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August 30, 2018
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Missouri Public
Service Commission

Exhibit No.: 102
Issue: Infrastructure System
Replacement Surcharge
Witness: Caroline Newkirk
Sponsoring Party: MoPSC Staff
Type of Exhibit: Direct Testimony
Case No.: GO-2018-0309
Date Testimony Prepared: August 22, 2018

MISSOURI PUBLIC SERVICE COMMISSION

COMMISSION STAFF DIVISION

AUDITING

DIRECT TESTIMONY

OF

CAROLINE NEWKIRK

SPIRE MISSOURI, INC. (EAST)

CASE NO. GO-2018-0309

*Jefferson City, Missouri
August, 2018*

Staff Exhibit No. 102
Date 8/27/18 Reporter JNB
File No. GO-2018-0309

1 Recommendation filed on August 6, 2018, and is attached as Schedule CNN-d1 to this
2 testimony. Staff witness Ali Arabian will address the ISRS application for Spire Missouri,
3 Inc. (West) for Case No. GO-2018-0310 in his direct testimony filed in that proceeding.

4 Q. Did you contribute to the Memorandum attached as Appendix A to the Staff
5 Recommendation filed on August 6, 2018, in Case No. GO-2018-0309?

6 A. Yes.

7 Q. Is the information contained in the Auditing Staff's Recommendation still true
8 and accurate to the best of your knowledge?

9 A. Yes, with one update and two corrections.

10 Q. What is the update?

11 A. In the Staff Recommendation, Staff stated, "Due to the increased workload,
12 and Spire East's delay in providing Staff work order authorizations and updated workpapers
13 for the update period, Staff was unable to conduct a review of sample invoices supporting the
14 requested cost recovery for the update months of May and June 2018 prior to the filing of
15 Staff's Recommendation. Staff will perform the review of a sample of invoices for May and
16 June 2018 costs subsequent to the filing of its Recommendation, and will update its
17 Recommendation if necessary." Since the Staff Recommendation has been filed, the sample
18 of invoices for May and June 2018 costs has been reviewed. Staff found no issues during the
19 review of those invoices.

20 Q. What corrections to its calculation of the ISRS revenue recommendation did
21 Staff make?

Direct Testimony of
Caroline N. Newkirk

1 A. In the Staff Recommendation filed on August 6th, accumulated deferred
2 income taxes were not adjusted consistently with Staff's proposed disallowance of the cost
3 associated with the removal of plastic mains and services lines. Staff has corrected that
4 oversight. In addition, for purposes of this case only, Staff is accepting Spire East's
5 calculation of income taxes associated with self-constructed assets. Staff's corrected revenue
6 requirement is attached as Schedule CNN-d2.

7 Q. Does this conclude your direct testimony in this proceeding?

8 A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI


In the Matter of the Application of Spire)
Missouri Inc. to Establish an Infrastructure) Case No. GO-2018-0309
System Replacement Surcharge in its Spire)
Missouri East Service Territory)

AFFIDAVIT OF CAROLINE NEWKIRK

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW CAROLINE NEWKIRK and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing Direct Testimony; and that the same is true and correct according to her best knowledge and belief.

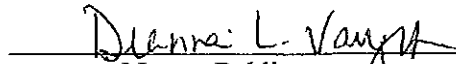
Further the Affiant sayeth not.



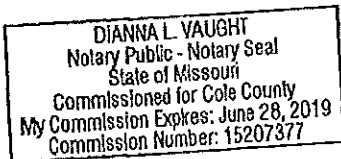
CAROLINE NEWKIRK

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 22nd day of August, 2018.



Notary Public



**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of the Application of Spire)
Missouri Inc. to Change its Infrastructure) **Case No. GO-2018-0309**
System Replacement Surcharge in its) **Tariff No. YG-2018-0163**
Spire Missouri East Service Territory)

STAFF RECOMMENDATION

COMES NOW the Staff of the Missouri Public Service Commission and in response to the Commission's June 8, 2018, *Order Directing Notice, Setting Intervention Deadline, and Directing Filing*, submits its *Staff Recommendation* to the Commission as set forth in detail in the attached appendices, and in support thereof respectfully states as follows:

1. On June 7, 2018, Spire Missouri Inc. (formerly known as Laclede Gas Company) filed its *Verified Application and Petition of Spire Missouri Inc. to Establish an Infrastructure System Replacement Surcharge for Its Spire Missouri East ("Spire East" or "Company") Service Territory* (the "Application") pursuant to Sections 393.1009, 393.1012 and 393.1015 of the Revised Statutes of Missouri and Commission Rule 4 CSR 240-3.265¹ which authorize gas corporations to recover certain eligible infrastructure replacement costs through an infrastructure system replacement surcharge ("ISRS").

