\$ 8,285
318	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012340	BS Main Replacement - Lewis & Waterman, Wichita - Retire 444' of 6" UPBS main as part of the 2020 annual work plan projects. Install 500' of 6" PE and 20' of 4" PE main. This project will affect one 3 inch coated steel service line which will be replaced with a new 4 inch PE service.	3805	\$ 2,996

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
319	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012341	BS Main Replacement - Waco & 12th, Wichita - Retire 198' of 4" APBS main as part of the 2020 annual work plan projects. Install 225' of 4" PE main. 2 BS service line renewals. There are 8 PE and 2 BS services are associated with this project.	3760	\$ 16,851
320	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012341	BS Main Replacement - Waco & 12th, Wichita - Retire 198' of 4" APBS main as part of the 2020 annual work plan projects. Install 225' of 4" PE main. 2 BS service line renewals. There are 8 PE and 2 BS services are associated with this project.	3769	\$ 1,121
321	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012341	BS Main Replacement - Waco & 12th, Wichita - Retire 198' of 4" APBS main as part of the 2020 annual work plan projects. Install 225' of 4" PE main. 2 BS service line renewals. There are 8 PE and 2 BS services are associated with this project.	3800	\$ 18,139
322	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012342	This project was approved for the 2020 Annual Work Plan released on 11/15/19. This work will replace 1010' of 4" BS and 200' of 2" BS that is in poor condition as observed by the C55 spatial layer. Approximately 1210' of 4" PE main will replace the BS main. 32 PE service lines will be tied over and 3 BS service lines will be renewed. Retire 1010' of 4" BS and 200' of 2" BS Install 1210' of 4" PE Install a temporary bypass on the 3" PE main to the north and south of the BS. Install two 3"x2" electrofusion tees and 40' of 2" PE. Cost is estimated for contract crews.	3760	\$ 82,171
323	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012342	This project was approved for the 2020 Annual Work Plan released on 11/15/19. This work will replace 1010' of 4" BS and 200' of 2" BS that is in poor condition as observed by the C55 spatial layer. Approximately 1210' of 4" PE main will replace the BS main. 32 PE service lines will be tied over and 3 BS service lines will be renewed. Retire 1010' of 4" BS and 200' of 2" BS Install 1210' of 4" PE Install a temporary bypass on the 3" PE main to the north and south of the BS. Install two 3"x2" electrofusion tees and 40' of 2" PE. Cost is estimated for contract crews.	3800	\$ 53,322
324	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012343	BS Main Replacement - Alley East of Washington from Waterman to Kellogg: Install 750' of 8" APCS. Retire: 8" APBS: 720'; 4" BS: 118'; 4" PE: 626'; There are 11 PE services that will need to be tied-over to new main.	3760	\$ 4,797
325	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012343	BS Main Replacement - Alley East of Washington from Waterman to Kellogg: Install 750' of 8" APCS. Retire: 8" APBS: 720'; 4" BS: 118'; 4" PE: 626'; There are 11 PE services that will need to be tied-over to new main.	3765	\$ 225,215
326	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012343	BS Main Replacement - Alley East of Washington from Waterman to Kellogg: Install 750' of 8" APCS. Retire: 8" APBS: 720'; 4" BS: 118'; 4" PE: 626'; There are 11 PE services that will need to be tied-over to new main.	3769	\$ 2,715
327	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012343	BS Main Replacement - Alley East of Washington from Waterman to Kellogg: Install 750' of 8" APCS. Retire: 8" APBS: 720'; 4" BS: 118'; 4" PE: 626'; There are 11 PE services that will need to be tied-over to new main.	3800	\$ 20,148
328	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012344	BS Main Replacement - 2nd & Madison, Wichita - Retire 540' of 3" UPBS main as part of the 2020 annual work plan projects. Install 550' of 2" PE main. 2 BS service line renewals. 2 BS services will be renewed and 19 PE services will be tied-over to the new main, and there will be 5 retired services.	3760	\$ 28,724
329	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012344	BS Main Replacement - 2nd & Madison, Wichita - Retire 540' of 3" UPBS main as part of the 2020 annual work plan projects. Install 550' of 2" PE main. 2 BS service line renewals. 2 BS services will be renewed and 19 PE services will be tied-over to the new main, and there will be 5 retired services.	3769	\$ 359
330	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012344	BS Main Replacement - 2nd & Madison, Wichita - Retire 540' of 3" UPBS main as part of the 2020 annual work plan projects. Install 550' of 2" PE main. 2 BS service line renewals. 2 BS services will be renewed and 19 PE services will be tied-over to the new main, and there will be 5 retired services.	3800	\$ 34,385
331	Bare Steel Main Replacement	K.S.A. 66-2202	9/22/2020	3721	054	012346	BS Main Replacement - Laura & Douglas, Wichita - Retire 408' of 8" BS and 161' of 8" APCS main as part of the 2020 annual work plan projects. Install 600' of 6" PE main. There are 5 PE AND 1 CS services associated with this project.	3760	\$ 156,340
332	Bare Steel Main Replacement	K.S.A. 66-2202	9/22/2020	3721	054	012346	BS Main Replacement - Laura & Douglas, Wichita - Retire 408' of 8" BS and 161' of 8" APCS main as part of the 2020 annual work plan projects. Install 600' of 6" PE main. There are 5 PE AND 1 CS services associated with this project.	3769	\$ 1,860
333	Bare Steel Main Replacement	K.S.A. 66-2202	9/22/2020	3721	054	012346	BS Main Replacement - Laura & Douglas, Wichita - Retire 408' of 8" BS and 161' of 8" APCS main as part of the 2020 annual work plan projects. Install 600' of 6" PE main. There are 5 PE AND 1 CS services associated with this project.	3800	\$ 10,106
334	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012355	BS Main Replacement - Kailer & Sycamore, Wichita - Retire 288' of 4" UPBS, 6,904' of 2" UPBS, and 267' of 2" PE main as part of the 2020 annual work plan projects. Install 500' of 4" PE and 7,250' of 2" PE main. 42 BS service line renewals.	3760	\$ 232,944
335	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012355	BS Main Replacement - Kailer & Sycamore, Wichita - Retire 288' of 4" UPBS, 6,904' of 2" UPBS, and 267' of 2" PE main as part of the 2020 annual work plan projects. Install 500' of 4" PE and 7,250' of 2" PE main. 42 BS service line renewals.	3769	\$ 1,289
336	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012355	BS Main Replacement - Kailer & Sycamore, Wichita - Retire 288' of 4" UPBS, 6,904' of 2" UPBS, and 267' of 2" PE main as part of the 2020 annual work plan projects. Install 500' of 4" PE and 7,250' of 2" PE main. 42 BS service line renewals.	3800	\$ 168,945
337	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012356	Replace 4135' of 4" BS and 1376' of 2" APCS with 5800' of 2" PE near 10th and Ridgewood in Wichita Kansas. There are 125 PE service tie overs, 3 BS service renewals and 1 PE service abandonment. 10th and Ridgewood is a 3 phase project to be completed in 2020 as part of the AWP.	3760	\$ 183,743
338	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012356	Replace 4135' of 4" BS and 1376' of 2" APCS with 5800' of 2" PE near 10th and Ridgewood in Wichita Kansas. There are 125 PE service tie overs, 3 BS service renewals and 1 PE service abandonment. 10th and Ridgewood is a 3 phase project to be completed in 2020 as part of the AWP.	3800	\$ 93,240
339	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012357	Replace 3283' of 2" and 4" BS, 186' of 4" APBS, 865' of 4" and 6" APCS, and 627' of 2" and 4" PE with 3900' of 2" PE and 1100' of 4" PE near 10th and Harding in Wichita Kansas. There are 67 PE service tie overs, 2 PE service renewals, 4 BS service renewals, 1 CS service renewals, and 4 service abandonments. 10th and Ridgewood is a 3 phase project to be completed in 2020 as part of the AWP.	3760	\$ 264,383
340	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012357	Replace 3283' of 2" and 4" BS, 186' of 4" APBS, 865' of 4" and 6" APCS, and 627' of 2" and 4" PE with 3900' of 2" PE and 1100' of 4" PE near 10th and Harding in Wichita Kansas. There are 67 PE service tie overs, 2 PE service renewals, 4 BS service renewals, 1 CS service renewals, and 4 service abandonments. 10th and Ridgewood is a 3 phase project to be completed in 2020 as part of the AWP.	3769	\$ 778
341	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012357	Replace 3283' of 2" and 4" BS, 186' of 4" APBS, 865' of 4" and 6" APCS, and 627' of 2" and 4" PE with 3900' of 2" PE and 1100' of 4" PE near 10th and Harding in Wichita Kansas. There are 67 PE service tie overs, 2 PE service renewals, 4 BS service renewals, 1 CS service renewals, and 4 service abandonments. 10th and Ridgewood is a 3 phase project to be completed in 2020 as part of the AWP.	3800	\$ 136,680

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
342	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3721	054	012359	BS Main Abandonment - E Indianapolis and S Greenwood, Wichita - Retire 115' of 2" BS isolated main located during the 2019 annual work plan projects. 1 BS service line renewal. While doing the annual work plan, we came across a stretch of 2" BS main that we could work without adding to the plan. We will Abandon 115' of low pressure 2" BS main and renew the service line associated with this main to the 12" high pressure coated steel main running along E. Indianapolis.	3760	\$ 7,574
343	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3721	054	012359	BS Main Abandonment - E Indianapolis and S Greenwood, Wichita - Retire 115' of 2" BS isolated main located during the 2019 annual work plan projects. 1 BS service line renewal. While doing the annual work plan, we came across a stretch of 2" BS main that we could work without adding to the plan. We will Abandon 115' of low pressure 2" BS main and renew the service line associated with this main to the 12" high pressure coated steel main running along E. Indianapolis.	3769	\$ 327
344	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3721	054	012359	BS Main Abandonment - E Indianapolis and S Greenwood, Wichita - Retire 115' of 2" BS isolated main located during the 2019 annual work plan projects. 1 BS service line renewal. While doing the annual work plan, we came across a stretch of 2" BS main that we could work without adding to the plan. We will Abandon 115' of low pressure 2" BS main and renew the service line associated with this main to the 12" high pressure coated steel main running along E. Indianapolis.	3800	\$ 183
345	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012360	BS Main Replacement - Mt Vernon and Pattie, Wichita - Retire 1,967' of 4" APBS and 272' of 2" APBS main as part of the 2020 annual work plan projects. Install 2,260' of 2" PE main. 67 services will be affected, 23 of which are BS replacements.	3760	\$ 108,188
346	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012360	BS Main Replacement - Mt Vernon and Pattie, Wichita - Retire 1,967' of 4" APBS and 272' of 2" APBS main as part of the 2020 annual work plan projects. Install 2,260' of 2" PE main. 67 services will be affected, 23 of which are BS replacements.	3769	\$ 1,093
347	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012360	BS Main Replacement - Mt Vernon and Pattie, Wichita - Retire 1,967' of 4" APBS and 272' of 2" APBS main as part of the 2020 annual work plan projects. Install 2,260' of 2" PE main. 67 services will be affected, 23 of which are BS replacements.	3800	\$ 95,725
348	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012361	There is obsolete 4" UPBS with a high risk score in an urban area at W. 29th St. and S. Glenn that we are going to replace. We are replacing 2570' of 4" UPBS, and 67' of 4" APCS with 2720' of 4" PE on the east side of Glenn St. With this replacement, we will tie over a total of 43 residential services, along with renewing 1 residential BS services, bringing the total number of services to 44. The systems operates at 18 psig SOP.General Scope:Retire: 2570' 4" UPBS; 67' 4" APCS;Install: 2720' 4" PE44 total services, 1 of which will be a BS renewal.	3760	\$ 135,646
349	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012361	There is obsolete 4" UPBS with a high risk score in an urban area at W. 29th St. and S. Glenn that we are going to replace. We are replacing 2570' of 4" UPBS, and 67' of 4" APCS with 2720' of 4" PE on the east side of Glenn St. With this replacement, we will tie over a total of 43 residential services, along with renewing 1 residential BS services, bringing the total number of services to 44. The systems operates at 18 psig SOP.General Scope:Retire: 2570' 4" UPBS; 67' 4" APCS;Install: 2720' 4" PE44 total services, 1 of which will be a BS renewal.	3769	\$ 1,301
350	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012361	There is obsolete 4" UPBS with a high risk score in an urban area at W. 29th St. and S. Glenn that we are going to replace. We are replacing 2570' of 4" UPBS, and 67' of 4" APCS with 2720' of 4" PE on the east side of Glenn St. With this replacement, we will tie over a total of 43 residential services, along with renewing 1 residential BS services, bringing the total number of services to 44. The systems operates at 18 psig SOP.General Scope:Retire: 2570' 4" UPBS; 67' 4" APCS;Install: 2720' 4" PE44 total services, 1 of which will be a BS renewal.	3800	\$ 64,118
351	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012365	There are BS mains that need to be replaced in part of our AWP. These Mains are located in the alley between S Pattie Ave. and S Lulu Ave. from E Douglas Ave. to E Lewis St. 7 services will be affected, 2 of which are BS replacements. This project was approved for the 2020 Annual Work Plan. Replace: 97' of 2" UPBS, 53' of 2" APCS, 293' of 4" UPBS, 47' APBS, 20' of 4" APCS, and 250' of 8" UPBS Install: 150' of 2" PE, 400' of 4" PE, and 260' of 6" PE. 5 services tie over 2 BS service replacements.	3760	\$ 98,686
352	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012365	There are BS mains that need to be replaced in part of our AWP. These Mains are located in the alley between S Pattie Ave. and S Lulu Ave. from E Douglas Ave. to E Lewis St. 7 services will be affected, 2 of which are BS replacements. This project was approved for the 2020 Annual Work Plan. Replace: 97' of 2" UPBS, 53' of 2" APCS, 293' of 4" UPBS, 47' APBS, 20' of 4" APCS, and 250' of 8" UPBS Install: 150' of 2" PE, 400' of 4" PE, and 260' of 6" PE. 5 services tie over 2 BS service replacements.	3769	\$ 3,774
353	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012365	There are BS mains that need to be replaced in part of our AWP. These Mains are located in the alley between S Pattie Ave. and S Lulu Ave. from E Douglas Ave. to E Lewis St. 7 services will be affected, 2 of which are BS replacements. This project was approved for the 2020 Annual Work Plan. Replace: 97' of 2" UPBS, 53' of 2" APCS, 293' of 4" UPBS, 47' APBS, 20' of 4" APCS, and 250' of 8" UPBS Install: 150' of 2" PE, 400' of 4" PE, and 260' of 6" PE. 5 services tie over 2 BS service replacements.	3800	\$ 6,217
354	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012366	Replace 2037' of 3" UPBS, 100' 2" PE, 25' 2" UPBS with 2500' of 2" PE along Laura from Mt. Vernon to Blake St. This section of UPBS has a high at risk score. This project was approved for the 2020 Annual Work Plan A total 67 services will be affected, 19 of which are BS replacements.	3760	\$ 73,241
355	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012366	Replace 2037' of 3" UPBS, 100' 2" PE, 25' 2" UPBS with 2500' of 2" PE along Laura from Mt. Vernon to Blake St. This section of UPBS has a high at risk score. This project was approved for the 2020 Annual Work Plan A total 67 services will be affected, 19 of which are BS replacements.	3769	\$ 504
356	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012366	Replace 2037' of 3" UPBS, 100' 2" PE, 25' 2" UPBS with 2500' of 2" PE along Laura from Mt. Vernon to Blake St. This section of UPBS has a high at risk score. This project was approved for the 2020 Annual Work Plan A total 67 services will be affected, 19 of which are BS replacements.	3800	\$ 72,432
357	Bare Steel Main Replacement	K.S.A. 66-2202	10/27/2020	3721	054	012370	BS Main Replacement - University & Walnut, Wichita - Retire 454' of 2" UPBS main as part of the 2020 annual work plan projects. Install 350' of 2" PE main.This project will affect 4 services directly. 0 services are BS steel while the other 4 services are PE and will be tied over to the new main.	3760	\$ 46,315
358	Bare Steel Main Replacement	K.S.A. 66-2202	10/27/2020	3721	054	012370	BS Main Replacement - University & Walnut, Wichita - Retire 454' of 2" UPBS main as part of the 2020 annual work plan projects. Install 350' of 2" PE main.This project will affect 4 services directly. 0 services are BS steel while the other 4 services are PE and will be tied over to the new main.	3800	\$ 6,780

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
359	Bare Steel Main Replacement	K.S.A. 66-2202	10/27/2020	3721	054	012370	BS Main Replacement - University & Walnut, Wichita - Retire 454' of 2" UPBS main as part of the 2020 annual work plan projects. Install 350' of 2" PE main. This project will affect 4 services directly. 0 services are BS steel while the other 4 services are PE and will be tied over to the new main.	3820	\$ 2,843
360	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012372	Replace 3012' of 4" BS, 927' of 4" APCS, and 509' of 4" PE with 4500' of 2" PE near 9th and Battin in Wichita Kansas. There are 120 PE service tie overs and 7 BS service renewals. 10th and Ridgewood is a 3 phase project to be completed in 2020 as part of the AWP.	3760	\$ 142,918
361	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012372	Replace 3012' of 4" BS, 927' of 4" APCS, and 509' of 4" PE with 4500' of 2" PE near 9th and Battin in Wichita Kansas. There are 120 PE service tie overs and 7 BS service renewals. 10th and Ridgewood is a 3 phase project to be completed in 2020 as part of the AWP.	3800	\$ 103,529
362	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012373	This work order will replace 1,300' of 3" UPBS with 1,300' of 4" PE and 100' of 2" PE. 42 services will be affected with 10 of them being BS renewals. The mains being replaced run along S Emporia Ave. The 100' of 2" main will be installed along E Skinner Ave. and is to allow the service line for 508 E Skinner Ave. to be tied to it rather than being run across the property of 1846 S Emporia Ave. which it currently does.	3760	\$ 70,415
363	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012373	This work order will replace 1,300' of 3" UPBS with 1,300' of 4" PE and 100' of 2" PE. 42 services will be affected with 10 of them being BS renewals. The mains being replaced run along S Emporia Ave. The 100' of 2" main will be installed along E Skinner Ave. and is to allow the service line for 508 E Skinner Ave. to be tied to it rather than being run across the property of 1846 S Emporia Ave. which it currently does.	3769	\$ 538
364	Bare Steel Main Replacement	K.S.A. 66-2202	1/25/2021	3721	054	012373	This work order will replace 1,300' of 3" UPBS with 1,300' of 4" PE and 100' of 2" PE. 42 services will be affected with 10 of them being BS renewals. The mains being replaced run along S Emporia Ave. The 100' of 2" main will be installed along E Skinner Ave. and is to allow the service line for 508 E Skinner Ave. to be tied to it rather than being run across the property of 1846 S Emporia Ave. which it currently does.	3800	\$ 56,182
365	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012374	This work will take place in the downtown Wichita business district in the alley East of Washington from English to Waterman. This project was approved for the 2020 Annual Work Plan. Retire: 8" BS: 744'; 4" APCS: 652'. Install: 800' 6" PE. There are 4 PE, 2 BS RENEWALS, 1 PE RENEWAL services that will need to be tied-over to new main.	3760	\$ 156,208
366	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012374	This work will take place in the downtown Wichita business district in the alley East of Washington from English to Waterman. This project was approved for the 2020 Annual Work Plan. Retire: 8" BS: 744'; 4" APCS: 652'. Install: 800' 6" PE. There are 4 PE, 2 BS RENEWALS, 1 PE RENEWAL services that will need to be tied-over to new main.	3769	\$ 1,244
367	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012374	This work will take place in the downtown Wichita business district in the alley East of Washington from English to Waterman. This project was approved for the 2020 Annual Work Plan. Retire: 8" BS: 744'; 4" APCS: 652'. Install: 800' 6" PE. There are 4 PE, 2 BS RENEWALS, 1 PE RENEWAL services that will need to be tied-over to new main.	3800	\$ 28,221
368	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012378	BS Main Replacement - Grand & Wire, Haysville - Retire 2,300' of 4" UPBS main as part of the 2020 annual work plan projects. Install 2,300' of 2" PE main. This will require the replacement of 19 BS services, 1 CS service and this will include 50 PE service tie overs.	3760	\$ 77,415
369	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012378	BS Main Replacement - Grand & Wire, Haysville - Retire 2,300' of 4" UPBS main as part of the 2020 annual work plan projects. Install 2,300' of 2" PE main. This will require the replacement of 19 BS services, 1 CS service and this will include 50 PE service tie overs.	3769	\$ 371
370	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012378	BS Main Replacement - Grand & Wire, Haysville - Retire 2,300' of 4" UPBS main as part of the 2020 annual work plan projects. Install 2,300' of 2" PE main. This will require the replacement of 19 BS services, 1 CS service and this will include 50 PE service tie overs.	3800	\$ 50,941
371	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012384	Replace 1,420' of 6" UPBS, 35' of 6" APCS, 1,104' of 2" UPBS, 62' of 2" APBS and 146' of 2" APCS in Wichita located at Lincoln & Pinecrest with 1,500' of 6" PE and 1,500' of 2" PE as part of the 2020 AWP. 32 Total Service Lines will be affected. 15 Bare Steel Service Lines will be renewed. 15 Additional PE Service Lines will be relocated. .2 Tie Overs	3760	\$ 183,299
372	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012384	Replace 1,420' of 6" UPBS, 35' of 6" APCS, 1,104' of 2" UPBS, 62' of 2" APBS and 146' of 2" APCS in Wichita located at Lincoln & Pinecrest with 1,500' of 6" PE and 1,500' of 2" PE as part of the 2020 AWP. 32 Total Service Lines will be affected. 15 Bare Steel Service Lines will be renewed. 15 Additional PE Service Lines will be relocated. .2 Tie Overs	3769	\$ 1,465
373	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012384	Replace 1,420' of 6" UPBS, 35' of 6" APCS, 1,104' of 2" UPBS, 62' of 2" APBS and 146' of 2" APCS in Wichita located at Lincoln & Pinecrest with 1,500' of 6" PE and 1,500' of 2" PE as part of the 2020 AWP. 32 Total Service Lines will be affected. 15 Bare Steel Service Lines will be renewed. 15 Additional PE Service Lines will be relocated. .2 Tie Overs	3800	\$ 88,319
374	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012387	There is a tightened coupling found on Class 1 Leak LK2020-10003866 that will need to be replaced. In order to replace this coupling and permanently repair this leak, we will have to replace 241' 2" UPBS and 7' 2" APCS from Waverly to Prairie Creek with 260' 2" PE. There are 4 PE service tie overs with this work.	3760	\$ 17,426
375	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012387	There is a tightened coupling found on Class 1 Leak LK2020-10003866 that will need to be replaced. In order to replace this coupling and permanently repair this leak, we will have to replace 241' 2" UPBS and 7' 2" APCS from Waverly to Prairie Creek with 260' 2" PE. There are 4 PE service tie overs with this work.	3769	\$ 1,177
376	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012387	There is a tightened coupling found on Class 1 Leak LK2020-10003866 that will need to be replaced. In order to replace this coupling and permanently repair this leak, we will have to replace 241' 2" UPBS and 7' 2" APCS from Waverly to Prairie Creek with 260' 2" PE. There are 4 PE service tie overs with this work.	3800	\$ 7,932
377	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012389	BS Main Replacement - 111 S Derby Ave, Derby - Retire 20' of 2" APBS main to minimal remaining wall thickness and to permanently repair multiple clamped leak. Install 20' of 2" PE main. 1 service line will need to be tied over to the new PE main.	3760	\$ 17,254
378	Bare Steel Main Replacement	K.S.A. 66-2202	10/21/2020	3721	054	012389	BS Main Replacement - 111 S Derby Ave, Derby - Retire 20' of 2" APBS main to minimal remaining wall thickness and to permanently repair multiple clamped leak. Install 20' of 2" PE main. 1 service line will need to be tied over to the new PE main.	3769	\$ 659

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
379	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3721	054	012395	BS Main Replacement - 2003 W Jewell, Wichita - Retire 120' of 2" APBS main with minimal remaining wall thickness and multiple leak clamps installed on existing main segment. Install 120' of 2" PE main. Leak numbers are LK2020-10012515 and LK2020-10015251.	3760	\$ 13,064
380	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3721	054	012395	BS Main Replacement - 2003 W Jewell, Wichita - Retire 120' of 2" APBS main with minimal remaining wall thickness and multiple leak clamps installed on existing main segment. Install 120' of 2" PE main. Leak numbers are LK2020-10012515 and LK2020-10015251.	3769	\$ 1,212
381	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3721	054	012395	BS Main Replacement - 2003 W Jewell, Wichita - Retire 120' of 2" APBS main with minimal remaining wall thickness and multiple leak clamps installed on existing main segment. Install 120' of 2" PE main. Leak numbers are LK2020-10012515 and LK2020-10015251.	3800	\$ 11,761
382	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012396	Main Replacement - Central & Bluff, Wichita - Retire 5,250' total feet of 10" BS, 8"BS, 6" BS, 4" BS, 3" BS, and 2" BS main with 5,290' total feet of 8" CS, 6" PE, 4" PE, and 2" PE main as part of the 2020 annual work plan projects. 11 BS service line replacements and 18 BS service line renewals.	3760	\$ 366,963
383	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012396	Main Replacement - Central & Bluff, Wichita - Retire 5,250' total feet of 10" BS, 8"BS, 6" BS, 4" BS, 3" BS, and 2" BS main with 5,290' total feet of 8" CS, 6" PE, 4" PE, and 2" PE main as part of the 2020 annual work plan projects. 11 BS service line replacements and 18 BS service line renewals.	3765	\$ 18,658
384	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012396	Main Replacement - Central & Bluff, Wichita - Retire 5,250' total feet of 10" BS, 8"BS, 6" BS, 4" BS, 3" BS, and 2" BS main with 5,290' total feet of 8" CS, 6" PE, 4" PE, and 2" PE main as part of the 2020 annual work plan projects. 11 BS service line replacements and 18 BS service line renewals.	3769	\$ 1,890
385	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012396	Main Replacement - Central & Bluff, Wichita - Retire 5,250' total feet of 10" BS, 8"BS, 6" BS, 4" BS, 3" BS, and 2" BS main with 5,290' total feet of 8" CS, 6" PE, 4" PE, and 2" PE main as part of the 2020 annual work plan projects. 11 BS service line replacements and 18 BS service line renewals.	3800	\$ 193,899
386	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3721	054	012398	BS Main Replacement - Central Ave and Erie, Wichita - Retire 130' of 4" UPBS of high risk main within the central business district. Install 127' of 2" PE main. This will require two service line tie overs, one commercial with a 3 meter manifold and one residential service line. The current UPBS is high risk in a business district.	3760	\$ 11,472
387	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3721	054	012398	BS Main Replacement - Central Ave and Erie, Wichita - Retire 130' of 4" UPBS of high risk main within the central business district. Install 127' of 2" PE main. This will require two service line tie overs, one commercial with a 3 meter manifold and one residential service line. The current UPBS is high risk in a business district.	3800	\$ 4,865
388	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012399	BS Main Replacement - N. Seneca & W. 3rd St N, Wichita - Retire 175' of 3 UPBS main and install 175' of 2" PE due to leak on Dresser coupling. This work will permanently repair LK2020-10056529.	3760	\$ 15,106
389	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012399	BS Main Replacement - N. Seneca & W. 3rd St N, Wichita - Retire 175' of 3 UPBS main and install 175' of 2" PE due to leak on Dresser coupling. This work will permanently repair LK2020-10056529.	3800	\$ 2,493
390	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012400	Retire: 42' 2" RPCS 481' 2" RPBS Install: 499' 2" PE 16PE Service Tie Overs. Two clamps were installed near each other on 3/9/20 at 3314 S. Gordon, in Wichita, KS. A punkin was unable to be installed due to the inadequate remaining wall thickness.with further research it was found that there were a total of 6 leaks associated with this main. After discussing with corrosion and construction, we found that in order to permanently repair the leak on this main, we will need to replace the entire stretch of 2"RPBS, and RPCS main from W. 32nd &W.33rd St.	3760	\$ 29,944
391	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012400	Retire: 42' 2" RPCS 481' 2" RPBS Install: 499' 2" PE 16PE Service Tie Overs. Two clamps were installed near each other on 3/9/20 at 3314 S. Gordon, in Wichita, KS. A punkin was unable to be installed due to the inadequate remaining wall thickness.with further research it was found that there were a total of 6 leaks associated with this main. After discussing with corrosion and construction, we found that in order to permanently repair the leak on this main, we will need to replace the entire stretch of 2"RPBS, and RPCS main from W. 32nd &W.33rd St.	3800	\$ 30,762
392	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3721	054	012401	BS Main Replacement - 3601 S Clifton, Wichita - Retire 140' of 2" APBS main with minimal remaining wall thickness and to replace a leak clamp on existing main segment. Install 140" of 2" PE main. 1 BS service line renewal. Leak number is LK2018-10018027.	3760	\$ 13,475
393	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3721	054	012401	BS Main Replacement - 3601 S Clifton, Wichita - Retire 140' of 2" APBS main with minimal remaining wall thickness and to replace a leak clamp on existing main segment. Install 140" of 2" PE main. 1 BS service line renewal. Leak number is LK2018-10018027.	3769	\$ 1,547
394	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3721	054	012401	BS Main Replacement - 3601 S Clifton, Wichita - Retire 140' of 2" APBS main with minimal remaining wall thickness and to replace a leak clamp on existing main segment. Install 140" of 2" PE main. 1 BS service line renewal. Leak number is LK2018-10018027.	3800	\$ 2,136
395	Bare Steel Main Replacement	K.S.A. 66-2202	8/4/2020	3721	054	012402	BS Main Replacement - 5048 E Harry, Wichita - Retire 8' of 2" APBS and 30' of 2" APCS main to permanently repair leak on existing main. Install 30' of 2" PE main.Crews found Class 1 leak at foundation, LK2020-10059520.	3760	\$ 7,003
396	Bare Steel Main Replacement	K.S.A. 66-2202	8/4/2020	3721	054	012402	BS Main Replacement - 5048 E Harry, Wichita - Retire 8' of 2" APBS and 30' of 2" APCS main to permanently repair leak on existing main. Install 30' of 2" PE main.Crews found Class 1 leak at foundation, LK2020-10059520.	3769	\$ 839
397	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3721	054	012403	BS Main Replacement - 321 Arkansas St, Mulvane - Retire 40' of 4" RPBS main to permanently repair leak on existing main. Install 40' of 4" RPCS main.	3765	\$ 11,737
398	Bare Steel Main Replacement	K.S.A. 66-2202	5/13/2021	3721	054	012404	BS Main Replacement - 4901 E 31st St S, Wichita - Retire 260' of 4" BS and 10' of 2" APCS main due to multiple leak clamps installed in close proximity preventing a permanent repair. Install 260' of 4" PE main and 10' of 2" APCS main.Project will extend to just west of Pinecrest to retire leak (LK2019-10057172) at 165' ECL Elpyco.	3760	\$ 25,350
399	Bare Steel Main Replacement	K.S.A. 66-2202	5/13/2021	3721	054	012404	BS Main Replacement - 4901 E 31st St S, Wichita - Retire 260' of 4" BS and 10' of 2" APCS main due to multiple leak clamps installed in close proximity preventing a permanent repair. Install 260' of 4" PE main and 10' of 2" APCS main.Project will extend to just west of Pinecrest to retire leak (LK2019-10057172) at 165' ECL Elpyco.	3769	\$ 2,217
400	Bare Steel Main Replacement	K.S.A. 66-2202	5/13/2021	3721	054	012406	BS Main Replacement - 935 W 51st St N, Wichita - Retire 280' of 2" APBS main with minimal remaining wall thickness and multiple leak clamps located on existing main segment. Install 280' of 2" PE main. Leak number is LK2018-10164314. 3 PE service Tie Overs	3760	\$ 20,750

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
401	Bare Steel Main Replacement	K.S.A. 66-2202	5/13/2021	3721	054	012406	BS Main Replacement - 935 W 51st St N, Wichita - Retire 280' of 2" APBS main with minimal remaining wall thickness and multiple leak clamps located on existing main segment. Install 280' of 2" PE main. Leak number is LK2018-10164314. 3 PE service Tie Overs	3769	\$ 562
402	Bare Steel Main Replacement	K.S.A. 66-2202	5/13/2021	3721	054	012406	BS Main Replacement - 935 W 51st St N, Wichita - Retire 280' of 2" APBS main with minimal remaining wall thickness and multiple leak clamps located on existing main segment. Install 280' of 2" PE main. Leak number is LK2018-10164314. 3 PE service Tie Overs	3800	\$ 542
403	Bare Steel Main Replacement	K.S.A. 66-2202	5/13/2021	3721	054	012407	BS Main Replacement - 138 W Alexander, Haysville - Retire 350' of 4" UPBS and 10 of 2" UPBS main with minimal remaining wall thickness and multiple leak clamps installed on existing main segment. Install: Approx. 350' of 4" PE and Approx. 10' of 2" PE. Replace one service line.	3760	\$ 38,415
404	Bare Steel Main Replacement	K.S.A. 66-2202	5/13/2021	3721	054	012407	BS Main Replacement - 138 W Alexander, Haysville - Retire 350' of 4" UPBS and 10 of 2" UPBS main with minimal remaining wall thickness and multiple leak clamps installed on existing main segment. Install: Approx. 350' of 4" PE and Approx. 10' of 2" PE. Replace one service line.	3769	\$ 500
405	Bare Steel Main Replacement	K.S.A. 66-2202	5/13/2021	3721	054	012407	BS Main Replacement - 138 W Alexander, Haysville - Retire 350' of 4" UPBS and 10 of 2" UPBS main with minimal remaining wall thickness and multiple leak clamps installed on existing main segment. Install: Approx. 350' of 4" PE and Approx. 10' of 2" PE. Replace one service line.	3800	\$ 5,705
406	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3721	054	012408	Main Replacement - 770 N St. Paul, Wichita - Retire 30' of 2" UPBS main due to no gas at this location and to clear leak on existing main segment. Install 40' of 2" PE main. There are couplings and a bolt-on shortstop at 770 N St. Paul that was found by KGS crews 4/14/20 by KGS crews. There was a no gas found at this location, however, to clear the leak, the surrounding pipe must be replaced. Leak must be repaired by 7/23/21. Leak# LK2019-10021650 General Scope: Retire: 30' 2" UPBS Install: 40' 2" PE	3760	\$ 3,956
407	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3721	054	012408	Main Replacement - 770 N St. Paul, Wichita - Retire 30' of 2" UPBS main due to no gas at this location and to clear leak on existing main segment. Install 40' of 2" PE main. There are couplings and a bolt-on shortstop at 770 N St. Paul that was found by KGS crews 4/14/20 by KGS crews. There was a no gas found at this location, however, to clear the leak, the surrounding pipe must be replaced. Leak must be repaired by 7/23/21. Leak# LK2019-10021650 General Scope: Retire: 30' 2" UPBS Install: 40' 2" PE	3769	\$ 4,309
408	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012409	BS Main Replacement - 1526 N Holyoke, Wichita - Retire 270' of 2" UPBS main with uncovered-leaking Dresser coupling in close proximity to a transition fitting. Install 280' of 2" PE main. 1 BS service line renewal. Leak number is LK2018-10052076. 7 PE Service Tie Overs 1 BS Renewal.	3760	\$ 16,570
409	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012409	BS Main Replacement - 1526 N Holyoke, Wichita - Retire 270' of 2" UPBS main with uncovered-leaking Dresser coupling in close proximity to a transition fitting. Install 280' of 2" PE main. 1 BS service line renewal. Leak number is LK2018-10052076. 7 PE Service Tie Overs 1 BS Renewal.	3800	\$ 20,281
410	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012411	BS Main Replacement - 427 E 11th, Newton - Retire 375' of 3" RPBS main with multiple leak clamps installed on existing main segment. Install 375' of 4" CS main. Specifically, the project will permanently repair LK19-10203583 and LK19-10203590.	3765	\$ 62,172
411	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012411	BS Main Replacement - 427 E 11th, Newton - Retire 375' of 3" RPBS main with multiple leak clamps installed on existing main segment. Install 375' of 4" CS main. Specifically, the project will permanently repair LK19-10203583 and LK19-10203590.	3800	\$ 16,008
412	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012412	Retire 20' 2" UPBS Install 20' 2" PE. 2 PE Service Tie Overs. KGS crews installed a leak clamp in the rear easement at 720 S Christine on 4/28/20 on the 2" UPBS. KGS crews and were unable to have a weld reinforcing sleeve installed due to little remaining wall thickness. In order to permanently repair this leak, we will have to replace a short section of 2" UPBS with 2" PE.	3760	\$ 2,816
413	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012412	Retire 20' 2" UPBS Install 20' 2" PE. 2 PE Service Tie Overs. KGS crews installed a leak clamp in the rear easement at 720 S Christine on 4/28/20 on the 2" UPBS. KGS crews and were unable to have a weld reinforcing sleeve installed due to little remaining wall thickness. In order to permanently repair this leak, we will have to replace a short section of 2" UPBS with 2" PE.	3769	\$ 1,420
414	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012413	Replace 90' 2" APBS, with 90' 2" PE to permanently repair this leak and remove all clamps. There was a leak found by KGS crews. Leak clamps were installed on 4/15/20. Crews were unable to have a weld reinforcing sleeve installed since the leak clamps were back to back. LK2019-10041641	3760	\$ 8,559
415	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012413	Replace 90' 2" APBS, with 90' 2" PE to permanently repair this leak and remove all clamps. There was a leak found by KGS crews. Leak clamps were installed on 4/15/20. Crews were unable to have a weld reinforcing sleeve installed since the leak clamps were back to back. LK2019-10041641	3769	\$ 610
416	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012413	Replace 90' 2" APBS, with 90' 2" PE to permanently repair this leak and remove all clamps. There was a leak found by KGS crews. Leak clamps were installed on 4/15/20. Crews were unable to have a weld reinforcing sleeve installed since the leak clamps were back to back. LK2019-10041641	3800	\$ 313
417	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3721	054	012414	BS Main Replacement - 3125 W 9th, Wichita - Retire 10' of 4" UPBS main to permanently replace tightened coupling to repair leak on existing main. Install 15' of 2" APCS main. Leak number is LK2019-10021653.	3760	\$ 5,438
418	Bare Steel Main Replacement	K.S.A. 66-2202	8/14/2020	3721	054	012414	BS Main Replacement - 3125 W 9th, Wichita - Retire 10' of 4" UPBS main to permanently replace tightened coupling to repair leak on existing main. Install 15' of 2" APCS main. Leak number is LK2019-10021653.	3769	\$ 3,404
419	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012415	Replace 2" APBS cross at El Rancho Rd and Timberlane St in Wichita, KS with 2" PE. The cross is coupled in with Dressers and had a leak at one of the Dressers (LK2018-10159580). Install: 20' of 2" PE. Retire: 20' of 2" APBS	3760	\$ 4,268
420	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012415	Replace 2" APBS cross at El Rancho Rd and Timberlane St in Wichita, KS with 2" PE. The cross is coupled in with Dressers and had a leak at one of the Dressers (LK2018-10159580). Install: 20' of 2" PE. Retire: 20' of 2" APBS	3769	\$ 2,599
421	Bare Steel Main Replacement	K.S.A. 66-2202	5/13/2021	3721	054	012416	BS Main Replacement - 2402 S Lulu, Wichita - Retire 260' of 4" UPBS and 10' of 4" PE main with minimal remaining wall thickness and multiple leak clamps installed on existing main segment. Install 260' of 4" PE and 20' of 2" PE main. LK2018-10155164	3760	\$ 27,530

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
422	Bare Steel Main Replacement	K.S.A. 66-2202	5/13/2021	3721	054	012416	BS Main Replacement - 2402 S Lulu, Wichita - Retire 260' of 4" UPBS and 10' of 4" PE main with minimal remaining wall thickness and multiple leak clamps installed on existing main segment. Install 260' of 4" PE and 20' of 2" PE main. LK2018-10155164	3769	\$ 1,020
423	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012417	RPBS Main Replacement - 2299 E 47th St S, Wichita - Retire 30' of 4" RPBS and 10' of 2" RPCS main to permanently repair a leak from coupling in close proximity to another fitting. Install 30' of 4" RPCS & 10' of 2" RPCS main.	3765	\$ 13,903
424	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012424	BS Main Replacement - S. Richmond & W. Maple, Wichita - Retire 260' of 2" RPBS and install 260' of 2" PE due to corrosion deficiency.	3760	\$ 13,887
425	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012424	BS Main Replacement - S. Richmond & W. Maple, Wichita - Retire 260' of 2" RPBS and install 260' of 2" PE due to corrosion deficiency.	3769	\$ 948
426	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012424	BS Main Replacement - S. Richmond & W. Maple, Wichita - Retire 260' of 2" RPBS and install 260' of 2" PE due to corrosion deficiency.	3800	\$ 9,353
427	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012427	BS Main Replacement - 416 S Edwards, Wichita - Retire 297' of 3" APBS main with multiple leaking couplings. Install 300' of 4" PE main. On top of the the BS main replacement, there will be a total of 9 PE service tie overs. The Leak number associated with this project is LK2020-10084915	3760	\$ 17,095
428	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012427	BS Main Replacement - 416 S Edwards, Wichita - Retire 297' of 3" APBS main with multiple leaking couplings. Install 300' of 4" PE main. On top of the the BS main replacement, there will be a total of 9 PE service tie overs. The Leak number associated with this project is LK2020-10084915	3769	\$ 982
429	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012427	BS Main Replacement - 416 S Edwards, Wichita - Retire 297' of 3" APBS main with multiple leaking couplings. Install 300' of 4" PE main. On top of the the BS main replacement, there will be a total of 9 PE service tie overs. The Leak number associated with this project is LK2020-10084915	3800	\$ 15,708
430	Bare Steel Main Replacement	K.S.A. 66-2202	10/27/2020	3721	054	012428	BS Main Replacement - 330 S Maybelle, Wichita - Retire 90' of 2" APBS main with minimal remaining wall thickness and to permanently replace tightened coupling used to fix leak on existing main. Install 90' of 2" PE main.	3760	\$ 7,329
431	Bare Steel Main Replacement	K.S.A. 66-2202	10/27/2020	3721	054	012428	BS Main Replacement - 330 S Maybelle, Wichita - Retire 90' of 2" APBS main with minimal remaining wall thickness and to permanently replace tightened coupling used to fix leak on existing main. Install 90' of 2" PE main.	3769	\$ 1,493
432	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3721	054	012434	BS Main Replacement - 1930 S Spruce, Wichita - Retire 326' of 2" UPBS and 50' of 2" APCS main due Dresser coupling in close proximity of transition fitting preventing a permanent repair by a weld reinforcement sleeve. Install 400' of 2" PE main.	3760	\$ 9,951
433	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3721	054	012434	BS Main Replacement - 1930 S Spruce, Wichita - Retire 326' of 2" UPBS and 50' of 2" APCS main due Dresser coupling in close proximity of transition fitting preventing a permanent repair by a weld reinforcement sleeve. Install 400' of 2" PE main.	3769	\$ 387
434	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3721	054	012434	BS Main Replacement - 1930 S Spruce, Wichita - Retire 326' of 2" UPBS and 50' of 2" APCS main due Dresser coupling in close proximity of transition fitting preventing a permanent repair by a weld reinforcement sleeve. Install 400' of 2" PE main.	3800	\$ 17,127
435	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3721	054	012435	BS Main Replacement - 2138 Spruce, Wichita - Retire 107' of 2" UPBS and 107' of 2" RPBS main due to minimal remaining wall thickness. Install 246' of 2" PE main. Install: The Leak number is LK2019-10038118.	3760	\$ 40,280
436	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3721	054	012435	BS Main Replacement - 2138 Spruce, Wichita - Retire 107' of 2" UPBS and 107' of 2" RPBS main due to minimal remaining wall thickness. Install 246' of 2" PE main. Install: The Leak number is LK2019-10038118.	3769	\$ 537
437	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012436	KGS will replace approx. 20' of 3" RPBS with 4" CS and approx. 20' of 2" CS with new 2" CS. This will permanently repair leak LK2019-10203630. KGS will tie in to the newly installed 4" CS and in and install approx. 20' of 2" CS to the west. Retirement: 20' of 3" RPBS and 20' of RPCS Install: 20' of 4" CS and 20' of 2" CS.	3765	\$ 10,182
438	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012440	Install approx. 30' of 2" PE main to replace 30' of 2" UPBS. This project is a CWO at 3045 S Millwood in Wichita to replace UPBS main due to a tightened leak clamp. Existing leak clamp was tightened on 7/4/20 by KGS crews and was unable to have a weld reinforcing sleeve installed due to the close proximity of the service tee to 3045 S Millwood. Specifically, this project will permanently repair LK2020-10141577.	3760	\$ 8,279
439	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012440	Install approx. 30' of 2" PE main to replace 30' of 2" UPBS. This project is a CWO at 3045 S Millwood in Wichita to replace UPBS main due to a tightened leak clamp. Existing leak clamp was tightened on 7/4/20 by KGS crews and was unable to have a weld reinforcing sleeve installed due to the close proximity of the service tee to 3045 S Millwood. Specifically, this project will permanently repair LK2020-10141577.	3769	\$ 3,758
440	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3721	054	012442	BS Main Replacement - 4441 Bayley, Wichita - Retire 130' of 2" UPBS main located under the garage at the same address. Install 150' of 2" PE main. 4 SL tie-overs and 1 SL replacement.	3760	\$ 10,239
441	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3721	054	012442	BS Main Replacement - 4441 Bayley, Wichita - Retire 130' of 2" UPBS main located under the garage at the same address. Install 150' of 2" PE main. 4 SL tie-overs and 1 SL replacement.	3800	\$ 1,982
442	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012446	Retire: 246' 2"UPBS Install: 260' 2" PE There will be 9 PE service tie overs. KGS crews came across a leaking dresser coupling on 9/4/2020. Unfortunately the clamp was in such bad condition that it could not be tightened nor could a punkin be installed. In order to fix this leak and replace this dresser coupling, we will have to replace approx. 246' of 2" UPBS main with 260' 2" PE. The Leak number associated with this work is LK2018-10158750.	3760	\$ 13,380
443	Bare Steel Main Replacement	K.S.A. 66-2202	1/20/2021	3721	054	012446	Retire: 246' 2"UPBS Install: 260' 2" PE There will be 9 PE service tie overs. KGS crews came across a leaking dresser coupling on 9/4/2020. Unfortunately the clamp was in such bad condition that it could not be tightened nor could a punkin be installed. In order to fix this leak and replace this dresser coupling, we will have to replace approx. 246' of 2" UPBS main with 260' 2" PE. The Leak number associated with this work is LK2018-10158750.	3800	\$ 977
444	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3721	054	012450	BS Main Replacement - Ranger & Grand, Haysville - Retire 110' of 4" UPBS main in close proximity to residential building. Install 150' of 4" PE main. 2 SL Replacements	3760	\$ 28,097
445	Bare Steel Main Replacement	K.S.A. 66-2202	4/20/2021	3721	054	012450	BS Main Replacement - Ranger & Grand, Haysville - Retire 110' of 4" UPBS main in close proximity to residential building. Install 150' of 4" PE main. 2 SL Replacements	3769	\$ 3,271

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
446	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012455	BS Main Replacement - Clark St & Main, Wichita - Retire 200' of 6" RPBS main with minimal remaining wall thickness and significant corrosion. Install 200' of RPCS and 10' of 2" PE main. Project was initiated when Corrosion department went to install cables on the 6" RPBS along Clark at the alley east of Main and found significant corrosion resulting in a remaining wall thickness of only 29%. Per standard 1602, this section of main must be replaced.	3760	\$ 678
447	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012455	BS Main Replacement - Clark St & Main, Wichita - Retire 200' of 6" RPBS main with minimal remaining wall thickness and significant corrosion. Install 200' of RPCS and 10' of 2" PE main. Project was initiated when Corrosion department went to install cables on the 6" RPBS along Clark at the alley east of Main and found significant corrosion resulting in a remaining wall thickness of only 29%. Per standard 1602, this section of main must be replaced.	3765	\$ 46,142
448	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012455	BS Main Replacement - Clark St & Main, Wichita - Retire 200' of 6" RPBS main with minimal remaining wall thickness and significant corrosion. Install 200' of RPCS and 10' of 2" PE main. Project was initiated when Corrosion department went to install cables on the 6" RPBS along Clark at the alley east of Main and found significant corrosion resulting in a remaining wall thickness of only 29%. Per standard 1602, this section of main must be replaced.	3800	\$ 4,663
449	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3721	054	012460	BS Main Replacement - 1500 Cloverdale, Wichita - Retire 10' of 2" RPBS main due to multiple fittings in close proximity to each other and preventing a permanent repair by a weld reinforcement sleeve. Install 10' of 2" RPCS main. There is one leak known on this section, LK2018-10174344.	3765	\$ 6,619
450	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3721	054	012463	BS Main Replacement - Central & Rock Island, Wichita - Retire 190' of 2" UPBS, 376' of 2" Aldyl A and 186' of 1.25" Adyl A main as part of the 2020 annual work plan projects. Install 200' of 2" PE and 15' of 6" CS main. This project was approved for the 2021 Annual Work Plan by Asset Management during Business District project release for July 2020. KGS will install approx 200' of 2" PE along Rock Island which will allow us to continue to serve two commercial business. KGS will also install approx 15' of 6" CS where dresser couplings were found along Central. We will retire the existing 190' of 2" BS along Rock Island. We will also abandon the Aldyl A plastic that runs from N Mead Ave, east south of Central and South along Mosley. Approx 560'. Retire: 190' 2" UPBS; 376' 2" Aldyl A; 186' 1.25" Adyl A Costs are estimated with NPL contract crews.	3760	\$ 22,691
451	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3721	054	012463	BS Main Replacement - Central & Rock Island, Wichita - Retire 190' of 2" UPBS, 376' of 2" Aldyl A and 186' of 1.25" Adyl A main as part of the 2020 annual work plan projects. Install 200' of 2" PE and 15' of 6" CS main. This project was approved for the 2021 Annual Work Plan by Asset Management during Business District project release for July 2020. KGS will install approx 200' of 2" PE along Rock Island which will allow us to continue to serve two commercial business. KGS will also install approx 15' of 6" CS where dresser couplings were found along Central. We will retire the existing 190' of 2" BS along Rock Island. We will also abandon the Aldyl A plastic that runs from N Mead Ave, east south of Central and South along Mosley. Approx 560'. Retire: 190' 2" UPBS; 376' 2" Aldyl A; 186' 1.25" Adyl A Costs are estimated with NPL contract crews.	3800	\$ 185
452	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3721	054	012469	BS Main Replacement - 1st & St. Paul, Wichita - Retire 34' of 4" PE, 434' of 4" UPBS, and 798' of 2" of UPBS main. Install 1,200' of 2" PE main as part of the 2021 annual work plan projects. 25 PE Service Line Tie Overs	3760	\$ 46,566
453	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3721	054	012469	BS Main Replacement - 1st & St. Paul, Wichita - Retire 34' of 4" PE, 434' of 4" UPBS, and 798' of 2" of UPBS main. Install 1,200' of 2" PE main as part of the 2021 annual work plan projects. 25 PE Service Line Tie Overs.	3800	\$ 32,423
454	Bare Steel Main Replacement/Retirement Obsolete Component	K.S.A. 66-2202	4/20/2021	3721	054	012475	BS Main Replacement & DRS Retirement - North Ct & Arkansas Ave, Wichita - Retire 433' of 2" RPBS main and DRS 0113 due to multiple leaks on existing main segment. Install 500' of 2" PE main. 1 BS service line renewal.	3760	\$ 25,487
455	Bare Steel Main Replacement/Retirement Obsolete Component	K.S.A. 66-2202	4/20/2021	3721	054	012475	BS Main Replacement & DRS Retirement - North Ct & Arkansas Ave, Wichita - Retire 433' of 2" RPBS main and DRS 0113 due to multiple leaks on existing main segment. Install 500' of 2" PE main. 1 BS service line renewal.	3800	\$ 25,536
456	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3721	054	012479	This project was approved for the 2021 Annual Work Plan. Install: Approx 1280' of 2" PE; Approx. 1940' of 4" PE; 645' of 6" PE Retire: 3183' of 2", 4", 10" UPBS; 316' of 4", 6", 10", and 12" APCS; 164' of 2" and 4" PE 41 SL Replacements, 8 SL Tie-Overs, 3 SL Retirements.	3760	\$ 257,227
457	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3721	054	012479	This project was approved for the 2021 Annual Work Plan. Install: Approx 1280' of 2" PE; Approx. 1940' of 4" PE; 645' of 6" PE Retire: 3183' of 2", 4", 10" UPBS; 316' of 4", 6", 10", and 12" APCS; 164' of 2" and 4" PE 41 SL Replacements, 8 SL Tie-Overs, 3 SL Retirements.	3769	\$ 1,173
458	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3721	054	012479	This project was approved for the 2021 Annual Work Plan. Install: Approx 1280' of 2" PE; Approx. 1940' of 4" PE; 645' of 6" PE Retire: 3183' of 2", 4", 10" UPBS; 316' of 4", 6", 10", and 12" APCS; 164' of 2" and 4" PE 41 SL Replacements, 8 SL Tie-Overs, 3 SL Retirements.	3800	\$ 155,074
459	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3721	054	012479	This project was approved for the 2021 Annual Work Plan. Install: Approx 1280' of 2" PE; Approx. 1940' of 4" PE; 645' of 6" PE Retire: 3183' of 2", 4", 10" UPBS; 316' of 4", 6", 10", and 12" APCS; 164' of 2" and 4" PE 41 SL Replacements, 8 SL Tie-Overs, 3 SL Retirements.	3805	\$ 5,832
460	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3721	054	012481	BS Main Replacement - 23rd & Jackson, Wichita - Retire 2,611' of 3" & 4" UPBS main as part of the 2021 annual work plan projects. Install 2,900' of 2" PE main.	3760	\$ 138,258
461	Bare Steel Main Replacement	K.S.A. 66-2202	6/2/2021	3721	054	012481	BS Main Replacement - 23rd & Jackson, Wichita - Retire 2,611' of 3" & 4" UPBS main as part of the 2021 annual work plan projects. Install 2,900' of 2" PE main.	3800	\$ 61,317
462	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3721	054	012494	KGS will install 1,000' of 2" PE on Waterman and Clifton at 48 psig and replace APCS and UPBS operating at 12 oz. A leak clamp was tightened on 10/15/20 by KGS crews and was unable to have a weld reinforcing sleeve installed due to the close proximity of another leak clamp and punkin. Leak number is LK2020-10236868. There have been 7 leaks on the UPBS 3 of which were Grade 1 leaks.	3760	\$ 46,668
463	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3721	054	012494	KGS will install 1,000' of 2" PE on Waterman and Clifton at 48 psig and replace APCS and UPBS operating at 12 oz. A leak clamp was tightened on 10/15/20 by KGS crews and was unable to have a weld reinforcing sleeve installed due to the close proximity of another leak clamp and punkin. Leak number is LK2020-10236868. There have been 7 leaks on the UPBS 3 of which were Grade 1 leaks.	3800	\$ 25,268

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
464	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3721	054	012494	KGS will install 1,000' of 2" PE on Waterman and Clifton at 48 psig and replace APCS and UPBS operating at 12 oz. A leak clamp was tightened on 10/15/20 by KGS crews and was unable to have a weld reinforcing sleeve installed due to the close proximity of another leak clamp and punkin. Leak number is LK2020-10236868. There have been 7 leaks on the UPBS 3 of which were Grade 1 leaks.	3820	\$ 1,747
465	Bare Steel Main Replacement	K.S.A. 66-2202	6/30/2021	3721	054	012494	KGS will install 1,000' of 2" PE on Waterman and Clifton at 48 psig and replace APCS and UPBS operating at 12 oz. A leak clamp was tightened on 10/15/20 by KGS crews and was unable to have a weld reinforcing sleeve installed due to the close proximity of another leak clamp and punkin. Leak number is LK2020-10236868. There have been 7 leaks on the UPBS 3 of which were Grade 1 leaks.	3830	\$ 131
466	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012502	BS Main Replacement - N Fabrique & E Orme, Wichita - Retire 230' of 2" APBS main and install 230' of 2" PE main due to homemade fitting.3 bare steel service renewals.	3760	\$ 13,608
467	Bare Steel Main Replacement	K.S.A. 66-2202	4/1/2021	3721	054	012502	BS Main Replacement - N Fabrique & E Orme, Wichita - Retire 230' of 2" APBS main and install 230' of 2" PE main due to homemade fitting.3 bare steel service renewals.	3800	\$ 6,447
468	Bare Steel Main Replacement	K.S.A. 66-2202	5/25/2021	3721	054	012512	BS Main Replacement - 1947 N Wellington, Wichita - Retire 440' of 4" UPBS and 10' of 3" APCS main due to leaking on tightened coupling on exiting main segment. Install 140' of 2' PE main. 1 BS service line renewal. There will be a total of 5 PE service tie overs, 1BS service renewal 4 PE service renewals without wire. The leak number isLK2019-10155203	3760	\$ 30,861
469	Bare Steel Main Replacement	K.S.A. 66-2202	5/25/2021	3721	054	012512	BS Main Replacement - 1947 N Wellington, Wichita - Retire 440' of 4" UPBS and 10' of 3" APCS main due to leaking on tightened coupling on exiting main segment. Install 140' of 2' PE main. 1 BS service line renewal. There will be a total of 5 PE service tie overs, 1BS service renewal 4 PE service renewals without wire. The leak number isLK2019-10155203	3800	\$ 17,519
470	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3721	054	012551	Install: Approx. 522' of 2" PE Retire: Approx. 480' of 3" UPBS 5 service line replacements. We will install 2" PE N on Ridgewood Dr and tie into the 2" PE in the easement south of 1600 N Ridgewood Dr. Leak Repair work order: 2020-1000495305	3760	\$ 20,098
471	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3721	054	012551	Install: Approx. 522' of 2" PE Retire: Approx. 480' of 3" UPBS 5 service line replacements. We will install 2" PE N on Ridgewood Dr and tie into the 2" PE in the easement south of 1600 N Ridgewood Dr. Leak Repair work order: 2020-1000495305	3769	\$ 231
472	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3721	054	012551	Install: Approx. 522' of 2" PE Retire: Approx. 480' of 3" UPBS 5 service line replacements. We will install 2" PE N on Ridgewood Dr and tie into the 2" PE in the easement south of 1600 N Ridgewood Dr. Leak Repair work order: 2020-1000495305	3800	\$ 14,762
473	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3721	054	012556	Retire: 3M Meter Setting and low pressure regulator. Install: 3M Meter and 1813HC regulator. In order to replace low pressure BS main with 48 psig, 2" PE main, the low pressure regulator will need to be replaced with a high pressure regulator.	3820	\$ 967
474	Bare Steel Main Replacement	K.S.A. 66-2202	6/24/2021	3721	054	012556	Retire: 3M Meter Setting and low pressure regulator. Install: 3M Meter and 1813HC regulator. In order to replace low pressure BS main with 48 psig, 2" PE main, the low pressure regulator will need to be replaced with a high pressure regulator.	3830	\$ 96
	Bare Steel Main Replacement Total								\$ 15,790,107
475	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	5/25/2021	3622	053	010112	BS Service Line Renwal - 205 S Thompson St, Pratt - Retire existing BS service line as part of bare steel main replacement program. Install 136' of 2" PE main to serve the above address without crossing property lines.The service at 205 S Thompson St in Pratt is BS and needs to be replaced with PE. This project will extend 2" PE main along S Thompson St so the new PE service can be relocated to the front and avoid crossing adjacent private property lines, as it currently does. At the intersection of E 2nd and Thompson we will tie on to the existing 2" PE main and run 2" PE south along the west road right of way of Thompson for approximately 136'.	3760	\$ 3,966
476	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	9/14/2020	3761	053	010211	Meter Relocation - 1600 S Homer, Pittsburg - Property line setting moved to building and meter & regulator setting rebuilt. Worked in conjunction with the UPBS yard line at the same address. Replace an 11M meter setting at the property line with a 3 PSIG delivery pressure with an 11M meter setting at the building with an 8 OZ delivery pressure. T	3820	\$ 1,475
477	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	9/14/2020	3761	053	010211	Meter Relocation - 1600 S Homer, Pittsburg - Property line setting moved to building and meter & regulator setting rebuilt. Worked in conjunction with the UPBS yard line at the same address. Replace an 11M meter setting at the property line with a 3 PSIG delivery pressure with an 11M meter setting at the building with an 8 OZ delivery pressure. T	3830	\$ 3,350
478	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	4/27/2021	3721	053	011256	Retire BS SL and Meter & Regulator Setting - 2235 W. 37th St N, Wichita - Retire 75' of 2" bare steel service line as part of the bare steel service line replacement program. Retire existing Roots 7M meter and 2" Sprague B34SO regulator. Work being done in conjunction with the service line abandonment at the same address.	3765	\$ 2,698
479	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	4/27/2021	3721	053	011256	Retire BS SL and Meter & Regulator Setting - 2235 W. 37th St N, Wichita - Retire 75' of 2" bare steel service line as part of the bare steel service line replacement program. Retire existing Roots 7M meter and 2" Sprague B34SO regulator. Work being done in conjunction with the service line abandonment at the same address.	3769	\$ 1,522
480	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	10/21/2020	3643	054	010069	Obsolete Meter & Regulator Replacement - 405 W Parallel, Clifton - Retire Roots 5M meter and Fisher 730 regulator. Install Roots 5M-175-TC meter, 2" American 1813B regulator and 1" Fisher 289 relief. Worked in conjunction with the bare steel service line renewal at the same address.	3805	\$ 1,756
481	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	10/21/2020	3643	054	010069	Obsolete Meter & Regulator Replacement - 405 W Parallel, Clifton - Retire Roots 5M meter and Fisher 730 regulator. Install Roots 5M-175-TC meter, 2" American 1813B regulator and 1" Fisher 289 relief. Worked in conjunction with the bare steel service line renewal at the same address.	3820	\$ 1,668

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
482	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	10/21/2020	3643	054	010069	Obsolete Meter & Regulator Replacement - 405 W Parallel, Clifton - Retire Roots 5M meter and Fisher 730 regulator. Install Roots 5M-175-TC meter, 2" American 1813B regulator and 1" Fisher 289 relief. Worked in conjunction with the bare steel service line renewal at the same address.	3830	\$ 1,495
483	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	4/27/2021	3651	054	010147	Retire 180' - 1.25" BS Service. 115 W Spruce, Junction City, KS. Install 180' - 2" PE main. There is a grade 1 leak on the piping downstream from the low-pressure regulator station which serves the apartment building.	3760	\$ 9,328
484	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	1/29/2021	3642	054	010377	To Replace 1 1/4" CS service line and 3" BS yard line with 1 1/4" PE service line and move meter to bldg. We had to trim the tree from around this meter loop as it had grown into it. By moving it to the bldg we will get it out of the trees and remove another steel line from our system.	3800	\$ 3,096
485	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	1/29/2021	3642	054	010377	To Replace 1 1/4" CS service line and 3" BS yard line with 1 1/4" PE service line and move meter to bldg. We had to trim the tree from around this meter loop as it had grown into it. By moving it to the bldg we will get it out of the trees and remove another steel line from our system.	3820	\$ 1,659
486	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	4/1/2021	3642	054	010383	BS Service Line and Yard Line Replacement - 130 Greeley, Lucas - Retire 65' of 4" BS service line with leak on customer-owned yard line. Install 231' of 4" PE service line, 305' of 4" PE YL and 20' of 1.25" YL.	3800	\$ 29,846
487	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	4/1/2021	3642	054	010383	BS Service Line and Yard Line Replacement - 130 Greeley, Lucas - Retire 65' of 4" BS service line with leak on customer-owned yard line. Install 231' of 4" PE service line, 305' of 4" PE YL and 20' of 1.25" YL.	3805	\$ 1,016
488	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	9/21/2020	3641	054	010387	BS Yard Line Replacement - 1339 E Rosehill Rd, Assaria - Retire 600' of 1.25" BS yard line due to leak and exposed line across creek. Install 600' of 2" PE yard line.	3800	\$ 6,026
489	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	1/29/2021	3631	054	010396	Scope of Work:Retire: 20' of 1.25" Bare Steel SL Install: 20' of 2" PE SL with Series 10,000 EFV Pressure System SOP = 54 PSIG and MAOP = 58 PSIG	3800	\$ 3,465
490	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	3/18/2021	3631	054	010397	BS Service Line Replacement - 1600 N Lorraine, Hutchinson - Retire 58' of 2" BS service line as part of the bare steel replacement program. Install 58' of 1.25" PE service line.	3800	\$ 12,619
491	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	1/29/2021	3631	054	010398	Retire: 30' of 6" BS YL and 123' of 1.25" BS SL. Install: 130' of 1.25" PE SL (meter being moved to the building).	3800	\$ 5,787
492	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	5/13/2021	3631	054	010408	BS YL Replacement - RT 1, South Hutchinson - Pleasantview - Retire 350' of 2" BS YL due to class 1 leak found on yard line. Install 375' of 1.25" PE service line.	3800	\$ 8,965
493	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	5/13/2021	3631	054	010409	BS YL Replacement - 1401 E 11th Ave, Hutchinson - Retire 130' of 3" BS YL and 5' of 1.25" CS SL as part of the bare steel service line replacement program. Install 150' of 1.25" PE SL.	3800	\$ 4,604
494	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	6/15/2021	3631	054	010412	Retire: 125' of 2.5" BS YL Install: 100' of 1.25" PE SL and 25' of 2" PE YL Pressure System SOP = 25 psig MAOP = 25 psig	3800	\$ 5,454
495	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	8/18/2020	3741	054	010452	BS Service Line Renewal - 1025 N F St, Wellington - Retire 55' of 1.25" BS service line as part of the bare steel replacement program. Install 120' of 2" PE main and 75' of 0.75" PE service line. 1025 N F St in Wellington. The service is BS that needs to be renewed and the property line meter needs to be moved to the house. Tie-in to the existing 2" PE Main utilizing butt fusion. Install approx. 120' of 2" PE north towards W 17th St. End with a 2" purge point. Retire BS service line with asset 827752 and install approx. 75' of new 0.75" PE service line on the east side of the house.	3760	\$ 1,820
496	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	8/18/2020	3741	054	010452	BS Service Line Renewal - 1025 N F St, Wellington - Retire 55' of 1.25" BS service line as part of the bare steel replacement program. Install 120' of 2" PE main and 75' of 0.75" PE service line. 1025 N F St in Wellington. The service is BS that needs to be renewed and the property line meter needs to be moved to the house. Tie-in to the existing 2" PE Main utilizing butt fusion. Install approx. 120' of 2" PE north towards W 17th St. End with a 2" purge point. Retire BS service line with asset 827752 and install approx. 75' of new 0.75" PE service line on the east side of the house.	3800	\$ 608

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
497	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	3/1/2021	3741	054	010460	BS Service Line Renewal - 1323 S A St, Wellington - Retire 90' of 1.25" BS service line as part of the bare steel replacement program and in conjunction with relocation of the current meter setting. Install 100' of 2" PE service line.	3800	\$ 3,098
498	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	2/25/2021	3741	054	010463	Meter Setting Replacement - 1323 S A St, Wellington - Retire existing 4" meter setting in conjunction with the bare steel service line replacement at the same address. Install two 2" Fisher 133H regulators and two Roots 11M meters.	3805	\$ 2,869
499	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	2/25/2021	3741	054	010463	Meter Setting Replacement - 1323 S A St, Wellington - Retire existing 4" meter setting in conjunction with the bare steel service line replacement at the same address. Install two 2" Fisher 133H regulators and two Roots 11M meters.	3820	\$ 1,053
500	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	2/25/2021	3741	054	010463	Meter Setting Replacement - 1323 S A St, Wellington - Retire existing 4" meter setting in conjunction with the bare steel service line replacement at the same address. Install two 2" Fisher 133H regulators and two Roots 11M meters.	3830	\$ 7,338
501	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	5/25/2021	3741	054	010465	BS Service Line Replacement - 320 S Chestnut St, Douglass - Retire 250' of 2" RPBS service line as part of the bare steel service line replacement program. Install 250' of 2" PE service line.	3800	\$ 12,044
502	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	6/24/2021	3741	054	010470	BS Service Line Replacement - 1109 6th St, Arkansas City - Install 400' of 2" PE in conjunction with the BS service line renewal at the same address to prevent service line from crossing private property. The BS service line for 1109 S 6th St in Arkansas City, KS runs across the property line of 1207 S 6th. NPL cannot replace this BS service line to KGS standards, without a main extension to establish the service line entirely on the customer's property.	3760	\$ 15,696
503	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	6/30/2021	3741	054	010471	BS Service Line Replacement - 1010 6th St, Arkansas City - Install 100' of 2" PE in conjunction with the BS service line renewal at the same address to realign service with property. The service line for 1010 S 6th St. in Arkansas City, KS sits at an angle coming off the main from 6th and Van Buren. To replace this BS yard line a short main extension of approx. 100' will be required to straighten and establish the service line entirely on the customer's property.	3760	\$ 6,807
504	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	6/24/2021	3741	054	010472	BS Yard Line Replacement - 306th Dr & 61st Ln, Arkansas City - Install 1,100' of 2" PE main in conjunction with the BS yard line replacements in the same location and to remove a 3 meter manifold. A 3MM sits at 306th Dr. and 61st Ln. in Arkansas City, KS serves 3 separate residential houses, one along 61st Ln and the other 2 along 306th Dr. The longest of these BS yardlines being over 1,000'. Install approx. 1,100' of 2" PE to serve the 2 houses along 306th Dr. The house along 61st Ln will be tied over to the 4" RPBS along 61st Ln.	3760	\$ 51,644
505	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	6/30/2021	3741	054	010476	This project is for 1325 S 6th St in Arkansas City, KS which has a property line meter and BS yardline. NPL cannot replace this BS yardline without a main extension to the house. Install approx. 160' of 2" PE main.	3760	\$ 9,603
506	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	7/1/2020	3721	054	012393	BS Service Line Renewal & BS Main Abandonment - 433 N. Rock Island, Wichita - Retire 260' of 2" UPBS main due to leak on service tee. Existing main is a dead end segment and no longer serves any customers. Work being done in conjunction with the bare steel service line renewal at the same address.	3769	\$ 175
507	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	7/1/2020	3721	054	012393	BS Service Line Renewal & BS Main Abandonment - 433 N. Rock Island, Wichita - Retire 260' of 2" UPBS main due to leak on service tee. Existing main is a dead end segment and no longer serves any customers. Work being done in conjunction with the bare steel service line renewal at the same address.	3800	\$ 843
508	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	1/20/2021	3721	054	012445	KGS will extend approx 20' of 2" PE main where it was found the current BS service line to 313 N Brunswick is on the neighboring property. We will renew the current SL to the new 2" PE main as well as renew the SL to the south where it was found to missing wire.	3760	\$ 917
509	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	1/20/2021	3721	054	012445	KGS will extend approx 20' of 2" PE main where it was found the current BS service line to 313 N Brunswick is on the neighboring property. We will renew the current SL to the new 2" PE main as well as renew the SL to the south where it was found to missing wire.	3769	\$ 317
510	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	1/20/2021	3721	054	012445	KGS will extend approx 20' of 2" PE main where it was found the current BS service line to 313 N Brunswick is on the neighboring property. We will renew the current SL to the new 2" PE main as well as renew the SL to the south where it was found to missing wire.	3800	\$ 4,405
511	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	4/1/2021	3721	054	012459	BS Service Line & Yard Line Replacement - 303 S Topeka, Wichita - Retire 79' of BS yard line and 2' of 2" PE service line as part of the bare steel replacement program. Install 20' of 2" PE service line. Scope of Work: Retire: 2" PE SL and BS YL Install: 20' of 2" PE SL Pressure System SOP = 12 PSIG MAOP = 14 PSIG Justification: Replace BS SL/YL in accordance with KCC requirements.	3800	\$ 12,141

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
512	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	6/2/2021	3721	054	012509	BS Service Line Replacement - 149 N Minneapolis, Wichita - Retire 20' of 2" BS SL and install 20' of 2" PE SL due to surface markings and pitting on the existing 2" BS riser and as part of the bare steel replacement program. A KGS I&S crew was responding to a service order to install an index on a Romet 3000 at 149 N Minneapolis. While on-site the crew noticed corrosionpits and surface markings on the existing 2" BS riser. This work will capture the full replacement of the 2" bare steel service line. Due to the decreased gas load, a meter and regulator setting replacement will be created and worked in conjunction with the service line replacement.	3769	\$ 736
513	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	6/2/2021	3721	054	012509	BS Service Line Replacement - 149 N Minneapolis, Wichita - Retire 20' of 2" BS SL and install 20' of 2" PE SL due to surface markings and pitting on the existing 2" BS riser and as part of the bare steel replacement program. A KGS I&S crew was responding to a service order to install an index on a Romet 3000 at 149 N Minneapolis. While on-site the crew noticed corrosionpits and surface markings on the existing 2" BS riser. This work will capture the full replacement of the 2" bare steel service line. Due to the decreased gas load, a meter and regulator setting replacement will be created and worked in conjunction with the service line replacement.	3800	\$ 1,661
514	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	5/13/2021	3721	054	012516	BS SL Replacement, 212 N Phelps, Bentley - Retire 20' of 2" BS service line with class 1 leak and as part of the bare steel replacement program. Install 20' of 2" PE main.Scope of Work: Retire: 20' of 2" BSInstall: 20' of 2" PE Pressure System SOP = 22 oz MAOP = 22 oz Justification: Repair class 1 leak.	3800	\$ 2,612
515	Bare Steel Service Replacement	K.S.A. 66-2202 and KCC Docket No. 11-KGS-177-TAR	6/2/2021	3721	054	012546	BS Service Line Replacement - 10412 E Central Ave, Wichita - Retire 60' of 2" BS SL as part of the bare steel service line replacement program. Retire 30' of 2" APCS main. Install 60' of 1.25" PE SL.	3800	\$ 2,512
	Bare Steel Service Replacement Total								\$ 248,692
516	Cathodic Protection	192.455 and/or 192.457	6/30/2021	3532	053	010063	Groundbed Replacement - 429 E 1st St, Willis - Retire exiting groundbed and rectifier due to depletion and compliance. Install new groundbed and rectifier. Project will install 3-(4x80) Anode Ground Bed drilled @ 15" on 20" centers.	3765	\$ 15,725
517	Cathodic Protection	192.455 and/or 192.457	4/1/2021	3911	053	010081	Main Replacment - Clark & Ellet, El Dorado - Retire 60' of UPBS and 10' of APCS due to electrical continuity with neighboring UPBS main. Install 70' of 2" PE main.This project will replace a short section of 2" CS that is unable to be mapped as protected coated steel since it is electrically contiguous with the neighboring unprotected bare steel. The work will replace the Clark Ave. road crossing.	3760	\$ 22,456
518	Cathodic Protection	192.455 and/or 192.457	4/1/2021	3911	053	010081	Main Replacment - Clark & Ellet, El Dorado - Retire 60' of UPBS and 10' of APCS due to electrical continuity with neighboring UPBS main. Install 70' of 2" PE main.This project will replace a short section of 2" CS that is unable to be mapped as protected coated steel since it is electrically contiguous with the neighboring unprotected bare steel. The work will replace the Clark Ave. road crossing.	3765	\$ 1,704
519	Cathodic Protection	192.455 and/or 192.457	4/1/2021	3911	053	010081	Main Replacment - Clark & Ellet, El Dorado - Retire 60' of UPBS and 10' of APCS due to electrical continuity with neighboring UPBS main. Install 70' of 2" PE main.This project will replace a short section of 2" CS that is unable to be mapped as protected coated steel since it is electrically contiguous with the neighboring unprotected bare steel. The work will replace the Clark Ave. road crossing.	3800	\$ 336
520	Cathodic Protection	192.455 and/or 192.457	4/27/2021	3651	053	010092	Retire 458 ft-2 in APBS. Osage & N 4th, Manhattan, KS. Install 485 ft 2 in PE. Unable to bring up low read on BS main so replacement is required.	3760	\$ 45,029
521	Cathodic Protection	192.455 and/or 192.457	4/27/2021	3651	053	010092	Retire 458 ft-2 in APBS. Osage & N 4th, Manhattan, KS. Install 485 ft 2 in PE. Unable to bring up low read on BS main so replacement is required.	3769	\$ 796
522	Cathodic Protection	192.455 and/or 192.457	4/27/2021	3651	053	010092	Retire 458 ft-2 in APBS. Osage & N 4th, Manhattan, KS. Install 485 ft 2 in PE. Unable to bring up low read on BS main so replacement is required.	3800	\$ 33,877
523	Cathodic Protection	192.455 and/or 192.457	4/20/2021	3521	053	010140	Greeley Ground Bed Replacement. The Rectifier and ground bed (REC-0523), in Greeley, Kansas has been depleted and needs to be replaced.	3765	\$ 15,113
524	Cathodic Protection	192.455 and/or 192.457	4/20/2021	3521	053	010140	Greeley Ground Bed Replacement. The Rectifier and ground bed (REC-0523), in Greeley, Kansas has been depleted and needs to be replaced.	3769	\$ 7,241
525	Cathodic Protection	192.455 and/or 192.457	4/1/2021	3741	053	010161	Depleted Groundbed Replacement - 151 E. Hwy 60, Harper - Retire existing groundbed due to CP deficiencies occurring from the depletion of the anodes within the existing groundbed. Install new groundbed and watering system.	3765	\$ 16,260
526	Cathodic Protection	192.455 and/or 192.457	4/1/2021	3741	053	010162	Groundbed Replacement & Rectifier Install - Ash & Maple, Douglass - Retire existing groundbed due to depletion. Install new rectifier unit, watering system, and shallow vertical groundbed.	3765	\$ 28,572
527	Cathodic Protection	192.455 and/or 192.457	4/1/2021	3761	053	010208	Groundbed & Rectifier Replacement - 9th St & Park Ave, Baxter Springs - Retire existing deep well groundbed and rectifier due to depletion from anodes. Install new groundbed and rectifier unit.	3765	\$ 75,389
528	Cathodic Protection	192.455 and/or 192.457	4/1/2021	3522	053	010853	Remove the deepwell rectifier bed. 75th & Monticello in Shawnee, KS. A conventional rectifier bed installed within an easement to replace the retired bed.	3765	\$ 30,647
529	Cathodic Protection	192.455 and/or 192.457	4/1/2021	3721	053	011266	Groundbed & Rectifier Unit Replacement - W. 35th St S & S Everett Ave, Wichita - Retire existing groundbed and rectifier unit due to depletion. Install 15-2660Z cast tubular anodes and one ASAI 40-40 ABCNRZ rectifier unit.	3765	\$ 29,619
530	Cathodic Protection	192.455 and/or 192.457	6/2/2021	3651	054	010150	Fort Riley Blvd and S. Juliette St - Manhattan, KS. Cathodic Protection. Retire: 248 feet of 2 inch BS Main and 70 feet of 2 inch CS Main. Install: 330 feet of 2 inch PE Main. Tie-over: 4 ea PE Service Lines.	3760	\$ 49,294
531	Cathodic Protection	192.455 and/or 192.457	6/2/2021	3651	054	010150	Fort Riley Blvd and S. Juliette St - Manhattan, KS. Cathodic Protection. Retire: 248 feet of 2 inch BS Main and 70 feet of 2 inch CS Main. Install: 330 feet of 2 inch PE Main. Tie-over: 4 ea PE Service Lines.	3800	\$ 16,661
532	Cathodic Protection	192.455 and/or 192.457	6/2/2021	3532	054	010300	Cathodic Protection: Install: 12-ft of 4-in CS main, 5-ft of 2-in CS main Retire: 12-ft of 4-in CS main, 5-ft of 2-in CS main At the intersection of Poplar and Liberty St. in Troy, KS, there is a break in the cathodic protection at a 3-way location. A leaking fitting was discovered in the same location and there is not enough room for a reinforcing sleeve. A permanent bypass will be built to resolve the leaking fitting and cathodic issues.	3765	\$ 6,502

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533	Cathodic Protection	192.455 and/or 192.457	1/29/2021	3631	054	010388	Main Replacement - Blanchard & Severance, Hutchinson - Retire 1,350' of 2" RPCS main due to malfunctioned rectifier causing sections of main to delaminate in spots. Install 650' of 4" PE and 200' of 2" PE main.	3760	\$ 33,294
534	Cathodic Protection	192.455 and/or 192.457	1/29/2021	3631	054	010388	Main Replacement - Blanchard & Severance, Hutchinson - Retire 1,350' of 2" RPCS main due to malfunctioned rectifier causing sections of main to delaminate in spots. Install 650' of 4" PE and 200' of 2" PE main.	3800	\$ 6,944
535	Cathodic Protection	192.455 and/or 192.457	9/16/2020	3631	054	010389	BS Main Replacement - E Ave E & Maple, Hutchinson - Retire 120' of 4" BS main due to cathodic deficiency. Install 120' of 2" PE main. 1 BS service line renewal.	3760	\$ 3,683
536	Cathodic Protection	192.455 and/or 192.457	9/21/2020	3631	054	010392	Groundbed Replacement - 14th & Plum, Hutchinson - Retire existing depleted grounded after identifying multiple deficiencies. Install new groundbed.	3765	\$ 23,410
537	Cathodic Protection	192.455 and/or 192.457	4/1/2021	3631	054	010393	Rectifier Replacement - Main & Mill, Arlington - Retire rectifier operating at extremely high temperatures and a failing selenium stack interference. Install new Universal rectifier and electrical service.	3765	\$ 8,443
538	Cathodic Protection	192.455 and/or 192.457	4/27/2021	3631	054	010394	Rectifier Replacement - 1st & Burns, Turon - Retire obsolete rectifier due to safety hazard that is unequipped with safety panel and ground settling issues. Install new Universal ASAI 40-40 ABCNZ rectifier and weatherproof electrical connection.	3765	\$ 6,726
539	Cathodic Protection	192.455 and/or 192.457	4/1/2021	3522	054	011372	Retire 275' of 2" CS. 4817 Dearborn St, Mission, KS. Install 200' of 2" PE main. Replace due to steel pipe deterioration and this section of coated steel main is exposed and contains a short in regards to cathodic protection.	3760	\$ 29,108
540	Cathodic Protection	192.455 and/or 192.457	4/1/2021	3522	054	011372	Retire 275' of 2" CS. 4817 Dearborn St, Mission, KS. Install 200' of 2" PE main. Replace due to steel pipe deterioration and this section of coated steel main is exposed and contains a short in regards to cathodic protection.	3800	\$ 12,256
541	Cathodic Protection	192.455 and/or 192.457	4/1/2021	3522	054	011561	Replace rectifier. 12th St & Kimball Ave, Kansas City, KS. The ground that feeds the 12th and Kimball rectifier has been depleted. Replace the ground bed.	3765	\$ 16,275
542	Cathodic Protection	192.455 and/or 192.457	1/15/2021	3631	056	010092	Cathodic Protection Anode Installations - Area between W 15th Ave & 16th Ave, Hutchinson. Install 16 anodes to satisfy the hot spot locations indicated during the 2019 cell to cell survey. The corrosion dept had a cell to cell electrical survey conducted in Hutchinson in 2019. In order to satisfy the 16 "hot spot" locations where a significant voltage change occurred 17# anodes will need to be installed.	3769	\$ 18,121
543	Cathodic Protection	192.455 and/or 192.457	4/20/2021	3651	056	010133	The WO is to install a 10-anode groundbed in the existing easement.-Approx. 135 ft groundbed dug 18 in wide and 7.5 ft deep.- Anodes will be spaced 15 ft apart, horizontally installed.-Splice into the existing positive cable on the groundbed and keep existing negative cable to the pipeline main. Rect. 0839 179' S of CL of Pierre St & 22' W of CL of 6th St. Instant off = -.896 Over polarization = -1.910. The groundbed has been depleted at the 6th St and Pierre St rectifier in Manhattan, KS. causing a corrosion CPI to be issued. The voltage of the rectifier is a maximum capacity. The amperage output has been gradually lowering in the last 6-7 months and is finally low enough where CP is under compliance in the areas that the rectifier covers.	3765	\$ 15,518
544	Cathodic Protection	192.455 and/or 192.457	2/25/2021	3721	056	010283	Install Groundbed & Rectifier Unit - Clark & Alley East of Main, Wichita - Install 12 2660 cast tubular anodes and new rectifier unit due to corrosion deficiencies and depletion of surrounding groundbeds. The corrosion department has active deficiencies unable to be cleared without additional current being supplied from the surrounding groundbeds. However, these groundbeds are depleted and have failed to supply adequate protection in this area. In addition, the inability to install deep wells has prompted the installation of a new groundbed and rectifier unit.	3765	\$ 41,662
545	Cathodic Protection	192.455 and/or 192.457	2/25/2021	3721	056	010284	Install Groundbed & Rectifier Unit - S. St Clair & W. Burton Ave, Wichita - Install 12 2660 cast tubular anodes and new rectifier unit due to corrosion deficiencies and depletion of surrounding groundbeds. The corrosion department has active deficiencies unable to be cleared without additional current being supplied from the surrounding groundbeds. However, these groundbeds are depleted and have failed to supply adequate protection in this area. In addition, the inability to install deep wells has prompted the installation of a new groundbed and rectifier unit.	3765	\$ 42,078
546	Cathodic Protection	192.455 and/or 192.457	11/30/2020	3522	056	010317	Install 44 mag anodes due to cathodic protection readings being low (reads below -0.85) on anode protected bare steel pipe. 80th St & Rosewood Dr, Prairie Village, KS.	3769	\$ 62,771
	Cathodic Protection Total								\$ 715,511
547	Continuing Surveillance	192.613 (b)	1/15/2021	3612	043	010152	Transmission Pipe Replacement - Between MP 12 & 13, Assaria - Retire 1,000' of 8" steel transmission line P0846 at risk of washout due to erosion from Smoky Hills River. Install, relocate and offset 1,000' of 8" FBE steel transmission pipe.	3670	\$ 204,263
548	Continuing Surveillance	192.613 (b)	6/30/2021	3612	043	010153	Survey Approximately 1800' for proposed replacement of Line P0446 (051.043.3612.010155). Job order will include exhibit drawings for ROW purchase/exchange, route drawings, and profiles of all directionally bored. This JO will also cover costs for purchase/exchange of ROW and permitting required to begin construction. Marshall County.	3670	\$ 25,280
549	Continuing Surveillance	192.613 (b)	6/30/2021	3612	043	010153	Survey Approximately 1800' for proposed replacement of Line P0446 (051.043.3612.010155). Job order will include exhibit drawings for ROW purchase/exchange, route drawings, and profiles of all directionally bored. This JO will also cover costs for purchase/exchange of ROW and permitting required to begin construction. Marshall County.	3690	\$ 373
550	Continuing Surveillance	192.613 (b)	6/30/2021	3612	043	010153	Survey Approximately 1800' for proposed replacement of Line P0446 (051.043.3612.010155). Job order will include exhibit drawings for ROW purchase/exchange, route drawings, and profiles of all directionally bored. This JO will also cover costs for purchase/exchange of ROW and permitting required to begin construction. Marshall County.	3800	\$ 3,842
551	Continuing Surveillance	192.613 (b)	6/30/2021	3612	043	010153	Survey Approximately 1800' for proposed replacement of Line P0446 (051.043.3612.010155). Job order will include exhibit drawings for ROW purchase/exchange, route drawings, and profiles of all directionally bored. This JO will also cover costs for purchase/exchange of ROW and permitting required to begin construction. Marshall County.	3820	\$ 306
552	Continuing Surveillance	192.613 (b)	6/24/2021	3612	043	010155	Replace and offset approximately 2000' of pipeline P0446 from Blue Rapids to Waterville KS that is at risk of wash out due to erosion from heavy rains in the wetlands near the Big Blue River. Install 2000' of 4.500"OD X .237WT, A15L-X52, ERW, DRL, FBE Steel Pipe. The existing pipeline is on the bank of a sand pit with a 40-foot elevation change. This bank has been washing out during the rainy seasons nearly exposing the 4-inch pipeline. If the erosion continues the pipeline could fall into the steep drop off leading to large amount of external stress on the pipe. This replacement will offset the existing pipeline 130' to the north to remove the pipeline from the bank.	3670	\$ 267,258

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
553	Continuing Surveillance	192.613 (b)	6/24/2021	3612	043	010155	Replace and offset approximately 2000' of pipeline P0446 from Blue Rapids to Waterville KS that is at risk of wash out due to erosion from heavy rains in the wetlands near the Big Blue River. Install 2000' of 4.500"OD X .237WT, A15L-X52, ERW, DRL, FBE Steel Pipe. The existing pipeline is on the bank of a sand pit with a 40-foot elevation change. This bank has been washing out during the rainy seasons nearly exposing the 4-inch pipeline. If the erosion continues the pipeline could fall into the steep drop off leading to large amount of external stress on the pipe. This replacement will offset the existing pipeline 130' to the north to remove the pipeline from the bank.	3690	\$ 3,940
554	Continuing Surveillance	192.613 (b)	6/24/2021	3612	043	010155	Replace and offset approximately 2000' of pipeline P0446 from Blue Rapids to Waterville KS that is at risk of wash out due to erosion from heavy rains in the wetlands near the Big Blue River. Install 2000' of 4.500"OD X .237WT, A15L-X52, ERW, DRL, FBE Steel Pipe. The existing pipeline is on the bank of a sand pit with a 40-foot elevation change. This bank has been washing out during the rainy seasons nearly exposing the 4-inch pipeline. If the erosion continues the pipeline could fall into the steep drop off leading to large amount of external stress on the pipe. This replacement will offset the existing pipeline 130' to the north to remove the pipeline from the bank.	3800	\$ 40,613
555	Continuing Surveillance	192.613 (b)	6/24/2021	3612	043	010155	Replace and offset approximately 2000' of pipeline P0446 from Blue Rapids to Waterville KS that is at risk of wash out due to erosion from heavy rains in the wetlands near the Big Blue River. Install 2000' of 4.500"OD X .237WT, A15L-X52, ERW, DRL, FBE Steel Pipe. The existing pipeline is on the bank of a sand pit with a 40-foot elevation change. This bank has been washing out during the rainy seasons nearly exposing the 4-inch pipeline. If the erosion continues the pipeline could fall into the steep drop off leading to large amount of external stress on the pipe. This replacement will offset the existing pipeline 130' to the north to remove the pipeline from the bank.	3820	\$ 3,239
556	Continuing Surveillance	192.613 (b)	12/14/2020	3685	044	010132	Replace Approx 10 MI of line 0843 MP 1 to MP 10. Install: 45708' – 8" 0.188 WT API-5L X-52 ERW FBE, 1975' – 8" 0.219 WT API-5L X-52 ERW FBE ARO, 926' – 8" 0.250 WT API-5L X-52 ERW FBE ARO. Retire: 48590' – 8" Coal Tar	3670	\$ 5,420,997
557	Continuing Surveillance	192.613 (b)	12/14/2020	3685	044	010132	Replace Approx 10 MI of line 0843 MP 1 to MP 10. Install: 45708' – 8" 0.188 WT API-5L X-52 ERW FBE, 1975' – 8" 0.219 WT API-5L X-52 ERW FBE ARO, 926' – 8" 0.250 WT API-5L X-52 ERW FBE ARO. Retire: 48590' – 8" Coal Tar	3690	\$ 14,113
558	Continuing Surveillance	192.613 (b)	9/21/2020	3685	044	010137	Survey Work, ROW Purchase, & Permitting - Calista Compressor Station to Hwy 54 - Survey work, exhibit drawings for ROW purchase, route drawings, and profiles needed for the proposed 5,000' replacement of transmission line of P1604. KINGMAN COUNTY (051.047.3671.010032)	3670	\$ 46,378
559	Continuing Surveillance	192.613 (b)	5/20/2021	3685	044	010138	Survey Work, ROW Purchase & Permitting - Larned - Survey obtain permits, & purchase/exchange ROW for the replacement of Phase II of the Greensburg line P0843 due to poor pipe conditions with a history of weld leaks. This project will also provide funds for permit acquisition, archaeological surveys, and ROW acquisition and exchange. (051.044.3685.010145)	3652	\$ 182,971
560	Continuing Surveillance	192.613 (b)	4/20/2021	3685	044	010145	Vintage Pipe Replacement - Larned - Retire 4 miles of vintage transmission pipe on line P0843 with insufficient MAOP documentation, signs of internal corrosion, poorly bonded coal tar coating and multiple weld repairs from leaks. Install 4 miles of 8.625-inch, 0.219 wt, API-5L X52, ERW, DRL, FBE steel pipe.	3670	\$ 2,153,240
561	Continuing Surveillance	192.613 (b)	4/20/2021	3685	044	010145	Vintage Pipe Replacement - Larned - Retire 4 miles of vintage transmission pipe on line P0843 with insufficient MAOP documentation, signs of internal corrosion, poorly bonded coal tar coating and multiple weld repairs from leaks. Install 4 miles of 8.625-inch, 0.219 wt, API-5L X52, ERW, DRL, FBE steel pipe.	3690	\$ 2,391
562	Continuing Surveillance	192.613 (b)	4/20/2021	3685	044	010145	Vintage Pipe Replacement - Larned - Retire 4 miles of vintage transmission pipe on line P0843 with insufficient MAOP documentation, signs of internal corrosion, poorly bonded coal tar coating and multiple weld repairs from leaks. Install 4 miles of 8.625-inch, 0.219 wt, API-5L X52, ERW, DRL, FBE steel pipe.	3800	\$ 28,393
563	Continuing Surveillance	192.613 (b)	2/25/2021	3612	044	010356	Survey Work, ROW Purchase, & Permitting - Clifton - Survey, obtain permits, and purchase/exchange right of way for the replacement of line P1004 due to insufficient records, poor quality welds, and unnecessary casing. This job will provide route drawings, bore profiles, and exhibit drawings for the replacement of line P1004 (approx. 250ft). Existing ROW will be used where possible. The line runs from a Northern Natural Gas receipt point and through their compressor facility. Due to the amount of potential crossings and past experience with landowners in the area, this job is being written to provide a survey of the existing and proposed routes, and any necessary acquisition/exchange of Rights of Way.	3652	\$ 9,631
564	Continuing Surveillance	192.613 (b)	4/20/2021	3612	044	010363	Vintage Pipe Replacement - Clifton - Retire 250' of vintage 1950's 10" transmission pipe due to girth welds covered with arc burns, lack of grade and longitudinal seam information. Install 250' of 10" transmission pipe.	3670	\$ 388,923
565	Continuing Surveillance	192.613 (b)	5/25/2021	3612	044	010365	Survey Work, ROW Purchase, & Permitting - Hope - Survey, obtain permits, and purchase/exchange right of way for the replacement of 700' of line P0228 due to insufficient pressure test and mill test report documentation on vintage 1928 & 1969 steel main. Dickinson County	3670	\$ 18,600
566	Continuing Surveillance	192.613 (b)	1/29/2021	3612	044	010366	Survey Work, ROW Purchase, and Permitting - Assaria River Offset - Survey work, exhibit drawings for ROW purchase, route drawings, and profiles needed for the proposed replacement of 1000' transmission line P0846 to Assaria. Salina County. (051.043.3612.010152)	3670	\$ 21,323
567	Continuing Surveillance	192.613 (b)	6/24/2021	3612	044	010368	Obsolete Transmission Pipe Replacement - LINEP0228 To Hope -Retire 700' of vintage 2" transmission pipe. Install 700' of 2.375OD X .218 WT, API5L X52, ERW, DRL, FBE steel pipe. This replacement is to remove 1928 and 1969 vintage steel natural gas pipeline to Hope Kansas in Dickinson County.	3670	\$ 111,692
568	Continuing Surveillance	192.613 (b)	6/30/2021	3612	044	010370	Obsolete Transmission Pipe Replacement - LINEP0218 To Axtell - Retire 1,800' of vintage 2" transmission pipe. Install 1,800' of 2.375OD X .218 WT, API5L X52, ERW, DRL, FBE steel pipe. This replacement is to remove 1931 and 1958 vintage steel natural gas transmission pipeline to Axtell Kansas in Marshall County.	3670	\$ 205,621
569	Continuing Surveillance	192.613 (b)	9/14/2020	3761	053	010212	UPCS Yard Line Replacement - 1600 S Homer, Pittsburg - Retire 130' of 3" UPCS yard line due to meter setting relocation. Install 130' of 4" PE service line.	3800	\$ 4,010
570	Continuing Surveillance	192.613 (b)	9/14/2020	3761	053	010212	UPCS Yard Line Replacement - 1600 S Homer, Pittsburg - Retire 130' of 3" UPCS yard line due to meter setting relocation. Install 130' of 4" PE service line.	3805	\$ 670
571	Continuing Surveillance	192.613 (b)	6/21/2021	3541	053	010371	1617 SW Knollwood Dr, Topeka, KS - Retire 215 feet 2 inch APCS main. Install 210 feet 2 inch PE main. This project is to address a shallow main issue on Knollwood Dr. The pipeline is only 10 inches deep at points along the line. 1 PE Service Line will be tied over.	3760	\$ 20,458

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
572	Continuing Surveillance	192.613 (b)	6/30/2021	3541	053	010373	1615 SW Withdean Rd, Topeka, KS - Retire 135 feet 2 inch APCS. Install 375 feet 2 inch PE main. This project is being completed due to a shallow main issue that was discovered in the easement behind 1615 SW Withdean Rd, as the pipe was only found to be only 13 inches deep in some places. Project will install 2 2 inch 3-Way Tees on lines 051.055.3541.010036 and 761085. 3 PE service lines.	3760	\$ 32,447
573	Continuing Surveillance	192.613 (b)	8/4/2020	3522	053	011087	Somerset Dr West of Mission - To Install: 40' 2" PE Main. To Retire: 40' 4" CS Main. This work is being done to replace a section of 4" CS main that has an old service line tap on it. The old SL tap is welded directly to the main. The new main will be installed to eliminate the old service line tap.	3760	\$ 13,392
574	Continuing Surveillance	192.613 (b)	4/1/2021	3721	053	011320	Main Replacement - 1401 S Anna, Wichita - Retire 5' of 2" APCS main after crews uncovered homemade "Y" fitting while renewing BS service lines at the above address. Install 20' of 2" PE main.	3760	\$ 4,980
575	Continuing Surveillance	192.613 (b)	5/25/2021	3522	053	011467	Kimberly Ln - Little Mill Creek Crossing - Shawnee, KS. Deteriorated Main. Retire: 300 feet of 2 inch CS Main. Install : 300 feet of 2 inch CS Main. This work is being done to replace the Little Mill Creek crossing at Kimberly Ln. The existing 2" CS main came apart under the creek and caused an outage for the 12 customers that live south of the creek.	3800	\$ 35,986
576	Continuing Surveillance	192.613 (b)	1/29/2021	3651	054	010143	Wamego: Replace 171 feet of 4-inch APCS bridge crossing on Old Military Trail (between Marsha Ln & Cat Creek) by boring with 450 feet of 3-inch PE (in a 6-inch casing) due to atmospheric corrosion/deterioration discovered during pipeline patrolling. Currently the steel pipe is hanging on the bridge open to the elements.	3760	\$ 41,397
577	Continuing Surveillance	192.613 (b)	10/27/2020	3635	054	010207	Main Replacement - S Coronado Ave & W Grant St, Lindsborg DRS 002 - Retire 40' of 4" RPCS main, 40' of 2" RPCS main, one 4" valve and four 2" valves due to leaking above ground flange. Install 40' of 4" RPCS main, 40' of 2" of RPCS main and one 2" gate valve.	3765	\$ 14,848
578	Continuing Surveillance	192.613 (b)	9/14/2020	3635	054	010208	Main Replacement - 14th & Crestview, McPherson - Retire 40' of 2" APCS and 40' of 2" PE main to abandon a leaking above ground hairpin. Install 80' of 2" PE main. An above ground hairpin developed a class 3 leak which needs permanently repaired via a main replacement. (LK2020-10097314)	3760	\$ 5,525
579	Continuing Surveillance	192.613 (b)	1/15/2021	3761	054	010304	Pittsburg - 2906 S Rouse - Abandon 5' of APCS KGS Crews will Abandon 5' of APCS and Install 10' of APCS. The service line tap at 2906 S Rouse was snagged at some point and KGS Crews have located a leak. Leak Number: LK2020-1000985498	3765	\$ 6,297
580	Continuing Surveillance	192.613 (b)	9/16/2020	3761	054	010306	CS Main Replacement - E. 11th St and S. Wood St, Galena - Retire 6' of 2" RPCS main due to leaking valve on existing main segment. Install 10' of 2" RPCS main.	3765	\$ 9,062
581	Continuing Surveillance	192.613 (b)	6/24/2021	3761	054	010312	Arma - N 8th Street and W South Street - Abandon 4' - 4" RPCS and 4' of 2" RPCS - Install 10' of 2" RPCS. KGS Crews located a class 1 Leak on this section of pipe	3765	\$ 2,665
582	Continuing Surveillance	192.613 (b)	6/2/2021	3761	054	010318	Main Replacement - 305 E Willow, Girard - Retire 35' of 4" RPCS main due to leaking fittings and pipe stub. Install 40' of 6" RPCS main.	3765	\$ 15,046
583	Continuing Surveillance	192.613 (b)	6/24/2021	3761	054	010320	Pittsburg - 651 S US 69 Highway - Crawford County Historical Society - Install approximately 30' of 2" APCS and Abandon approximately 25' of 2" APCS Service Line: 684542 - 651 S US Highway 69. Leak on this section of pipe. LK2021-10056356. The leak is on the service line tap which is located underneath a historic steam shovel at this location for display. KGS Crews will repair the leak and relocate the service farther to the north. The meter is actually north of where the map indicates so this repair will also correct the old offset service line.	3765	\$ 3,826
584	Continuing Surveillance	192.613 (b)	6/24/2021	3761	054	010320	Pittsburg - 651 S US 69 Highway - Crawford County Historical Society - Install approximately 30' of 2" APCS and Abandon approximately 25' of 2" APCS Service Line: 684542 - 651 S US Highway 69. Leak on this section of pipe. LK2021-10056356. The leak is on the service line tap which is located underneath a historic steam shovel at this location for display. KGS Crews will repair the leak and relocate the service farther to the north. The meter is actually north of where the map indicates so this repair will also correct the old offset service line.	3800	\$ 1,878
585	Continuing Surveillance	192.613 (b)	4/1/2021	3631	054	010376	Main Abandonment - Plum and Ave F, Hutchinson - Retire 90' of 2" MDPE and 100' of 4" APCS main to eliminate an exposed creek crossing no longer needed. Install 60' of 2" PE main.	3760	\$ 4,022
586	Continuing Surveillance	192.613 (b)	4/1/2021	3631	054	010376	Main Abandonment - Plum and Ave F, Hutchinson - Retire 90' of 2" MDPE and 100' of 4" APCS main to eliminate an exposed creek crossing no longer needed. Install 60' of 2" PE main.	3769	\$ 392
587	Continuing Surveillance	192.613 (b)	10/23/2020	3541	054	010667	Eugene & Williams Topeka, KS. This work order is for the replacement of 10-feet of 2-inch coated steel pipe at Eugene and Williams in Topeka, KS due to a leaking fitting. This pipe is 1968 vintage. The leak is class 3. The pipe will be replaced using couplings and reinforcing sleeves. Leak #: LK2019-10129438	3765	\$ 3,527
588	Continuing Surveillance	192.613 (b)	8/14/2020	3541	054	010681	Kill 40' - 4" CS. Install 40' - 4" CS. NPL was preparing an abandonment in the rear easement of 225 NW Menninger Rd and discovered a bad coupling. Since we cannot put a sleeve on it, we will cut out a section of main and replace it with (2) 4" - 3 way tees and (2) 4" - 90 elbows to create a dog leg.	3765	\$ 25,766
589	Continuing Surveillance	192.613 (b)	4/27/2021	3541	054	010692	Retire 246 feet of 2" RPCS main and 75 feet of 4" RPCS main. 310 SE 21st, Topeka KS. Install 325 feet of 2" MDPE main. This job will replace a 2" section of RPCS that is too deep to repair a leak LK 2018-10063774. The new 2" PE will follow the grade instead of boring straight through the hill.	3760	\$ 20,027
590	Continuing Surveillance	192.613 (b)	4/27/2021	3541	054	010692	Retire 246 feet of 2" RPCS main and 75 feet of 4" RPCS main. 310 SE 21st, Topeka KS. Install 325 feet of 2" MDPE main. This job will replace a 2" section of RPCS that is too deep to repair a leak LK 2018-10063774. The new 2" PE will follow the grade instead of boring straight through the hill.	3765	\$ 4,840
591	Continuing Surveillance	192.613 (b)	4/27/2021	3541	054	010692	Retire 246 feet of 2" RPCS main and 75 feet of 4" RPCS main. 310 SE 21st, Topeka KS. Install 325 feet of 2" MDPE main. This job will replace a 2" section of RPCS that is too deep to repair a leak LK 2018-10063774. The new 2" PE will follow the grade instead of boring straight through the hill.	3800	\$ 10,359
592	Continuing Surveillance	192.613 (b)	4/1/2021	3522	054	011393	Retire 1600' 6" CS. Shawnee Mission Pkwy and Vista Dr, Shawnee, KS. Install 1900' 6" CS main. The existing 6" CS main crossing Mill Creek is exposed due to creek erosion and needs replaced. The new main will be bored below the creek.	3765	\$ 359,624
593	Continuing Surveillance	192.613 (b)	4/1/2021	3522	054	011393	Retire 1600' 6" CS. Shawnee Mission Pkwy and Vista Dr, Shawnee, KS. Install 1900' 6" CS main. The existing 6" CS main crossing Mill Creek is exposed due to creek erosion and needs replaced. The new main will be bored below the creek.	3769	\$ 924

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
594	Continuing Surveillance	192.613 (b)	5/25/2021	3522	054	011576	Renner Rd and Little Mill Creek - Shawnee, KS. Exposed Pipe. Retire: 700 feet of 4 inch PE Main. Install: 700 feet of 3 inch PE Main encased in 700 feet of 6 inch PE Main. This project is to eliminate an AOC on a section of 4" PE main crossing Little Mill Creek on Renner Rd. A section of main has washed out creating an exposure and is also catching debris in the creek. A full creek bore of 3" PE encased in 6" PE will be required to eliminate the AOC.	3760	\$ 180,991
595	Continuing Surveillance	192.613 (b)	1/20/2021	3721	054	012453	Service Line Relocation - 5005 E 21st St N, Wichita - Retire 139' of 1.25" PE service line to replace leaking yard line. Install 260' of 2" PE main as a safety measure due to depth of service line. Worked in conjunction with the obsolete meter setting at the same address.	3760	\$ 4,542
596	Continuing Surveillance	192.613 (b)	1/20/2021	3721	054	012453	Service Line Relocation - 5005 E 21st St N, Wichita - Retire 139' of 1.25" PE service line to replace leaking yard line. Install 260' of 2" PE main as a safety measure due to depth of service line. Worked in conjunction with the obsolete meter setting at the same address.	3800	\$ 2,228
597	Continuing Surveillance	192.613 (b)	1/20/2021	3721	054	012457	Retire: 1" SL and leaking BS/Aldyl-A yardline. Install: 300' of 2" PE SL. A leak was found on the Aldyl-A yardline (LK2020-10232871). KGS will replace the YL by moving the property line meter up to the building and installing a new 2" PE SL.	3800	\$ 22,983
598	Continuing Surveillance	192.613 (b)	1/20/2021	3721	054	012457	Retire: 1" SL and leaking BS/Aldyl-A yardline. Install: 300' of 2" PE SL. A leak was found on the Aldyl-A yardline (LK2020-10232871). KGS will replace the YL by moving the property line meter up to the building and installing a new 2" PE SL.	3805	\$ 3,838
599	Continuing Surveillance	192.613 (b)	4/1/2021	3721	054	012508	Service Line Replacement - 300 E 27th, Newton - Retire 10' 3" RPCS service line and 3" valve due the unrepairable-leaking valve on the existing service line. Install 10' of 2" RPCS service line. Scope of Work: Retire: 10' of 3" RPCS and 3" ValveInstall: 10' of 2" RPCS Pressure System SOP = 51 PSIG MAOP = 58 PSIG Justification: LK2021-10009477 Remove leaking valve that could not be repaired. G	3765	\$ 7,128
	Continuing Surveillance Total								\$ 10,017,063
600	Physical Security	K.S.A. 66-2202	9/24/2020	3557	094	010439	Physical Security - Topeka Information Center -Install privacy fence along south property line on the west side of the building. Existing fence is 15 years old. Age, weather, and acts of nature have taken its toll. When evaluated it was deemed that this fence does need to stay in place to create a privacy block from the private property on the south	3901	\$ 6,705
601	Physical Security	K.S.A. 66-2202	12/21/2020	3557	094	010446	Security Enhancements - Emporia Service Center - Emporia SC needs access control and surveillance to help bring it up to the ONEGas standards. Door status will be installed to monitor activity for access control and intrusion system. PSEC will add cameras with custom analytics to watch areas and items of interest that will verify items moving and create timestamps with surveillance over two areas of storage. General warehouse surveillance coverage will be added as well. Added electronic access control for the warehouse gate will enforce area to be more secure and create auditability.	3901	\$ 27,749
602	Physical Security	K.S.A. 66-2202	12/21/2020	3557	094	010454	Security Enhancements - Salina Service Center - Salina SC needs access control additions to improve its safety and security posture by bringing it up to the ONEGas standards. Additional doors and gates will be access controlled into yard, office and warehouse areas. Addition of pedestrian gate will force traffic from vehicle gates to a safer entry point into storage yard / building. Addition of vehicle gate pedestal with intercom and camera will allow verbal and visual verification with remote gate release for entry into the yard. Door status additions will be installed to provide monitoring and auditability for access control and intrusion systems. Warehouse and storage areas are a shared space with Westar, added electronic access control for the warehouse gate will enforce area to be more secure and create auditability.	3901	\$ 30,050
603	Physical Security	K.S.A. 66-2202	12/21/2020	3557	094	010458	Security Enhancements - Overland Park Division Office - Overland Park Division office currently does not have camera coverage for the areas occupied by Gas Control and support staff. ONEGas is a tenant in a multi-tenant building so we cannot control the flow of traffic in and out of the building, only our secured areas. The addition of 10 cameras positioned strategically throughout the areas occupied by ONEGas will assist in providing critical visibility for the local security guard, create incident response as well provide live monitoring events at the site.	3901	\$ 9,283
604	Physical Security	K.S.A. 66-2202	12/22/2020	3557	094	010463	Physical Security - KGS KCK Fleet Garage Upgrade - To keep from adding a cyber security vulnerability a standardized video decoder will be installed that will pull live streams directly from cameras to avoid running through a PC. This will give needed visibility to shop employees for anyone at either the gate or read entry door. While employees are working in the shop and delivery or contractors show up, they will be able to verify those personnel before letting them onsite. This project would include a decoder, monitor, and cable for the installation. This would show 4 cameras would be specific to the gate and 2 exterior views.	3901	\$ 3,733
	Physical Security Total								\$ 77,520
605	Pipeline System Components	K.S.A. 66-2202	6/24/2021	3685	043	010103	Replacement/Modification for Residential Rural Taps - Southern half of Kansas - To comply with PHMSA's release of CFR 49 192.740 requiring a 3 year inspection on all residential rural farm taps modification or full replacements were be made to the remaining single service settings. Modify, inspect, and/or replace 30 single service transmission taps. Phase 2 of a two-year project.	3690	\$ 46,504
606	Pipeline System Components	K.S.A. 66-2202	10/2/2020	3685	043	010107	Odorizer Upgrade - Greensburg CTM, Greensburg - Upgrade and reconfigure odorizer due to antiquated Linc pump tap-locations creating sediment buildup and blockage at the bottom of the exiting tank. Install a nitrogen blank system to pressurize tank. The existing 1/4" Linc pumps are no longer in production and the existing plumbing is tapped at the bottom of the tank resulting in sediment buildup and blockage.	3690	\$ 27,472
607	Pipeline System Components	K.S.A. 66-2202	6/30/2021	3612	043	010140	Replacement/Modification for Residential Rural Taps - Northern half of Kansas - To comply with PHMSA's release of CFR 49 192.740 requiring a 3 year inspection on all residential rural farm taps modification or full replacements were to be made to the remaining single service settings. Modify, inspect, and/or replace 53 single service transmission taps. Phase 2 of a two-year project.	3690	\$ 95,646
608	Pipeline System Components	K.S.A. 66-2202	4/20/2021	3612	043	010160	Obsolete Relief Valve Replacement - Lindsborg Mainline Regulator Setting X0489 - Retire relief valve not able to be calibrated and no longer holding correct set point. Install Fisher 1" MR98HH relief valve. Replace inoperable relief valve at Lindsborg Mainline Regulator setting X0489. The relief valve is factor calibration and can not be service by field technician. During recent inspection, the relief valve was found to not be able to hold the correct set point, since the relief valve cannot be calibrated by field personnel it will be replaced.	3690	\$ 3,984
609	Pipeline System Components	K.S.A. 66-2202	6/24/2021	3612	043	010163	Valve Replacement - Western Power Plant, Clifton - Retire obsolete 8" wafer style valve at gate setting due to leak and station pipping. Install 8" flanged Balon ball valve and new station piping. LK2020-10111724	3670	\$ 29,879

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
610	Pipeline System Components	K.S.A. 66-2202	6/24/2021	3685	044	010150	Check Valve Replacement- IACX Energy Interconnect, Otis - Replace inlet check valve due to sustained damage to sealing o-ring. Install new check valve. Replace the inlet check valve on the IACX Interconnect A1041 Station. During an inspection due to upsets with the upstream IACX system, the valve was found to have sustained damage to the sealing o-ring.	3690	\$ 2,761
611	Pipeline System Components	K.S.A. 66-2202	11/30/2020	3612	046	010127	Rectifier Interrupter Purchase & Installation - Abilene Area Transmission - Purchase and install rectifier interrupters to improve accuracy during over-line surveys, allow for automatic integrated interruption, and remote monitoring of rectifiers. Additionally, the interrupters will prevent the need to rely on third party hardware attached to the rectifiers during electric surveys, and allow for remote monitoring of rectifiers by area corrosion specialists. This is the third phase of a project to install interrupters across the entire system.	3670	\$ 50,189
612	Pipeline System Components	K.S.A. 66-2202	10/19/2020	3685	046	010210	Install Rectifier Interrupters - Pratt Transmission, Pratt - Install rectifier interrupters to increase accuracy during over-line electric surveys, allow for remote monitoring by corrosion specialists, and reduce the need for third party hardware during electric surveys. Phase 3 of interrupter insulation across the entire Pratt area Transmission system. Additionally, the interrupters will prevent the need to rely on third party hardware attached to the rectifiers during electric surveys, and allow for remote monitoring of rectifiers by area corrosion specialists.	3670	\$ 117,354
613	Pipeline System Components	K.S.A. 66-2202	4/20/2021	3685	046	010212	Equalizer Line Installation - Pratt - Install equalizer lines consisting of 2.375-inch 0.154 WT API-5L X-52 ERW pipe with ANSI 600 weld end valves and standard wall fittings. Equalizer lines will aid with pigging operations of line P2002 and the launcher will allow for controlled launch and prevent speed excursions at the beginning of the pig runs. The equalizer line on the receiver will allow for safer receipt of the pig by eliminating pressure differentials that may cause unwanted movement within the receiver barrel.	3670	\$ 51,305
614	Pipeline System Components	K.S.A. 66-2202	6/15/2021	3685	046	010215	Install equalizer lines on the launcher and receiver for line P2009 at MP 34 within the Calista Compressor Station yard. The equalizer lines will aid in pigging operations of line P2009 by allowing for a more controlled launch and prevent speed excursions at the beginning of pig runs. The receiver at the Hutchinson Compressor Station already has an equalizer line installed.	3670	\$ 23,383
615	Pipeline System Components	K.S.A. 66-2202	4/20/2021	3671	047	010032	Relief Valve Replacement - Calista Compressor Station - Retire existing 1" Fisher 1805-1 warning relief due to valve not maintaining its set point. Install 1" Fisher MR98H relief valve. Field personnel have reported that the existing 1" Fisher 1805-1 warning relief is not maintaining its set point properly. Mechanical disturbances cause the set point to shift either higher or lower than the intended setting.	3680	\$ 2,604
616	Pipeline System Components	K.S.A. 66-2202	6/30/2021	3542	053	010045	Upgrade SCADA equipment at 5 Sites in Emporia. The five sites are: Menu Foods Chestnut High Chestnut Low KOA Campground Emporia State University. No lightning protection/isolation on the devices Replace the 2G/3G Cell Modems (IT covering the cost of the modems) No battery backup in existing installation No power monitoring in existing installation Rectify NEC code violations/safety concerns of current installation.	3970	\$ 13,255
617	Pipeline System Components	K.S.A. 66-2202	6/2/2021	3642	053	010108	Odorizer - Formoso & Montrose, KS - Retire existing obsolete odorizer and Daniel's orifice plate from Southern Star's supply line to KGS towns of Formoso and Montrose. Install liquid injector odorizer and associated odorizer equipment. KGS will replace the odorizer that odorizes Southern Star's line that only supplies KGS's towns of Formoso and Montrose, KS which are near Mankato, KS. KGS will be installing a liquid injection odorizer due to no pressure differential. Existing odorizer and Daniels orifice plate method of odorization are obsolete and do not provide adequate odorization during the summer months.	3790	\$ 15,192
618	Pipeline System Components	K.S.A. 66-2202	6/2/2021	3642	053	010108	Odorizer - Formoso & Montrose, KS - Retire existing obsolete odorizer and Daniel's orifice plate from Southern Star's supply line to KGS towns of Formoso and Montrose. Install liquid injector odorizer and associated odorizer equipment. KGS will replace the odorizer that odorizes Southern Star's line that only supplies KGS's towns of Formoso and Montrose, KS which are near Mankato, KS. KGS will be installing a liquid injection odorizer due to no pressure differential. Existing odorizer and Daniels orifice plate method of odorization are obsolete and do not provide adequate odorization during the summer months.	3970	\$ 102,414
619	Pipeline System Components	K.S.A. 66-2202	8/28/2020	3761	053	010214	Obsolete Buried Valve Replacement - 511 Northwestern, Girard - Retire 5' of 3" RPCS main due to uncovered obsolete buried valve. Install 10' of 3" RPCS main. There is a service line on this section of pipe.	3765	\$ 5,174
620	Pipeline System Components	K.S.A. 66-2202	4/1/2021	3721	053	010794	SCADA & Odorization Upgrades - South TBS, Wichita - Retire obsolete measurement, SCADA and odorization equipment. Install new SCADA, measurement equipment, and odorizer. Odorizer systems have diagnostic capabilities to alert Gas Control/Field ops of odorization malfunction failure. Current odorizers do not have any diagnostic capabilities. Enables real-time monitoring of gas quality coming into our system. Retire the problematic run-switching controls currently in place.	3769	\$ 6,748
621	Pipeline System Components	K.S.A. 66-2202	4/1/2021	3721	053	010794	SCADA & Odorization Upgrades - South TBS, Wichita - Retire obsolete measurement, SCADA and odorization equipment. Install new SCADA, measurement equipment, and odorizer. Odorizer systems have diagnostic capabilities to alert Gas Control/Field ops of odorization malfunction failure. Current odorizers do not have any diagnostic capabilities. Enables real-time monitoring of gas quality coming into our system. Retire the problematic run-switching controls currently in place.	3780	\$ 89,950
622	Pipeline System Components	K.S.A. 66-2202	4/1/2021	3721	053	010794	SCADA & Odorization Upgrades - South TBS, Wichita - Retire obsolete measurement, SCADA and odorization equipment. Install new SCADA, measurement equipment, and odorizer. Odorizer systems have diagnostic capabilities to alert Gas Control/Field ops of odorization malfunction failure. Current odorizers do not have any diagnostic capabilities. Enables real-time monitoring of gas quality coming into our system. Retire the problematic run-switching controls currently in place.	3970	\$ 61,621
623	Pipeline System Components	K.S.A. 66-2202	4/1/2021	3531	054	010101	Retire 6' of 2" CS main and 2" RI valve. 10th Ave & Kansas St, Leavenworth, KS. Install a 6' section of 2" CS main and 2" gate valve. There is a class 2 leak on the valve and the crews attempted to repair the leaking valve but were unsuccessful so the valve must be replaced.	3765	\$ 4,640
624	Pipeline System Components	K.S.A. 66-2202	10/23/2020	3542	054	010199	Retire two 2" gate valves. W Maple St and Commercial St, Hartford, KS. Install two 2" gate valves. The valves are being replaced due to the valves being non operable (one is ceased and won't turn and the other is broken and leaking).	3765	\$ 11,519
625	Pipeline System Components	K.S.A. 66-2202	2/23/2021	3622	054	010273	Obsolete Valve Replacement - 8th & New, 8th & Washington, Pratt - Retire two inoperable 2" steel gate valves.	3765	\$ 9,288
626	Pipeline System Components	K.S.A. 66-2202	2/23/2021	3622	054	010273	Obsolete Valve Replacement - 8th & New, 8th & Washington, Pratt - Retire two inoperable 2" steel gate valves.	3769	\$ 1,895
627	Pipeline System Components	K.S.A. 66-2202	1/29/2021	3641	054	010389	Replace faulty 4" PE inlet remote valve at station 33, Republic & Pearl. Valve leaks through stem when closed.	3760	\$ 2,608
628	Pipeline System Components	K.S.A. 66-2202	1/29/2021	3641	054	010389	Replace faulty 4" PE inlet remote valve at station 33, Republic & Pearl. Valve leaks through stem when closed.	3820	\$ 2,025

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
640	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	1/29/2021	3685	043	010110	Obsolete Regulator Replacement - Hardtner TBS - Retire two obsolete Fisher 630 "Big Joe" regulators due to declining inlet pressures. Install two 2" Sensus 461-575 regulators in an operator-monitor configuration. The inlet pressures at the Hardtner TBS are dropping as the Oneok well system that feeds the town loses capacity. Recently the pressures have dropped as low as 27 psig, within 2 psi of the 25 psig set point.	3690	\$ 24,444
641	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	1/15/2021	3685	043	010112	Obsolete Meter & Electronic Controller - Pratt CTM - Retire antiquated ultrasonic meter and electronic controllers as parts are no longer readily available and have caused suspected inaccuracies in gas measurement. Install clamp-on Flexium ultrasonic meter and G721 Dual-Channel Permanent Gas Flowmeter transmitter electronic.	3690	\$ 35,739
642	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	2/25/2021	3685	043	010113	Obsolete Meter Replacement - South Granger Creek CTM - Retire antiquated Panametric ultrasonic meter and electronic controllers driving odorizer due to no material for replacement parts being readily available. Controllers are causing measurement inaccuracies. Install Flexim ultrasonic clamp on parts.	3690	\$ 48,767
643	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	1/15/2021	3685	043	010114	Obsolete Meter & Electronic Controller - Greensburg CTM - Retire antiquated ultrasonic meter and electronic controllers as parts are no longer readily available and have caused suspected inaccuracies in gas measurement. Install clamp-on Flexium ultrasonic meter and G721 Dual-Channel Permanent Gas Flowmeter transmitter electronic.	3690	\$ 44,066
644	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	1/15/2021	3612	043	010154	Obsolete Meter Replacement - Barnes TBS - Retire obsolete 4" Rockwell 10,000 meter identified for replacement as part of the time limit meter change-out program. Install Dresser Roots 5M175 meter.	3690	\$ 15,704
645	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	11/30/2020	3612	043	010157	Obsolete Meter Replacement - Blaine TBS - Retire obsolete 3" diaphragm Rockwell 1600 meter as part of the time limit meter change-out program. Install 2" Dresser Roots 2M175 meter.	3690	\$ 7,780
646	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	11/30/2020	3612	043	010158	Obsolete Meter Replacement - Blaine TBS - Retire obsolete 3" diaphragm Rockwell 1600 meter as part of the time limit meter change-out program. Install 2" Dresser Roots 2M175 meter.	3690	\$ 7,725
647	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	1/15/2021	3612	043	010159	Obsolete Meter Replacement - Vermillion TBS - Retire obsolete 3" diaphragm Rockwell 5000 meter as part of the meter time limit change-out program. Install 2" Dresser Roots 3M175 rotary meter.	3690	\$ 14,389
648	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/20/2021	3612	043	010162	Obsolete Meter Replacement - Longford TBS - Retire Roots 3M discovered by technician with no flow condition. Install new Roots 3M meter.	3690	\$ 3,227
649	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	10/19/2020	3612	044	010371	Obsolete Regulator Replacement - Gypsum TBS, Gypsum - Retire two obsolete 2" Fisher 630 regulators triggering alarms as a result of the regulators' inability to maintain an exact set point which in turn has caused extreme fluctuation. Install two 2" Fisher 627 regulators.	3690	\$ 1,875
650	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3015	053	010002	Kansas Gas Service Work Order for SCADA equipment installation. Obsolete SCADA equipment no longer supported by manufacturers will be replaced. This is an NDU & Function 53 project. Cost Center 3015 using Overland Park as the base of location for the work order. This estimate is using Generic Material CUs, and Company Labor CUs, split from an overall cost of a little over \$80,000.	3800	\$ 865
651	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3015	053	010002	Kansas Gas Service Work Order for SCADA equipment installation. Obsolete SCADA equipment no longer supported by manufacturers will be replaced. This is an NDU & Function 53 project. Cost Center 3015 using Overland Park as the base of location for the work order. This estimate is using Generic Material CUs, and Company Labor CUs, split from an overall cost of a little over \$80,000.	3970	\$ 101,200
652	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	10/23/2020	3643	053	010032	Obsolete Meter Replacement - 1301 Washington, Concordia - Retire Roots 5M meter and 2" Fisher S201 regulator due to regulator chattering and meter leaking oil. Install Roots 3M meter and 2" Itron B34_IMRV regulator.	3800	\$ 555
653	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	10/23/2020	3643	053	010032	Obsolete Meter Replacement - 1301 Washington, Concordia - Retire Roots 5M meter and 2" Fisher S201 regulator due to regulator chattering and meter leaking oil. Install Roots 3M meter and 2" Itron B34_IMRV regulator.	3820	\$ 1,384
654	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	10/23/2020	3643	053	010032	Obsolete Meter Replacement - 1301 Washington, Concordia - Retire Roots 5M meter and 2" Fisher S201 regulator due to regulator chattering and meter leaking oil. Install Roots 3M meter and 2" Itron B34_IMRV regulator.	3830	\$ 2,126
655	Pressure and Measurement (obsolescence)	K.S.A. 66-2202, 192.613 (a)	7/31/2020	3542	053	010054	This work order is to build and install a new pressure recording chart box device (SCADA) at E Grand & State, Hartford, KS. In turn, it removes replacing a paper chart every month and puts eyes on these pressure locations 24/7 via our Gas Control.	3970	\$ 2,680
656	Pressure and Measurement (obsolescence)	K.S.A. 66-2202, 192.613 (a)	7/31/2020	3542	053	010057	This work order is to build and install a new pressure recording chart box device (SCADA) at W 4th St and McKinley St, Madison, KS. In turn, it removes replacing a paper chart every month and puts eyes on these pressure locations 24/7 via our Gas Control.	3970	\$ 5,495
657	Pressure and Measurement (obsolescence)	K.S.A. 66-2202, 192.613 (a)	8/25/2020	3542	053	010058	This work order is to build and install a new pressure recording chart box device (SCADA) at multiple locations in Emporia, KS. In turn, it removes replacing a paper chart every month and puts eyes on these pressure locations 24/7 via our Gas Control.	3970	\$ 38,329
658	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/24/2021	3653	053	010062	Regulator station 2764-0648 is to be replaced. College & E St, Washington, KS. Replace obsolete regulators (2" Equimeter 243 RPC & 2" Fisher 99) and fittings on the existing station. Install a primary and bypass run DRS with 2" Sensus 441 regulators.	3765	\$ 14,626
659	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/24/2021	3653	053	010062	Regulator station 2764-0648 is to be replaced. College & E St, Washington, KS. Replace obsolete regulators (2" Equimeter 243 RPC & 2" Fisher 99) and fittings on the existing station. Install a primary and bypass run DRS with 2" Sensus 441 regulators.	3780	\$ 63,073
660	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/24/2021	3653	053	010062	Regulator station 2764-0648 is to be replaced. College & E St, Washington, KS. Replace obsolete regulators (2" Equimeter 243 RPC & 2" Fisher 99) and fittings on the existing station. Install a primary and bypass run DRS with 2" Sensus 441 regulators.	3805	\$ 4,292
661	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	10/23/2020	3911	053	010075	Obsolete Meter Replacement - 1905 W Central Ave, El Dorado - Retire obsolete Roots 1.5 meter due to failed differential pressure test existing regulator. Install new Roots 2M meter and a 1.25" American 1813C regulator.	3820	\$ 358
662	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	10/23/2020	3911	053	010075	Obsolete Meter Replacement - 1905 W Central Ave, El Dorado - Retire obsolete Roots 1.5 meter due to failed differential pressure test existing regulator. Install new Roots 2M meter and a 1.25" American 1813C regulator.	3830	\$ 20

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
663	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3911	053	010079	Obsolete Meter Replacement - 205 N Metcalf, El Dorado - Retire obsolete AL-1000 meter and regulator as part of the meter change-out program and due to measurement inaccuracies. Install Roots 3M meter and 2" Itron Cl34_2 regulator.	3820	\$ 1,130
664	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3911	053	010079	Obsolete Meter Replacement - 205 N Metcalf, El Dorado - Retire obsolete AL-1000 meter and regulator as part of the meter change-out program and due to measurement inaccuracies. Install Roots 3M meter and 2" Itron Cl34_2 regulator.	3830	\$ 1,482
665	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3911	053	010080	Obsolete Meter Replacement - 219 E 5th St, Augusta - Retire obsolete ACTARIS 250 meter and regulator. Install Roots 2M meter and 1.25" American 1813HC regulator.	3820	\$ 1,429
666	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3911	053	010080	Obsolete Meter Replacement - 219 E 5th St, Augusta - Retire obsolete ACTARIS 250 meter and regulator. Install Roots 2M meter and 1.25" American 1813HC regulator.	3830	\$ 101
667	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3741	053	010082	DRS Rebuild & Obsolete Regulator Replacement - 1st & Polk, Arkansas City - Retire DRS 3501-0003 to remove obsolete weight and lever regulator. Relocate and rebuild DRS with two 2" Fisher 133L regulators and 1" 289L Fisher relief valve.	3760	\$ 2,742
668	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3741	053	010082	DRS Rebuild & Obsolete Regulator Replacement - 1st & Polk, Arkansas City - Retire DRS 3501-0003 to remove obsolete weight and lever regulator. Relocate and rebuild DRS with two 2" Fisher 133L regulators and 1" 289L Fisher relief valve.	3765	\$ 2,395
669	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3741	053	010082	DRS Rebuild & Obsolete Regulator Replacement - 1st & Polk, Arkansas City - Retire DRS 3501-0003 to remove obsolete weight and lever regulator. Relocate and rebuild DRS with two 2" Fisher 133L regulators and 1" 289L Fisher relief valve.	3780	\$ 37,501
670	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3911	053	010082	Obsolete Meter Replacement - 111 W Locust, El Dorado - Retire obsolete AL-1000 and regulator as part of the meter-change out program and due to measurement inaccuracies. Install Roots 2M meter and 1.25" American 1813HC regulator.	3820	\$ 452
671	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3911	053	010082	Obsolete Meter Replacement - 111 W Locust, El Dorado - Retire obsolete AL-1000 and regulator as part of the meter-change out program and due to measurement inaccuracies. Install Roots 2M meter and 1.25" American 1813HC regulator.	3830	\$ 31
672	Pressure and Measurement (obsolescence)	K.S.A. 66-2202, 192.613 (a)	7/31/2020	3642	053	010085	Chart Replacement - 2nd & Tyler, Osborne - Retire an antiquated chart due to failed calibration. Install new electronic SCADA To Replace chart (Asset #9001211984) at 2nd Street and Tyler Street, Osborne, Kansas with new electronic version (SCADA) as the old chart has failed calibration and need replaced.	3970	\$ 2,418
673	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/2/2021	3911	053	010085	Obsolete Regulator Replacement - 14697 SW 20th St, Benton - Retire obsolete 2" Fisher S209 regulator due to lock up issues. Install 2" American 1813B regulator and two 2" Fisher 289H reliefs.	3820	\$ 2,711
674	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/2/2021	3911	053	010085	Obsolete Regulator Replacement - 14697 SW 20th St, Benton - Retire obsolete 2" Fisher S209 regulator due to lock up issues. Install 2" American 1813B regulator and two 2" Fisher 289H reliefs.	3830	\$ 554
675	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	2/19/2021	3642	053	010088	Obsolete Meter Replacement - 1600 W 8th, Beloit - Retire Roots 1.5M Rotary meter and 2" Equimeter 243-12 regulator, and 2" Fisher 289H relief valve due to failed differential test. Install Roots 2M rotarymeter and 2" American 1813-B regulator. To Replace a Roots 1.5M Rotary Meter, 2" Equimeter 243-12 Regulator, and 2" Fisher 289H Relief Valve with a 2M Rotary Meter and a 2" American 1813-B Regulator. This meter failed differential test and needs replaced. We will rebuild riser setting at same time.	3820	\$ 613
676	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	2/19/2021	3642	053	010088	Obsolete Meter Replacement - 1600 W 8th, Beloit - Retire Roots 1.5M Rotary meter and 2" Equimeter 243-12 regulator, and 2" Fisher 289H relief valve due to failed differential test. Install Roots 2M rotarymeter and 2" American 1813-B regulator. To Replace a Roots 1.5M Rotary Meter, 2" Equimeter 243-12 Regulator, and 2" Fisher 289H Relief Valve with a 2M Rotary Meter and a 2" American 1813-B Regulator. This meter failed differential test and needs replaced. We will rebuild riser setting at same time.	3830	\$ 487
677	Pressure and Measurement (obsolescence)	K.S.A. 66-2202, 192.613 (a)	4/27/2021	3651	053	010095	Replace paper pressure charts with solar powered SCADA points. The following 16 paper charts in the Manhattan and Marysville service areas will be replaced with SCADA points.	3970	\$ 55,901
678	Pressure and Measurement (obsolescence)	K.S.A. 66-2202, 192.613 (a)	4/27/2021	3651	053	010098	Replace paper pressure charts with solar powered SCADA points. The following 16 paper charts in the Manhattan and Marysville service areas will be replaced with SCADA points.	3820	\$ 3,412
679	Pressure and Measurement (obsolescence)	K.S.A. 66-2202, 192.613 (a)	4/27/2021	3651	053	010098	Replace paper pressure charts with solar powered SCADA points. The following 16 paper charts in the Manhattan and Marysville service areas will be replaced with SCADA points.	3830	\$ 27,507
680	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	10/23/2020	3642	053	010100	Obsolete Paper Chart Replacements & SCADA Installations - Beloit Area - Retire 18 separate paper charts due to obsolescence and install 18 new solar powered SCADA points. KGS set dedicated some funds for 2020 to replace paper pressure charts with solar powered SCADA points. The following 18 paper charts in the Beloit service area will be replaced with SCADA points. Site were selected by Brian Burke, Pressure and Measurement (obsolescence) Supervisor, Bob Hubbell, Manager of Measurement, will purchase and assemble the components of the SCADA box which will then be installed by a company technician.	3970	\$ 72,958
681	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	9/14/2020	3642	053	010101	Meter Replacement - 411 W US HWY 24, Downs - Retire Roots 1.5 meter due to obsolescence from consistent over-spinning. Install 2" American 1813_B regulator.	3820	\$ 195
682	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3642	053	010104	Obsolete Meter & Regulator Replacement - 701 E Court, Beloit - Retire obsolete Roots 5M rotary meter and 2" CL-34-2 regulator during setting relocation. Install Roots 2M-TC-175 and 1.25" Fisher CS400 IR regulator.	3820	\$ 1,735
683	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	7/28/2020	3651	053	010106	1800A College Ave, Manhattan Ave - KSU Indoor Football Practice Facility to replace a failing Sensus 249-RPC regulator. The existing M&R setting had inadequate overpressure protection, causing the meter and corrector to need replacement as well. The setting is currently serving mainline pressure at 34 PSIG. Install: Itron CL34-2 regulator set to 10 PSIG with 3/8" orifice, blue pilot spring and orange closing spring, Fisher 289H relief valve set to 12 PSIG, 5M meter and corrector Retire: Sensus 249-RPC regulator, 5M meter and corrector.	3810	\$ 4,456
684	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	7/28/2020	3651	053	010106	1800A College Ave, Manhattan Ave - KSU Indoor Football Practice Facility to replace a failing Sensus 249-RPC regulator. The existing M&R setting had inadequate overpressure protection, causing the meter and corrector to need replacement as well. The setting is currently serving mainline pressure at 34 PSIG. Install: Itron CL34-2 regulator set to 10 PSIG with 3/8" orifice, blue pilot spring and orange closing spring, Fisher 289H relief valve set to 12 PSIG, 5M meter and corrector Retire: Sensus 249-RPC regulator, 5M meter and corrector.	3820	\$ 738

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
685	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	7/28/2020	3651	053	010106	1800A College Ave, Manhattan Ave - KSU Indoor Football Practice Facility to replace a failing Sensus 249-RPC regulator. The existing M&R setting had inadequate overpressure protection, causing the meter and corrector to need replacement as well. The setting is currently serving mainline pressure at 34 PSIG. Install: Itron CL34-2 regulator set to 10 PSIG with 3/8" orifice, blue pilot spring and orange closing spring, Fisher 289H relief valve set to 12 PSIG, 5M meter and corrector Retire: Sensus 249-RPC regulator, 5M meter and corrector.	3830	\$ 511
686	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3521	053	010108	Ottawa South KPC. Replace obsolete 3330 RTU/Flow Computer. Parts are no longer available, using on-hand spares for repairs.	3970	\$ 16,045
687	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3521	053	010109	Ottawa South KPC. Replace obsolete 3330 RTU/Flow Computer. Parts are no longer available, using on-hand spares for repairs.	3970	\$ 10,901
688	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	9/14/2020	3635	053	010116	Obsolete Paper Chart Replacements & SCADA Installations - McPherson/Hutchinson Areas - Retire 5 separate paper charts due to obsolescence and install 5 new solar powered SCADA points. KGS set dedicated some funds for 2019 to replace paper pressure charts with solar powered SCADA points. The following 5 paper charts in the McPherson and Hutchinson service areas will be replaced with SCADA points. Site were selected by Brian Burke, Pressure and Measurement (obsolescence) Supervisor, Bob Hubbell, Manager of Measurement, will purchase and assemble the components of the SCADA box which will then be installed by a company technician.	3970	\$ 19,848
689	Pressure and Measurement (obsolescence)	K.S.A. 66-2202, 192.613 (a)	4/27/2021	3622	053	010118	SCADA Install - 5 miles S of MP36, Sublette - Retire 87' of 2" APCS main. Install 100' of 2" PE main, new service line for SCADA and SCADA Equipment. A couple of years ago, the set points for the trans-distribution setting feeding south of mile post 36 (XT 0803S) were adjusted to match the set points of the trans-distribution setting feeding south of mile post 37 (XT 0686). With both of these XTs delivering the same SOP and MAOP, DRS 2978-0001 (5 miles straight south of MP36) is no longer needed. In order to eliminate the time and cost of operating and maintaining this station, which is located 2 hours from the local service center, this project will remove the station and replace it with roughly 100 ft of new 2" PE main. In addition, the existing paper pressure chart will be replaced with a new SCADA Pt.	3970	\$ 4,440
690	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3635	053	010131	Obsolete Meter Replacement - 429 E McPherson St, Lindsborg - Retire two obsolete, single regulated 1.5M Romet rotary meters. Install two Sonix 880 meters and two 1.25" Itron C31-N regulators.Scope of Work: Retire: Two Obsolete 1.5M Romet Rotary Meters from 1994Install: Two Sonix 880 Meters and Two 1.25" Itron CL31-N Regulators Delivery Pressure = 5 PSIGPressure System SOP = 25 PSIG and MAOP = 30 PSIG Justification: The existing, single regulated, two meter manifold consists of two obsolete 1.5M Romet rotary meters from 1994. These old meters will be replaced with individually regulated Sonix 880 meters.	3820	\$ 537
691	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3635	053	010131	Obsolete Meter Replacement - 429 E McPherson St, Lindsborg - Retire two obsolete, single regulated 1.5M Romet rotary meters. Install two Sonix 880 meters and two 1.25" Itron C31-N regulators.Scope of Work: Retire: Two Obsolete 1.5M Romet Rotary Meters from 1994Install: Two Sonix 880 Meters and Two 1.25" Itron CL31-N Regulators Delivery Pressure = 5 PSIGPressure System SOP = 25 PSIG and MAOP = 30 PSIG Justification: The existing, single regulated, two meter manifold consists of two obsolete 1.5M Romet rotary meters from 1994. These old meters will be replaced with individually regulated Sonix 880 meters.	3830	\$ 804
692	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3741	053	010133	Obsolete Regulator Replacement - D St & Maple, Arkansas City - Retire obsolete 3" Fisher 166-2KC monitor regulator at DRS 3501-0005 as part of the 2019 annual work plan projects. Install 2" Fisher 133L regulator.	3790	\$ 3,395
693	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/15/2021	3635	053	010137	Meter & Regulator Replacement - 610 W Kansas Ave, McPherson - Retire obsolete 2" meter and regulator setting. Worked in conjunction with the bare steel main replacement serving the above address. Install Sonix 880 meter and 1.25" American 1813C regulator. The 12 psig BS main in this area is being replaced with new 35 psig main.	3820	\$ 49
694	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3741	053	010137	Obsolete Rectifier Replacement - D St & Pine, Arkansas City - Retire obsolete Goodall 18V 34A rectifier. Install MESA ASAI rectifier.	3765	\$ 2,998
695	Pressure and Measurement (obsolescence)	K.S.A. 66-2202, 192.613 (a)	4/28/2021	3621	053	010139	Service Line Installation for New Scada - Hudson & Olive, Belpre - Install 14' of 0.75" PE SL to serve new SCADA pressure monitoring point. A new scada point is needing installed near the intersection of Hudson and Olive in Belpre. In order to properly capture the costs in the right funding project budget, a CUE needed to be created. - C&M will install a 3/4" PE service line. - P&M will install a new SCADA equipment. This project is GSRS eligible because it is part of installing a new pressure monitoring system.	3800	\$ 3,402
696	Pressure and Measurement (obsolescence)	K.S.A. 66-2202, 192.613 (a)	4/28/2021	3621	053	010139	Service Line Installation for New Scada - Hudson & Olive, Belpre - Install 14' of 0.75" PE SL to serve new SCADA pressure monitoring point. A new scada point is needing installed near the intersection of Hudson and Olive in Belpre. In order to properly capture the costs in the right funding project budget, a CUE needed to be created. - C&M will install a 3/4" PE service line. - P&M will install a new SCADA equipment. This project is GSRS eligible because it is part of installing a new pressure monitoring system.	3970	\$ 2,133
697	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	10/23/2020	3641	053	010146	Obsolete Meter Replacement - Retire existing 3M meter and 2" regulator with a buried by-pass. Worked in conjunction with the BS service line at the same address. Install a 2" American 1813_B regulator and Roots 2M-TC-125 meter.	3805	\$ 1,327
698	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	10/23/2020	3641	053	010146	Obsolete Meter Replacement - Retire existing 3M meter and 2" regulator with a buried by-pass. Worked in conjunction with the BS service line at the same address. Install a 2" American 1813_B regulator and Roots 2M-TC-125 meter.	3820	\$ 1,181
699	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	10/23/2020	3641	053	010146	Obsolete Meter Replacement - Retire existing 3M meter and 2" regulator with a buried by-pass. Worked in conjunction with the BS service line at the same address. Install a 2" American 1813_B regulator and Roots 2M-TC-125 meter.	3830	\$ 1,372
700	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3621	053	010148	Obsolete Meter & Regulator Replacement - 2006 Broadway, Great Bend - Retire obsolete Rockwell 3000 meter and obsolete regulator in conjunction with the BS service line renewal at the same address. Install a Roots 2M-TC-175 meter and a American 1.25" 1813HC regulator. The 1.25" BS SL for 2006 Broadway is in need of being replaced. While replacing the SL, the obsolete Rockwell 3000 Meter also needs replaced. The Rockwell 3000 will be replaced with a Roots 2M-TC-175 along with an 1813HC reg, and Fisher 289L relief valve.	3820	\$ 2,666

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
701	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3621	053	010148	Obsolete Meter & Regulator Replacement - 2006 Broadway, Great Bend - Retire obsolete Rockwell 3000 meter and obsolete regulator in conjunction with the BS service line renewal at the same address. Install a Roots 2M-TC-175 meter and a American 1.25" 1813HC regulator. The 1.25" BS SL for 2006 Broadway is in need of being replaced. While replacing the SL, the obsolete Rockwell 3000 Meter also needs replaced. The Rockwell 3000 will be replaced with a Roots 2M-TC-175 along with an 1813HC reg, and Fisher 289L relief valve.	3830	\$ 158
702	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3621	053	010150	Obsolete Meter Replacement - KSN TV Tower, North of Great Bend - Retire 2" Fisher S202 regulator due to obsolescence and in conjunction with the bare steel service line renewal at the same address. Install 2" Itron B34 IMRV regulator. Scope: Retire: 2" Fisher S202 regulator with 1/2" orifice.Install: 2" Itron B34 IMRV with 3/8" orifice Pressure System SOP = 10 PSIG MAOP = 60 PSIG Justification: The KSN TV tower SL will be renewed on Tuesday 9/29/2020. A few days before, it was realized the existing regulator is obsolete and needs to be replaced; therefore, KGS will replace the existing obsolete regulator with a new moder regulator at the same time the service line is replaced.	3820	\$ 506
703	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3621	053	010150	Obsolete Meter Replacement - KSN TV Tower, North of Great Bend - Retire 2" Fisher S202 regulator due to obsolescence and in conjunction with the bare steel service line renewal at the same address. Install 2" Itron B34 IMRV regulator. Scope: Retire: 2" Fisher S202 regulator with 1/2" orifice.Install: 2" Itron B34 IMRV with 3/8" orifice Pressure System SOP = 10 PSIG MAOP = 60 PSIG Justification: The KSN TV tower SL will be renewed on Tuesday 9/29/2020. A few days before, it was realized the existing regulator is obsolete and needs to be replaced; therefore, KGS will replace the existing obsolete regulator with a new moder regulator at the same time the service line is replaced.	3830	\$ 454
704	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3741	053	010156	Obsolete Meter Replacement - 206 S 4th St, Arkansas City - Retire obsolete Roots 3M meter after failed pressure differential test. Install new Roots 3M meter.	3820	\$ 52
705	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3741	053	010158	Obsolete Meter Replacement - 723 E Spring Ave, Conway Springs - Retire obsolete AI-1000 as part of the meter change-out program and due to measurement inaccuracies. Install Roots 2M meter	3820	\$ 473
706	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3741	053	010158	Obsolete Meter Replacement - 723 E Spring Ave, Conway Springs - Retire obsolete AI-1000 as part of the meter change-out program and due to measurement inaccuracies. Install Roots 2M meter.	3830	\$ 224
707	Pressure and Measurement (obsolescence)	K.S.A. 66-2202, 192.613 (a)	4/27/2021	3631	053	010202	Install New Communications Equipment - 9 N Washington, South Hutchinson - Install new communications equipment to capture real time pressure info after redundant feed is removed. Install new cell modem and replace existing POTS phone line. This project will install upgraded communications equipment to the Tyson Plant's north meter in South Hutchinson to better monitor the pressure. The 8" RPCS main between Hutchinson and South Hutchinson was washed out due to flooding in 2019 and will therefore be removed from service. With out the redundant feed from Hutchinson, it is that much more important to monitor the pressure at the Tyson plant (roughly 80 Mcfh load). To this end, KGS will be replacing the current POTS phone line with a cell modem allowing KGS to link the corrector through the modem's IP address so we can see real time pressure info. This new communications equipment will work in conjunction with the SCADA point at DRS 2902-0016 to monitor Tyson.	3970	\$ 3,156
708	Pressure and Measurement (obsolescence)	K.S.A. 66-2202, 192.613 (a)	6/30/2021	3761	053	010207	Paper Charts Replacements - Southeast Kansas Operating Area - Retire 10 paper charts with new electronic charts.Replace 10 paper charts with new electronic charts in SEKS. The newelectronic charts have real time monitoring and communication capabilitywith SCADA.	3970	\$ 62,227
709	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/24/2021	3761	053	010210	DRS Replacement - 1405 Main St Ln, Pittsburg - Retire DRS 2509-0901 & 0909 and Mooney operator regulator. Install New DRS with 4" Sensus 441-57S control regulator and 3" Sensus 441-57S monitor regulator. Install 1" Fisher 1805 warning relief. Rebuild DRS 2509-0901 which is in poor condition. Also, replace the monitor Mooney regulator with Sensus 441-57S regulator at DRS 2509-0909 which is in the same fenced in area. The Mooney regulator does not have enough differential in the winter due to Southern Star provided inlet pressures to function optimally with enough capacity. The Sensus regulator requires less differential and will provide better performance in the operating conditions. Work will be completed with company labor.	3780	\$ 20,935
710	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3631	053	010211	Obsolete Meter Replacement - 1000 Scott Blvd, South Hutchinson - Retire obsolete 1988 Romet 3M meter due for replacement. Install Sonix 880 meter and 1.25" American 1813HC regulator. Scope of Work: Retire: Obsolete1988 Romet 3M meterInstall: Sonix 880 Meter Setting and standard high pressure regulator. Pressure System SOP = 54 PSIG and MAOP = 58 PSIG Justification: An obsolete Romet 3M meter from 1988 is due to be replaced. The existing load is 1,200 cfh.	3820	\$ 1,947
711	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3631	053	010211	Obsolete Meter Replacement - 1000 Scott Blvd, South Hutchinson - Retire obsolete 1988 Romet 3M meter due for replacement. Install Sonix 880 meter and 1.25" American 1813HC regulator. Scope of Work: Retire: Obsolete1988 Romet 3M meterInstall: Sonix 880 Meter Setting and standard high pressure regulator. Pressure System SOP = 54 PSIG and MAOP = 58 PSIG Justification: An obsolete Romet 3M meter from 1988 is due to be replaced. The existing load is 1,200 cfh.	3830	\$ 956
712	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	9/14/2020	3761	053	010215	Obsolete Regulator Replacement - Emmert St & Beech Ave, Ft Scott - Retire obsolete Fisher 166 Regulator and two Fisher 289H reliefs at DRS 2512-00020-FR due to obsolescence. Install a 2" Itron CL-34-2 operator regulator and relocate and install Fisher 289H relief	3780	\$ 1,832
713	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3631	053	010216	Obsolete Meter Replacement - 520 S Washington, Hutchinson - Retire 7M rotary meter setting with phone line EFM, and 2" CL34-2 Regulator due to deteriorationand in conjunction with the BS service line renewal at the same address. Install Roots 11M meter setting, solar powered cell modem EFM, and 2" CL34-2 regulator.Scope of Work: Retire: 7M rotary meter setting, with phone line EFM, and 2" CL34-2 RegulatorInstall: 11M rotary meter setting, solar powered cell modem EFM, and 2" CL34-2 Pressure System SOP = 54 PSIG and MAOP = 58 PSIG Justification: Tyson is adding appliances bringing their demand from 5 Mcfh to 11 Mcfh and the existing 7M rotary meter setting will not adequately handle the new demand. In addition the existing meter setting is screwed and starting to deteriorate. The BS service line will be renewed at the same time as the meter setting is replaced.	3820	\$ 3,997

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
714	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3631	053	010216	Obsolete Meter Replacement - 520 S Washington, Hutchinson - Retire 7M rotary meter setting with phone line EFM, and 2" CL34-2 Regulator due to deterioration and in conjunction with the BS service line renewal at the same address. Install Roots 11M meter setting, solar powered cell modem EFM, and 2" CL34-2 regulator. Scope of Work: Retire: 7M rotary meter setting, with phone line EFM, and 2" CL34-2 Regulator. Install: 11M rotary meter setting, solar powered cell modem EFM, and 2" CL34-2 Pressure System SOP = 54 PSIG and MAOP = 58 PSIG Justification: Tyson is adding appliances bringing their demand from 5 Mcfh to 11 Mcfh and the existing 7M rotary meter setting will not adequately handle the new demand. In addition the existing meter setting is screwed and starting to deteriorate. The BS service line will be renewed at the same time as the meter setting is replaced.	3830	\$ 3,055
715	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/30/2021	3631	053	010221	Regulator & Relief Replacement - 8th & Keast, Hutchinson - Retire obsolete 2" Reynolds 8310 Regulator and 2" Fisher 289 Relief to provide adequate overpressure protection for DRS 0052. Install 2" 1813B Regulator and 1" 289L Relief. The existing regulator and relief set up would allow the pressure downstream of the DRS to build up past MEP if the regulator were to fail wide open.	3780	\$ 639
716	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/30/2021	3631	053	010222	Regulator & Relief Replacement - 401 N Grandview, Hutchinson - Retire obsolete 2" Fisher S201 Regulator and 2" Fisher 289 Relief to provide adequate overpressure protection for DRS 0028. Install 2" 1813B Regulator and 1" 289L Relief. The existing regulator and relief set up would allow the pressure downstream of the DRS to build up past MEP if the regulator were to fail wide open.	3780	\$ 631
717	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/28/2021	3541	053	010351	Retire 16M Meter setting in pit. SW 700 Harrison, Topeka, KS. Install new 16M meter setting above ground in parking lot. Work is being done to replace the current meter setting that is below grading. This is considered a pit and the meter setting will be relocated to above ground and in the parking lot. Work will be in conjunction with the BS replacement project for 7th and Tyler, CUE 21065, and the service will be ran on new main from that project. This is a company mandated project.	3800	\$ 17,834
718	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/28/2021	3541	053	010351	Retire 16M Meter setting in pit. SW 700 Harrison, Topeka, KS. Install new 16M meter setting above ground in parking lot. Work is being done to replace the current meter setting that is below grading. This is considered a pit and the meter setting will be relocated to above ground and in the parking lot. Work will be in conjunction with the BS replacement project for 7th and Tyler, CUE 21065, and the service will be ran on new main from that project. This is a company mandated project.	3810	\$ 5,878
719	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/28/2021	3541	053	010351	Retire 16M Meter setting in pit. SW 700 Harrison, Topeka, KS. Install new 16M meter setting above ground in parking lot. Work is being done to replace the current meter setting that is below grading. This is considered a pit and the meter setting will be relocated to above ground and in the parking lot. Work will be in conjunction with the BS replacement project for 7th and Tyler, CUE 21065, and the service will be ran on new main from that project. This is a company mandated project.	3820	\$ 8,840
720	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/28/2021	3541	053	010351	Retire 16M Meter setting in pit. SW 700 Harrison, Topeka, KS. Install new 16M meter setting above ground in parking lot. Work is being done to replace the current meter setting that is below grading. This is considered a pit and the meter setting will be relocated to above ground and in the parking lot. Work will be in conjunction with the BS replacement project for 7th and Tyler, CUE 21065, and the service will be ran on new main from that project. This is a company mandated project.	3830	\$ 9,252
721	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/20/2021	3522	053	010736	615 Kansas Ave Meter rebuild - To Install: 5M meter 2" CS800IQ with 1/2" orifice set to 7" W.C. To Retire: 5M meter 2" Regulator This work is being done to rebuild the meter setting for 615 Kansas Ave. This work is being done due to the increase of mainline pressure as a part of the 7th & Kansas Cast Iron replacement project.	3820	\$ 630
722	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/20/2021	3522	053	010736	615 Kansas Ave Meter rebuild - To Install: 5M meter 2" CS800IQ with 1/2" orifice set to 7" W.C. To Retire: 5M meter 2" Regulator This work is being done to rebuild the meter setting for 615 Kansas Ave. This work is being done due to the increase of mainline pressure as a part of the 7th & Kansas Cast Iron replacement project.	3830	\$ 1,606
723	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3522	053	010768	Upgrade SCADA - KC Terminal - Upgraded power to add automatic UPS system that allows for multiple days of backup in event of a long term outage (was no battery backup before), lightning protection that was not present before, upgraded communication equipment with IT approved security device.	3970	\$ 6,284
724	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3522	053	010769	Upgrade SCADA - 115th & Roe - Upgraded measurement with new pressure transmitters and RTDs (old were obsolete) for better measurement accuracy, Upgraded power to add automatic UPS system that allows for multiple days of backup in event of a long term outage (was no battery backup before), lightning protection that was not present before, upgraded communication equipment with IT approved security device.	3970	\$ 23,606
725	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3522	053	010770	Upgrade SCADA - 115th & Metcalf - Upgraded measurement with new pressure transmitters and RTDs (old were obsolete) for better measurement accuracy, Upgraded power to add automatic UPS system that allows for multiple days of backup in event of a long term outage (was no battery backup before), lightning protection that was not present before, upgraded communication equipment with IT approved security device.	3970	\$ 30,521
726	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3522	053	010772	Upgrade SCADA - 115th & Antioch - Upgraded measurement with new pressure transmitters and RTDs (old were obsolete) for better measurement accuracy, Upgraded power to add automatic UPS system that allows for multiple days of backup in event of a long term outage (was no battery backup before), lightning protection that was not present before, upgraded communication equipment with IT approved security device.	3970	\$ 15,320
727	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	9/28/2020	3522	053	011198	9501 W 91st Street - Regulator Change. To Install: 2" CS800IQ with 1/2" orifice set to 7" W.C. To Retire: 2" S202. This work order is to rebuild the 5M meter setting at 9501 W 91st Street to replace the failing S202 regulator. The regulator keeps failing causing the relief to vent and leak calls to be called in. The S202 will be replaced with a CS800IQ.	3820	\$ 636
728	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	9/28/2020	3522	053	011198	9501 W 91st Street - Regulator Change To Install: 2" CS800IQ with 1/2" orifice set to 7" W.C. To Retire: 2" S202. This work order is to rebuild the 5M meter setting at 9501 W 91st Street to replace the failing S202 regulator. The regulator keeps failing causing the relief to vent and leak calls to be called in. The S202 will be replaced with a CS800IQ.	3830	\$ 1,805
729	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	9/14/2020	3522	053	011209	Rebuild the meter set with the following components at 4900 Speaker Rd, Kansas City, KS. Regulator: 2" CS820 with 1/2" orifice set at 2 psig delivery. Relief: 2" 289H set at 3 psig. Regulator: 2" CL31-1 with 1/8" orifice set at 5 psig delivery. Relief: 1" 289H set at 6 psig. The existing regulators are deteriorating.	3805	\$ 446
730	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	9/14/2020	3522	053	011209	Rebuild the meter set with the following components at 4900 Speaker Rd, Kansas City, KS. Regulator: 2" CS820 with 1/2" orifice set at 2 psig delivery. Relief: 2" 289H set at 3 psig. Regulator: 2" CL31-1 with 1/8" orifice set at 5 psig delivery. Relief: 1" 289H set at 6 psig. The existing regulators are deteriorating.	3820	\$ 1,587

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
731	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	9/14/2020	3522	053	011209	Rebuild the meter set with the following components at 4900 Speaker Rd, Kansas City, KS. Regulator: 2" CS820 with 1/2" orifice set at 2 psig delivery. Relief: 2" 289H set at 3 psig. Regulator: 2" CL31-1 with 1/8" orifice set at 5 psig delivery. Relief: 1" 289H set at 6 psig. The existing regulators are deteriorating.	3830	\$ 3,550
732	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	8/14/2020	3721	053	011211	Regulator Replacement - 524 S Seneca, Wichita - Retire 2" American 3000 regulator due to pressure upgrade. Worked in conjunction with the Wichita 2020 AWP at University & Walnut. - (051.054.3721.012370) - Install 1.25" American 1813-HC regulator. This regulator replacement is due to a 2020 AWP project "Univerity& Walnut" which is bringing 33psig into the previously LParea. After the pressure upgrade, this meter set will need the 2" American 3000 low pressure regulator swapped out for a 1.25"1813C-HC w/ 1/4" orifice & a yellow spring.	3820	\$ 477
733	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	8/14/2020	3721	053	011211	Regulator Replacement - 524 S Seneca, Wichita - Retire 2" American 3000 regulator due to pressure upgrade. Worked in conjunction with the Wichita 2020 AWP at University & Walnut. - (051.054.3721.012370) - Install 1.25" American 1813-HC regulator. This regulator replacement is due to a 2020 AWP project "Univerity& Walnut" which is bringing 33psig into the previously LParea. After the pressure upgrade, this meter set will need the 2" American 3000 low pressure regulator swapped out for a 1.25"1813C-HC w/ 1/4" orifice & a yellow spring.	3830	\$ 43
734	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011215	Obsolete Meter & Regulator Replacement - 5051 E Lincoln, Wichita - Retire obsolete Romet 7000 meter and regulator in conjunction with 2020 Lincoln & Pinecrest annual work plan project. Install Roots 5M-TC175 and 2" American 1813B regulator.	3820	\$ 632
735	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011215	Obsolete Meter & Regulator Replacement - 5051 E Lincoln, Wichita - Retire obsolete Romet 7000 meter and regulator in conjunction with 2020 Lincoln & Pinecrest annual work plan project. Install Roots 5M-TC175 and 2" American 1813B regulator.	3830	\$ 447
736	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/15/2021	3721	053	011220	Obsolete Meter & Relief Valve Replacement - 4219 W Irving, Wichita - Retire existing Roots 11M meter due to failed differential test and retire the existing 2" Fisher 289H relief valve found leaking. Install new Roots 11M meter and new 2" Fisher 289H relief valve.	3820	\$ 2,770
737	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/15/2021	3721	053	011220	Obsolete Meter & Relief Valve Replacement - 4219 W Irving, Wichita - Retire existing Roots 11M meter due to failed differential test and retire the existing 2" Fisher 289H relief valve found leaking. Install new Roots 11M meter and new 2" Fisher 289H relief valve.	3830	\$ 1,848
738	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/28/2021	3522	053	011250	Replace 2" 1813B regulator due to the existing regulator leaking. 5600 Antioch Rd, Merriam, KS There is a leak on the meter set (regulator) that requires a permanent repair. The crews responded to a leak and determined the existing obsolete S202 regulator is leaking. Replace with a 2"1813B flanged regulator.	3820	\$ 543
739	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/28/2021	3522	053	011250	Replace 2" 1813B regulator due to the existing regulator leaking. 5600 Antioch Rd, Merriam, KS There is a leak on the meter set (regulator) that requires a permanent repair. The crews responded to a leak and determined the existing obsolete S202 regulator is leaking. Replace with a 2"1813B flanged regulator.	3830	\$ 508
740	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	9/14/2020	3721	053	011254	Obsolete Regulator Replacement - 902 E. Central, Andover - Retire obsolete 2" Fisher 299 HSR regulator due to obsolescence and load increase. Install 2" Itron CL 34-2 and 1" Fisher 289H.	3820	\$ 860
741	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	9/14/2020	3721	053	011254	Obsolete Regulator Replacement - 902 E. Central, Andover - Retire obsolete 2" Fisher 299 HSR regulator due to obsolescence and load increase. Install 2" Itron CL 34-2 and 1" Fisher 289H.	3830	\$ 1,172
742	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	9/1/2020	3721	053	011255	Obsolete Meter Replacement - 3850.5 N Hydraulic, Wichita - Retire vintage 1986 11M rotary meter due to obsolescence and room constraints with yard line installation. Install new Roots 11M rotary meter.	3820	\$ 260
743	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011260	Obsolete Meter Replacement - 7915 N Hartman Arena Dr, Park City, Wichita - Retire obsolete AL-1000 meter due to measurement inaccuracies. Install Roots 2M meter and 1.25" American 1813HC regulator.	3820	\$ 870
744	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011260	Obsolete Meter Replacement - 7915 N Hartman Arena Dr, Park City, Wichita - Retire obsolete AL-1000 meter due to measurement inaccuracies. Install Roots 2M meter and 1.25" American 1813HC regulator.	3830	\$ 474
745	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	10/23/2020	3721	053	011265	Obsolete Meter Replacement - 318 W 29th St N, Wichita - Retire obsolete AL-1000 meter due to obsolescence. Install 1.25" 1813-HC regulator and 2M rotary meter.	3820	\$ 1,126
746	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	10/23/2020	3721	053	011265	Obsolete Meter Replacement - 318 W 29th St N, Wichita - Retire obsolete AL-1000 meter due to obsolescence. Install 1.25" 1813-HC regulator and 2M rotary meter.	3830	\$ 630
747	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011268	Obsolete Meter Replacement - 4219 S Irving, Wichita - Retire Roots 11M and existing regulator due to failed differential test. Install Roots 5M meter and 2" Itron Cl34-2 regulator. T	3820	\$ 1,943
748	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011268	Obsolete Meter Replacement - 4219 S Irving, Wichita - Retire Roots 11M and existing regulator due to failed differential test. Install Roots 5M meter and 2" Itron Cl34-2 regulator. T	3830	\$ 989
749	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	11/3/2020	3721	053	011270	Obsolete Meter & Regulator Replacement - 1613 N Piatt, Wichita - Retire existing Roots 5M meter and obsolete 2" slam-shut regulator due to obsolescence and improper sizing. Install 2" American 1813B regulator and Roots 2M-175-TC meter.	3820	\$ 664
750	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	11/3/2020	3721	053	011270	Obsolete Meter & Regulator Replacement - 1613 N Piatt, Wichita - Retire existing Roots 5M meter and obsolete 2" slam-shut regulator due to obsolescence and improper sizing. Install 2" American 1813B regulator and Roots 2M-175-TC meter.	3830	\$ 730
751	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011271	Obsolete Meter Replacement - 2636 S Sheridan, Wichita - Retire obsolete AL-1000 meter as part of the meter change-out program. Install Roots 2M meter.	3820	\$ 493
752	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011272	Obsolete Meter Replacement - 2636 S Sheridan, Wichita - Retire obsolete AL-1000 meter as part of the meter change-out program. Install Roots 2M meter.	3820	\$ 1,234
753	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011272	Obsolete Meter Replacement - 430 W Clay St, Valley Center - Retire obsolete AL-1000 meter as part of the meter change-out program. Install Roots 2M meter and 1.25" American 1813HC regulator and 1" Fisher 289L relief valve.	3830	\$ 85
754	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011274	Obsolete Meter Replacement - 2452 S Seneca #A, Wichita - Retire obsolete AL-1000 meter as part of the meter change-out program. Install Roots 2M meter and 1.25" American 1813HC regulator. The meter setting for Pizza Hut at 2452 S Seneca #A in Wichita has b	3820	\$ 545
755	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011274	Obsolete Meter Replacement - 2452 S Seneca #A, Wichita - Retire obsolete AL-1000 meter as part of the meter change-out program. Install Roots 2M meter and 1.25" American 1813HC regulator. The meter setting for Pizza Hut at 2452 S Seneca #A in Wichita has b	3830	\$ 49

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
756	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011275	Obsolete Meter Replacement - 8902 Summerfield St, Wichita - Retire obsolete AL-1000 meter as part of the meter change-out program due to measurement inaccuracies. Install Roots 2M rotary meter and 2" Itron B34IMRV regulator.	3820	\$ 732
757	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011275	Obsolete Meter Replacement - 8902 Summerfield St, Wichita - Retire obsolete AL-1000 meter as part of the meter change-out program due to measurement inaccuracies. Install Roots 2M rotary meter and 2" Itron B34IMRV regulator.	3830	\$ 964
758	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3721	053	011276	Obsolete Meter Replacement - 7728 E Central, Wichita - Retire obsolete AL-1000 meter as part of the meter change-out program due to measurement inaccuracies. Install Roots 2M meter and 1.25" American 1813-HC regulator.	3820	\$ 560
759	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3721	053	011276	Obsolete Meter Replacement - 7728 E Central, Wichita - Retire obsolete AL-1000 meter as part of the meter change-out program due to measurement inaccuracies. Install Roots 2M meter and 1.25" American 1813-HC regulator.	3830	\$ 50
760	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3721	053	011286	Obsolete Meter Replacement - 240 W 10th St N, Wichita - Retire obsolete AL-1000 meter as part of the meter change-out program and due to measurement inaccuracies. Install Roots 2M rotary meter and 1" Fisher 289L relief.	3820	\$ 837
761	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3721	053	011286	Obsolete Meter Replacement - 240 W 10th St N, Wichita - Retire obsolete AL-1000 meter as part of the meter change-out program and due to measurement inaccuracies. Install Roots 2M rotary meter and 1" Fisher 289L relief.	3830	\$ 81
762	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011288	Obsolete Meter Replacement - 5910 E 37th St N, Wichita - Retire obsolete AL-1000 meter as part of the meter change-out program and due to measurement inaccuracies. Install Roots 2M meter.	3820	\$ 170
763	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3721	053	011291	Obsolete Meter Replacement - 4727 S Emporia St, Wichita - Retire obsolete AL-1000 meter as part of the meter change-out program and due to measurement inaccuracies. Install Roots 2M meter and 1" Fisher 289L relief valve.	3820	\$ 879
764	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3721	053	011291	Obsolete Meter Replacement - 4727 S Emporia St, Wichita - Retire obsolete AL-1000 meter as part of the meter change-out program and due to measurement inaccuracies. Install Roots 2M meter and 1" Fisher 289L relief valve.	3830	\$ 478
765	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011293	Obsolete Meter Replacement - 715 E 10th St N, Wichita - Retire obsolete AL-1000 meter as part of the meter change-out program and due to measurement inaccuracies. Install Roots 2M meter. S	3820	\$ 651
766	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3721	053	011303	Obsolete Meter Replacement - 2600 College, North Newton - Retire vintage 1980 Roots 3M meter and obsolete 2" Reynolds regulator. Install Roots 2M meter and 1.25" American 3000 regulator.	3820	\$ 777
767	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3721	053	011303	Obsolete Meter Replacement - 2600 College, North Newton - Retire vintage 1980 Roots 3M meter and obsolete 2" Reynolds regulator. Install Roots 2M meter and 1.25" American 3000 regulator.	3830	\$ 1,494
768	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3721	053	011305	Obsolete Meter & Regulator Replacement - 830 Ridgecrest, Derby - Retire obsolete Roots 3M meter and regulator in conjunction with the BS service line renewal at the same address. Install new Roots 3M meter and 2" American 1813B regulator.	3820	\$ 430
769	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/27/2021	3721	053	011305	Obsolete Meter & Regulator Replacement - 830 Ridgecrest, Derby - Retire obsolete Roots 3M meter and regulator in conjunction with the BS service line renewal at the same address. Install new Roots 3M meter and 2" American 1813B regulator.	3830	\$ 331
770	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/28/2021	3522	053	011306	Retire 2" Regulator. 8400 W 110th, Overland Park, KS. Install 2" CS800IQ regulator. This work order is to rebuild the 2M meter setting due to a leaking regulator. The meter setting has corrosion damage from road salt so the meter setting will be rebuilt.	3820	\$ 1,460
771	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/28/2021	3522	053	011306	Retire 2" Regulator. 8400 W 110th, Overland Park, KS. Install 2" CS800IQ regulator. This work order is to rebuild the 2M meter setting due to a leaking regulator. The meter setting has corrosion damage from road salt so the meter setting will be rebuilt.	3830	\$ 979
772	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/2/2021	3721	053	011309	Obsolete Meter Replacement - 300 E 27th, North Newton - Retire obsolete Roots 3M meter and existing regulator due to failed differential test and excessive noise from meter setting. Install D1000 meter and 1.25" American 1813_HC regulator.	3820	\$ 222
773	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/2/2021	3721	053	011309	Obsolete Meter Replacement - 300 E 27th, North Newton - Retire obsolete Roots 3M meter and existing regulator due to failed differential test and excessive noise from meter setting. Install D1000 meter and 1.25" American 1813_HC regulator.	3830	\$ 22
774	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011315	Obsolete Meter & Regulator Replacement - 1850 N Woodlawn, Wichita - Retire vintage 1980 Roots 5M meter and antiquated 2" S-209 regulator no longer functioning properly. Install Roots 2M meter, 1.25" American 1813HC regulator and 1" Fisher 289L relief.	3820	\$ 828
775	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3721	053	011315	Obsolete Meter & Regulator Replacement - 1850 N Woodlawn, Wichita - Retire vintage 1980 Roots 5M meter and antiquated 2" S-209 regulator no longer functioning properly. Install Roots 2M meter, 1.25" American 1813HC regulator and 1" Fisher 289L relief.	3830	\$ 77
776	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/28/2021	3522	053	011322	Retire 1.5M Meter Setting. 7226 W Frontage Road, Overland Park, KS. Install: 3M Meter Setting with 2" CS800IQ regulator. This work order is to rebuild the meter setting at 7226 W Frontage Road. The current 1.5M meter is locking up. The existing fisher regulator is old and also needs to be replaced.	3820	\$ 368
777	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/28/2021	3522	053	011322	Retire 1.5M Meter Setting. 7226 W Frontage Road, Overland Park, KS. Install: 3M Meter Setting with 2" CS800IQ regulator. This work order is to rebuild the meter setting at 7226 W Frontage Road. The current 1.5M meter is locking up. The existing fisher regulator is old and also needs to be replaced.	3830	\$ 431
778	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	5/20/2021	3721	053	011452	Obsolete Regulator Replacement - 3434 Comotara, Wichita - Retire obsolete 2" S-203 regulator have issues locking up properly. Install 1.25" American 1813_HC regulator and 1" Fisher 289L relief.	3820	\$ 740
779	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	5/20/2021	3721	053	011452	Obsolete Regulator Replacement - 3434 Comotara, Wichita - Retire obsolete 2" S-203 regulator have issues locking up properly. Install 1.25" American 1813_HC regulator and 1" Fisher 289L relief.	3830	\$ 76
780	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/2/2021	3721	053	011453	Obsolete Meter Replacement - 700 Med Center Dr, Newton - Retire obsolete Roots 3M and existing regulator in conjunction with the replacement of the customer-owned corroded meter set valve. Install Roots 3M and 1813B regulator.	3820	\$ 726
781	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/2/2021	3721	053	011453	Obsolete Meter Replacement - 700 Med Center Dr, Newton - Retire obsolete Roots 3M and existing regulator in conjunction with the replacement of the customer-owned corroded meter set valve. Install Roots 3M and 1813B regulator.	3830	\$ 505
782	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3635	054	010210	Obsolete Meter & Regulator Replacement - 900 Kit Blvd, McPherson - Retire vintage 2" Fisher 243 Regulator and Roots 5M meter due to thread leak on existing setting. Install Roots 5M meter and 2" Honeywell 1813B regulator.	3820	\$ 902
783	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3635	054	010210	Obsolete Meter & Regulator Replacement - 900 Kit Blvd, McPherson - Retire vintage 2" Fisher 243 Regulator and Roots 5M meter due to thread leak on existing setting. Install Roots 5M meter and 2" Honeywell 1813B regulator.	3830	\$ 904

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
784	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/30/2021	3761	054	010313	Regulator Replacement- Roberts Rd & State Line Rd, Baxter Springs - Retire existing obsolete 2" Reynolds 8310-18 operator regulator at DRS 2513-0032. Install 2" Itron CL34-2 control regulator and 1" Fisher 289H relief.	3780	\$ 1,648
785	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	1/29/2021	3642	054	010376	Obsolete Meter Replacement - 1218 Kansas, Downs - Retire obsolete 3M meter and 1813B regulator due to property line setting intertwined in tree. Install new Roots 3M meter and 2" American 1813B regulator. Worked in conjunction with the replacement of the unprotected bare steel yard line and CS service line at the same address.	3820	\$ 1,828
786	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	1/29/2021	3642	054	010376	Obsolete Meter Replacement - 1218 Kansas, Downs - Retire obsolete 3M meter and 1813B regulator due to property line setting intertwined in tree. Install new Roots 3M meter and 2" American 1813B regulator. Worked in conjunction with the replacement of the unprotected bare steel yard line and CS service line at the same address.	3830	\$ 911
787	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3642	054	010384	Meter & Regulator Replacement - 130 N Greely, Lucas - Retire existing meter and regulator setting in conjunction with the BS service line and yard line replacement at the same address. Install Roots 5M meter and 1.25" American 3000 regulator.	3820	\$ 940
788	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3642	054	010384	Meter & Regulator Replacement - 130 N Greely, Lucas - Retire existing meter and regulator setting in conjunction with the BS service line and yard line replacement at the same address. Install Roots 5M meter and 1.25" American 3000 regulator.	3830	\$ 3,326
789	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3641	054	010390	Meter & Regulator Setting Replacement - 308 S 8th, Salina - Retire existing 5M meter and regulator setting in conjunction with the BS service line renewal at the same address. Install new Sonix 880 meter and 1.25" American 1813HC regulator.	3820	\$ 80
790	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3641	054	010390	Meter & Regulator Setting Replacement - 308 S 8th, Salina - Retire existing 5M meter and regulator setting in conjunction with the BS service line renewal at the same address. Install new Sonix 880 meter and 1.25" American 1813HC regulator.	3830	\$ 9
791	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	5/13/2021	3741	054	010462	DRS Replacement - 101 S Willow, Douglass - Retire DRS 3306-0001 with leaking inlet leg and nearby outlet leg preventing station piping replacement. Install new double-hump DRS. Install 150' of 2" PE main.	3760	\$ 6,748
792	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	5/13/2021	3741	054	010462	DRS Replacement - 101 S Willow, Douglass - Retire DRS 3306-0001 with leaking inlet leg and nearby outlet leg preventing station piping replacement. Install new double-hump DRS. Install 150' of 2" PE main.	3765	\$ 27,068
793	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	5/13/2021	3741	054	010462	DRS Replacement - 101 S Willow, Douglass - Retire DRS 3306-0001 with leaking inlet leg and nearby outlet leg preventing station piping replacement. Install new double-hump DRS. Install 150' of 2" PE main.	3780	\$ 30,661
794	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	5/13/2021	3741	054	010462	DRS Replacement - 101 S Willow, Douglass - Retire DRS 3306-0001 with leaking inlet leg and nearby outlet leg preventing station piping replacement. Install new double-hump DRS. Install 150' of 2" PE main.	3800	\$ 1,843
795	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/20/2021	3741	054	010467	Obsolete Regulator Replacement - 1700 E 16th, Wellington - Retire existing 2" Fisher 299HS regulator unable to maintain proper outlet pressure under load. Install 2" Itron CL34_2 regulator and 2" Fisher 289H relief valve.	3820	\$ 930
796	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/20/2021	3741	054	010467	Obsolete Regulator Replacement - 1700 E 16th, Wellington - Retire existing 2" Fisher 299HS regulator unable to maintain proper outlet pressure under load. Install 2" Itron CL34_2 regulator and 2" Fisher 289H relief valve.	3830	\$ 2,536
797	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/2/2021	3741	054	010473	Obsolete Meter Replacement - 101 N Central, Harper - Retire obsolete Roots 11M meter and 2" Fisher S203 regulator due to internal relief venting gas. Install Roots 7M meter and 2" American 1813B regulator.	3820	\$ 937
798	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/2/2021	3741	054	010473	Obsolete Meter Replacement - 101 N Central, Harper - Retire obsolete Roots 11M meter and 2" Fisher S203 regulator due to internal relief venting gas. Install Roots 7M meter and 2" American 1813B regulator.	3830	\$ 703
799	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3522	054	011282	Retire 6" Fisher ET Control Valve operator regulator and 6" Fisher 8510 Eccentric Disc Control Valve monitor regulator. 75th St and Metcalf, Overland Park, KS. Install 6" FlowGrid Mooney Series 300 Raised Face with Mooney Pilot operator regulator and 6" American Axial Flow Valve Series 300 with H-7 Sleeve and ZSC-100 Pilot monitor regulator. The existing regulators are deteriorating and obsolete at the 75th and Metcalf TBS. Reg and SCADA Replacement.	3790	\$ 14,475
800	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/1/2021	3522	054	011282	Retire 6" Fisher ET Control Valve operator regulator and 6" Fisher 8510 Eccentric Disc Control Valve monitor regulator. 75th St and Metcalf, Overland Park, KS. Install 6" FlowGrid Mooney Series 300 Raised Face with Mooney Pilot operator regulator and 6" American Axial Flow Valve Series 300 with H-7 Sleeve and ZSC-100 Pilot monitor regulator. The existing regulators are deteriorating and obsolete at the 75th and Metcalf TBS. Reg and SCADA Replacement.	3970	\$ 46,150
801	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	1/20/2021	3721	054	012454	Obsolete Meter Replacement - 5005 E 21st, Wichita - Retire obsolete Roots 3M-175-TC meter and regulator in conjunction with the service line relocation at same address. Install new Roots 3M meter and 1.25" American 1813-HC and 1" Fisher 289L relief.	3810	\$ 186
802	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	1/20/2021	3721	054	012454	Obsolete Meter Replacement - 5005 E 21st, Wichita - Retire obsolete Roots 3M-175-TC meter and regulator in conjunction with the service line relocation at same address. Install new Roots 3M meter and 1.25" American 1813-HC and 1" Fisher 289L relief.	3820	\$ 914
803	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	1/20/2021	3721	054	012454	Obsolete Meter Replacement - 5005 E 21st, Wichita - Retire obsolete Roots 3M-175-TC meter and regulator in conjunction with the service line relocation at same address. Install new Roots 3M meter and 1.25" American 1813-HC and 1" Fisher 289L relief.	3830	\$ 395
804	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	1/15/2021	3721	054	012458	Retire: Property Line 3M Meter Setting. Install: 5M Meter Setting at Building. A leak was found on the Aldyl-A yardline (LK2020-10232871). KGS will replace the YL by moving the property line meter up to the building and installing a new 2" PE SL.	3820	\$ 1,478
805	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	1/15/2021	3721	054	012458	Retire: Property Line 3M Meter Setting. Install: 5M Meter Setting at Building. A leak was found on the Aldyl-A yardline (LK2020-10232871). KGS will replace the YL by moving the property line meter up to the building and installing a new 2" PE SL.	3830	\$ 1,043
806	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/2/2021	3721	054	012478	Obsolete Meter Replacement - 900 W 12th, Newton - Retire existing Roots 5M meter & obsolete Fisher regulator due leak on strainer's flange gasket and existing relief. Remove control line entering building. Install Roots 5M meter, 2" Itron CI34-2 regulator, and 2" Fisher 289h relief.	3820	\$ 2,091
807	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/2/2021	3721	054	012478	Obsolete Meter Replacement - 900 W 12th, Newton - Retire existing Roots 5M meter & obsolete Fisher regulator due leak on strainer's flange gasket and existing relief. Remove control line entering building. Install Roots 5M meter, 2" Itron CI34-2 regulator, and 2" Fisher 289h relief.	3830	\$ 1,057

Line Number	GSRS Qualification	Regulation	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost
808	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/20/2021	3721	054	012491	Obsolete Regulator Retirement - 3639 Comotara, Wichita - Retire obsolete 2" Rockwell regulator due to odor call from leak on existing regulator. Install 1.25" American 1813-HC regulator. The service department got a odor call on the meter set at their building. The 2" regulator was found to be leaking, so they called engineering to get it sized and replaced. A 1.25" American 1813C-HC w/ a 1/4" orifice will carry the load, and a 1" 289L will relieve the buildup pressure. The 3M rotary meter is staying in place.	3820	\$ 578
809	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	4/20/2021	3721	054	012491	Obsolete Regulator Retirement - 3639 Comotara, Wichita - Retire obsolete 2" Rockwell regulator due to odor call from leak on existing regulator. Install 1.25" American 1813-HC regulator. The service department got a odor call on the meter set at their building. The 2" regulator was found to be leaking, so they called engineering to get it sized and replaced. A 1.25" American 1813C-HC w/ a 1/4" orifice will carry the load, and a 1" 289L will relieve the buildup pressure. The 3M rotary meter is staying in place.	3830	\$ 58
810	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/2/2021	3721	054	012542	Obsolete Meter Replacement - 721 W 21st, Andover - Retire Roots 3M and 2" Fisher S203 regulator due to setting leaking oil and multiple thread leaks. Install Roots 3M meter and 2" American 1823B regulator. Huntzinger was out replacing the index and noticed the meter is leaking oil and had a few thread leaks on the loop with a 2" fisher S203 regulator. The regulator was not causing any issues, however to repair the leaks the setting will need to be rebuilt.	3820	\$ 652
811	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/2/2021	3721	054	012542	Obsolete Meter Replacement - 721 W 21st, Andover - Retire Roots 3M and 2" Fisher S203 regulator due to setting leaking oil and multiple thread leaks. Install Roots 3M meter and 2" American 1823B regulator. Huntzinger was out replacing the index and noticed the meter is leaking oil and had a few thread leaks on the loop with a 2" fisher S203 regulator. The regulator was not causing any issues, however to repair the leaks the setting will need to be rebuilt.	3830	\$ 521
812	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/2/2021	3721	054	012545	Obsolete Meter Replacement - 3310 E Pawnee, Wichita - Retire obsolete Romet 2000 meter and regulator due to failed differential test. Meter is vintage 1990. Install Roots 3M meter 1.25" American 1813_HC regulator.	3820	\$ 391
813	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/2/2021	3721	054	012545	Obsolete Meter Replacement - 3310 E Pawnee, Wichita - Retire obsolete Romet 2000 meter and regulator due to failed differential test. Meter is vintage 1990. Install Roots 3M meter 1.25" American 1813_HC regulator.	3830	\$ 38
814	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/24/2021	3721	054	012552	Install: Roots 5M meter and 1813HC regulator w/ 5/16" orifice with a set point of 0.25 psig and a 1" 289L relief with a set point of 1 psig. Retire: Existing meter and regulator. Replace regulator and meter due to failed differential test on the meter and grade 3 leak on the meter set.	3820	\$ 874
815	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/24/2021	3721	054	012552	Install: Roots 5M meter and 1813HC regulator w/ 5/16" orifice with a set point of 0.25 psig and a 1" 289L relief with a set point of 1 psig. Retire: Existing meter and regulator. Replace regulator and meter due to failed differential test on the meter and grade 3 leak on the meter set.	3830	\$ 75
816	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/30/2021	3721	054	012560	Install: Roots 3M meter and 1-1/4" American 1813_HC regulator w/ 1/4" orifice. Retire: Existing meter and regulator. The meter setting for On the Border has multiple leaks and an obsolete regulator. To clear the leaks, the setting needs to be re-built with a new regulator.	3820	\$ 831
817	Pressure and Measurement (obsolescence)	K.S.A. 66-2202	6/30/2021	3721	054	012560	Install: Roots 3M meter and 1-1/4" American 1813_HC regulator w/ 1/4" orifice. Retire: Existing meter and regulator. The meter setting for On the Border has multiple leaks and an obsolete regulator. To clear the leaks, the setting needs to be re-built with a new regulator.	3830	\$ 81
Pressure and Measurement (obsolescence) Total									\$ 1,148,435
Grand Total									\$ 30,577,700

Line Number	GSRs Qualification	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost	Government Entity
1	Public Improvement	6/2/2021	3542	055	010021	US 50 Rd to Road G - Emporia, KS. Retire: 3,900 feet of 4 inch PE Main. Install: 3,900 feet of 4 inch PE. This work order is for the relocation of 4" PE main that will be at too shallow of a depth after storm drainage improvements on the north side of the highway. Storm improvements and road widening will be completed by KDOT.	3760	\$ 148,306	Kansas Department of Transportation
2	Public Improvement	6/2/2021	3542	055	010021	US 50 Rd to Road G - Emporia, KS. Retire: 3,900 feet of 4 inch PE Main. Install: 3,900 feet of 4 inch PE. This work order is for the relocation of 4" PE main that will be at too shallow of a depth after storm drainage improvements on the north side of the highway. Storm improvements and road widening will be completed by KDOT.	3800	\$ 23,309	Kansas Department of Transportation
3	Public Improvement	11/30/2020	3652	055	010030	Ash and Spring Valley Rd, Junction City, KS Install: 20' - 4" PE Retire: 20' - 4" PE The city of Junction City is installing storm sewer at the intersection of Ash and Spring Valley Rd. Lower 20' - 4" PE main to 6' deep to avoid conflict with storm line. Field check depths of service lines to 2410 Liberty Hall Rd and 814 S Spring Valley Rd to determine service conflicts.	3760	\$ 8,782	City of Junction City
4	Public Improvement	1/15/2021	3831	055	010039	Government Relocation - 1902 S US Hwy, Parsons - Retire 10' of 2" BS and 10' of 2" APCS main in conflict with grade cuts and riprap installed during The City of Parsons's US-59 Pavement Restoration Project. Install 10' of 2" PE and 10' of 10' of 2" APCS main.	3765	\$ 14,412	City of Parsons
5	Public Improvement	4/20/2021	3653	055	010040	Retire: 350' - 2" BS and 60' - 1.25" CS main. 1st & Elm, Frankfort, KS. Install: 350' - 2" PE and 60' - 1.25" PE main. The City of Frankfort is planning to repair the storm drain at the Southwest corner of 1st & Elm. KGS has an exposed main that crosses through the proposed storm box which will need to be relocated. To avoid tying back into bare steel, we will run an additional 250 ft South to connect to the 2" CS main in the alley.	3760	\$ 12,820	City of Frankfort
6	Public Improvement	4/20/2021	3653	055	010040	Retire: 350' - 2" BS and 60' - 1.25" CS main. 1st & Elm, Frankfort, KS. Install: 350' - 2" PE and 60' - 1.25" PE main. The City of Frankfort is planning to repair the storm drain at the Southwest corner of 1st & Elm. KGS has an exposed main that crosses through the proposed storm box which will need to be relocated. To avoid tying back into bare steel, we will run an additional 250 ft South to connect to the 2" CS main in the alley.	3800	\$ 1,014	City of Frankfort
7	Public Improvement	1/15/2021	3831	055	010040	Parsons - 115 North 16th - Abandon 105' of 2" PE that runs north and south along 16th Street and around the curve to the East on Washington Street. This section of main is in the way of the project currently being done on 16th Street. There is one service line tie over associated with this work order.	3800	\$ 987	City of Parsons
8	Public Improvement	4/20/2021	3653	055	010041	212 6th St - Clay Center, KS. - Main Relocation. Retire: 65 feet of 1 1/4 inch CS main and 2 ea 1-1/4 inch service line.. Install: 150 feet of 1 1/4 inch service line. This project is to remove a 1-1/4" CS Main from an area that had the easement vacated in 2007. KGS became aware and converted the 1-1/4" Main to a 1-1/4" service line in a new location with easement rights.	3800	\$ 5,575	City of Clay Center
9	Public Improvement	6/15/2021	3831	055	010042	Government Relocation - US-HWY 59 & US- HWY 54, Moran - Retire 2,132' of 4" PE main in conflict from grade cuts during KDOT 's State Highway renovation projects at the above intersecting highways. Install 166' of 4" APCS and 2,194' of 4" PE main. Main relocation near US59 and US54 in Moran KS.	3760	\$ 56,537	Kansas Department of Transportation
10	Public Improvement	6/15/2021	3831	055	010042	Government Relocation - US-HWY 59 & US- HWY 54, Moran - Retire 2,132' of 4" PE main in conflict from grade cuts during KDOT 's State Highway renovation projects at the above intersecting highways. Install 166' of 4" APCS and 2,194' of 4" PE main. Main relocation near US59 and US54 in Moran KS.	3765	\$ 7,166	Kansas Department of Transportation
11	Public Improvement	10/27/2020	3533	055	010044	Sabetha 2019 DRS 2615-0019 N 6th and Adams Sabetha, Install DRS 2615-0019 and retire DRS 2615-0018. The new DRS cuts 80 psig to 20 psig feeding systems north on 6th St. The DRS will be relocated one block south to 6th & Adams, lowering the pressure on the gas main through the City Park. The existing DRS is in conflict with the road improvements the City of Sabetha is doing on N 6th. A 10' x 150' easement will be obtained from the City of Sabetha in order to relocate the DRS in the City Park.	3780	\$ 56,212	City of Sabetha
12	Public Improvement	8/28/2020	3642	055	010045	Government Relocation - 8th & Hwy 156, Ellsworth - Relocate 500' of 4" PE and 780' of 2" PE main in conflict with the proposed drainage pipes as part of KDOT's K-156 Federal Aid project in Ellsworth. The city of Ellsworth has a highway project at 8th & Hwy 156 to replace some concrete and install drainage. Approx 500' of 4" PE will be installed along the West ROW of the frontage road. Bypasses will be sized and utilized during tie in, as the system to the North is a one-way feed.	3760	\$ 28,462	Kansas Department of Transportation
13	Public Improvement	2/25/2021	3621	055	010046	Government Relocation - 112 Ave & O Rd, Larned - Retire 516' of 2" APCS and 139' of 1.25" APCS main in conflict with Pawnee County's drainage improvement project. Lower and install 467' of 2" PE main. Pawnee County road and Bridge is doing a drainage improvement project and our 2" APCS on the north side of O Rd is not deep enough for them to complete the project. The job is to replace 467' of 2" APCS on the north side of O Rd with 467' of 2" PE. There are 5 services that will also need tied over.	3760	\$ 27,782	Pawnee County
14	Public Improvement	2/25/2021	3621	055	010046	Government Relocation - 112 Ave & O Rd, Larned - Retire 516' of 2" APCS and 139' of 1.25" APCS main in conflict with Pawnee County's drainage improvement project. Lower and install 467' of 2" PE main. Pawnee County road and Bridge is doing a drainage improvement project and our 2" APCS on the north side of O Rd is not deep enough for them to complete the project. The job is to replace 467' of 2" APCS on the north side of O Rd with 467' of 2" PE. There are 5 services that will also need tied over.	3800	\$ 716	Pawnee County
15	Public Improvement	1/15/2021	3642	055	010046	This project will replace 900' of 6" RPBS, 20' 2" RPCS, 20' of 2" RPBS, 75' APBS & 20' 2" PE in Ellsworth with 900' of 6" CS, 20' 2" CS & 110' 2" PE. This project is due to a KDOT-prompted gov't relocation project which will be making significant curb cuts, and they're also installing drainage & storm pipe in numerous locations within the project limits on the N side of 8th. This project will affect 7 services. All services are PE and will be tied over/renewed to the new main.	3760	\$ 10,832	Kansas Department of Transportation
16	Public Improvement	1/15/2021	3642	055	010046	This project will replace 900' of 6" RPBS, 20' 2" RPCS, 20' of 2" RPBS, 75' APBS & 20' 2" PE in Ellsworth with 900' of 6" CS, 20' 2" CS & 110' 2" PE. This project is due to a KDOT-prompted gov't relocation project which will be making significant curb cuts, and they're also installing drainage & storm pipe in numerous locations within the project limits on the N side of 8th. This project will affect 7 services. All services are PE and will be tied over/renewed to the new main.	3765	\$ 118,484	Kansas Department of Transportation
17	Public Improvement	1/15/2021	3642	055	010046	This project will replace 900' of 6" RPBS, 20' 2" RPCS, 20' of 2" RPBS, 75' APBS & 20' 2" PE in Ellsworth with 900' of 6" CS, 20' 2" CS & 110' 2" PE. This project is due to a KDOT-prompted gov't relocation project which will be making significant curb cuts, and they're also installing drainage & storm pipe in numerous locations within the project limits on the N side of 8th. This project will affect 7 services. All services are PE and will be tied over/renewed to the new main.	3800	\$ 8,089	Kansas Department of Transportation

Line Number	GSRS Qualification	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost	Government Entity
18	Public Improvement	5/13/2021	3621	055	010047	CS Main Abandonment & Government Relocation - 12 & Stone, Great Bend - Retire 465' of 6" APCS main in conflict with The City of Great Bend's 2020 Street Resurfacing Project. Install SCADA point and PE SL to monitor pressure during the winter season to determine future DRS retirement. The SCADA point will be installed on the newly retired main to monitor pressure for a period of time to determine feasibility of the DRS in the future.	3760	\$ 7,295	City of Great Bend
19	Public Improvement	7/28/2020	3533	055	010049	Install 130' 4" CS Main at 6th St & Oregon St, Hiawatha, KS. Retire 130' 4"CS main. The city of Hiawatha is completing road improvement work and the gas main (10" deep)is in conflict with the construction work. Replace 2 service lines.	3765	\$ 15,901	City of Hiawatha
20	Public Improvement	4/20/2021	3533	055	010050	Retire 130' 4" CS main. N 7TH St: Oregon St to Delaware St, Hiawatha, KS. Install 135' 4" CS main. This project is to address a road improvement conflict on N 7TH St, as the pipeline will be too shallow after construction is completed.	3765	\$ 45,898	City of Hiawatha
21	Public Improvement	4/20/2021	3533	055	010050	Retire 130' 4" CS main. N 7TH St: Oregon St to Delaware St, Hiawatha, KS. Install 135' 4" CS main. This project is to address a road improvement conflict on N 7TH St, as the pipeline will be too shallow after construction is completed.	3800	\$ 3,962	City of Hiawatha
22	Public Improvement	6/24/2021	3533	055	010051	S 8TH St and Utah St, Hiawatha, KS - Retire 70 feet 4 inch CS main. Install 75 feet 4 inch CS main. This project is to address a road project by the city and will cause depth conflicts with our pipe, as it is currently too shallow, and the project will lower the grade of the street.	3765	\$ 19,540	City of Hiawatha
23	Public Improvement	2/25/2021	3911	055	010055	Government Relocation - Douglas from Towanda to Sunset, El Dorado - Retire 1,600' of 6" RPBS and 250' of 6" RPCS main needing relocated and lower due to grade cuts during The City of El Dorado's Douglas Rd from Sunset Rd to Towanda Ave Grading and Resurfacing Project. Install 1,600' of 6" RPCS main. The City of El Dorado will be replacing S Douglas Ave. from W Towanda Ave. to W Sunset Rd. KGS has a 6" BS/CS main that runs along the east side of Douglas that is quite shallow in some places and will be left underneath the new road. This project will replace 1,600' of 6" RPBS/RPCS with 1,600' of 6" RPCS to move this main out of the way of all conflicts. 25 service lines will be affected.	3765	\$ 339,460	City of El Dorado
24	Public Improvement	2/25/2021	3911	055	010055	Government Relocation - Douglas from Towanda to Sunset, El Dorado - Retire 1,600' of 6" RPBS and 250' of 6" RPCS main needing relocated and lower due to grade cuts during The City of El Dorado's Douglas Rd from Sunset Rd to Towanda Ave Grading and Resurfacing Project. Install 1,600' of 6" RPCS main. The City of El Dorado will be replacing S Douglas Ave. from W Towanda Ave. to W Sunset Rd. KGS has a 6" BS/CS main that runs along the east side of Douglas that is quite shallow in some places and will be left underneath the new road. This project will replace 1,600' of 6" RPBS/RPCS with 1,600' of 6" RPCS to move this main out of the way of all conflicts. 25 service lines will be affected.	3769	\$ 841	City of El Dorado
25	Public Improvement	2/25/2021	3911	055	010055	Government Relocation - Douglas from Towanda to Sunset, El Dorado - Retire 1,600' of 6" RPBS and 250' of 6" RPCS main needing relocated and lower due to grade cuts during The City of El Dorado's Douglas Rd from Sunset Rd to Towanda Ave Grading and Resurfacing Project. Install 1,600' of 6" RPCS main. The City of El Dorado will be replacing S Douglas Ave. from W Towanda Ave. to W Sunset Rd. KGS has a 6" BS/CS main that runs along the east side of Douglas that is quite shallow in some places and will be left underneath the new road. This project will replace 1,600' of 6" RPBS/RPCS with 1,600' of 6" RPCS to move this main out of the way of all conflicts. 25 service lines will be affected.	3800	\$ 78,899	City of El Dorado
26	Public Improvement	11/30/2020	3741	055	010058	Government Relocation - 11th & Oak, Harper - Retire 465' of 4" BS, 85' of 4"CS, 360' of 3" BS and 150' of 2" BS main in conflict with the City of Harper' s grade cuts on the banks of a small creek running through the city. Install 400' of 4"CS and 225' of 2" PE main.	3760	\$ 18,921	City of Harper
27	Public Improvement	11/30/2020	3741	055	010058	Government Relocation - 11th & Oak, Harper - Retire 465' of 4" BS, 85' of 4"CS, 360' of 3" BS and 150' of 2" BS main in conflict with the City of Harper' s grade cuts on the banks of a small creek running through the city. Install 400' of 4"CS and 225' of 2" PE main.	3765	\$ 37,738	City of Harper
28	Public Improvement	11/30/2020	3741	055	010058	Government Relocation - 11th & Oak, Harper - Retire 465' of 4" BS, 85' of 4"CS, 360' of 3" BS and 150' of 2" BS main in conflict with the City of Harper' s grade cuts on the banks of a small creek running through the city. Install 400' of 4"CS and 225' of 2" PE main.	3800	\$ 18,523	City of Harper
29	Public Improvement	8/18/2020	3741	055	010059	Government Relocation - 8th & Ash, Harper - Retire 325' of 2" BS in conflict with The City of Harper's plans to widen the intersection of 8th & Ash. Install and relocate 140' of 2" PE main.The City of Harper will be widening the intersection at 8th and Ash and has requested that we relocate our existing 2" RPBS line.	3760	\$ 2,908	City of Harper
30	Public Improvement	8/18/2020	3741	055	010059	Government Relocation - 8th & Ash, Harper - Retire 325' of 2" BS in conflict with The City of Harper's plans to widen the intersection of 8th & Ash. Install and relocate 140' of 2" PE main.The City of Harper will be widening the intersection at 8th and Ash and has requested that we relocate our existing 2" RPBS line.	3800	\$ 765	City of Harper
31	Public Improvement	9/16/2020	3741	055	010060	Government Relocation - 406 N 9th, Arkansas City - Retire 160' of 2" RPBS main uncovered by 3rd party contractor hired by The City of Arkansas City during a sanity sewer replacement job. Install 160' of 2" RPCS main.	3765	\$ 5,325	City of Arkansas City
32	Public Improvement	9/16/2020	3741	055	010060	Government Relocation - 406 N 9th, Arkansas City - Retire 160' of 2" RPBS main uncovered by 3rd party contractor hired by The City of Arkansas City during a sanity sewer replacement job. Install 160' of 2" RPCS main.	3800	\$ 531	City of Arkansas City
33	Public Improvement	11/30/2020	3741	055	010061	Government Relocation - 16th & Pine, Harper - Retire 10' of 3" RPBS and 100'of 2" RPVS main in conflict with The City of Harper's grade cuts and reconstruction around the above intersection. Install 100' of 4" RPCS and 100' of 2" 100' of 2" RPCS main.	3760	\$ 299	City of Harper
34	Public Improvement	11/30/2020	3741	055	010061	Government Relocation - 16th & Pine, Harper - Retire 10' of 3" RPBS and 100'of 2" RPVS main in conflict with The City of Harper's grade cuts and reconstruction around the above intersection. Install 100' of 4" RPCS and 100' of 2" 100' of 2" RPCS main.	3765	\$ 16,770	City of Harper
35	Public Improvement	11/30/2020	3741	055	010062	The city of Harper is replacing Pine St. from 15th Ave to 21st Ave. Upon further investigation, they found that the 2" RPBS main along 21st St. was approximately 3" below grade and will be in conflict with their grade cuts. This work order will replace 275' of 2" RPBS with 2" RPCS.	3765	\$ 20,781	City of Harper

Line Number	GSRS Qualification	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost	Government Entity
36	Public Improvement	6/15/2021	3635	055	010073	Government Relocation - Trail West St & Northview, McPherson - Abandon 1,053' of 2" PE main in conflict with The City of McPherson's Northgate Drainage Improvements projects. Install 800' of 2" PE main. We are needing to relocate our PE main that runs in the rear easement of Trail West St due to the Northgate Drainage Improvements that the City of McPherson is wanting to do. This section of main will be ran in the street in front of the houses and will be connected to the CS main that runs north/south in the rear easement between Trail North St and N Grimes St. We will also need to add 2" PE at 1547 Trail West and run north to tie into 4"PE at Northview Rd. This will feed the houses south to 1511 Trails West St There are 13 services that will need to be replaced.	3760	\$ 36,894	City of McPherson
37	Public Improvement	6/15/2021	3635	055	010073	Government Relocation - Trail West St & Northview, McPherson - Abandon 1,053' of 2" PE main in conflict with The City of McPherson's Northgate Drainage Improvements projects. Install 800' of 2" PE main. We are needing to relocate our PE main that runs in the rear easement of Trail West St due to the Northgate Drainage Improvements that the City of McPherson is wanting to do. This section of main will be ran in the street in front of the houses and will be connected to the CS main that runs north/south in the rear easement between Trail North St and N Grimes St. We will also need to add 2" PE at 1547 Trail West and run north to tie into 4"PE at Northview Rd. This will feed the houses south to 1511 Trails West St There are 13 services that will need to be replaced.	3769	\$ 441	City of McPherson
38	Public Improvement	6/15/2021	3635	055	010073	Government Relocation - Trail West St & Northview, McPherson - Abandon 1,053' of 2" PE main in conflict with The City of McPherson's Northgate Drainage Improvements projects. Install 800' of 2" PE main. We are needing to relocate our PE main that runs in the rear easement of Trail West St due to the Northgate Drainage Improvements that the City of McPherson is wanting to do. This section of main will be ran in the street in front of the houses and will be connected to the CS main that runs north/south in the rear easement between Trail North St and N Grimes St. We will also need to add 2" PE at 1547 Trail West and run north to tie into 4"PE at Northview Rd. This will feed the houses south to 1511 Trails West St There are 13 services that will need to be replaced.	3800	\$ 52,895	City of McPherson
39	Public Improvement	6/15/2021	3635	055	010073	Government Relocation - Trail West St & Northview, McPherson - Abandon 1,053' of 2" PE main in conflict with The City of McPherson's Northgate Drainage Improvements projects. Install 800' of 2" PE main. We are needing to relocate our PE main that runs in the rear easement of Trail West St due to the Northgate Drainage Improvements that the City of McPherson is wanting to do. This section of main will be ran in the street in front of the houses and will be connected to the CS main that runs north/south in the rear easement between Trail North St and N Grimes St. We will also need to add 2" PE at 1547 Trail West and run north to tie into 4"PE at Northview Rd. This will feed the houses south to 1511 Trails West St There are 13 services that will need to be replaced.	3820	\$ 2,447	City of McPherson
40	Public Improvement	8/14/2020	3531	055	010082	Install/relocate 10' of 2"PE for the storm water project at 153 Woodland Rd, Lansing, KS. Cut &cap main (retire 10' 2" PE main). Reinstall 10' 2" PE main. This work is being done due to a conflict with a new storm water pipe installation by the city of Lansing.	3760	\$ 1,986	City of Lansing
41	Public Improvement	11/30/2020	3631	055	010083	Install: 48' of new 4" PE main 4' lower than existing. Retire: 40' of 4" PE main. No Service Lines Affected. The City of Hutchinson is installing a sewer pipe on the same plane as the gas line; therefore, the existing gas line needs to be replaced at a lower depth.	3760	\$ 17,360	City of Hutchinson
42	Public Improvement	9/16/2020	3761	055	010093	Government Relocation - 14th St & Lakewood Dr, Pittsburg - Retire 225' of 4" APCS main in conflict with the City of Pittsburg's East 14th St Bridge Replacement project. Install 225' of 4" PE main.225' of 4" APCS main will be replaced with 4" PE North of the 14th Street Bridge just to the East of Lakewood Dr in Pittsburg Kansas.The project is required as part of the bridge replacement project by the City of Pittsburg.	3760	\$ 25,556	City of Pittsburg
43	Public Improvement	9/16/2020	3761	055	010093	Government Relocation - 14th St & Lakewood Dr, Pittsburg - Retire 225' of 4" APCS main in conflict with the City of Pittsburg's East 14th St Bridge Replacement project. Install 225' of 4" PE main.225' of 4" APCS main will be replaced with 4" PE North of the 14th Street Bridge just to the East of Lakewood Dr in Pittsburg Kansas.The project is required as part of the bridge replacement project by the City of Pittsburg.	3769	\$ 553	City of Pittsburg
44	Public Improvement	6/2/2021	3761	055	010095	Government Relocation - 818 E 4th, Pittsburg- Retire 345' of 2" PE main in conflict with the storm sewer during The City of Pittsburg's State Highway K-126 Federal Aid project. Install 345' of 2" PE main. The city of Pittsburg is installing a storm sewer drain that will be in conflict with our existing 2" PE main. KGS will relocate approx. 345' of 2" PE south of its current location out of the way of the new drain. Install 345' of 2" PE Retire 345' of 2" PE 2 Service Line Tie overs	3760	\$ 11,717	City of Pittsburg
45	Public Improvement	6/2/2021	3761	055	010095	Government Relocation - 818 E 4th, Pittsburg- Retire 345' of 2" PE main in conflict with the storm sewer during The City of Pittsburg's State Highway K-126 Federal Aid project. Install 345' of 2" PE main. The city of Pittsburg is installing a storm sewer drain that will be in conflict with our existing 2" PE main. KGS will relocate approx. 345' of 2" PE south of its current location out of the way of the new drain. Install 345' of 2" PE Retire 345' of 2" PE 2 Service Line Tie overs	3800	\$ 47	City of Pittsburg
46	Public Improvement	8/18/2020	3521	055	010124	4th St and Walnut St , Wellsville, Relocate the 2" PE Main near 415 Walnut St to avoid new Storm Sewer improvements. Relay the Service Lines for 409 Walnut St and 412 Walnut St to avoid the Storm Sewer improvements.	3760	\$ 16,287	City of Wellsville
47	Public Improvement	4/20/2021	3521	055	010125	Retire 1,040 of 2" PE main and 110 of 3" PE main. State Hwy 33, Wellsville, KS. Install 1,150' of 4" PE main. KDOT is replacing a railroad overpass on Hwy 33 in Wellsville and is in conflict with KGS facilities.	3760	\$ 58,791	Kansas Department of Transportation
48	Public Improvement	10/20/2020	3521	055	010127	Install 60' 2" CS Main at10th St & Elm St, Baldwin City, KS. Retire 60' 2" CS main. There are two storm water conflicts with the 2" CS main due to the Baldwin City Ped-Bike Connectivity Project. KGS will install a large dog leg to eliminate the conflict.	3765	\$ 32,355	City of Baldwin
49	Public Improvement	4/20/2021	3521	055	010128	Retire 150' of 2" PE main. North Iron St and Baptiste Dr, Paola, KS. Install 150' of 2" PE main. This work is being done to avoid conflicts with the Irons St and Baptiste Dr street improvements.	3760	\$ 18,324	City of Paola
50	Public Improvement	4/20/2021	3521	055	010128	Retire 150' of 2" PE main. North Iron St and Baptiste Dr, Paola, KS. Install 150' of 2" PE main. This work is being done to avoid conflicts with the Irons St and Baptiste Dr street improvements.	3800	\$ 8,276	City of Paola
51	Public Improvement	5/25/2021	3521	055	010129	Pendleton Ave - Wellsville, KS. GSRS Project. Retire: 500 feet of 2 inch CS Main, 700 feet of PE Main Install: 1200 feet of 2 inch PE Main Service Lines: 18 Service Line Tie-Over: This GSRS project is to move a 2" PE and CS Main that is in conflict with a Storm Sewer and Road Improvement project along Pendleton Ave in Wellsville, KS.	3760	\$ 65,098	City of Wellsville

Line Number	GSRs Qualification	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost	Government Entity
52	Public Improvement	5/25/2021	3521	055	010129	Pendleton Ave - Wellsville, KS. GSRs Project. Retire: 500 feet of 2 inch CS Main, 700 feet of PE Main Install: 1200 feet of 2 inch PE Main Service Lines: 18 Service Line Tie-Over: This GSRs project is to move a 2" PE and CS Main that is in conflict with a Storm Sewer and Road Improvement project along Pendleton Ave in Wellsville, KS.	3800	\$ 14,561	City of Wellsville
53	Public Improvement	4/20/2021	3651	055	010133	Retire 10' 2" CS main. S. Delaware and Dunbar, Manhattan, KS. Install 26' 2" CS main. City is installing storm sewer drains and inlet boxes at the intersection of S. Delaware and Dunbar our 2" main is in the way of their installation.	3765	\$ 4,138	City of Manhattan
54	Public Improvement	2/25/2021	3651	055	010138	MANHATTAN-Dempsey Rd to Josie Ln - Install 805 ft of 2 in PE to replace street crossing being removed for Hwy 24 construction. This work order is to provide installation of 2-inch PE on the south side of Hwy 24 to get the main away from Hwy 24 intersection work. KDOT does not want utilities in a state highway right of way. The state is adding a turn lane at the northwest corner of the intersection of Green Valley Rd and US Hwy 24, which is a street crossing for KGS and is the only feed to a portion of the north side of Hwy 24.	3760	\$ 37,908	Kansas Department of Transportation
55	Public Improvement	11/30/2020	3651	055	010142	Claffin & Highland, Manhattan, KS. Install: 20' - 2" CS. Retire: 20' - 2" CS. Relocate 20' of 2" CS to clear conflict with a proposed city manhole.	3765	\$ 1,749	City of Manhattan
56	Public Improvement	11/30/2020	3651	055	010142	Claffin & Highland, Manhattan, KS. Install: 20' - 2" CS. Retire: 20' - 2" CS. Relocate 20' of 2" CS to clear conflict with a proposed city manhole.	3769	\$ 651	City of Manhattan
57	Public Improvement	4/20/2021	3651	055	010143	Valley & Balderson, Wamego, KS Install: 2700' - 2" PE and 780' - 4" PE Retire: 900' - 2" PE, 80' - 4" PE, 600' - 2" BS, and 900' - 2" CS The city of Wamego is improving the storm and sanitary system along Valley, Balderson, and Military Trail Rd, causing several conflicts with KGS's gas main.	3760	\$ 200,038	City of Wamego
58	Public Improvement	4/20/2021	3651	055	010143	Valley & Balderson, Wamego, KS Install: 2700' - 2" PE and 780' - 4" PE Retire: 900' - 2" PE, 80' - 4" PE, 600' - 2" BS, and 900' - 2" CS The city of Wamego is improving the storm and sanitary system along Valley, Balderson, and Military Trail Rd, causing several conflicts with KGS's gas main.	3769	\$ 895	City of Wamego
59	Public Improvement	4/20/2021	3651	055	010143	Valley & Balderson, Wamego, KS Install: 2700' - 2" PE and 780' - 4" PE Retire: 900' - 2" PE, 80' - 4" PE, 600' - 2" BS, and 900' - 2" CS The city of Wamego is improving the storm and sanitary system along Valley, Balderson, and Military Trail Rd, causing several conflicts with KGS's gas main.	3800	\$ 12,716	City of Wamego
60	Public Improvement	4/20/2021	3651	055	010144	Retire 900' 2" CS main. College Ave and Kimball Ave, Manhattan, KS. Install 900' 2" PE main. The city of Manhattan is improving the intersection by widening the road and adding storm sewer. Our 2" CS main is in conflict at 3 storm crossings and needs to be relocated.	3760	\$ 53,083	City of Manhattan
61	Public Improvement	1/15/2021	3651	055	010145	US-24 Hwy and Green Valley Rd, Manhattan, KS. Install: 1160 ft of 2" PE and 150 ft of 4" PE Retire: 850 ft of 2" CS, 200 ft of 2" PE, and 140 ft of 4" PE Pottawatomie County is widening the intersection, constructing a new road North of US-24 from Powers Ln to Green Valley, and installing storm sewer throughout.	3760	\$ 57,597	Pottawatomie County
62	Public Improvement	1/15/2021	3651	055	010145	US-24 Hwy and Green Valley Rd, Manhattan, KS. Install: 1160 ft of 2" PE and 150 ft of 4" PE Retire: 850 ft of 2" CS, 200 ft of 2" PE, and 140 ft of 4" PE Pottawatomie County is widening the intersection, constructing a new road North of US-24 from Powers Ln to Green Valley, and installing storm sewer throughout.	3800	\$ 11,362	Pottawatomie County
63	Public Improvement	1/15/2021	3651	055	010146	N Manhattan Ave & McCain Ln, Manhattan, KS. Install: 50 ft of 2" CS and 40 ft of 2" PE. Retire: 50 ft of 2" CS, 20 ft of 4" CS and 20 ft of 2" PE. The city of Manhattan is improving the storm sewer system and widening N Manhattan Ave from Centennial Dr to McCain Ln in Phase 3 of the N Manhattan Ave improvements..	3760	\$ 14,821	City of Manhattan
64	Public Improvement	1/15/2021	3651	055	010148	Alley West of N Washington St between 14th St and 13th St, Junction City, KS. Install: 20' - 2" CS main. Retire: 20' - 2" CS main. Relocate 20' of 2" CS main below the proposed storm sewer and replace 1-3 service lines that are potentially in conflict. Junction City is installing storm sewer through this alley. Potential service relocations:1 PE service relocation, 2 BS service replacements.	3765	\$ 3,023	City of Junction City
65	Public Improvement	1/15/2021	3651	055	010148	Alley West of N Washington St between 14th St and 13th St, Junction City, KS. Install: 20' - 2" CS main. Retire: 20' - 2" CS main. Relocate 20' of 2" CS main below the proposed storm sewer and replace 1-3 service lines that are potentially in conflict. Junction City is installing storm sewer through this alley. Potential service relocations:1 PE service relocation, 2 BS service replacements.	3769	\$ 1,368	City of Junction City
66	Public Improvement	4/1/2021	3651	055	010149	Retire 460' - 2" BS main. 12th & Elm, Ogden, KS. Install 400' - 2" PE main. KDOT is replacing the existing bridge between 315 S Elm St and 115 12th St which conflicts with our existing 2" bare steel main. The new main will be installed 3' South of the North right-of-way limit to avoid excessive depth below the bridge wingwalls.	3760	\$ 12,179	Kansas Department of Transportation
67	Public Improvement	4/1/2021	3651	055	010149	Retire 460' - 2" BS main. 12th & Elm, Ogden, KS. Install 400' - 2" PE main. KDOT is replacing the existing bridge between 315 S Elm St and 115 12th St which conflicts with our existing 2" bare steel main. The new main will be installed 3' South of the North right-of-way limit to avoid excessive depth below the bridge wingwalls.	3800	\$ 1,552	Kansas Department of Transportation
68	Public Improvement	1/15/2021	3651	055	010152	Smith St and Brockman St, Manhattan, KS Install: 1220-ft of 2-in PE main Retire: 540-ft 2-in anode protected CS. The City of Manhattan is improving the channel just North of Smith St and West of Brockman St.	3760	\$ 64,302	City of Manhattan
69	Public Improvement	1/15/2021	3651	055	010152	Smith St and Brockman St, Manhattan, KS Install: 1220-ft of 2-in PE main Retire: 540-ft 2-in anode protected CS. The City of Manhattan is improving the channel just North of Smith St and West of Brockman St.	3765	\$ 427	City of Manhattan
70	Public Improvement	1/15/2021	3651	055	010152	Smith St and Brockman St, Manhattan, KS Install: 1220-ft of 2-in PE main Retire: 540-ft 2-in anode protected CS. The City of Manhattan is improving the channel just North of Smith St and West of Brockman St.	3800	\$ 24,379	City of Manhattan
71	Public Improvement	4/20/2021	3651	055	010153	Retire 600' - 4" PE main. Crown C & US-24, Manhattan-Pott. County, KS. Install 600' - 4" PE main. KDOT is planning to extend Southport Dr to Crown C Cir along with storm sewer, just South of US-24. Our 4" PE main will need relocated as it is in conflict with the new proposed ditch and storm proposed storm line crossing Crown C.	3760	\$ 33,739	Kansas Department of Transportation
72	Public Improvement	4/20/2021	3651	055	010153	Retire 600' - 4" PE main. Crown C & US-24, Manhattan-Pott. County, KS. Install 600' - 4" PE main. KDOT is planning to extend Southport Dr to Crown C Cir along with storm sewer, just South of US-24. Our 4" PE main will need relocated as it is in conflict with the new proposed ditch and storm proposed storm line crossing Crown C.	3800	\$ 11,653	Kansas Department of Transportation
73	Public Improvement	4/1/2021	3651	055	010154	Retire 600' - 2" CS and 100' - 2" PE. 6th & Rockenham, St George, KS. Install 700' - 2" PE. The City of St. George is improving 6th St from Rockenham to Shady Oak Dr by paving the existing dirt road and adding storm sewer. Our existing 2" CS main lies under the proposed road and is in conflict with two storm crossings.	3760	\$ 33,224	City of St. George

Line Number	GSRs Qualification	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost	Government Entity
74	Public Improvement	4/1/2021	3651	055	010154	Retire 600' - 2" CS and 100' - 2" PE. 6th & Rockenham, St George, KS. Install 700' - 2" PE. The City of St. George is improving 6th St from Rockenham to Shady Oak Dr by paving the existing dirt road and adding storm sewer. Our existing 2" CS main lies under the proposed road and is in conflict with two storm crossings.	3800	\$ 2,216	City of St. George
75	Public Improvement	6/24/2021	3651	055	010155	14th & Laramie, Manhattan, KS Install: 350' - 6" PE and 400' - 4" PE Retire: 240' - 6" BS, 300' - 4" BS, 100' - 6" CS, 140' - 4" CS and 200' - 1.25" CS. The City of Manhattan is improving Laramie from 14th St to Manhattan Ave and 14th St from Fairchild to Anderson Ave by resurfacing and adding storm sewer. Our main is in conflict with proposed storm sewers in two locations, however, to prevent digging back into the new road surface in the future, we will be replacing all bare steel in the City's project area.	3760	\$ 200,556	City of Manhattan
76	Public Improvement	6/24/2021	3651	055	010155	14th & Laramie, Manhattan, KS Install: 350' - 6" PE and 400' - 4" PE Retire: 240' - 6" BS, 300' - 4" BS, 100' - 6" CS, 140' - 4" CS and 200' - 1.25" CS. The City of Manhattan is improving Laramie from 14th St to Manhattan Ave and 14th St from Fairchild to Anderson Ave by resurfacing and adding storm sewer. Our main is in conflict with proposed storm sewers in two locations, however, to prevent digging back into the new road surface in the future, we will be replacing all bare steel in the City's project area.	3765	\$ 8,309	City of Manhattan
77	Public Improvement	6/24/2021	3651	055	010155	14th & Laramie, Manhattan, KS Install: 350' - 6" PE and 400' - 4" PE Retire: 240' - 6" BS, 300' - 4" BS, 100' - 6" CS, 140' - 4" CS and 200' - 1.25" CS. The City of Manhattan is improving Laramie from 14th St to Manhattan Ave and 14th St from Fairchild to Anderson Ave by resurfacing and adding storm sewer. Our main is in conflict with proposed storm sewers in two locations, however, to prevent digging back into the new road surface in the future, we will be replacing all bare steel in the City's project area.	3800	\$ 13,992	City of Manhattan
78	Public Improvement	6/15/2021	3651	055	010156	6th & Poyntz, Manhattan, KS Install: 170' - 6" PE main. This project will reconnect the 6" bare steel main across Poyntz Ave that was cut and capped in 2019 as part of relocation project 051.055.3651.010134 to clear conflicts with city storm sewer construction.	3760	\$ 31,694	City of Manhattan
79	Public Improvement	6/15/2021	3651	055	010156	6th & Poyntz, Manhattan, KS Install: 170' - 6" PE main. This project will reconnect the 6" bare steel main across Poyntz Ave that was cut and capped in 2019 as part of relocation project 051.055.3651.010134 to clear conflicts with city storm sewer construction.	3765	\$ 586	City of Manhattan
80	Public Improvement	4/20/2021	3651	055	010157	Retire 80ft of 2in PE main. 5th and Maple alley, St Marys, KS. Install 80ft of 2in PE main. The City of St Marys is lowering an 80ft section of this alley by 3ft and requested that we lower our main that is in conflict. This capital project will lower the existing main by 3ft to maintain sufficient cover after the City's road improvements.	3760	\$ 18,551	City of St Marys
81	Public Improvement	4/20/2021	3651	055	010157	Retire 80ft of 2in PE main. 5th and Maple alley, St Marys, KS. Install 80ft of 2in PE main. The City of St Marys is lowering an 80ft section of this alley by 3ft and requested that we lower our main that is in conflict. This capital project will lower the existing main by 3ft to maintain sufficient cover after the City's road improvements.	3800	\$ 7,461	City of St Marys
82	Public Improvement	4/20/2021	3651	055	010158	Retire 350' - 2" PE main. Kimball & Candlewood, Manhattan, KS. Install: 400' - 2" PE main. The City of Manhattan is improving the storm system on the Northeast corner of Kimball and Candlewood. Our existing 2" PE main is in conflict with a storm line and proposed grading and will need relocated.	3760	\$ 7,392	City of Manhattan
83	Public Improvement	6/24/2021	3651	055	010159	Kimball Ave from College to Denison, Manhattan, KS. To Install:1,800ft of 2in PE. To Retire:800ft of 2in APCS and 1,000ft of 2in PE. Public Works Project:This project is necessary to remove conflicts with sidewalk and storm sewer construction along the north side of Kimball Ave.	3760	\$ 41,640	City of Manhattan
84	Public Improvement	6/24/2021	3651	055	010159	Kimball Ave from College to Denison, Manhattan, KS. To Install:1,800ft of 2in PE. To Retire:800ft of 2in APCS and 1,000ft of 2in PE. Public Works Project:This project is necessary to remove conflicts with sidewalk and storm sewer construction along the north side of Kimball Ave.	3800	\$ 1,383	City of Manhattan
85	Public Improvement	6/24/2021	3651	055	010159	Kimball Ave from College to Denison, Manhattan, KS. To Install:1,800ft of 2in PE. To Retire:800ft of 2in APCS and 1,000ft of 2in PE. Public Works Project:This project is necessary to remove conflicts with sidewalk and storm sewer construction along the north side of Kimball Ave.	3830	\$ 82	City of Manhattan
86	Public Improvement	5/13/2021	3651	055	010160	Westwood St and Oak St - Manhattan, KS. GSRs Relocation. Install: 25ft of 2in PE and 200ft of 1.25in PE. Tie-over: 3 ea Service Lines. This main relocation is necessary to correct conflicts with a City of Manhattan Storm Sewer improvement project that is currently under construction. Our existing 2in main has been exposed the City's construction and must be relocated immediately. There are 3 PE services that will be tied-over the new PE main as the existing CS main is both in conflict and in poor condition.	3760	\$ 2,712	City of Manhattan
87	Public Improvement	5/13/2021	3651	055	010160	Westwood St and Oak St - Manhattan, KS. GSRs Relocation. Install: 25ft of 2in PE and 200ft of 1.25in PE. Tie-over: 3 ea Service Lines. This main relocation is necessary to correct conflicts with a City of Manhattan Storm Sewer improvement project that is currently under construction. Our existing 2in main has been exposed the City's construction and must be relocated immediately. There are 3 PE services that will be tied-over the new PE main as the existing CS main is both in conflict and in poor condition.	3769	\$ 285	City of Manhattan
88	Public Improvement	5/13/2021	3651	055	010160	Westwood St and Oak St - Manhattan, KS. GSRs Relocation. Install: 25ft of 2in PE and 200ft of 1.25in PE. Tie-over: 3 ea Service Lines. This main relocation is necessary to correct conflicts with a City of Manhattan Storm Sewer improvement project that is currently under construction. Our existing 2in main has been exposed the City's construction and must be relocated immediately. There are 3 PE services that will be tied-over the new PE main as the existing CS main is both in conflict and in poor condition.	3800	\$ 1,279	City of Manhattan
89	Public Improvement	2/25/2021	3541	055	010368	Retire 160' 10" CS main. NW Crane and Jackson St, Topeka, KS. Install 160' 10" CS main. Relocate gas main due to the City of Topeka installing a sanitary sewer rehabilitation of an existing sanitary system.	3765	\$ 127,825	City of Topeka
90	Public Improvement	11/30/2020	3541	055	010372	SW Plass Ave and 22nd Park, Topeka, KS. The city has a storm sewer along Plass Ave that failed and needs an emergency replacement. Five services either don't have enough clearance or weren't able to be located and will be renewed. All of these services are 3/4" PE coming off of a 2" PE main.	3800	\$ 8,106	City of Topeka

Line Number	GSRs Qualification	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost	Government Entity
91	Public Improvement	11/30/2020	3541	055	010379	Install: 175-feet of 6-inch CS main Retire: 125-feet of 6-inch CS main 2003 vintage. Deer Creek Pkwy and SE 10th, Topeka, KS. The city of Topeka is installing a 10-foot wide multipurpose (bike) trail along Deer Creek Parkway. There is a depth conflict near the intersection of SE Deer Creek Parkway and SE 10 st. where the path ends and slopes downward. We have a 6-inch CS main that is 27-inches deep currently. We will be installing spherical 3-way tee's and lowering a 125-foot stretch of pipe by 30 inches.	3765	\$ 66,693	City of Topeka
92	Public Improvement	11/30/2020	3541	055	010381	Tie-in 60 feet of 4 inch PE main after the City of Topeka finishes their storm sewer improvements. The section of main in conflict was removed in 2019 but the City did not complete its improvements by the end of 2019. This work order only includes the installation.Re-establishes system interconnect after conflict with RCP was removed in 2019. 4 inch PE was originally installed in 1995.	3760	\$ 11,103	City of Topeka
93	Public Improvement	10/20/2020	3541	055	010388	SW 26th & Central Park, Topeka, KS - This work order will relocate approximately 200' of 4" PE that is in the way of the City of Topeka's road improvement on SW Central Park.	3760	\$ 13,241	City of Topeka
94	Public Improvement	10/20/2020	3541	055	010388	SW 26th & Central Park, Topeka, KS - This work order will relocate approximately 200' of 4" PE that is in the way of the City of Topeka's road improvement on SW Central Park.	3800	\$ 13,192	City of Topeka
95	Public Improvement	5/13/2021	3541	055	010389	3125 Fillmore St - Topeka, KS. Retire: 30 feet of 4 inch APCS. Install: 30 feet of 4 inch APCS. Relocate 30 feet of 4 inch APCS that is in conflict with a City of Topeka storm sewer improvement project in the rear easement between SW Fillmore St and SW Central Park Ave.	3765	\$ 12,426	City of Topeka
96	Public Improvement	8/25/2020	3541	055	010390	SW 19th & Topeka - This work order will install 515' of 4" PE and retire 515' of 4" PE that conflicts with the City of Topeka's public works project. The main had been exposed and would be in the sub-grade work and the retaining wall footings for part of the project.	3760	\$ 47,575	City of Topeka
97	Public Improvement	8/25/2020	3541	055	010390	SW 19th & Topeka - This work order will install 515' of 4" PE and retire 515' of 4" PE that conflicts with the City of Topeka's public works project. The main had been exposed and would be in the sub-grade work and the retaining wall footings for part of the project.	3800	\$ 8,646	City of Topeka
98	Public Improvement	2/25/2021	3541	055	010391	Retire 500' of 4" APCS main. NW 39th and Green Hills, Topeka KS. Install 500' 4" PE main. Replace gas main due to 39th and Green Hills Culvert Replacement project by the City of Topeka.	3760	\$ 69,077	City of Topeka
99	Public Improvement	2/25/2021	3541	055	010391	Retire 500' of 4" APCS main. NW 39th and Green Hills, Topeka KS. Install 500' 4" PE main. Replace gas main due to 39th and Green Hills Culvert Replacement project by the City of Topeka.	3765	\$ 345	City of Topeka
100	Public Improvement	2/25/2021	3541	055	010391	Retire 500' of 4" APCS main. NW 39th and Green Hills, Topeka KS. Install 500' 4" PE main. Replace gas main due to 39th and Green Hills Culvert Replacement project by the City of Topeka.	3769	\$ 3,274	City of Topeka
101	Public Improvement	6/2/2021	3541	055	010392	SE California between SE 6th & 10th - Topeka, KS. Retire: 150 feet of 2 inch PE Main. Install: 150 feet of 2 inch PE Main. Tie-over: 5 ea Service Lines. This workorder will relocate 150' of 2" high pressure PE main that conflicts with the City of Topeka's road improvement project. There are 5 service lines that will need to be lowered because they are too shallow.	3760	\$ 218,873	City of Topeka
102	Public Improvement	6/2/2021	3541	055	010392	SE California between SE 6th & 10th - Topeka, KS. Retire: 150 feet of 2 inch PE Main. Install: 150 feet of 2 inch PE Main. Tie-over: 5 ea Service Lines. This workorder will relocate 150' of 2" high pressure PE main that conflicts with the City of Topeka's road improvement project. There are 5 service lines that will need to be lowered because they are too shallow.	3769	\$ 726	City of Topeka
103	Public Improvement	2/25/2021	3541	055	010393	Retire 140' 4" BS. SW 25 th and Duncan Dr, Topeka, KS. Install 140' 4" PE. Lower the gas main due to conflict with the street reconstruction.	3760	\$ 13,456	City of Topeka
104	Public Improvement	1/15/2021	3541	055	010394	Alley between SW 5th & 6th and Van Buren and Jackson - The existing 2 inch PE main running north and south in the alley between SW 5 th & SW 6 th and between SW Van Buren and SW Jackson will conflict with a larger manhole being installed by the City of Topeka. This is part of the City's Van Buren Interceptor Rehabilitation project. This WO will install 50 feet of 2 inch, PE around the proposed manhole replacing manhole number 16057. Retire 50 feet 2 inch, PE	3760	\$ 2,178	City of Topeka
105	Public Improvement	4/20/2021	3541	055	010396	Retire 80' 2" RPCS main. 1224 SW Belle Ave, Topeka, KS. Install 85' 2" RPCS main. This project is to address a depth conflict on SW Belle Ave mill and overlay project.	3765	\$ 6,972	City of Topeka
106	Public Improvement	4/20/2021	3541	055	010396	Retire 80' 2" RPCS main. 1224 SW Belle Ave, Topeka, KS. Install 85' 2" RPCS main. This project is to address a depth conflict on SW Belle Ave mill and overlay project.	3800	\$ 8,936	City of Topeka
107	Public Improvement	4/20/2021	3541	055	010397	Retire 100' 2" PE main. SW 12th and Van Buren in Topeka. Install 100' 2" PE main. This is part of Phase 1 of a 5 phase City of Topeka project to improve SW 12th St from Kansas Ave to Gage Blvd, including the storm sewer. KGS has 3 mains in conflict with this phase that must be relocated by February of 2021. This project is to lower one of these mains at 12th and Van Buren.	3760	\$ 24,936	City of Topeka
108	Public Improvement	6/2/2021	3541	055	010400	SW 12th St and Fillmore St - Topeka, KS. Retire: 70 feet of 4 inch PE Main. Install: 70 feet of 4 inch PE Main. This project is necessary because of a public works road improvement project and storm water pipe replacement	3760	\$ 13,962	City of Topeka
109	Public Improvement	6/24/2021	3541	055	010401	SW 12th and Clay, Topeka KS - TO INSTALL: 50ft of 4" MDPE main. TO RETIRE: 50ft of 4" MDPE main. PUBLIC WORKS PROJECT:This project is necessary because of a public works road improvement project and storm water pipe replacement.	3760	\$ 35,335	City of Topeka
110	Public Improvement	6/24/2021	3541	055	010401	SW 12th and Clay, Topeka KS - TO INSTALL: 50ft of 4" MDPE main. TO RETIRE: 50ft of 4" MDPE main. PUBLIC WORKS PROJECT:This project is necessary because of a public works road improvement project and storm water pipe replacement.	3760	\$ 16,095	City of Topeka
111	Public Improvement	6/24/2021	3541	055	010401	SW 12th and Clay, Topeka KS - TO INSTALL: 50ft of 4" MDPE main. TO RETIRE: 50ft of 4" MDPE main. PUBLIC WORKS PROJECT:This project is necessary because of a public works road improvement project and storm water pipe replacement.	3760	\$ 793	City of Topeka
112	Public Improvement	6/24/2021	3541	055	010401	SW 12th and Clay, Topeka KS - TO INSTALL: 50ft of 4" MDPE main. TO RETIRE: 50ft of 4" MDPE main. PUBLIC WORKS PROJECT:This project is necessary because of a public works road improvement project and storm water pipe replacement.	3760	\$ 2,470	City of Topeka

Line Number	GSRS Qualification	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost	Government Entity
113	Public Improvement	6/24/2021	3541	055	010401	SW 12th and Clay, Topeka KS - TO INSTALL: 50ft of 4" MDPE main. TO RETIRE: 50ft of 4" MDPE main. PUBLIC WORKS PROJECT: This project is necessary because of a public works road improvement project and storm water pipe replacement.	3800	\$ 24,718	City of Topeka
114	Public Improvement	6/15/2021	3541	055	010403	SW 12th and Western, Topeka KS - TO INSTALL: 70ft of 4" MDPE main. TO RETIRE: 70ft of 4" MDPE main. PUBLIC WORKS PROJECT: This project is necessary because of a public works road improvement project and storm water pipe replacement.	3760	\$ 10,241	City of Topeka
115	Public Improvement	6/15/2021	3541	055	010403	SW 12th and Western, Topeka KS - TO INSTALL: 70ft of 4" MDPE main. TO RETIRE: 70ft of 4" MDPE main. PUBLIC WORKS PROJECT: This project is necessary because of a public works road improvement project and storm water pipe replacement.	3760	\$ 827	City of Topeka
116	Public Improvement	6/24/2021	3541	055	010405	SW 12th St and Buchanan St - Topeka, KS. GSRS Relocation. Retire: 70 feet of 4 inch PE Main. Install: 70 feet of 4 inch PE Main. This project is necessary because of a public works road improvement project and storm water pipe replacement	3760	\$ 22,955	City of Topeka
117	Public Improvement	6/24/2021	3541	055	010405	SW 12th St and Buchanan St - Topeka, KS. GSRS Relocation. Retire: 70 feet of 4 inch PE Main. Install: 70 feet of 4 inch PE Main. This project is necessary because of a public works road improvement project and storm water pipe replacement	3800	\$ 12,586	City of Topeka
118	Public Improvement	6/2/2021	3541	055	010406	US HWY 24 and Lakeland DR - Silver Lake Kansas. GSRS Relocation. To Retire: 300 ft of 2 inch PE Main instal: 300 feet of 2 Inch Pe Main. This project is necessary because of a public works road improvement project and storm water pipe replacement	3760	\$ 2,789	City of Silver Lake
119	Public Improvement	6/30/2021	3541	055	010411	SW 11th St and Webster St. Topeka, KS. Install: 225 feet of 2 inch PE Main. The existing 2-inch PE going east on SW Munson conflicts with the new storm inlet box being installed at the corner of SW Munson & Collins. This workorder will install approximately 225ft of 2-inch PE at SW 11th & Webster.	3760	\$ 13,623	City of Topeka
120	Public Improvement	9/22/2020	3721	055	010514	The city of Wichita changed their alignment of their 8' wide by 5' tall storm sewer down the middle of 17th, between Ohio & Mosley, causing our relocated pipe to be in conflict again. They raised their pipe by 3 feet to get it out of contaminated ground water. KGS will need to re-shoot bores of 4" PE on the East side of Mosley, and then a 2" PE piece in the alley East of Wabash.	3760	\$ 5,524	City of Wichita
121	Public Improvement	9/22/2020	3721	055	010514	The city of Wichita changed their alignment of their 8' wide by 5' tall storm sewer down the middle of 17th, between Ohio & Mosley, causing our relocated pipe to be in conflict again. They raised their pipe by 3 feet to get it out of contaminated ground water. KGS will need to re-shoot bores of 4" PE on the East side of Mosley, and then a 2" PE piece in the alley East of Wabash.	3769	\$ 174	City of Wichita
122	Public Improvement	11/30/2020	3721	055	010516	This work order will install 960' of 4" PE and 80' of 2" PE to replace 160' of 4" PE, 80' of 2" PE, and 800' of UPBS. The new main will be moved just East of the existing main. This replacement is being done due to roadway improvements of N Main St. by the city of Haysville. 5 services will be affected and two essential valves will be installed.	3760	\$ 62,410	City of Haysville
123	Public Improvement	11/30/2020	3721	055	010516	This work order will install 960' of 4" PE and 80' of 2" PE to replace 160' of 4" PE, 80' of 2" PE, and 800' of UPBS. The new main will be moved just East of the existing main. This replacement is being done due to roadway improvements of N Main St. by the city of Haysville. 5 services will be affected and two essential valves will be installed.	3769	\$ 393	City of Haysville
124	Public Improvement	11/30/2020	3721	055	010516	This work order will install 960' of 4" PE and 80' of 2" PE to replace 160' of 4" PE, 80' of 2" PE, and 800' of UPBS. The new main will be moved just East of the existing main. This replacement is being done due to roadway improvements of N Main St. by the city of Haysville. 5 services will be affected and two essential valves will be installed.	3800	\$ 6,995	City of Haysville
125	Public Improvement	9/22/2020	3721	055	010518	Morris & Berlin, Rosehill - Retire 2,229 of 2" APCS, 138' of 2" APBS, and 681' of 2" PE main in conflict with The City of Rosehill's 2020 Street Improvement project. Install 625' of 4" PE and 1,935' of 2" PE main. Relocate gas main along Morris St., as well as Berlin Dr due to curb cuts (currently gravel roads) and new storm sewer.	3760	\$ 118,749	City of Rosehill
126	Public Improvement	9/22/2020	3721	055	010518	Morris & Berlin, Rosehill - Retire 2,229 of 2" APCS, 138' of 2" APBS, and 681' of 2" PE main in conflict with The City of Rosehill's 2020 Street Improvement project. Install 625' of 4" PE and 1,935' of 2" PE main. Relocate gas main along Morris St., as well as Berlin Dr due to curb cuts (currently gravel roads) and new storm sewer.	3769	\$ 1,500	City of Rosehill
127	Public Improvement	9/22/2020	3721	055	010518	Morris & Berlin, Rosehill - Retire 2,229 of 2" APCS, 138' of 2" APBS, and 681' of 2" PE main in conflict with The City of Rosehill's 2020 Street Improvement project. Install 625' of 4" PE and 1,935' of 2" PE main. Relocate gas main along Morris St., as well as Berlin Dr due to curb cuts (currently gravel roads) and new storm sewer.	3800	\$ 71,249	City of Rosehill
128	Public Improvement	1/15/2021	3721	055	010519	Government Relocation - Sycamore St, Douglas to McLean - Retire 1,000' of 4" PE main in conflict with new curb and gutter as well as storm sewer as part of the City of Wichita's Sycamore Street , Douglas to McLean Street Improvement project. Install 1,000" of 4" PE main.	3760	\$ 51,257	City of Wichita
129	Public Improvement	11/3/2020	3721	055	010522	Government Relocation - Morris & Thomas, Rosehill - Retire 1,082' of 2" RPBS, 770' of 2" RPCS and 290' of 2" PE main in conflict with The City of Rosehill's 2020 Street Improvement "Old Town" project. Install 2,215' of 2" PE and 20' of 4" RPCS main. The city of Rose Hill contacted KGS about this area, and their plans to replace the gravel with paved streets, curbs and gutters. The grading required throughout the project is going to expose our existing gas main and services, so we'll be relocating throughout. Corrosion will be retiring the Rectifier on Thomas & installing anodes along Rose Hill Rd. We'll be abandoning in place: 290' 2" PE 1082' 2" RPBS 770' 2" RPCS and installing 2215' 2" PE. 22 services will be tied over/replaced.	3760	\$ 98,295	City of Rosehill
130	Public Improvement	11/3/2020	3721	055	010522	Government Relocation - Morris & Thomas, Rosehill - Retire 1,082' of 2" RPBS, 770' of 2" RPCS and 290' of 2" PE main in conflict with The City of Rosehill's 2020 Street Improvement "Old Town" project. Install 2,215' of 2" PE and 20' of 4" RPCS main. The city of Rose Hill contacted KGS about this area, and their plans to replace the gravel with paved streets, curbs and gutters. The grading required throughout the project is going to expose our existing gas main and services, so we'll be relocating throughout. Corrosion will be retiring the Rectifier on Thomas & installing anodes along Rose Hill Rd. We'll be abandoning in place: 290' 2" PE 1082' 2" RPBS 770' 2" RPCS and installing 2215' 2" PE. 22 services will be tied over/replaced.	3769	\$ 394	City of Rosehill

Line Number	GSRS Qualification	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost	Government Entity
131	Public Improvement	11/3/2020	3721	055	010522	Government Relocation - Morris & Thomas, Rosehill - Retire 1,082' of 2" RPBS, 770' of 2" RPCS and 290' of 2" PE main in conflict with The City of Rosehill's 2020 Street Improvement "Old Town" project. Install 2,215' of 2" PE and 20' of 4" RPCS main. The city of Rose Hill contacted KGS about this area, and their plans to replace the gravel with paved streets, curbs and gutters. The grading required throughout the project is going to expose our existing gas main and services, so we'll be relocating throughout. Corrosion will be retiring the Rectifier on Thomas & installing anodes along Rose Hill Rd. We'll be abandoning in place: 290' 2" PE 1082' 2" RPBS 770' 2" RPCS and installing 2215' 2" PE. 22 services will be tied over/replaced.	3800	\$ 34,977	City of Rosehill
132	Public Improvement	11/30/2020	3721	055	010523	Government Relocation - Mt Vernon & St Francis, Wichita - Retire 30' of 2" BS main in conflict with a new storm box. Install 30' of 2" PE.	3760	\$ 3,197	City of Wichita
133	Public Improvement	11/30/2020	3721	055	010524	This project was initiated by the City of Wichita due to a planned drainage project running from 407 N Garnett St south to 217 N Garnett St. Approximately 1300' of 2" APCS main will be replaced with 2" PE. The city will be correcting drainage issues running along the east side of N Garnett St. This work order will bore in the new 2" PE main to be 5' below the existing grade.	3760	\$ 49,805	City of Wichita
134	Public Improvement	11/30/2020	3721	055	010524	This project was initiated by the City of Wichita due to a planned drainage project running from 407 N Garnett St south to 217 N Garnett St. Approximately 1300' of 2" APCS main will be replaced with 2" PE. The city will be correcting drainage issues running along the east side of N Garnett St. This work order will bore in the new 2" PE main to be 5' below the existing grade.	3800	\$ 31,360	City of Wichita
135	Public Improvement	8/18/2020	3721	055	010525	Main Relocation - Mt Vernon & Santa Fe, Wichita - Retire 6' of 6" PE main in conflict with the storm sewer construction as part of KDOT's Mt Vernon Improvement Topeka to Southeast Blvd project. Lower and install 6' of 6" PE main. KGS has a current 6" PE line that is in direct conflict with the storm sewer construction at Mt. Vernon and Santa Fe. This work order will replace approximately 6' of 6" PE and will relocate it to a depth of at least 5' below grade, to get beneath the proposed storm water pipe.	3760	\$ 7,047	Kansas Department of Transportation
136	Public Improvement	1/15/2021	3721	055	010526	Replace approx. 3100' of RPBS with 2" and 4" PE along several neighborhood streets in the City of Belle Plaine in conflict with the street paving project. Install: 1725' 2" PE 725' 4" PE 175' 4" CS Retire: 1644' 2" RPBS 875' 3" RPBS 93' 2" PE 58' 4" PE 79' 1.25" RPBS There will be 19 PE service line tie overs and 2 service line retirements.	3760	\$ 117,772	City of Belle Plaine
137	Public Improvement	1/15/2021	3721	055	010526	Replace approx. 3100' of RPBS with 2" and 4" PE along several neighborhood streets in the City of Belle Plaine in conflict with the street paving project. Install: 1725' 2" PE 725' 4" PE 175' 4" CS Retire: 1644' 2" RPBS 875' 3" RPBS 93' 2" PE 58' 4" PE 79' 1.25" RPBS There will be 19 PE service line tie overs and 2 service line retirements.	3765	\$ 7,126	City of Belle Plaine
138	Public Improvement	1/15/2021	3721	055	010526	Replace approx. 3100' of RPBS with 2" and 4" PE along several neighborhood streets in the City of Belle Plaine in conflict with the street paving project. Install: 1725' 2" PE 725' 4" PE 175' 4" CS Retire: 1644' 2" RPBS 875' 3" RPBS 93' 2" PE 58' 4" PE 79' 1.25" RPBS There will be 19 PE service line tie overs and 2 service line retirements.	3769	\$ 1,487	City of Belle Plaine
139	Public Improvement	1/15/2021	3721	055	010526	Replace approx. 3100' of RPBS with 2" and 4" PE along several neighborhood streets in the City of Belle Plaine in conflict with the street paving project. Install: 1725' 2" PE 725' 4" PE 175' 4" CS Retire: 1644' 2" RPBS 875' 3" RPBS 93' 2" PE 58' 4" PE 79' 1.25" RPBS There will be 19 PE service line tie overs and 2 service line retirements.	3800	\$ 26,500	City of Belle Plaine
140	Public Improvement	11/30/2020	3721	055	010527	The city of Clearwater is moving a storm water sewer manhole. The location of this new manhole is directly over our existing 3" CS line along E Wood Ave. This work order will replace 60' of 3" RPCS with 4" RPCS to move our line between the existing and new locations of this manhole. The location of the new main will be 4.5' south of the center of the existing manhole cover.	3765	\$ 8,274	City of Clearwater
141	Public Improvement	4/1/2021	3721	055	010528	Government Relocation - Pawnee from Webb to Greenwich, Wichita - Lower and relocate 200' of 6" PE main in conflict with proposed storm sewer during The City of Wichita's Pawnee Ave- Webb to Greenwich Improvement Project. The City of Wichita is replacing E Pawnee St. from S Webb Rd. to S Greenwich Rd. This work order will replace 200' of 6" PE to relocate the line under a proposed storm sewer pipe. The new main will need to reach a depth of 8' below grade. No services will be affected.	3760	\$ 24,629	City of Wichita
142	Public Improvement	2/25/2021	3721	055	010529	Government Relocation - 103rd St S, Clearwater - Retire 450' of 4" PE main in conflict with Sedgwick Co.'s proposed drainage structure beneath the bridge west of 119th St. Install 450' of 4" PE main. Sedgwick Co. is replacing the bridge to the West of 119th St. W on 103rd St. S in Clearwater. The new drainage structure beneath the bridge is considerably larger than the existing one, and our existing facilities will be in conflict with construction of the new bridge. We will need to connect to existing 4" PE on the West side of the bridge, bore a new stretch of 4" PE (approx 450') and reconnect to existing on the East side.	3760	\$ 26,614	City of Clearwater
143	Public Improvement	10/20/2020	3721	055	010531	Government Relocation - 17th & Mosley, Wichita - Retire 220' of 4" PE main in conflict with a lateral storm pipe as part of KDOT's and The City of Wichita's 17th St N from Broadway to I-135 federal aid project. Install 240' of 4" PE main. Our crossing offset is in conflict with the contractor's lateral storm pipe.	3760	\$ 9,083	Kansas Department of Transportation
144	Public Improvement	5/13/2021	3721	055	010532	Government Relocation - Woodlawn -37th to 45th St, Bel Aire - Retire 1,675' of 4" APBS, 115' of 6" APCS, 1,970' of 4" PE and 410' of 2" PE main in conflict with proposed storm sewer facilities as part of The City of Bel Aire's Woodlawn Ave Reconstruction Project. Install 3,700' of 4" PE and 410' of 2" PE main.	3760	\$ 302,859	City of Bel Aire
145	Public Improvement	5/13/2021	3721	055	010532	Government Relocation - Woodlawn -37th to 45th St, Bel Aire - Retire 1,675' of 4" APBS, 115' of 6" APCS, 1,970' of 4" PE and 410' of 2" PE main in conflict with proposed storm sewer facilities as part of The City of Bel Aire's Woodlawn Ave Reconstruction Project. Install 3,700' of 4" PE and 410' of 2" PE main.	3769	\$ 2,102	City of Bel Aire
146	Public Improvement	5/13/2021	3721	055	010532	Government Relocation - Woodlawn -37th to 45th St, Bel Aire - Retire 1,675' of 4" APBS, 115' of 6" APCS, 1,970' of 4" PE and 410' of 2" PE main in conflict with proposed storm sewer facilities as part of The City of Bel Aire's Woodlawn Ave Reconstruction Project. Install 3,700' of 4" PE and 410' of 2" PE main.	3800	\$ 46,373	City of Bel Aire
147	Public Improvement	2/25/2021	3721	055	010533	Government Relocation - Baltimore from Market to Washington, Derby - Retire 325' of 3" APBS main in conflict with The City of Derby's planned sewer line project. Lower and install 500' of 2" PE main. This project was initiated by the City of Derby due to a planned sewer line project in the alley East of Baltimore from Market to Washington.	3760	\$ 34,850	City of Derby

Line Number	GSRs Qualification	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost	Government Entity
148	Public Improvement	2/25/2021	3721	055	010533	Government Relocation - Baltimore from Market to Washington, Derby - Retire 325' of 3" APBS main in conflict with The City of Derby's planned sewer line project. Lower and install 500' of 2" PE main. This project was initiated by the City of Derby due to a planned sewer line project in the alley East of Baltimore from Market to Washington.	3800	\$ 12,504	City of Derby
149	Public Improvement	2/25/2021	3721	055	010535	Government Relocation - Mulvane St, East of Olive, Mulvane - Retire 230' of 4" APCS and 90' of 2" PE main in conflict with The City of Mulvane's Drainage Improvement project. Install 275' of 4" PE main and 120' of 2" PE main.	3760	\$ 44,520	City of Mulvane
150	Public Improvement	2/25/2021	3721	055	010535	Government Relocation - Mulvane St, East of Olive, Mulvane - Retire 230' of 4" APCS and 90' of 2" PE main in conflict with The City of Mulvane's Drainage Improvement project. Install 275' of 4" PE main and 120' of 2" PE main.	3769	\$ 799	City of Mulvane
151	Public Improvement	2/25/2021	3721	055	010535	Government Relocation - Mulvane St, East of Olive, Mulvane - Retire 230' of 4" APCS and 90' of 2" PE main in conflict with The City of Mulvane's Drainage Improvement project. Install 275' of 4" PE main and 120' of 2" PE main.	3800	\$ 3,915	City of Mulvane
152	Public Improvement	4/1/2021	3721	055	010537	Government Relocation - Ave A and King St, Mt Hope - Retire 245' of 2" RPBS main in conflict with The City of Mt Hope's paving at the intersection of Avenue A and King St. Install 250' of 2" PE main. 4 PE residential service tie overs.	3760	\$ 25,880	City of Mount Hope
153	Public Improvement	4/1/2021	3721	055	010537	Government Relocation - Ave A and King St, Mt Hope - Retire 245' of 2" RPBS main in conflict with The City of Mt Hope's paving at the intersection of Avenue A and King St. Install 250' of 2" PE main. 4 PE residential service tie overs.	3800	\$ 6,681	City of Mount Hope
154	Public Improvement	4/20/2021	3721	055	010538	Government Relocation - Patriot and Commerce, Derby - Retire 50' of 4" PE main in conflict with a newly proposed storm inlet during The City of Derby's K-15 and Patriot Ave Right Turn Lane project. Install 50' of 4" PE main. KDOT is rebuilding a portion of 63rd St. S (Patriot Drive), just East of K-15, and on the NE corner of 63rd & Commerce, a small portion of our existing 4" PE pipe is in conflict with their new storm inlet.	3760	\$ 14,682	Kansas Department of Transportation
155	Public Improvement	4/20/2021	3721	055	010539	Government Relocation - Industrial and Grove, Wichita - Retire 175' of 4" PE main in conflict with sanitary sewer pipe during The City of Wichita's Sanitary Sewer I-135 Interceptor Relocation, Blake to Industrial project. Install 175' of 4" PE main.	3760	\$ 12,874	City of Wichita
156	Public Improvement	6/24/2021	3721	055	010540	Government Relocation - 77th & Broadway, Park City - Relocate 1,125' of 6" CS main in direct conflict with storm inlets and laterals and grade cuts as part of the City of Park City's Ford/77th St Reconstruction and Improvement project. Relocate 5-valve 4-way bridle.	3765	\$ 266,452	City of Park City
157	Public Improvement	6/24/2021	3721	055	010540	Government Relocation - 77th & Broadway, Park City - Relocate 1,125' of 6" CS main in direct conflict with storm inlets and laterals and grade cuts as part of the City of Park City's Ford/77th St Reconstruction and Improvement project. Relocate 5-valve 4-way bridle.	3769	\$ 1,196	City of Park City
158	Public Improvement	6/24/2021	3721	055	010541	The City of Wichita will be replacing a storm sewer culvert with a new RCB just south of the intersection of Harry and Tyler. This work order will replace approximately 220' of 6" APCS with 220' of 6" PE to lower this line below the new storm sewer box. No services will be affected.	3760	\$ 60,680	City of Wichita
159	Public Improvement	6/24/2021	3721	055	010541	The City of Wichita will be replacing a storm sewer culvert with a new RCB just south of the intersection of Harry and Tyler. This work order will replace approximately 220' of 6" APCS with 220' of 6" PE to lower this line below the new storm sewer box. No services will be affected.	3769	\$ 2,351	City of Wichita
160	Public Improvement	6/15/2021	3721	055	010543	The City of Haysville is replacing the gravel roads in the Sunset Fields subdivision at 63rd and Seneca, and installing new storm sewer main lines. These lines will conflict with KGS mains at 4 separate locations and will require relocations to avoid conflicts. This work order will install 1,330' of 2" PE to relocate 1,330' of 2" PE and APBS out of the way of the SS conflicts.	3760	\$ 84,055	City of Haysville
161	Public Improvement	6/15/2021	3721	055	010543	The City of Haysville is replacing the gravel roads in the Sunset Fields subdivision at 63rd and Seneca, and installing new storm sewer main lines. These lines will conflict with KGS mains at 4 separate locations and will require relocations to avoid conflicts. This work order will install 1,330' of 2" PE to relocate 1,330' of 2" PE and APBS out of the way of the SS conflicts.	3800	\$ 12,334	City of Haysville
162	Public Improvement	6/2/2021	3721	055	010545	Government Relocation - SE 4th St & Allison, Newton - Retire 20' of 2" APCS main in conflict with The City of Newton's plans to replace the above intersection due to an emergency water main break during a winter storm. Lower and install 30' of 2" PE main.	3760	\$ 33,472	City of Newton
163	Public Improvement	6/2/2021	3721	055	010545	Government Relocation - SE 4th St & Allison, Newton - Retire 20' of 2" APCS main in conflict with The City of Newton's plans to replace the above intersection due to an emergency water main break during a winter storm. Lower and install 30' of 2" PE main.	3769	\$ 1,153	City of Newton
164	Public Improvement	6/24/2021	3721	055	010546	The city of Wichita is updating the curb line to allow for a center turn lane further East along 13th St. These changes are in conflict with our existing gas main on the North side of 13th. This work order will replace approximately 1,075' of 4" PE main to avoid this conflict. The service line for the Northwest High School will need to be tied over to the new 4" PE.	3760	\$ 59,948	City of Wichita
165	Public Improvement	6/24/2021	3721	055	010546	The city of Wichita is updating the curb line to allow for a center turn lane further East along 13th St. These changes are in conflict with our existing gas main on the North side of 13th. This work order will replace approximately 1,075' of 4" PE main to avoid this conflict. The service line for the Northwest High School will need to be tied over to the new 4" PE.	3800	\$ 1,102	City of Wichita
166	Public Improvement	6/24/2021	3721	055	010547	Government Relocation - Mt. Vernon & Laura, Wichita - Relocate and lower 10' of 6" PE main in conflict with a new storm sewer during The City of Wichita's Mt Vernon Improvements Topeka to Southeast Blvd Project. This work order will lower approximately 10' of 6" PE main to avoid this conflict. Main is two-way fed and direct tie-ins will be used.	3760	\$ 12,132	City of Wichita
167	Public Improvement	6/24/2021	3721	055	010548	Government Relocation - Morris & Silknitter, Rosehill - Retire 40' of 2" PE and 20' of 2" RPCS main in conflict with The City of Rosehill's storm sewer during the Morris Street Replacement Project. Install 60' of 2" PE main. The Morris Street replacement was extended and changed the location of some storm sewer piping that is now in conflict with KGS facilities.	3760	\$ 6,178	City of Rosehill
168	Public Improvement	6/24/2021	3721	055	010548	Government Relocation - Morris & Silknitter, Rosehill - Retire 40' of 2" PE and 20' of 2" RPCS main in conflict with The City of Rosehill's storm sewer during the Morris Street Replacement Project. Install 60' of 2" PE main. The Morris Street replacement was extended and changed the location of some storm sewer piping that is now in conflict with KGS facilities.	3769	\$ 703	City of Rosehill

Line Number	GSRS Qualification	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost	Government Entity
169	Public Improvement	6/24/2021	3721	055	010549	Government Relocation - Mt Vernon & Ida, Wichita - Relocate 40' of 4" PE main in conflict with a new storm sewer inlet during the City of Wichita's Mt Vernon Improvements Topeka to Southeast Blvd Project. Pi erson Construction discovered another conflict with a KGS main at Mt. Vernon and Ida which is in direct conflict with a new storm sewer inlet box being installed. This work order is to install 40' of 4" PE to move the main out of the way of the new box. The new main will be moved to the ROW to avoid conflict with a new manhole. SOP: 12 OZ MAOP: 14 OZ	3760	\$ 20,187	City of Wichita
170	Public Improvement	11/30/2020	3522	055	011121	GSRS - 34th and Georgia - Culvert Replacement. Install: 140' 4"PEMain30' 2" PE Main. Retire: 160' 4" CS main. This work is being done to relocate the 4" CS main for the Unified Governments 34th and Georgia Culvert Replacement Project. The 4" CS main will be cut and capped until the new stormculvert is installed. Then KGS will come back and install the new 2" PE main over the top of the new culvert inserted in a 4" CS casing. There are 2 service line replacementswith this project.	3760	\$ 19,421	Unified Government of Wyandotte County and KCK
171	Public Improvement	11/30/2020	3522	055	011121	GSRS - 34th and Georgia - Culvert Replacement. Install: 140' 4"PEMain30' 2" PE Main. Retire: 160' 4" CS main. This work is being done to relocate the 4" CS main for the Unified Governments 34th and Georgia Culvert Replacement Project. The 4" CS main will be cut and capped until the new stormculvert is installed. Then KGS will come back and install the new 2" PE main over the top of the new culvert inserted in a 4" CS casing. There are 2 service line replacementswith this project.	3800	\$ 6,926	Unified Government of Wyandotte County and KCK
172	Public Improvement	1/15/2021	3522	055	011130	GSRS 51st and Cleveland - Culvert Replacement Project. To Install:100' 6" PE Main 100' 4" PE Main. To Retire: 90' 8" CS Main 90' 4" BS Main. This work is being done as part of the Unified Government's Replacement Storm Structure #71 N 51stat Cleveland Ave	3760	\$ 37,541	Unified Government of Wyandotte County and KCK
173	Public Improvement	1/15/2021	3522	055	011130	GSRS 51st and Cleveland - Culvert Replacement Project. To Install:100' 6" PE Main 100' 4" PE Main. To Retire: 90' 8" CS Main 90' 4" BS Main. This work is being done as part of the Unified Government's Replacement Storm Structure #71 N 51stat Cleveland Ave	3800	\$ 41,498	Unified Government of Wyandotte County and KCK
174	Public Improvement	1/15/2021	3522	055	011150	GSRS EL - SRTS Phase F Location: 45th and Welborn Ln Kansas City, KS Install: 160' of 2" PE Main Retire: 160' of 2" PE MainThe purpose of this project is to relocate the current 2" PE main that currently is located about 46' West of 45th st ROW. Intersection at Welborn Ln. and 45th st will be realigned. The realignment of Welborn Ln will cause for our existing main to be in conflict. KGS will be relocating our existing facility to the new acquired ROW.	3800	\$ 8,066	KDOT
175	Public Improvement	11/30/2020	3522	055	011161	GSRS - Mission Road - 127th to 119th St Street Improvement Project To Install: 40' 4" CS To Retire: 30' 4" CS. This work is being done to relocate a section of main it is in conflict with the new storm pipe being install at 127th and Mission Road for Leawood's Mission Road Improvement project. The main was originally spotted at a depth of 26" deep but the contractor spotted the main at 38" deep which puts the main in conflict with the new storm line. The main will be cut and capped until the new storm is installed. After the storm is installed the new main will be raised up to go over the top of the new storm pipe.	3760	\$ 13,996	City of Leawood
176	Public Improvement	2/25/2021	3522	055	011173	REPLACE/INSTALL 30' OF 2"CS MAIN AT 67TH ST & KNOX ST. Relocating 2"CS main due to a storm water conflict with the 2019 CARS Program 67th St Improvements Project by the Johnson County & Merriam City. Retire 30' of 2" CS main.	3765	\$ 10,605	City of Merriam and Johnson County
177	Public Improvement	2/25/2021	3522	055	011180	GSRS Leavenworth Road - 78th St to 72nd St To Install: 4450" 6" PE Main 300' 4" PE Main, 320' 2" PE Main, 20' 6" CS Main, 40' 4" CS Main. To Retire: 3461' 6" BS Main, 6' 8" CS Main, 281' 2" PE Main, 144' 4" PE Main, 141' 6" PE Main, 40' 1.25" PE Main, 255' 2" CS Main, 132' 4" CS Main,574' 6" CS Main. This work is being done to relocate the 6" BS Main out from under the road along Leavenworth for KCK's Leavenworth Road project from 78th street to 63rd street which is being funded by KDOT.	3760	\$ 379,261	Kansas Department of Transportation
178	Public Improvement	2/25/2021	3522	055	011180	GSRS Leavenworth Road - 78th St to 72nd St To Install: 4450" 6" PE Main 300' 4" PE Main, 320' 2" PE Main, 20' 6" CS Main, 40' 4" CS Main. To Retire: 3461' 6" BS Main, 6' 8" CS Main, 281' 2" PE Main, 144' 4" PE Main, 141' 6" PE Main, 40' 1.25" PE Main, 255' 2" CS Main, 132' 4" CS Main,574' 6" CS Main. This work is being done to relocate the 6" BS Main out from under the road along Leavenworth for KCK's Leavenworth Road project from 78th street to 63rd street which is being funded by KDOT.	3800	\$ 23,528	Kansas Department of Transportation
179	Public Improvement	2/25/2021	3522	055	011180	GSRS Leavenworth Road - 78th St to 72nd St To Install: 4450" 6" PE Main 300' 4" PE Main, 320' 2" PE Main, 20' 6" CS Main, 40' 4" CS Main. To Retire: 3461' 6" BS Main, 6' 8" CS Main, 281' 2" PE Main, 144' 4" PE Main, 141' 6" PE Main, 40' 1.25" PE Main, 255' 2" CS Main, 132' 4" CS Main,574' 6" CS Main. This work is being done to relocate the 6" BS Main out from under the road along Leavenworth for KCK's Leavenworth Road project from 78th street to 63rd street which is being funded by KDOT.	3820	\$ 1,508	Kansas Department of Transportation
180	Public Improvement	2/25/2021	3522	055	011180	GSRS Leavenworth Road - 78th St to 72nd St To Install: 4450" 6" PE Main 300' 4" PE Main, 320' 2" PE Main, 20' 6" CS Main, 40' 4" CS Main. To Retire: 3461' 6" BS Main, 6' 8" CS Main, 281' 2" PE Main, 144' 4" PE Main, 141' 6" PE Main, 40' 1.25" PE Main, 255' 2" CS Main, 132' 4" CS Main,574' 6" CS Main. This work is being done to relocate the 6" BS Main out from under the road along Leavenworth for KCK's Leavenworth Road project from 78th street to 63rd street which is being funded by KDOT.	3830	\$ 1,581	Kansas Department of Transportation
181	Public Improvement	5/20/2021	3522	055	011181	GSRS Leavenworth Road - 72nd St to 63rd St. Install: 6100" 6" PE Main, 220' 4" PE Main, 655' 2" PE Main. Retire: 6096' 6" BS Main, 60' 2" BS Main, 20' 4" BS Main, 252' 6" CS Main, 65' 2" CS Main, 327' 2" PE Main, 97' 4" PE Main. This work is being done to relocate the 6" BS Main out from under the road along Leavenworth for KCK's Leavenworth road project from 78th street to 63rd street which is being funded by KDOT.	3760	\$ 813,069	Kansas Department of Transportation
182	Public Improvement	5/20/2021	3522	055	011181	GSRS Leavenworth Road - 72nd St to 63rd St. Install: 6100" 6" PE Main, 220' 4" PE Main, 655' 2" PE Main. Retire: 6096' 6" BS Main, 60' 2" BS Main, 20' 4" BS Main, 252' 6" CS Main, 65' 2" CS Main, 327' 2" PE Main, 97' 4" PE Main. This work is being done to relocate the 6" BS Main out from under the road along Leavenworth for KCK's Leavenworth road project from 78th street to 63rd street which is being funded by KDOT.	3765	\$ 303	Kansas Department of Transportation
183	Public Improvement	5/20/2021	3522	055	011181	GSRS Leavenworth Road - 72nd St to 63rd St. Install: 6100" 6" PE Main, 220' 4" PE Main, 655' 2" PE Main. Retire: 6096' 6" BS Main, 60' 2" BS Main, 20' 4" BS Main, 252' 6" CS Main, 65' 2" CS Main, 327' 2" PE Main, 97' 4" PE Main. This work is being done to relocate the 6" BS Main out from under the road along Leavenworth for KCK's Leavenworth road project from 78th street to 63rd street which is being funded by KDOT.	3800	\$ 183,194	Kansas Department of Transportation

Line Number	GSRS Qualification	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost	Government Entity
184	Public Improvement	10/20/2020	3522	055	011185	87TH TER & Catalina St. Relocating 850' of 2" PE main due to storm water conflicts with the Prairie Village Storm Water Improvements. The relocation on 87th Ter is 850' PE and the dog leg on Catalina St is 25' 2" CS. Retire 837' of 2" CS. (10) PE Service Line Renewals due to unlocatable service lines (1) BS Service Line Renewal.	3760	\$ 34,101	City of Prairie Village
185	Public Improvement	10/20/2020	3522	055	011185	87TH TER & Catalina St. Relocating 850' of 2" PE main due to storm water conflicts with the Prairie Village Storm Water Improvements. The relocation on 87th Ter is 850' PE and the dog leg on Catalina St is 25' 2" CS. Retire 837' of 2" CS. (10) PE Service Line Renewals due to unlocatable service lines (1) BS Service Line Renewal.	3765	\$ 2,637	City of Prairie Village
186	Public Improvement	10/20/2020	3522	055	011185	87TH TER & Catalina St. Relocating 850' of 2" PE main due to storm water conflicts with the Prairie Village Storm Water Improvements. The relocation on 87th Ter is 850' PE and the dog leg on Catalina St is 25' 2" CS. Retire 837' of 2" CS. (10) PE Service Line Renewals due to unlocatable service lines (1) BS Service Line Renewal.	3769	\$ 1,005	City of Prairie Village
187	Public Improvement	10/20/2020	3522	055	011185	87TH TER & Catalina St. Relocating 850' of 2" PE main due to storm water conflicts with the Prairie Village Storm Water Improvements. The relocation on 87th Ter is 850' PE and the dog leg on Catalina St is 25' 2" CS. Retire 837' of 2" CS. (10) PE Service Line Renewals due to unlocatable service lines (1) BS Service Line Renewal.	3800	\$ 38,238	City of Prairie Village
188	Public Improvement	11/30/2020	3522	055	011186	GSRS 89th St and Gallery Install:130 ft of 2" PE main. Retire:125 ft of 2" PE main and 95 ft of 4" PE main. This work is being done to eliminate conflicts with the city of Lenexa's Lakeview Storm Drainage Improvement Project. KGS's facility is in conflict with future storm drains and need to be relocated	3760	\$ 24,383	City of Lenexa
189	Public Improvement	11/30/2020	3522	055	011187	GSRS - Waverly Road - 174th st to 172nd Ter. Install: 1,150' 6" PE Main 50' 4" PE Main 20' 2" PE Main. Retire:1,150' 4" PE Main 20' 2" PE Main. This work is being done to lower the main along Waverly Road due to grade changes for Gardner's Santa Fe Street Improvement Project. The city is regrading the west side of Waverly Road for storm water retention and the gas main is to shallow. The main will need to be lowered to 5 feet deep to provide 3 feet of coverage after the grading.	3760	\$ 98,190	City of Gardner
190	Public Improvement	11/30/2020	3522	055	011187	GSRS - Waverly Road - 174th st to 172nd Ter. Install: 1,150' 6" PE Main 50' 4" PE Main 20' 2" PE Main. Retire:1,150' 4" PE Main 20' 2" PE Main. This work is being done to lower the main along Waverly Road due to grade changes for Gardner's Santa Fe Street Improvement Project. The city is regrading the west side of Waverly Road for storm water retention and the gas main is to shallow. The main will need to be lowered to 5 feet deep to provide 3 feet of coverage after the grading.	3800	\$ 4,578	City of Gardner
191	Public Improvement	4/20/2021	3522	055	011188	Retire 4190' 2" CS main. 95th and Hadley Dr. Overland Park, KS. Install 4150' 2" PE and 40' 2" CS main. Relocate main due to conflicts with the neighborhood for street construction and storm sewer repair.	3760	\$ 177,285	City of Overland Park
192	Public Improvement	4/20/2021	3522	055	011188	Retire 4190' 2" CS main. 95th and Hadley Dr. Overland Park, KS. Install 4150' 2" PE and 40' 2" CS main. Relocate main due to conflicts with the neighborhood for street construction and storm sewer repair.	3765	\$ 2,721	City of Overland Park
193	Public Improvement	4/20/2021	3522	055	011188	Retire 4190' 2" CS main. 95th and Hadley Dr. Overland Park, KS. Install 4150' 2" PE and 40' 2" CS main. Relocate main due to conflicts with the neighborhood for street construction and storm sewer repair.	3769	\$ 3,233	City of Overland Park
194	Public Improvement	4/20/2021	3522	055	011188	Retire 4190' 2" CS main. 95th and Hadley Dr. Overland Park, KS. Install 4150' 2" PE and 40' 2" CS main. Relocate main due to conflicts with the neighborhood for street construction and storm sewer repair.	3800	\$ 260,736	City of Overland Park
195	Public Improvement	11/30/2020	3522	055	011191	5200 Woodland Dr, Shawnee, KS This project will be completed due to relocating a 2" PE main that is in conflict with a new storm water box that the City of Shawnee is installing for the 2020 Shawnee Storm Water Repair Project. Main Installation: 170' of 2" PE Main Retirement: 160' of 2" CS Existing 1973 2" CS Main being abandoned.	3760	\$ 20,021	City of Shawnee
196	Public Improvement	11/30/2020	3522	055	011191	5200 Woodland Dr, Shawnee, KS This project will be completed due to relocating a 2" PE main that is in conflict with a new storm water box that the City of Shawnee is installing for the 2020 Shawnee Storm Water Repair Project. Main Installation: 170' of 2" PE Main Retirement: 160' of 2" CS Existing 1973 2" CS Main being abandoned.	3765	\$ 3,066	City of Shawnee
197	Public Improvement	11/30/2020	3522	055	011191	5200 Woodland Dr, Shawnee, KS This project will be completed due to relocating a 2" PE main that is in conflict with a new storm water box that the City of Shawnee is installing for the 2020 Shawnee Storm Water Repair Project. Main Installation: 170' of 2" PE Main Retirement: 160' of 2" CS Existing 1973 2" CS Main being abandoned.	3800	\$ 4,068	City of Shawnee
198	Public Improvement	11/30/2020	3522	055	011197	Install a new DRS at Savage Drive and Leavenworth Road. The new station is being installed to replace DRS#103 at 67th and Leavenworth Road which is in conflict with the Leavenworth Road project. The DRS at 67th and Leavenworth Road will be killed out on a separate work order.	3765	\$ 5,366	Kansas Department of Transportation
199	Public Improvement	11/30/2020	3522	055	011197	Install a new DRS at Savage Drive and Leavenworth Road. The new station is being installed to replace DRS#103 at 67th and Leavenworth Road which is in conflict with the Leavenworth Road project. The DRS at 67th and Leavenworth Road will be killed out on a separate work order.	3780	\$ 57,768	Kansas Department of Transportation
200	Public Improvement	4/20/2021	3522	055	011199	Retire 986' of 2" BS, 3658' of 4" BS, 169' of 2" CS, 80' of 3" CS, 404' of 4" CS, 355' of 2" PE and 296' of 4" PE. Lee Blvd from 83rd Street to 95th Street, Leawood, KS. Install 5,630 feet of 4" PE main and 310 feet of 2" PE main. The gas mains on this project will be in conflict with new driveway approaches that will involve grade changes as well as new storm sewers being replaced by the City of Leawood. KGS' main is shallow and obsolete.	3760	\$ 379,756	City of Leawood
201	Public Improvement	4/20/2021	3522	055	011199	Retire 986' of 2" BS, 3658' of 4" BS, 169' of 2" CS, 80' of 3" CS, 404' of 4" CS, 355' of 2" PE and 296' of 4" PE. Lee Blvd from 83rd Street to 95th Street, Leawood, KS. Install 5,630 feet of 4" PE main and 310 feet of 2" PE main. The gas mains on this project will be in conflict with new driveway approaches that will involve grade changes as well as new storm sewers being replaced by the City of Leawood. KGS' main is shallow and obsolete.	3800	\$ 190,037	City of Leawood
202	Public Improvement	11/30/2020	3522	055	011202	GSRS Santa Fe and Waverly - Main Relocations To Install: 60' 8" CS Main To Retire: 40' 8" CS Main This work order is to lower one section of 8" CS main in conflict with the new storm sewer being installed for the Gardner Santa Fe Project. There is possibly a second location that could need relocating but the main will be spotted first to make that determination. The City of Gardner has also requested that we spot some service line crossings to confirm that they are not in conflict so the spotting charges will be charged to this work order.	3765	\$ 65,619	City of Gardner
203	Public Improvement	1/15/2021	3522	055	011204	191st St and Gardner Rd, 191st St and Locust St. Relocate 6" CS main. City of Gardner. Locust Street, 191st St to Gardner Rd. Install: 20' of 6" CS main. Retire: 20' of 6" CS main. This project is being done to eliminate conflicts with the city of Gardner's Locust St and Gardner Rd project. New storm pipes are being installed and are in conflict with a 6" CS main.	3765	\$ 158,695	City of Gardner

Line Number	GSRS Qualification	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost	Government Entity
204	Public Improvement	11/30/2020	3522	055	011211	GSRS - 61st and Mastin - Dogleg To Install: 40' 2" CS Main. To Retire: 30' 2" CS Main. This work is to relocate the 2" CS main in conflict with the new concrete storm line being installed for Merriam's storm replacement project.	3765	\$ 22,284	City of Merriam
205	Public Improvement	8/25/2020	3522	055	011212	Retire 20' 4" CS main. 3008 W 69th St, Mission Hills, KS. Install 20' 4" CS main. The 4" CS main is in conflict with new, larger storm drain-box being installed by the City of Mission Hills.	3765	\$ 5,861	City of Mission Hills
206	Public Improvement	4/20/2021	3522	055	011213	Retire 96' 2" BS, 295' 4" BS, 20' 2" CS and 60' 4" PE main. 63rd St & Overhill Rd, Mission Hills, KS. Install 400' 2" PE and 60' 4" PE main. There are multiple storm water conflicts with the gas main along Overhill Rd and Belinder Rd. KGS will relocate the mains and services in the conflict areas to resolve the the conflicts.	3760	\$ 93,708	City of Mission Hills
207	Public Improvement	4/20/2021	3522	055	011213	Retire 96' 2" BS, 295' 4" BS, 20' 2" CS and 60' 4" PE main. 63rd St & Overhill Rd, Mission Hills, KS. Install 400' 2" PE and 60' 4" PE main. There are multiple storm water conflicts with the gas main along Overhill Rd and Belinder Rd. KGS will relocate the mains and services in the conflict areas to resolve the the conflicts.	3800	\$ 67,154	City of Mission Hills
208	Public Improvement	4/20/2021	3522	055	011214	Retire 364' of 3/4" PE service line and 89' of 3/4" BS service line. W 84th Pl, Leawood, KS. Install 475' 3/4" PE service lines. 5 Service lines are in conflict with a street replacement in Leawood. 5 service lines must be lowered to accommodate the street replacement.	3800	\$ 17,059	City of Leawood
209	Public Improvement	1/15/2021	3522	055	011216	LOCATION: 179th St & US69 HWY, Overland Park, KS Install: 30' - 4" CS Main Retire: 20' - 4" CS Main. Relocate 4" CS main that is in conflict with a proposed 36" storm pipe.	3765	\$ 22,105	City of Overland Park
210	Public Improvement	4/20/2021	3522	055	011217	Retire 400' 2" BS, 610' 2" PE, and 90' CS main. 60th St from Flint St to Nieman Rd in Shawnee, KS. Install 1,230' 2" PE main. The City of Shawnee is performing a full road replacement along 60th St from Flint St to Nieman Rd along with storm sewer improvements. There is multiple conflicts with the new storm sewer and with the road replacement.	3760	\$ 52,329	City of Shawnee
211	Public Improvement	4/20/2021	3522	055	011217	Retire 400' 2" BS, 610' 2" PE, and 90' CS main. 60th St from Flint St to Nieman Rd in Shawnee, KS. Install 1,230' 2" PE main. The City of Shawnee is performing a full road replacement along 60th St from Flint St to Nieman Rd along with storm sewer improvements. There is multiple conflicts with the new storm sewer and with the road replacement.	3769	\$ 1,282	City of Shawnee
212	Public Improvement	4/20/2021	3522	055	011217	Retire 400' 2" BS, 610' 2" PE, and 90' CS main. 60th St from Flint St to Nieman Rd in Shawnee, KS. Install 1,230' 2" PE main. The City of Shawnee is performing a full road replacement along 60th St from Flint St to Nieman Rd along with storm sewer improvements. There is multiple conflicts with the new storm sewer and with the road replacement.	3800	\$ 13,362	City of Shawnee
213	Public Improvement	10/20/2020	3522	055	011218	GSRS - Parkhill Rd and Parkhill St - Mill and Overlay. To Install: 100' 2" PE Main To Retire: 90' 2" PEMain. This work is being to do lower a main in conflict with Lenexa's Mill and Overlay project. The 2" PE main crossing Parkhill Rd is only a foot deep, lower the main to 4 feet deep to avoid conflicts with the Mill and Overlay.	3760	\$ 3,776	City of Lenexa
214	Public Improvement	4/20/2021	3522	055	011219	Retire 1260' 4" BS main. 65th St & Sagamore Rd, Mission Hills, KS. Install 1280' 4" PE main. There are multiple storm water conflicts with the gas main along Sagamore Rd. KGS will relocate the mains and services in the conflict areas to resolve the the conflicts.	3760	\$ 118,535	City of Mission Hills
215	Public Improvement	4/20/2021	3522	055	011219	Retire 1260' 4" BS main. 65th St & Sagamore Rd, Mission Hills, KS. Install 1280' 4" PE main. There are multiple storm water conflicts with the gas main along Sagamore Rd. KGS will relocate the mains and services in the conflict areas to resolve the the conflicts.	3769	\$ 541	City of Mission Hills
216	Public Improvement	4/20/2021	3522	055	011219	Retire 1260' 4" BS main. 65th St & Sagamore Rd, Mission Hills, KS. Install 1280' 4" PE main. There are multiple storm water conflicts with the gas main along Sagamore Rd. KGS will relocate the mains and services in the conflict areas to resolve the the conflicts.	3800	\$ 127,457	City of Mission Hills
217	Public Improvement	4/20/2021	3522	055	011219	Retire 1260' 4" BS main. 65th St & Sagamore Rd, Mission Hills, KS. Install 1280' 4" PE main. There are multiple storm water conflicts with the gas main along Sagamore Rd. KGS will relocate the mains and services in the conflict areas to resolve the the conflicts.	3820	\$ 7,507	City of Mission Hills
218	Public Improvement	1/15/2021	3522	055	011220	GSRS - 70th Place and Pflumm. To Install: 100' 2" PE Main. To Retire: 90' 2" PE Main. This work is being done to relocate the main for Shawnee's Pflumm Improvement Project. The 2" PE main is in conflict with the new storm sewer being installed. The new main will need to be installed 7.5' deep to provide 1.5' of clearance below the new storm tube. The storm tube is only 3 feet from the curb so to avoid removing the curb and a section of the street the road crossing will be replaced.	3760	\$ 36,670	City of Shawnee
219	Public Improvement	4/20/2021	3522	055	011221	Retire 110' of 4 inch CS and 40' 6" CS main. W. 96th Terr and Linden St, Overland Park, KS. Install 110 ft of 4" PE and 40' 6" PE main. This project involves relocating three (3) KGS Mains at two locations that are in conflict with the Overland Park 2020 Major Storm Sewer Repairs Project.	3760	\$ 20,538	City of Overland Park
220	Public Improvement	4/20/2021	3522	055	011221	Retire 110' of 4 inch CS and 40' 6" CS main. W. 96th Terr and Linden St, Overland Park, KS. Install 110 ft of 4" PE and 40' 6" PE main. This project involves relocating three (3) KGS Mains at two locations that are in conflict with the Overland Park 2020 Major Storm Sewer Repairs Project.	3765	\$ 30,386	City of Overland Park
221	Public Improvement	4/20/2021	3522	055	011221	Retire 110' of 4 inch CS and 40' 6" CS main. W. 96th Terr and Linden St, Overland Park, KS. Install 110 ft of 4" PE and 40' 6" PE main. This project involves relocating three (3) KGS Mains at two locations that are in conflict with the Overland Park 2020 Major Storm Sewer Repairs Project.	3800	\$ 13,771	City of Overland Park
222	Public Improvement	1/15/2021	3522	055	011222	Install 700' 4" PE main at 71st St & Belinder Rd, Prairie Village, KS. Install 700' of 4"PE main to interconnect and reinforce the 13.5 psi system so that the 4" PE main just to the east of the TBS at 71st & Mission Rd can be cut and capped due to storm water box conflicts with the Prairie Village Storm Water Improvements project.	3760	\$ 98,204	City of Prairie Village
223	Public Improvement	1/15/2021	3522	055	011222	Install 700' 4" PE main at 71st St & Belinder Rd, Prairie Village, KS. Install 700' of 4"PE main to interconnect and reinforce the 13.5 psi system so that the 4" PE main just to the east of the TBS at 71st & Mission Rd can be cut and capped due to storm water box conflicts with the Prairie Village Storm Water Improvements project.	3769	\$ 859	City of Prairie Village
224	Public Improvement	4/20/2021	3522	055	011228	Retire 50' of 2" CS and 100' 2" PE main. 85th Terr and Glenwood St, Overland Park, KS. Install 150' 2" PE main. This project involves relocating three (3) KGS Mains at three locations that are in conflict with the Overland Park 2019 Major Storm Sewer Repairs Project MS-2015.	3760	\$ 12,082	City of Overland Park
225	Public Improvement	4/20/2021	3522	055	011228	Retire 50' of 2" CS and 100' 2" PE main. 85th Terr and Glenwood St, Overland Park, KS. Install 150' 2" PE main. This project involves relocating three (3) KGS Mains at three locations that are in conflict with the Overland Park 2019 Major Storm Sewer Repairs Project MS-2015.	3769	\$ 1,736	City of Overland Park

Line Number	GSRs Qualification	Unitization Date	Cost Center	Function	Job Order	Description	FERC	Cost	Government Entity	
226	Public Improvement	4/20/2021	3522	055	011228	Retire 50' of 2" CS and 100' 2" PE main. 85th Terr and Glenwood St, Overland Park, KS. Install 150' 2" PE main. This project involves relocating three (3) KGS Mains at three locations that are in conflict with the Overland Park 2019 Major Storm Sewer Repairs Project MS-2015.	3800	\$ 30,806	City of Overland Park	
227	Public Improvement	5/20/2021	3522	055	011229	87th St and I-435 - Lenexa, KS. GSRs Relocation. Retire: 575 feet of 8 inch CS Main and 190 feet of 2 inch PE Main. Install: 600 feet of 8 inch ARO CS Main and 200 feet of 2 inch PE Main. This work is being done to relocate the mains in conflict with Lenexa's 87th and I435 Interchange Improvement project. The 8" CS main and the 2" PE main are in conflict with the new storm sewer being installed for the project.	3760	\$ 20,947	City of Lenexa	
228	Public Improvement	5/20/2021	3522	055	011229	87th St and I-435 - Lenexa, KS. GSRs Relocation. Retire: 575 feet of 8 inch CS Main and 190 feet of 2 inch PE Main. Install: 600 feet of 8 inch ARO CS Main and 200 feet of 2 inch PE Main. This work is being done to relocate the mains in conflict with Lenexa's 87th and I435 Interchange Improvement project. The 8" CS main and the 2" PE main are in conflict with the new storm sewer being installed for the project.	3765	\$ 184,660	City of Lenexa	
229	Public Improvement	5/20/2021	3522	055	011229	87th St and I-435 - Lenexa, KS. GSRs Relocation. Retire: 575 feet of 8 inch CS Main and 190 feet of 2 inch PE Main. Install: 600 feet of 8 inch ARO CS Main and 200 feet of 2 inch PE Main. This work is being done to relocate the mains in conflict with Lenexa's 87th and I435 Interchange Improvement project. The 8" CS main and the 2" PE main are in conflict with the new storm sewer being installed for the project.	3769	\$ 927	City of Lenexa	
230	Public Improvement	4/20/2021	3522	055	011230	Retire 80' 2" PE main. 61st Ter & Hodges Dr, Mission, KS. Install 80' 2" PE main. The city of Mission is replacing the curb and the existing 2" PE main is only 10" deep. KGS will install a new lowered section of 2" PE main to eliminate the conflict.	3760	\$ 5,640	City of Mission	
231	Public Improvement	5/20/2021	3522	055	011231	86th St and Riggs St - Overland Park, KS. GSRs Relocation. Retire: 370 feet of 2 inch CS Main. Install: 700 feet of 2 inch PE Main. Tie-over: 8 ea Service Lines. This project involves relocating one (1) KGS Mains at one location that is in conflict with the Overland Park 2019 Major Storm Sewer Repairs Project MS-2015. This will also include connecting the 2 inch CS main on Riggs St to the 2 inch CS main on Glenwood St for gas supply and working around new storm sewer.	3760	\$ 43,071	City of Overland Park	
232	Public Improvement	5/20/2021	3522	055	011231	86th St and Riggs St - Overland Park, KS. GSRs Relocation. Retire: 370 feet of 2 inch CS Main. Install: 700 feet of 2 inch PE Main. Tie-over: 8 ea Service Lines. This project involves relocating one (1) KGS Mains at one location that is in conflict with the Overland Park 2019 Major Storm Sewer Repairs Project MS-2015. This will also include connecting the 2 inch CS main on Riggs St to the 2 inch CS main on Glenwood St for gas supply and working around new storm sewer.	3780	\$ 31,529	City of Overland Park	
233	Public Improvement	5/20/2021	3522	055	011231	86th St and Riggs St - Overland Park, KS. GSRs Relocation. Retire: 370 feet of 2 inch CS Main. Install: 700 feet of 2 inch PE Main. Tie-over: 8 ea Service Lines. This project involves relocating one (1) KGS Mains at one location that is in conflict with the Overland Park 2019 Major Storm Sewer Repairs Project MS-2015. This will also include connecting the 2 inch CS main on Riggs St to the 2 inch CS main on Glenwood St for gas supply and working around new storm sewer.	3800	\$ 43,899	City of Overland Park	
234	Public Improvement	6/15/2021	3522	055	011232	Lee Blvd and 92nd St. - Leawood, KS. GSRs Relocation. Retire: 736 feet of 4 inch BS Main and 264 feet of 4 inch CS Main. Install: 1000 feet of 4 inch PE Main. Tie-over: 14 ea Service Lines. This work is being done to avoid conflicts with the Lee Blvd street and storm improvement project.	3760	\$ 75,893	City of Leawood	
235	Public Improvement	6/15/2021	3522	055	011232	Lee Blvd and 92nd St. - Leawood, KS. GSRs Relocation. Retire: 736 feet of 4 inch BS Main and 264 feet of 4 inch CS Main. Install: 1000 feet of 4 inch PE Main. Tie-over: 14 ea Service Lines. This work is being done to avoid conflicts with the Lee Blvd street and storm improvement project.	3769	\$ 423	City of Leawood	
236	Public Improvement	6/15/2021	3522	055	011232	Lee Blvd and 92nd St. - Leawood, KS. GSRs Relocation. Retire: 736 feet of 4 inch BS Main and 264 feet of 4 inch CS Main. Install: 1000 feet of 4 inch PE Main. Tie-over: 14 ea Service Lines. This work is being done to avoid conflicts with the Lee Blvd street and storm improvement project.	3800	\$ 60,809	City of Leawood	
237	Public Improvement	2/25/2021	3522	055	011233	Retire 140' of 2" PE main. 7833 Cottonwood St, Lenexa, KS. Install 150' of 2" PE main. Relocate main due to storm water conflict with the Ashley Park, Lenexa Storm Water Improvements project.	3760	\$ 10,617	City of Lenexa	
238	Public Improvement	5/25/2021	3522	055	011242	9710 Hadley Dr - Overland Park, KS. GSRs Relocation. Retire: 40 feet of 2 inch CS Main. Install: 40 feet of 2 inch CS Main. Tie-over: 2 ea 3/4 inch PE Service Lines. Replace approximately 40 feet of 2 inch CS Main with 2 inch CS Main at 1 locations in the neighborhood for street construction and storm sewer repair that is in conflict with a storm sewer box	3765	\$ 10,813	City of Overland Park	
239	Public Improvement	5/25/2021	3522	055	011242	9710 Hadley Dr - Overland Park, KS. GSRs Relocation. Retire: 40 feet of 2 inch CS Main. Install: 40 feet of 2 inch CS Main. Tie-over: 2 ea 3/4 inch PE Service Lines. Replace approximately 40 feet of 2 inch CS Main with 2 inch CS Main at 1 locations in the neighborhood for street construction and storm sewer repair that is in conflict with a storm sewer box	3769	\$ 1,422	City of Overland Park	
240	Public Improvement	6/15/2021	3522	055	011243	86th St and Lamar Ave - Overland Park, KS. GSRs Relocation. Retire: 140 feet of 4 inch CS Main and 30 feet of 4 inch CS Main. Install: 140 feet of 4 inch PE Main and 40 feet of 2 inch PE Main. Tie-over: 2 ea Service Lines. This project involves relocating three (2) KGS Mains at three locations that are in conflict with the Overland Park 2019 Major Storm Sewer Repairs Project MS-2015: Lamar Ave and 85th St.	3760	\$ 87,558	City of Overland Park	
241	Public Improvement	6/15/2021	3522	055	011243	86th St and Lamar Ave - Overland Park, KS. GSRs Relocation. Retire: 140 feet of 4 inch CS Main and 30 feet of 4 inch CS Main. Install: 140 feet of 4 inch PE Main and 40 feet of 2 inch PE Main. Tie-over: 2 ea Service Lines. This project involves relocating three (2) KGS Mains at three locations that are in conflict with the Overland Park 2019 Major Storm Sewer Repairs Project MS-2015: Lamar Ave and 85th St.	3765	\$ 8,331	City of Overland Park	
242	Public Improvement	6/15/2021	3522	055	011243	86th St and Lamar Ave - Overland Park, KS. GSRs Relocation. Retire: 140 feet of 4 inch CS Main and 30 feet of 4 inch CS Main. Install: 140 feet of 4 inch PE Main and 40 feet of 2 inch PE Main. Tie-over: 2 ea Service Lines. This project involves relocating three (2) KGS Mains at three locations that are in conflict with the Overland Park 2019 Major Storm Sewer Repairs Project MS-2015: Lamar Ave and 85th St.	3769	\$ 6,311	City of Overland Park	
243	Public Improvement	6/15/2021	3541	055	010398	SW 12th St and Taylor St - Topeka, KS. GSRs Relocation. Retire: 30ft 4in PE. Install: 30ft 4in PE. This is Phase 1 of a 5 phase City of Topeka project to improve SW 12th St from Kansas Ave to Gage Blvd, including the storm sewer. KGS has 3 mains in conflict with this phase that must be relocated by February of 2021. This project is to relocate one of these mains on 12th and Taylor.	3760	\$ 15,539	City of Topeka	
Grand Total								\$	9,573,544	

Blanket Service Line Summary

Sum of Extended Costs		
Replacement Reason	July 2020 - June 2021	
	Cost	Line Installed
Routine Replacement - Leak - 192.703	\$ 744,955	294
Routine Replacement - Non Leaking Unprotected	\$ 22,389,204	8,836
Public Improvement	\$ 30,406	12
Grand Total	\$ 23,164,566	9,142

Non Service Line Related Blanket Summary

Other Blanket Costs	July 2020 - June 2021
	Cost
Install Anodes	\$ 838,301
Weld sleeve high resist couplings	\$ 153,822
Meter Blanket	\$ 11,817,589
Total	\$ 12,809,711

\$ 35,974,277

Line No.'s 1 to 15 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.

Line No. 547 Project 051.043.3612.010152 Continuing Surveillance Project-Saline County.

This was a transmission pipe replacement - between MP 12 & 13, Assaria. KGS Retired 1,000' of 8" steel transmission line P0846 at risk of washout due to erosion from Smoky Hills River. KGS Installed, relocated and offset, a 1,000' of 8" FBE steel transmission pipe.

Line No.'s 548-551 Project 051.043.3612.010153 Continuing Surveillance Project- Marshall County.

This project is to survey approximately 1800' for proposed replacement of Line P0446. Job order will include exhibit drawings for ROW purchase/exchange, route drawings, and profiles of all directionally bored. This JO will also cover costs for purchase/exchange of ROW and permitting required to begin construction.

Line No.'s 552-555 Project 051.043.3612.010155 Continuing Surveillance Project- Marshall County.

This project was to replace and offset approximately 2000' of pipeline P0446 from Blue Rapids to Waterville KS that is at risk of wash out due to erosion from heavy rains in the wetlands near the Big Blue River. Install 2000' of 4.500"OD X .237WT, A15L-X52, ERW, DRL, FBE Steel Pipe. The existing pipeline is on the bank of a sand pit with a 40-foot elevation change. This bank has been washing out during the rainy seasons nearly exposing the 4-inch pipeline. If the erosion continues the pipeline could fall into the steep drop off leading to large amount of external stress on the pipe. This replacement will offset the existing pipeline 130' to the north to remove the pipeline from the bank.

Line No.'s 556 & 557 Project No. 051.044.3685.010132- Greensburg/Kiowa County.

This project was to replace 9.2 miles (48,590-feet) of 8-inch steel main with coal tar coating. The original line was installed in the 1950s and was constructed of bare and coal tar steel 8.625-inch OD pipe. The coal tar coating has shown to be poorly bonded in places. Large sections of this line are made from Grandfathered pipe and are classified as non-TVC due to a lack of grade and longitudinal seam information. Sections of this line were updated in the 1970's, but the tests do not meet today's design standards. This line also has a record of weld leaks that have resulted in weld repairs and short replacements. In 2015 during a cleaning procedure, a cup pig became stuck in this line due to internal buildup of salt deposits. Upon removal of the stuck pig, evidence of internal pitting was found.

Line No. 558 Project 0510.047.3671.010137 Continuing Surveillance Project-Kingman County.

This project was to capture expenses for survey work, route/profile drawings and permitting for the replacement of transmission line P1604.

Line No. 559 Project 051.044.3685.010138 Continuing Surveillance Project-Kiowa/Edward County.

This project was second Phase replacement of the Greensburg line P0843 due to poor pipe condition with a history weld leaks. This project provides funds for permit acquisition, archaeological surveys, and ROW acquisition and exchange.

Line No.'s 560-562 Project 051.044.3685.010145 Continuing Surveillance Project-Larned -
Kiowa/Edward County

This project replaced 4 miles of vintage 8-inch transmission pipe on line P0843 with insufficient MAOP documentation, signs of internal corrosion, poorly bonded coal tar coating and multiple weld repairs from leaks. The replacement consisted of 4 miles of 8.625-inch, 0.219 wt, API-5L X52, ERW, DRL, FBE steel pipe.

Line No.'s 563 & 564 Project 051.044.3612.01035 Continuing Surveillance Project-Clifton, KS.

This project covers survey work, ROW purchase, & permitting for the replacement of line P1004 due to insufficient records, poor quality welds, and unnecessary casing. This job will provide route drawings, bore profiles, and exhibit drawings for the replacement of line P1004 (approx. 250ft). Existing ROW will be used where possible. The line runs from a Northern Natural Gas receipt point and through their compressor facility. Due to the number of potential crossings and experience with landowners in the area, this job is being written to provide a survey of the existing and proposed routes, and any necessary acquisition/exchange of Rights of Way. This also covers vintage pipe replacement 250' of vintage 1950's 10" transmission pipe due to girth welds covered with arc burns, lack of grade and longitudinal seam information. KGS installed 250' of 10" transmission pipe.

Line No. 565 Project 051.044.3612.010365 Continuing Surveillance Project-Hope, Dickinson County, KS.

This project covers Survey Work, ROW Purchase, & Permitting - Hope - Survey, obtain permits, and purchase/exchange right of way for the replacement of 700' of line P0228 due to insufficient pressure test and mill test report documentation on vintage 1928 & 1969 steel main.

Line No. 566 Project 051.043.3612.010152 Continuing Surveillance Project-Salina County, KS.

This project covers Survey Work, ROW Purchase, and Permitting - Assaria River Offset - Survey work, exhibit drawings for ROW purchase, route drawings, and profiles needed for the proposed replacement of 1000' transmission line P0846 to Assaria.

Line No. 567 Project 051.044.3612.010368 Continuing Surveillance Project-Hope, Dickinson County, KS.

This project covers Obsolete Transmission Pipe Replacement - LINEP0228 To Hope -Retire 700' of vintage 2" transmission pipe. Install 700' of 2.375OD X .218 WT, API5L X52, ERW, DRL, FBE steel pipe. This replacement is to remove 1928 and 1969 vintage steel natural gas pipeline.

Line No. 568 Project 051.044.3612.010370 Continuing Surveillance Project-Axtell, Marshall County, KS.

This project covers Transmission Pipe Replacement - LINEP0218 To Axtell - Retire 1,800' of vintage 2" transmission pipe. Install 1,800' of 2.375OD X .218 WT, API5L X52, ERW, DRL, FBE steel pipe. This replacement is to remove 1931 and 1958 vintage steel natural gas transmission pipeline.

Line No.'s 569-570 Project 051.053.3761.010212 Continuing Surveillance Project-Pittsburg, KS.

This project was to replace an unprotected CS Yard Line at 1600 S Homer, Pittsburg. The retirement consisted of 130' of 3" unprotected CS. The installation consisted of 130' of 4" PE service line and relocating the meter setting.

Line No. 571 Project 051.053.3541.010371 Continuing Surveillance Project-Topeka, KS.

This project covers the installation of 210 feet 2-inch PE main and retirement of 215 feet 2-inch APCS main. This project is to address a shallow main issue on Knollwood Dr. The pipeline is only 10 inches deep at points along the line. 1 PE Service Line will be tied over. Project location at 1617 SW Knollwood Drive.

Line No. 572 Project 051.053.3541.010373 Continuing Surveillance Project-Topeka, KS.

This project covers the installation of 375 feet 2-inch PE main and the retirement of 135 feet 2-inch APCS. This project is being completed due to a shallow main issue that was discovered in the easement behind 1615 SW Withdean Rd, as the pipe was only found to be only 13 inches deep in some places. Project will install 2 2 inch 3-Way Tees on lines 051.055.3541.010036 and 761085. 3 PE service lines. Project location: 1615 SW Withdean Rd, Topeka, KS.

Line No. 573 Project 051.053.3522.011087 Continuing Surveillance Project-Overland Park, KS.

This project covers the installation of 40' 2-inch PE main and retirement of 40' 4-inch CS main. This work is being done to replace a section of 4" CS main that has an old service line tap on it. The old SL tap is welded directly to the main. The new main will be installed to eliminate the old service line tap. Project location: Somerset Dr West of Mission.

Line No. 574 Project 051.053.3721.011320 Continuing Surveillance Project-Wichita, KS.

This project covers the installation of 20' 2-inch PE main and retirement of 5' 2-inch APCS main after crews uncovered homemade "Y" fitting while renewing BS service lines at the above address. Project location: 1401 S Anna.

Line No. 575 Project 051.054.3522.011467 Continuing Surveillance Project-Overland Park, KS.

This project covers the installation 300 feet of 2-inch CS Main and retirement 300 feet of 2-inch CS Main. This work is being done to replace the Little Mill Creek crossing at Kimberly Ln. The existing 2" CS main came apart under the creek and caused an outage for the 12 customers that live south of the creek. Project location: Kimberly Ln - Little Mill Creek.

Line No. 576 Project 051.054.3651.010143 Continuing Surveillance Project-Pottawatomie County.

This project was to replace 171 feet of 4-inch APCS bridge crossing on Old Military Trail (between Marsha Ln & Cat Creek) by boring with 450 feet of 3-inch PE (in a 6-inch casing) due to atmospheric corrosion/deterioration discovered during pipeline patrolling. Currently the steel pipe is hanging on the bridge open to the elements.

Line No.'s 577-578 Project 051.054.3635.010207 Continuing Surveillance Project-Lindsborg, KS.

This project was to Retire 40' of 4" RPCS main, 40' of 2" RPCS main, one 4" valve and four 2" valves due to leaking above ground flange. KGS installed 40' of 4" RPCS main, 40' of 2" of RPCS main and one 2" gate valve. The location of the work was at - S Coronado Ave & W Grant St, Lindsborg DRS 002.

Line No. 579 Project 051.054.3761.010304 Continuing Surveillance Project-Pittsburg, KS.

This project was to replace a service line at 2906 S Rouse. - Abandon 5' of APCS KGS Crews will Abandon 5' of APCS and Install 10' of APCS. The service line tap at 2906 S Rouse was snagged at some point and KGS Crews have located a leak. Leak Number: LK2020-1000985498.

Line No. 580 Project 051.054.3761.010306 Continuing Surveillance Project-Galena, KS.

This project installed 10' of 2" RPCS main and retired 6' of 2" RPCS main due to leaking valve on existing main segment. Project location: E. 11th St and S. Wood St.

Line No. 581 Project 051.054.3761.010312 Continuing Surveillance Project-Arma, KS.

This project installed 10' of 2" RPCS and abandon 4' - 4" RPCS and 4' of 2" RPCS. KGS Crews located a class 1 Leak on this section of pipe. Project location: N 8th Street and W South Street.

Line No. 582 Project 051.054.3761.010318 Continuing Surveillance Project-Girard, KS.

This project installed 40' of 6" RPCS main and retired 35' of 4" RPCS main due to leaking fittings and pipe stub. Project location: 305 E Willow.

Line No.'s 583 & 584 Project 051.054.3761.010320 Continuing Surveillance Project-Pittsburg, KS.

This project installed approximately 30' of 2" APCS and retired approximately 25' of 2" APCS Service Line: 684542 due to a leak # LK2021-10056356. The leak was on a service line tap which is located underneath a historic steam shovel at this location for display. KGS Crews will repair the leak and relocate the service farther to the north. Project location: - 651 S US 69 Highway - Crawford County Historical Society.

Line No.'s 585 & 586 Project 051.044.3631.010376 Continuing Surveillance Project-Hutchinson, KS.

This project covers the installation of 60' 2-inch PE main and retirement of 90' 2-inch MDPE and 100' 4-inch APCS main to eliminate an exposed creek crossing no longer needed. Project location at Plum and Ave F.

Line No. 587 Project 051.054.3541.010667 Continuing Surveillance Project-Topeka, KS.

This work order is for the replacement of 10-feet of 2-inch coated steel pipe at Eugene and Williams in Topeka, KS due to a leaking fitting. This pipe is 1968 vintage. The leak is class 3. The pipe will be replaced using couplings and reinforcing sleeves. Leak #:LK2019-10129438.

Line No. 588 Project 051.054.3541.010681 Continuing Surveillance Project-Topeka, KS.

This project covers installation of 40' - 4" CS and the retirement of 40' - 4" CS. NPL was preparing an abandonment in the rear easement of 225 NW Menninger Rd and discovered a bad coupling. Since we cannot put a sleeve on it, we will cut out a section of main and replace it with (2) 4" - 3 way tees and (2) 4" - 90 elbows to create a dog leg.

Line No.'s 589-591 Project 051.054.3541.010692 Continuing Surveillance Project-Topeka, KS.

This project covers the installation of 325 feet of 2" MDPE main and the retirement of 246 feet 2-inch RPCS main and 75 feet 4-inch RPCS main. This job will replace a 2" section of RPCS that is too deep to repair a leak LK 2018-10063774. The new 2" PE will follow the grade instead of boring straight through the hill. Project location: 310 SE 21st Street.

Line No.'s 592 and 593 Project 051.054.3522.011393 Continuing Surveillance Project-Overland Park, KS.

This project covers the installation of 1900' of 6-inch CS main and retirement of 1600' of 6-inch CS. The existing 6" CS main crossing Mill Creek is exposed due to creek erosion and needs replaced. The new main will be bored below the creek. Project location: Shawnee Mission Pkwy and Vista Dr.

Line No. 594 Project 051.054.3522.011576 Continuing Surveillance Project-Overland Park, KS.

This project covers the installation of 700 feet of 3-inch PE Main encased in 700 feet of 6-inch PE main and retirement of 700 feet of 4-inch PE main. This project is to eliminate an AOC (exposed pipe) on a section of 4" PE main crossing Little Mill Creek on Renner Rd. A section of main has washed out creating an exposure and is also catching debris in the creek. A full creek bore of 3" PE encased in 6" PE will be required to eliminate the AOC. Project location: Renner Rd and Little Mill Creek.

Line No.'s 595 & 596 Project 051.054.3721.012453 Continuing Surveillance Project-Wichita, KS.

This project covers the Service Line Relocation at 5005 E 21st St N, Wichita. KGS relocated 139' of 1.25" PE service line to replace leaking yard line. KGS had to install 260' of 2-inch PE main as a safety measure due to depth of service line. This job was worked in conjunction with the obsolete meter setting at the same address.

Line No.'s 597 & 598 Project 051.054.3721.012457 Continuing Surveillance Project-Wichita, KS.

A leak was found on the Aldyl-A yard line (LK2020-10232871). KGS will replace the YL by moving the property line meter up to the building and installing a new 2" PE SL. Project consisted of installing 300' of 2" PE SL and retirement of 300' of leaking 1" SL BS/Aldyl-A yard line.

Line No. 599 Project 051.054.3721.012508 Continuing Surveillance Project-Newton, KS.

Service Line Replacement at 300 E 27th. Install 10' of 2" RPCS service line. Retire 10' 3" RPCS service line and 3" valve due the unrepairable-leaking valve on the existing service line. Justification: LK2021-10009477 Remove leaking valve that could not be repaired.

In the Matter of the Application of Kansas Gas)
Service, A Division of ONE Gas, Inc. for)
Approval By The Commission for a Gas) DOCKET NO. 22-KGSG-____-TAR
System Reliability Surcharge per K.S.A.)
66-2201 through 66-2204.)

DIRECT TESTIMONY

OF

NIYO LITTLE THUNDER PEARSON, SR.

ON BEHALF OF

KANSAS GAS SERVICE

A DIVISION OF ONE GAS, INC.

DIRECT TESTIMONY
OF
NIYO LITTLE THUNDER PEARSON, SR.
KANSAS GAS SERVICE
DOCKET NO. 22-KGSG-___-TAR

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

2 A. My name is Niyo Little Thunder Pearson, Sr. and my business address is 15th East
3 Fifth Street, Tulsa, OK 74103.

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

5 A. I am employed by ONE Gas, Inc., ("ONE Gas" or "Company") and I am the Supervisor
6 for Cybersecurity.

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

9 A. My educational background centers on specialized security certificates. I am an ISC2
10 Certified Information Systems Security Professional (obtained in 2016) as well as an
11 ISC2 Certified Cloud Security Professional (obtained in 2017).

12 My business experience has spanned over 15 years in both security and technology.
13 I was hired by ONEOK, Inc., ("ONEOK") in 2013, a year prior to the announcement of
14 the separation of ONEOK and ONE Gas. Prior to being hired at ONEOK, I was the
15 Sr. Incident Responder and a Technical Lead for American Express in their Security
16 Operations Center. My concentrations are: incident response, security operations,
17 security architecture and Supervisory Control and Data Acquisition ("SCADA")
18 /Operational Technology ("OT") security operations for ONE Gas. I am considered by
19 my peers to be an industry expert in SCADA/OT security operations and I am an active

1 participant in the SRI – ODT cyber security collaborative with the Department of
2 Homeland Security.

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

4 A. Yes. I provided written testimony in Docket No. 20-KGSG-090-TAR and 21-KGSG-
5 094-TAR.

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

7 A. The purpose of my testimony is to support the eligibility of cybersecurity investments
8 in Kansas Gas Service's ("KGS") proposed Gas System Reliability Surcharge
9 ("GSRS").

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

11 A. Yes. I am sponsoring exhibit NLP-1.

12 **Q. CAN YOU PROVIDE SOME BACKGROUND INFORMATION REGARDING
13 INCLUDING CYBER SECURITY PROJECTS IN THE COMPANY'S GSRS?**

14 A. In 2018, Senate Bill 279 amended the Gas System Reliability Safety Act. In addition
15 to other changes, Senate Bill 279 added system security as a type of infrastructure
16 investment eligible for recovery under GSRS. Specifically, this category of "natural
17 gas utility plant projects" eligible for recovery through a GSRS was codified in K.S.A.
18 66-2202(f)(4). In addition, K.S.A. 66-2202(i) defines "system security" as:

19 capital expenditures to protect a utility's capital assets, including
20 both physical assets and cyber assets, such as networks,
21 computers, servers, operating systems, storage, programs and
22 data, from attack, damage or unauthorized use and access.

23 **Q. WHAT IS THE FOCUS OF YOUR TESTIMONY?**

24 A. My testimony focuses on the protection of cyber assets. Company witness, Mr.
25 Anthony Cellitti discusses including system security as it relates to our physical assets.

1 **Q. PLEASE EXPLAIN WHAT IS MEANT BY CYBER SECURITY INVESTMENTS.**

2 A. Cyber security investments are capital expenditures that are used on software or
3 technology platforms that provide security control. These security controls have been
4 procured to reduce or eliminate a security gap or to reduce or augment cybersecurity
5 staffing requirements. As used in this testimony, all cyber security investments provide
6 security control for either the natural gas SCADA gas control network, or the SCADA
7 or Industrial Control System (“ICS”) electronic systems that are operated on the natural
8 gas pipelines.

9 **Q. WHAT OTHER TYPE OF PROJECTS ARE YOU SPONSORING?**

10 A. My testimony focuses on the protection of cyber assets as well as physical assets
11 along with our employees. It is important to remember software suites can protect our
12 cyber assets and can also enhance our physical security as well. I discuss examples
13 of this later in my testimony. For reference, the Company classifies security-related
14 projects under two main categories: CYBERSECURITY (regarding protection of cyber
15 assets) or PHYSICAL SECURITY (regarding protection of physical assets and
16 employees).

17 **Q. ARE YOU SPONSORING ANY SPECIFIC JOB ORDERS?**

18 A. Yes, I am sponsoring seven separate Job Orders. Specifically, Job Orders: 10091,
19 10149, 10207, 10224, 10014, 10023, and 10025. For reference, the ordering of Job
20 Orders in my testimony is designed to mirror how those order are presented exhibit
21 NLP-1.

22 **Q. PLEASE DISCUSS JOB ORDER 10091.**

23 A. Job order 10091 is for capital labor for the Privilege Identity Management “PIM”
24 platform deployed to the corporate environment. The PIM platform will secure and
25 rotate passwords for the powerful accounts controlling our infrastructure systems.

1 **Q. PLEASE DISCUSS JOB ORDER 10149.**

2 A. Job order 10149 is for Privilege Identity Management "PIM" and Privilege Access
3 Management "PAM" platforms used as an additional layer of management and
4 security concerning privileged accounts in the corporate and SCADA environments.
5 As noted above, PIM platforms secure and rotate passwords for powerful accounts
6 controlling infrastructure systems. The PAM platform takes this protection a step
7 further and removes the usage of the local administrator accounts on end user
8 systems while only elevating programs or objects with privilege versus the end user
9 account. This enhancement will prevent lateral traversal and ransomware attacks that
10 require privilege access to help spread itself throughout the environment.

11 **Q. PLEASE DISCUSS JOB ORDER 10207.**

12 A. Job order 10207 is for our new Endpoint Protection Platform "EPP", Endpoint &
13 Detection Response "EDR" and User & Behavioral Analytics "UEBA" which
14 consolidated three separate security agent platforms within the environment. The new
15 platform helps strengthen our security agent compliance, and provides the ability to
16 automatically remediate 95 - 99 percent of malicious and ransomware security events
17 without direct security analyst interaction. In addition, remediation to production and
18 non-production servers takes place right as, or before, the infection starts. This greatly
19 reduces the need for Cybersecurity or IT support interaction with the network or the
20 asset itself in the event the malicious code evades the next-generation antimalware
21 engine. Using this new platform, polymorphic/metamorphic, memory-based infections
22 and exploit kit infections are reduced immensely requiring no network removal that
23 could keep a server system offline for hours before being able to resume normal
24 operations.

25 **Q. PLEASE DISCUSS JOB ORDER 10224.**

1 A. Job order 10224 is for our malware genetic mapping platform. This platform helps
2 increase the malware identification in files and suspicious payloads at greater than
3 99% accuracy and provides detonation, identification, and analysis of a malicious
4 payload without a Cybersecurity analyst guiding the process. By increasing
5 identification times, this improves the response times to our Senior Vice Presidents,
6 targeted staff, cyber events, or employee reported phishing substantially due to no or
7 limited analyst interaction via our current security orchestration and automation
8 platform. This also allows us to attribute the threat actor of who is behind the malicious
9 code, thus allowing our Cybersecurity team to heighten cyber operation and employee
10 awareness levels as attacks (e.g., ransomware or nation state malware attacks)
11 increase.

12 **Q. PLEASE DISCUSS JOB ORDER 10014.**

13 A. Job order 10014 is for a PHYSICAL SECURITY internal centralized monitoring
14 platform. This platform allows our PHYSICAL SECURITY Operation Center "SOC"
15 analysts to assess a physical security situation while it's happening with more visibility
16 and monitoring ability, either by surveillance or badge activity per site to determine
17 whether there is a police need so they can be dispatched thereby increasing the
18 security on sites. As a utility designated under the United States critical infrastructure
19 sector for Oil and Natural Gas, there has been an increase in threats towards this
20 sector that require better monitoring and response platforms.

21 **Q. PLEASE DISCUSS JOB ORDER 10023.**

22 A. Job order 10023 is for PHYSICAL SECURITY cloud-based software to integrate with
23 our centralized physical security platform. This Software as a Service platform
24 preserves chain of custody for PHYSICAL SECURITY surveillance artifacts to protect
25 all parties involved and allows a forensically sound case to be used for encapsulating

1 all related surveillance data for a security event. The platform also provides granular
2 roles and permission to users along with detailed audit trails ensured throughout the
3 life of the case.

4 **Q. PLEASE DISCUSS JOB ORDER 10025.**

5 A. Job order 10025 is for headquarters centralized PHYSICAL SECURITY centralized
6 platform upgrade. This initiative upgrades the enterprise capabilities across all three
7 operating Divisions, including adding new automated workload and alarm functionality
8 within the system. To maximize efficiency of the upgrade and the expanded
9 infrastructure of this project, this upgrade will also include capitalizable labor to
10 upgrade to the latest centralized PHYSICAL SECURITY centralized platform. In short,
11 this project takes several centralized security platforms, and further centralizes them.

12 **Q. ARE ALL COSTS RELATED TO THESE SECURITY PROJECTS BEING INCLUDED**
13 **FOR RECOVERY?**

14 A. No. The GSRS legislation allows for the recovery of corporate allocated system
15 security costs. As these investments were made at the corporate level, KGS only
16 included in this filing the amount of investment that was allocated to KGS.

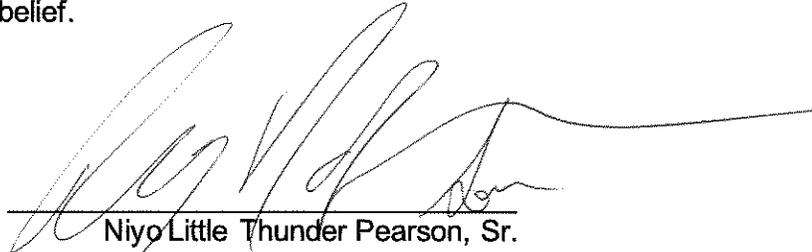
17 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

18 A. Yes, it does at the current time.

VERIFICATION

STATE OF OKLAHOMA)
) ss.
COUNTY OF TULSA)

Niyo Little Thunder Pearson, Sr., being duly sworn upon his oath, deposes and states that he is Supervisor for Cyber Security for 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.



Niyo Little Thunder Pearson, Sr.

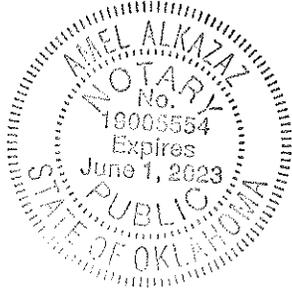
Subscribed and sworn to before me this 24th day of August 2021.



NOTARY PUBLIC

My appointment Expires:

June 1, 2023



Line No.	GSRS Qualification	Unitization Date	Cost Center	Function	Job Order	Description	FERC Account Number	Cost
1	Physical Security	12/21/2020	1717	094	10014	(1) PSEC - Internal Centralized Monitoring - Install PHYSICAL SECURITY hardware and software. This will enable the S.O.C. analysts to assess the situation while it's happening with more visibility and monitoring ability than SW Dispatch, either by video, badge activity as well this monitoring software per site to determine whether the police need dispatched thereby increasing the security on sites.	3911	\$32,769
2	Cyber Security	5/4/2021	1502	101	10149	A penetration test identified a need for Privileged Identity & Access Management (PIM/PAM). The test revealed the need to protect the Domain Admin Accounts (keys to the kingdom) to prevent taking over a lower workstation privilege account that provides access to all workstations. The recent TSA Pipeline Security Requirements have specific questions around privilege account management, and this solution will meet the new cyber requirements outlined for our SCADA environment.	3916	\$599,645
3	Physical Security	5/4/2021	1717	097	10023	(1) PSEC - CLOUD BASED SOFTWARE - This software preserves chain of custody for PHYSICAL SECURITY surveillance artifacts to protect all parties involved. Allows a forensically sound case to be used for encapsulating all related surveillance data for an incident. Roles and permission to users, internal and external, with audit trails ensured throughout the life of the case.	3916	\$3,191
4	Cyber Security	1/5/2021	1502	100	10091	ONE Gas IT Infrastructure and Cybersecurity have identified the need for an additional layer of management and security concerning privileged accounts. The PIM platform will secure and rotate passwords for the powerful accounts controlling our infrastructure systems. This enhancement will prevent lateral traversal and infection by ensuring appropriate account management.	3918	\$5,104
5	Physical Security	5/4/2021	1717	097	10025	(1) PSEC CENTRALIZED UPGRADE - This initiative will upgrade the PHYSICAL SECURITY centralized platform. As we expand our enterprise capabilities across three divisions, additional workload and functionality is being placed on the system, resulting in the need for more core infrastructure hardware and enhanced functionality. To maximize efficiency as we expand our infrastructure, this upgrade will also include capitalizable labor to upgrade to the latest centralized platform.	3918	\$8,622
6	Cyber Security	2/3/2021	1502	101	10207	(1) This project improves the anti-virus and malware coverage to all systems within the ONE Gas corporate network and reducing the number of security agents managed today within the environment (consolidation of three technologies). The new strategy allows ONE Gas to replace the Endpoint Protection Platform "EPP", Endpoint & Detection Response "EDR" and User & Behavioral Analytics "UEBA" with a new platform. The new platform helps strengthen our security agent compliance, thus increasing our success with Internal Audit AOMs (Audit Observation Memorandums) and provides the ability to automatically remediate 95 - 99% percent of all malicious and ransomware security events without direct security analyst interaction. By implementing this platform, remediation to production and non-production servers takes place right as or before the infection starts. This greatly reduces the need for Cybersecurity or IT support interaction with the network or the asset itself in the event the malicious code evades the next-generation antimalware engine. Using the new platform, polymorphic/metamorphic, memory-based infections and exploit kit infections are reduced immensely requiring no network removal that could keep a server system offline for hours before being able to resume normal operations.	3919	\$41,701
7	Cyber Security	1/4/2021	1502	101	10224	(1) Install malware genetic mapping platform: The malware genetic mapping platform helps increase the malware identification in files and suspicious payloads at greater than 99% accuracy and provides detonation, identification and analysis of a malicious payload without a Cybersecurity analyst guiding the process. By increasing identification times, this improves the response times to our SVPs, targeted staff, cyber events or PhishingReport substantially due to no or limited analyst interaction via our current security orchestration and automation tool.	3919	\$5,894

Subtotal	\$696,925
2021 Q3 KGS Distrigas	32.28%
Total	\$224,968

Corporate Allocated Security Projects

(1) For the sake of security, ONE Gas and KGS treat the name of these programs as Confidential. KGS will provide additional information as may be required for review of this filing upon specific request and in compliance with K.S.A. 6-1220a, K.A.R 82-1-221a and Orders that may be issued in this docket.

In the Matter of the Application of Kansas)
Gas Service, A Division of ONE Gas, Inc. for)
Approval By The Commission for a Gas) DOCKET NO. 22-KGSG-____-TAR
System Reliability Surcharge per)
K.S.A. 66-2201 through 66-2204.)

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. 22-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,
3 Overland 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 Kansas Gas Service in 2000, as an Accountant in the General Accounting
12 Department and moved to the Financial Planning Department as a Budget Analyst. I
13 joined the Rates and Regulatory Department in 2010 as a Rates Analyst and began
14 my current position in June 2015.

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

16 A. Yes. I provided written testimony in Docket Nos. 12-KGSG-835-RTS, 14-KGSG-111-
17 TAR, 15-KGSG-088-TAR, 16-KGSG-104-TAR, 16-KGSG-491-RTS, 18-KGSG-093-
18 TAR, 18-KGSG-560-RTS (“560 Docket”), 19-KGSG-088-TAR, 20-KGSG-090-TAR
19 (“090 Docket”), and 21-KGSG-094-TAR (“094 Docket”).

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

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

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

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

7 **Q. PLEASE EXPLAIN THE APPLICABLE GSRs REVENUE RATE PARAMETERS**
8 **CONTAINED IN THE GSRs STATUTE.**

9 A. K.S.A. 66-2203, as amended, provides parameters for GSRs filings. Pursuant to this
10 statute, the Commission may not approve a GSRs filing if it would produce annualized
11 revenues below the lesser of \$1,000,000 or ½% of the most recent base revenue
12 approved in the utility’s most recent general rate proceeding. The most recent general
13 rate proceeding for Kansas Gas Service was the 560 Docket, referenced above. The
14 base revenue authorized for Kansas Gas Service in the 560 Docket was
15 \$318,875,695, resulting in a GSRs ½% threshold of \$1,594,378. Thus, the statutory
16 floor for Kansas Gas Service in a GSRs filing until Kansas Gas Service’s next general
17 base rate proceeding is completed is \$1,000,000. Exhibit LME-1 establishes the
18 Kansas Gas Service GSRs Revenue Requirement at \$19,351,723, thus meeting the
19 minimum threshold.

20 Similarly, the maximum annualized GSRs revenues contemplated by the
21 statute are capped at 20% of the most recent base revenue approved in the utility’s
22 most recent general rate proceeding. Based on the outcome of the 560 Docket, the
23 GSRs recovery “ceiling” for Kansas Gas Service is currently \$63,775,139. Again, the
24 requested GSRs revenue falls well within the parameters established in the statute.
25 Further, K.S.A. 66-2204 provides a “rate” ceiling of \$0.80 per month, per filing, by

1 which the residential GSRS rate may increase in any GSRS filing. Exhibit LME-6 sets
2 forth the incremental residential GSRS charge of \$0.78 per month, which is below the
3 ceiling of \$0.80 per month.

4 **Q. WERE ANY OF THE COSTS INCLUDED WITHIN THIS GSRS REQUEST ALSO**
5 **CONTAINED IN RATE BASE WITHIN THE 560 DOCKET?**

6 A. No.

7 **Q. PLEASE IDENTIFY THE ASPECTS OF THE GSRS CALCULATION.**

8 A. The GSRS application contains the following elements:

- 9 1. Calculation of the over/under recovery of the previously authorized GSRS
10 revenue, based upon actual GSRS revenue recorded through June 2021 and
11 estimated through November 2021, plus a true-up of the estimated revenue
12 from July 2020 – November 2020 included in the 094 Docket;
- 13 2. The inclusion of system investment projects and government relocation
14 expenditures placed in service after September 1, 2018 and unitized during the
15 period July 1, 2020 through June 30, 2021. Company witness Mr. Anthony
16 Cellitti will discuss these projects;
- 17 3. The inclusion of blanket work orders involving the replacement of service lines,
18 mains, and meters placed in service and unitized during the period between
19 July 1, 2020 and June 30, 2021. Company witness Mr. Anthony Cellitti will
20 discuss these projects; and
- 21 4. The inclusion of corporate allocated cyber security projects that were placed in
22 service after September 1, 2018 and unitized between July 1, 2020 and June
23 30, 2021. Company witness Mr. Niyo Little Thunder Pearson, Sr. will discuss
24 these projects.

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 for June 2021. "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 in
8 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 amended. As shown on
13 Line 11, the total GSRs Revenue Requirement is \$19,351,723. The revenue
14 requirement identified in Exhibit LME-1 incorporates all the aspects of the GSRs
15 calculation as discussed 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 560 Docket
19 sets forth the provisions for the carrying charge to be applied to recoverable
20 investments for Kansas Gas Service's GSRs filing. In Senate Substitute for House
21 Bill No. 2585, utilities became exempt from Kansas income tax as of January 1, 2021.
22 As a result of this change, Kansas Gas Service recalculated the carrying charge in the
23 094 Docket to reflect the reduction in income taxes. This revised return of 8.6012%
24 was used in the calculation of the revenue requirement in the current filing, as shown
25 on Exhibit LME-1.

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

2 A. Exhibit LME-2 summarizes the authorized GSRS revenue approved by the
3 Commission in the 094 Docket compared to the actual revenues generated from
4 December 2020 through June 2021, plus the estimated GSRS revenue for the period
5 of July through November 2021. As shown on Line 14, of Exhibit LME-2, the revenue
6 recovered from Kansas Gas Service's GSRS charge exceeds the authorized GSRS
7 recoveries by \$269,980. The over-recovery is used to reduce the proposed GSRS
8 charges as shown on Line 10 of LME-1.

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

10 A. Exhibit LME-3 identifies the GSRS Gross and Net Plant in Service by FERC account
11 for GSRS eligible expenditures, further classified by category of GSRS expenditure.
12 GSRS eligible projects are identified in K.S.A. 66-2202 sections (f)(1) through (5), as
13 amended, and are discussed in greater detail in the testimonies of Company witness
14 Mr. Cellitti and Company witness Mr. Pearson. Column (B) identifies the GSRS
15 expenditures that were approved in the 090 Docket, Column (C) identifies the GSRS
16 expenditures that were approved in the 094 Docket, Column (D) identifies the
17 proposed GSRS expenditures that relate to allocated cyber and physical security
18 projects, Column (E) identifies the proposed safety and governmental relocation
19 projects, and Column (F) identifies the proposed blanket GSRS expenditures.
20 Accumulated Depreciation of \$7,758,823 associated with this filing is shown in column
21 (G) and Column (H) identifies the Net GSRS plant by FERC account of \$179,254,189.

22 **Q. CAN YOU PLEASE DESCRIBE WHAT YOU MEAN BY "ALLOCATED CYBER AND**
23 **PHYSICAL SECURITY PROJECTS"?**

1 A. K.S.A. 66-2202 section (f)(4), as amended, allows for the inclusion of System Security¹
2 costs including allocated corporate costs. Kansas Gas Service includes security
3 investments that are described in Mr. Pearson's testimony within the GSRS filing that
4 were incurred at the corporate level. The plant in service included in Column (D) on
5 exhibit LME-3 reflect only Kansas Gas Service's portion of the total investment.

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

7 A. Exhibit LME-4 identifies the Accumulated Depreciation of \$7,758,823 identified by
8 FERC Account and Accumulated Deferred Income Taxes of \$14,771,857 associated
9 with Kansas Gas Service's GSRS capital expenditures. The Accumulated Deferred
10 Income Tax ("ADIT") balance represents the liability associated with GSRS investment
11 that is used to reduce GSRS Rate Base.

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

13 A. Exhibit LME-5 sets forth the calculation of annualized Depreciation Expense
14 associated with GSRS plant, split between allocated cyber security, safety and
15 government relocation projects, blanket work orders, projects approved in the 090
16 Docket, and projects approved in the 094 Docket. As shown on line 86 of the Exhibit,
17 the annualized Depreciation Expense is \$5,474,249.

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

19 A. Exhibit LME-6 allocates the GSRS revenue requirement to Kansas Gas Service's
20 customer classes as provided for in the agreed upon Stipulation in the 560 Docket as
21 required in the statute. Specifically, the GSRS Revenue Requirement is allocated to
22 each class based upon the proportion of its Pro-Forma revenue to total Pro-Forma
23 revenue as defined in Appendix B, of the Stipulation and Agreement approved in the

¹ As per K.S.A. 66-2202(i), "system security" shall mean capital expenditures to protect a utility's capital assets, including both physical assets and cyber assets, such as networks, computers, servers, operating systems, storage, programs and data, from attack, damage or unauthorized use and access.

1 560 Docket. The revenue requirement by class is then divided by the number of billing
 2 determinants for each class as defined in that same Appendix, to establish the monthly
 3 rates.

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

GSRs Proposed Rates	
Customer Class	Monthly Fixed Rate
RS – Residential Sales	\$1.98
GSS – General Sales Small	\$2.96
GSL – General Sales Large	\$7.24
GSTE – General Sales Transport Eligible	\$24.11
SGS – Small Generator Sales	\$3.23
GIS – Gas Irrigation Sales	\$7.84
STk -- Small Transportation Service “k” system	\$16.63
STt – Small Transportation Service “t” system	\$18.55
GITt – Gas Irrigation Transportation Service “t” system	\$16.82
LVTk – Large Volume Transportation Service “k” system Tier 1	\$41.17
LVTk – Large Volume Transportation Service “k” system Tier 2	\$90.64
LVTk – Large Volume Transportation Service “k” system Tier 3	\$161.05
LVTk – Large Volume Transportation Service “k” system Tier 4	\$715.73
LVTt –Large Volume T Transportation Service “t” system Tier 1	\$77.91
LVTt –Large Volume T Transportation Service “t” system Tier 2	\$128.13
LVTt –Large Volume T Transportation Service “t” system Tier 3	\$214.88
LVTt –Large Volume T Transportation Service “t” system Tier 4	\$1,503.11

WT - Wholesale Transportation Service	\$262.68
SSR – Sales Service for Resale	\$61.73
CNGk – Compressed Natural Gas Transportation Service	\$91.69
CNGt – Compressed Natural Gas Transportation Service	\$169.97
KGSSD – Kansas Gas Supply D	\$127.62

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

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

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

4 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
Lorna M. Eaton

Subscribed and sworn to before me this 26th day of August 2021.

Stephanie Fleming
NOTARY PUBLIC

My appointment Expires:

6/5/22



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

Gas System Replacement Surcharge

Exhibit LME-1

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Line No.	Summary	GSRs Projects - Docket No. 20-KGSG-090-TAR	GSRs Projects - Docket No. 21-KGSG-094-TAR	Corporate Allocated Cyber Security	GSRs Safety & Govt. Relocation Projects	GSRs Blanket Work Orders	Grand Total	Source
1	Original Cost	\$ 37,638,509	\$ 73,024,013	\$ 224,968	\$ 40,151,244	\$ 35,974,277	\$ 187,013,011	Schedule LME-3
2	Less: Accumulated Depreciation	\$ (2,671,099)	\$ (3,415,472)	\$ (27,157)	\$ (1,055,963)	\$ (589,130)	\$ (7,758,823)	Schedule LME-4
3	Net Plant in Service	\$ 34,967,410	\$ 69,608,540	\$ 197,810	\$ 39,095,281	\$ 35,385,147	\$ 179,254,189	
4	Less: Accumulated Deferred Income Taxes	\$ (2,869,967)	\$ (6,026,240)	\$ (38,436)	\$ (534,499)	\$ (5,302,715)	\$ (14,771,857)	Schedule LME-4
5	Net GSRs Rate Base	\$ 32,097,443	\$ 63,582,301	\$ 159,374	\$ 38,560,782	\$ 30,082,432	\$ 164,482,331	
6	Carrying Charge ⁽¹⁾	8.6012%	8.6012%	8.6012%	8.6012%	8.6012%	8.6012%	
7	Pre-Tax Required Return	\$ 2,760,765	\$ 5,468,841	\$ 13,708	\$ 3,316,690	\$ 2,587,450	\$ 14,147,454	Line 5 * Line 6
8	Depreciation Expense	\$ 1,098,645	\$ 2,133,677	\$ 17,300	\$ 1,067,265	\$ 1,157,362	\$ 5,474,249	Schedule LME-5
9	GSRs Revenue Requirement (Annual)						<u>\$ 19,621,703</u>	Line 7 + 8
10	Plus (Minus): Over-Recovered Balance from Docket No. 21-KGSG-094-TAR						<u>\$ (269,980)</u>	Schedule LME-2
11	Revised GSRs Annualized Revenue Requirement						<u>\$ 19,351,723</u>	Line 9 + 10

(1) Carrying Charge of 9.0984% gross of tax was established in Docket 18-KGSG-560-RTS. A change in the state income tax rate lowers the rate of return to 8.6012%.

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

Gas System Reliability Surcharge

Exhibit LME-2

GSRs Over/Under Cumulative Recovery for 2020-2021

(A)

Line No.		GSRs Recoveries
1	July - Nov 2020 Estimated Recoveries in 21-KGSG-094-TAR	\$1,795,102
2	July - Nov 2020 GSRs Recoveries	\$1,785,793
3	True-Up Actual/Estimate from 21-KGSG-094-TAR	(\$9,309)
4	December 2020 Recoveries	\$1,002,654
5	January 2021 Recoveries	\$1,006,259
6	February 2021 Recoveries	\$1,003,507
7	March 2021 Recoveries	\$1,007,959
8	April 2021 Recoveries	\$1,007,482
9	May 2021 Recoveries	\$1,002,409
10	June 2021 Recoveries	\$996,958
11	July - November Estimate	\$4,984,788
12	<u>Total Cumulative GSRs Recoveries</u>	<u>\$12,002,705</u>
13	2020 GSRs Rev. Requirement	\$11,732,725
14	Total Amount Over Recovered through November 2021	<u><u>\$269,980</u></u>

Kansas Gas Service
A Division of ONE Gas

Gas System Reliability Surcharge

Exhibit LME-3

Plant in Service

(A)			(B)	(C)	(D)	(E)	(F)	(G)	(H)
Line No.	Account	Account Title	GSRs Projects - Docket No. 20-KGSG-090-TAR	GSRs Projects- Docket No. 21-KGSG-094-TAR	GSRs Projects Corporate Allocated Security	GSRs Projects Safety and Govt. Relocation	GSRs Blanket Work Orders	Less: Accumulated Depreciation	Net Plant
1	365.2	Rights of Way				192,602		1,810	190,792
2	366.1	Compressor Station Structures		958				53	905
3	367	Mains	2,732,453	5,261,528		9,135,683		697,204	16,432,460
4	368	Compressor Station Equipment	23,787			2,604		2,075	24,316
5	369	Meas. And Reg. Station Equipment	98,169	306,141		400,902		30,519	774,693
6	374.2	Rights of Way						-	-
7	376	Mains - Plastic	7,353,101	15,625,900		16,977,877		1,577,624	38,379,254
8	376.5	Mains - Metallic	1,901,073	9,877,744		4,591,277		567,022	15,803,071
9	376.9	Mains - Cathodic Protection	1,075,357	1,123,300		226,549	838,301	329,592	2,933,915
10	378	Meas. and reg. sta. equip. - general	177,571	350,074		541,482		40,468	1,028,659
11	379	Meas. and reg. sta. equip. - city gate	12,599	28,132		900,572		17,453	923,850
12	380	Services - Plastic	15,401,231	28,353,331		5,894,017	23,318,388	3,496,289	69,470,678
13	380.5	Services - Metallic	3,612	20,255		55,039		(301,061)	379,967
14	381	Meters	8,328,496	10,657,993		10,521	11,817,589	1,088,210	29,726,388
15	381.5	AMR Communication Devices						-	-
16	382	Meter installations	8,217	101,807		109,458		8,238	211,244
17	383	House Regulators	12,152	68,445		99,198		4,038	175,757
18	390.1	Structures and Improvements	374,683	743,299		77,520		39,533	1,155,969
19	390.2	Leasehold Improvements		37,698				-	37,698
20	391.1	Office Furniture			10,578			441	10,137
21	391.6	Purchased Software	85,582	356,933	194,595			73,450	563,660
22	391.8	Computer Equipment	18,495		4,431			9,653	13,273
23	391.9	Cloud Computing			15,363			554	14,810
24	397	Communication Equipment	31,932	110,477		935,943		75,659	1,002,693
25	Total		\$ 37,638,509	\$ 73,024,013	\$ 224,968	\$ 40,151,244	\$ 35,974,277	\$ 7,758,823	\$ 179,254,189

Kansas Gas Service
A Division of ONE Gas

Gas System Reliability Surcharge

Exhibit LME-4

Accumulated Depreciation and Accumulated Deferred Income Tax Liability

Accumulated Depreciation

Line No.	Account Number	Account	(A)	(B)	(C)	(D)	(E)	(F)	(H)
			GSRs Projects - Docket No. 20-KGSG-090-TAR	GSRs Projects - Docket No. 21-KGS-094-TAR	GSRs Projects Corporate Allocated Cyber Security	GSRs Projects Safety and Govt. Relocation	GSRs Blanket Work Orders	Total Accumulated Depreciation	
1	365.2	Rights of Way					1,810		\$ 1,810
2	366.1	Compressor Station Structures		53					\$ 53
3	367	Mains	157,418	206,453			333,333		\$ 697,204
4	368	Compressor Station Equipment	2,018				57		\$ 2,075
5	369	Meas. And Reg. Station Equipment	7,069	11,709			11,741		\$ 30,519
6	374.2	Rights of Way							\$ -
7	376	Mains - Plastic	479,483	717,250			380,891		\$ 1,577,624
8	376.5	Mains - Metallic	96,664	384,646			85,712		\$ 567,022
9	376.9	Mains - Cathodic Protection	173,829	116,683			12,536	26,542	\$ 329,592
10	378	Meas. and reg. sta. equip. - general	10,423	15,987			14,058		\$ 40,468
11	379	Meas. and reg. sta. equip. - city gate	454	770			16,229		\$ 17,453
12	380	Services - Plastic	1,338,722	1,568,496			142,147	446,924	\$ 3,496,289
13	380.5	Services - Metallic	(183,441)	(83,411)			(2,242)	(31,966)	\$ (301,061)
14	381	Meters	541,186	399,111			282	147,631	\$ 1,088,210
15	381.5	AMR Communication Devices							\$ -
16	382	Meter installations	536	5,520			2,183		\$ 8,238
17	383	House Regulators	523	2,018			1,497		\$ 4,038
18	390.1	Structures and Improvements	14,918	23,388			1,226		\$ 39,533
19	390.2	Leasehold Improvements							\$ -
20	391.1	Office Furniture				441			\$ 441
21	391.6	Purchased Software	16,288	31,558		25,604			\$ 73,450
22	391.8	Computer Equipment	9,093			559			\$ 9,653
23	391.9	Cloud Computing				554			\$ 554
24	397	Communication Equipment	5,916	15,240			54,502		\$ 75,659
25	Total		\$ 2,671,099	\$ 3,415,472	\$ 27,157	\$ 1,055,963	\$ 589,130	\$ 7,758,823	

Accumulated Deferred Income Tax Liability

Line No.	Account	(A)	(B)	(C)	(D)	(E)	(F)	(H)
		GSRs Projects - Docket No. 20-KGSG-090-TAR	GSRs Projects - Docket No. 21-KGS-094-TAR	GSRs Projects Corporate Allocated Cyber Security	GSRs Projects Safety and Govt. Relocation	GSRs Blanket Work Orders	Total ADIT	
1	Total	\$ (2,869,967)	\$ (6,026,240)	\$ (38,436)	\$ (534,499)	\$ (5,302,715)	\$ (14,771,857)	

Kansas Gas Service
A Division of ONE Gas

Gas System Reliability Surcharge

Exhibit LME-5

Depreciation Expense

GSRs Projects Corporate Allocated Cyber Security

(A)			(B)	(C)	(D)	(E)	(F)
Line No.	Account Number	Account	GSRs Gross Additions	Less: GSRs Retirements	Net Depreciable GSRs Plant	Depreciation Rate	Annualized Depreciation
1	391.1	Office Furniture	10,578	-	10,578	7.69%	813
2	391.6	Purchased Software	194,595	-	194,595	7.69%	14,964
3	391.8	Computer Equipment	4,431	-	4,431	7.69%	341
4	391.9	Cloud Computing	15,363	-	15,363	7.69%	1,181
5	Total		224,968	-	224,968		17,300

GSRs Projects Safety and Govt. Relocation

(A)			(B)	(C)	(D)	(E)	(F)
Line No.	Account Number	Account	GSRs Gross Additions	Less: GSRs Retirements	Net Depreciable GSRs Plant	Depreciation Rate	Annualized Depreciation
6	365.2	Rights of Way	192,602	-	192,602	1.41%	2,716
7	366.1	Compressor Station Structures	-	-	-	1.41%	-
8	367	Mains	9,135,683	(246,200)	8,889,483	2.38%	211,570
9	368	Compressor Station Equipment	2,604	-	2,604	3.53%	92
10	369	Meas. And Reg. Station Equipment	400,902	(32,289)	368,613	3.18%	11,722
11	374.2	Rights of Way	-	-	-	1.45%	-
12	376	Mains - Plastic	16,977,877	(180,760)	16,797,117	2.66%	446,803
13	376.5	Mains - Metallic	4,591,277	(340,152)	4,251,124	2.46%	104,578
14	376.9	Mains - Cathodic Protection	226,549	-	226,549	6.67%	15,111
15	378	Meas. and reg. sta. equip. - general	541,482	(17,044)	524,438	2.44%	12,796
16	379	Meas. and reg. sta. equip. - city gate	900,572	(22,547)	878,025	2.13%	18,702
17	380	Services - Plastic	5,894,017	(1,082,353)	4,811,664	3.69%	177,550
18	380.5	Services - Metallic	55,039	(128,859)	(73,819)	4.63%	(3,418)
19	381	Meters	10,521	-	10,521	2.84%	299
20	381.5	AMR Communication Devices	-	-	-	6.67%	-
21	382	Meter installations	109,458	(9,773)	99,685	3.20%	3,190
22	383	House Regulators	99,198	(2,223)	96,975	1.97%	1,910
23	390.1	Structures and Improvements	77,520	-	77,520	1.57%	1,217
24	397	Communication Equipment	935,943	-	935,943	6.67%	62,427
25	Total		40,151,244	(2,062,199)	38,089,045		1,067,265

Kansas Gas Service
A Division of ONE Gas

Gas System Reliability Surcharge

Exhibit LME-5

Depreciation Expense

GSRs Blanket Work Orders

(A)			(B)	(C)	(D)	(E)	(F)
Line No.	Account Number	Account	GSRs Gross Additions	Less: GSRs Retirements	Net Depreciable GSRs Plant	Depreciation Rate	Annualized Depreciation
26	367	Mains	-	-	-	2.38%	-
27	368	Compressor Station Equipment	-	-	-	3.53%	-
28	369	Meas. And Reg. Station Equipment	-	-	-	3.18%	-
29	374.2	Rights of Way	-	-	-	1.45%	-
30	376	Mains - Plastic	-	-	-	2.66%	-
31	376.5	Mains - Metallic	-	-	-	2.46%	-
32	376.9	Mains - Cathodic Protection	838,301	-	838,301	6.67%	55,915
33	378	Meas. and reg. sta. equip. - general	-	-	-	2.44%	-
34	379	Meas. and reg. sta. equip. - city gate	-	-	-	2.13%	-
35	380	Services - Plastic	23,318,388	-	23,318,388	3.69%	860,449
36	380.5	Services - Metallic	-	(1,354,661)	(1,354,661)	4.63%	(62,721)
37	381	Meters	11,817,589	(1,123,252)	10,694,337	2.84%	303,719
38	381.5	AMR Communication Devices	-	-	-	6.67%	-
39	382	Meter installations	-	-	-	3.20%	-
40	383	House Regulators	-	-	-	1.97%	-
41	390.1	Structures and Improvements	-	-	-	1.57%	-
42	397	Communication Equipment	-	-	-	6.67%	-
43	Total		35,974,277	(2,477,913)	33,496,364		1,157,362

Kansas Gas Service
A Division of ONE Gas

Gas System Reliability Surcharge

Exhibit LME-5

Depreciation Expense

GSRs Projects - Docket No. 21-KGSG-094-TAR

	(A)	(B)	(C)	(D)	(E)	(F)	
Line No.	Account Number	Account	GSRs Gross Additions	Less: GSRs Retirements	Net Depreciable GSRs Plant	Depreciation Rate	Annualized Depreciation
44	366.1	Compressor Station Structures	958	-	958	2.95%	28
45	367	Mains	5,261,528	(47,757)	5,213,771	2.38%	124,088
46	368	Compressor Station Equipment	-	-	-	3.53%	-
47	369	Meas. And Reg. Station Equipment	306,141	(56,970)	249,170	3.18%	7,924
48	374.2	Rights of Way	-	-	-	1.45%	-
49	376	Mains - Plastic	15,625,900	(117,459)	15,508,441	2.66%	412,525
50	376.5	Mains - Metallic	9,877,744	(407,425)	9,470,319	2.46%	232,970
51	376.9	Mains - Cathodic Protection	1,123,300	-	1,123,300	6.67%	74,924
52	378	Meas. and reg. sta. equip. - general	350,074	(8,327)	341,747	2.44%	8,339
53	379	Meas. and reg. sta. equip. - city gate	28,132	(9,510)	18,622	2.13%	397
54	380	Services - Plastic	28,353,331	(1,116,928)	27,236,403	3.69%	1,005,023
55	380.5	Services - Metallic	20,255	(1,185,120)	(1,164,865)	4.63%	(53,933)
56	381	Meters	10,657,993	(1,125,057)	9,532,936	2.84%	270,735
57	381.5	AMR Communication Devices	-	-	-	6.67%	-
58	382	Meter installations	101,807	(6,893)	94,914	3.20%	3,037
59	383	House Regulators	68,445	(10,907)	57,538	1.97%	1,133
60	390.1	Structures and Improvements	743,299	-	743,299	1.57%	11,670
61	390.2	Leasehold Improvements	37,698	-	37,698	0.00%	-
62	391.6	Purchased Software	356,933	-	356,933	7.69%	27,448
63	391.8	Computer Equipment	-	-	-	20.00%	-
64	397	Communication Equipment	110,477	-	110,477	6.67%	7,369
65			73,024,013	(4,092,353)	68,931,660		2,133,677

Kansas Gas Service
A Division of ONE Gas

Gas System Reliability Surcharge

Exhibit LME-5

Depreciation Expense

GSRs Projects - Docket No. 20-KGSG-090-TAR

		(A)	(B)	(C)	(D)	(E)	(F)
Line No.	Account Number	Account	GSRs Gross Additions	Less: GSRs Retirements	Net Depreciable GSRs Plant	Depreciation Rate	Annualized Depreciation
66	367	Mains	2,732,453	(156,339)	2,576,114	2.38%	61,312
67	368	Compressor Station Equipment	23,787	(1,473)	22,314	3.53%	788
68	369	Meas. And Reg. Station Equipment	98,169	(6,437)	91,732	3.18%	2,917
69	374.2	Rights of Way	-	-	-	1.45%	-
70	376	Mains - Plastic	7,353,101	(59,438)	7,293,663	2.66%	194,011
71	376.5	Mains - Metallic	1,901,073	(301,319)	1,599,754	2.46%	39,354
72	376.9	Mains - Cathodic Protection	1,075,357	-	1,075,357	6.67%	71,726
73	378	Meas. and reg. sta. equip. - general	177,571	(7,220)	170,351	2.44%	4,157
74	379	Meas. and reg. sta. equip. - city gate	12,599	(4,400)	8,199	2.13%	175
75	380	Services - Plastic	15,401,231	(303,425)	15,097,806.44	3.69%	557,109
76	380.5	Services - Metallic	3,612	(1,645,964)	(1,642,352)	4.63%	(76,041)
77	381	Meters	8,328,496	(426,119)	7,902,377	2.84%	224,428
78	381.5	AMR Communication Devices	-	-	-	6.67%	-
79	382	Meter installations	8,217	(1,547)	6,670	3.20%	213
80	383	House Regulators	12,152	(1,832)	10,320	1.97%	203
81	390.1	Structures and Improvements	374,683	-	374,683	1.57%	5,883
82	391.6	Purchased Software	85,582	-	85,582	7.69%	6,581
83	391.8	Computer Equipment	18,495	-	18,495	20.00%	3,699
84	397	Communication Equipment	31,932	-	31,932	6.67%	2,130
85		Total	37,638,509	(2,915,513)	34,722,996		1,098,645
86		Total Depreciation Expense					5,474,249

Kansas Gas Service
A Division of ONE Gas

Gas System Reliability Surcharge

Exhibit LME-6

Development of GSRS Rate

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
Line No.	Customer Class	Pro-Forma Revenue - Docket No. 18-KGSG-560-RTS	% of Revenue Requirement Responsibility	GSRS Revenue Requirement (Based upon ratio of pro-forma revenue to total revenue)	Customers Per - 18-KGSG-560-RTS Settlement - Appendix B	GSRS Annual Charge	GSRS Monthly Charge
1	Residential Sales RS	\$ 228,136,718	71.544%	13,845,014	583,049	\$ 23.75	\$ 1.98
2	General Sales Svc. Small	21,561,638	6.762%	1,308,519	36,896	\$ 35.47	\$ 2.96
3	General Sales Svc. Large	16,644,462	5.220%	1,010,108	11,621	\$ 86.92	\$ 7.24
4	General Sales Svc. Transport Eligible	2,383,361	0.747%	144,640	500	\$ 289.28	\$ 24.11
5	Small Generator Sales SGS	431,454	0.135%	26,184	676	\$ 38.73	\$ 3.23
6	Gas Irrigation Sales GIS	331,827	0.104%	20,138	214	\$ 94.10	\$ 7.84
7	Small Transportation STk	11,498,231	3.606%	697,797	3,497	\$ 199.54	\$ 16.63
8	Small Transportation STt	4,441,906	1.393%	269,568	1,211	\$ 222.60	\$ 18.55
9	Gas Irrigation Transportation GITt	1,705,800	0.535%	103,520	513	\$ 201.79	\$ 16.82
10	Large Volume Transportation LVTk Tier 1 #	1,750,052	0.549%	106,206	215	\$ 493.98	\$ 41.17
11	Large Volume Transportation LVTk Tier 2 #	1,684,737	0.528%	102,242	94	\$ 1,087.68	\$ 90.64
12	Large Volume Transportation LVTk Tier 3 #	1,496,729	0.469%	90,833	47	\$ 1,932.61	\$ 161.05
13	Large Volume Transportation LVTk Tier 4 #	8,916,005	2.796%	541,089	63	\$ 8,588.71	\$ 715.73
14	Large Volume Transportation LVTt Tier 1 #	693,253	0.217%	42,072	45	\$ 934.93	\$ 77.91
15	Large Volume Transportation LVTt Tier 2 #	785,386	0.246%	47,663	31	\$ 1,537.52	\$ 128.13
16	Large Volume Transportation LVTt Tier 3 #	637,325	0.200%	38,678	15	\$ 2,578.50	\$ 214.88
17	Large Volume Transportation LVTt Tier 4 #	13,969,184	4.381%	847,753	47	\$ 18,037.29	\$ 1,503.11
18	Wholesale Transportation WT t #	1,454,338	0.456%	88,260	28	\$ 3,152.14	\$ 262.68
19	Sales Service for Resale SSR	97,657	0.031%	5,927	8	\$ 740.82	\$ 61.73
20	CNG k system	163,179	0.051%	9,903	9	\$ 1,100.32	\$ 91.69
21	CNG t system	67,219	0.021%	4,079	2	\$ 2,039.67	\$ 169.97
22	Kansas Gas Supply D	25,235	0.008%	1,531	1	\$ 1,531.45	\$ 127.62

23	Total	\$ 318,875,695	100%	\$ 19,351,723
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24 1) Note: Residential Class Limited to annual increase of \$.80/month over the most recent GSRS filing.

	Annual Increase	Cumulative Rate
25	2020 GSRS Rate - Residential \$ 0.43	\$ 0.43
26	2021 GSRS Rate - Residential \$ 0.77	\$ 1.20
27	2022 GSRS Rate - Residential \$ 0.78	\$ 1.98
28	Total Residential Rate	\$ 1.98

29 # Includes flex revenue.

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 ~~21, 2019~~ 17, 2020

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	\$	<u>1,201.98</u>
GSS	General Sales Service Small	\$	<u>1,792.96</u>
GSL	General Sales Service Large	\$	<u>4,397.24</u>
GSTE	General Sales Service Transport Eligible	\$	<u>14,6224.11</u>
SGS	Small Generator Sales Service	\$	<u>1,963.23</u>
KGSSD	Kansas Gas Supply D	\$	<u>77,37127.62</u>
GIS	Gas Irrigation Sales Service	\$	<u>4,757.84</u>
SSR	Sales Service Resale	\$	<u>37,4361.73</u>
STk	Small Transportation Service (k)	\$	<u>10,0816.63</u>
STt	Small Transportation Service (t)	\$	<u>11,2518.55</u>
LVTk	Large Volume Transportation Service (k)		
Annual Use:	Below 10,000 Mcf	\$	<u>24,9641.17</u>
	10,001 Mcf – 20,000 Mcf	\$	<u>54,9590.64</u>
	20,001 Mcf – 40,000 Mcf	\$	<u>97,64161.05</u>
	Above 40,001 Mcf	\$	<u>433,94715.73</u>
LVTt	Large Volume Transportation Service (t)		
Annual Use:	Below 10,000 Mcf	\$	<u>47,2477.91</u>
	10,001 Mcf – 20,000 Mcf	\$	<u>77,68128.13</u>
	20,001 Mcf – 40,000 Mcf	\$	<u>130,28214.88</u>
	Above 40,001 Mcf	\$	<u>911,321503.11</u>
WTt	Wholesale Transportation Service (t)	\$	<u>159,26262.68</u>
GITt	Gas Irrigation Transportation Service (t)	\$	<u>10,2016.82</u>
CNGk	Compressed Natural Gas General Transportation (k)	\$	<u>55,5991.69</u>
CNGt	Compressed Natural Gas General Transportation (t)	\$	<u>103,05169.97</u>

Issued:	<u>November 17, 2020</u>	21-KGSG-094-TAR Approved Kansas Corporation Commission November 17, 2020 /s/ Lynn Retz
Effective:	<u>December 1, 2020</u>	
By:	<u>/s/ Janet L. Buchanan</u> Janet L. Buchanan, Director- Regulatory	

VERIFICATION

STATE OF KANSAS)
) ss
COUNTY OF JOHNSON)

Robert Vincent 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.


Robert Elliott Vincent

Subscribed and sworn before me this 26th day of August, 2021.


Notary Public

My Appointment Expires: 6/5/22



CERTIFICATE OF SERVICE

I hereby certify that a copy of the above and foregoing *Application* was forwarded this 26th day of August, 2021, addressed to:

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

Terri Pemberton
Chief Litigation Counsel
Kansas Corporation Commission
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Robert Elliott Vincent