2. In an *Order Suspending Tariffs* issued on June 8, 2018, the Commission suspended the tariff sheet filed by Spire East on June 7, 2018 (assigned tariff tracking number YG-2018-0163) until October 5, 2018. In its *Order Directing Notice, Setting*

¹ The Application also referenced Commission Rules 4 CSR 240-2.060 and 2.080.

Intervention Deadline, and Directing Filing referenced above, the Commission ordered Staff to file its recommendation regarding the Application no later than August 6, 2018. Staff's recommendation is attached hereto as Appendix A, Appendix B, and Appendix C, each of which are incorporated herein by reference.

3. In its current Application, Spire East filed to recover ISRS qualifying infrastructure replacement costs incurred during the period October 1, 2017, through June 30, 2018. The ISRS recovery requested for May and June 2018 plant in service additions was included on an estimated basis at the time the Application was filed, but documentation supporting actual ISRS plant addition costs for those months was supplied by Spire East during the course of Staff's audit and review in this case.

4. As part of Staff's examination of the Application, Auditing Staff reviewed supporting work papers, work order authorizations, and a sample of invoices supporting the work order authorizations, for the period of October 1, 2017, through April 30, 2018. Staff also determined the amount of plastic mains and services replaced in order to exclude the associated replacement costs from the ISRS request, consistent with the recent Western District Court of Appeals decision.

5. Due to the Western District Court of Appeals opinion in Case Nos. GO-2016-0332 and GO-2016-0333, Auditing Staff's workload has significantly increased in relation to both the initial months and the requested update months. Due to the increased workload, and Spire East's delay in providing Staff work order authorizations for the update period, Staff was unable to conduct a review of sample invoices supporting the requested cost recovery for the update months of May and June 2018 prior to the filing of Staff's Recommendation. Staff will perform the review of a

sample of invoices for May and June 2018 costs subsequent to the filing of its Recommendation, and will update its Recommendation if necessary.

6. Commission Rule 4 CSR 240-3.265(17) requires a reconciliation of the ISRS revenue Spire East collected from customers in the prior 12-month period to account for over or under-collection of previously approved ISRS revenue. Staff performed this reconciliation and found Spire East over-collected ISRS revenue by \$2,717,537 which is identical to the amount of over-collection calculated by Spire East. As a result of the reconciliation, Staff recommends including this amount of over-collected ISRS revenue as a reduction to the ISRS rate.

7. Based upon its review and all of its calculations, Staff is recommending that Spire East receive ISRS revenues for this case of \$2,158,784. However, this amount could change based on Staff's review of the sample invoices for the update months referenced above, or based on the Commission's decision in the remand proceedings for Case Nos. GO-2016-0332, GO-2016-0333, GO-2017-0201 and GO-2017-0202.

8. Staff has developed proposed ISRS rates for Spire East based on Staff's recommended ISRS revenue requirement for this case described above. Staff's proposed rates are consistent with the methodology used to establish Spire East's predecessor's past ISRS rates and are consistent with the overall methodology used to establish ISRS rates for other gas utilities. Staff's proposed ISRS rates are contained in Appendix B, attached hereto and incorporated by reference herein.

9. Staff would note that most ISRS rates utilize the most current annual report figures to establish the customer count used in the calculation of rates. These

ISRS rates are calculated based on the customer count used in the last Spire East rate case, Case No. GR-2017-0215. This change in method of calculation was necessary because of revisions that took place in the rate cases, such as newly-designed and newly-established rate classes. This method of calculation is also authorized by statute.

10. Staff would also note that the Company is current on its FY 2018 assessment; however, at this time Staff cannot confirm whether it is current on its FY 2019 assessment.

WHEREFORE, Staff recommends the Commission issue an order in this case that:

1. Rejects Spire East's ISRS tariff sheet (YG-2018-0163) P.S.C. MO No. 7 Consolidated, First Revised Sheet No. 12 cancelling P.S.C. MO. No. 7 Consolidated, Original Sheet No. 12, as filed on June 7, 2018.

2. Approves Staff's recommended ISRS surcharge revenues in this docket in the incremental pre-tax revenue amount of \$2,158,784 re-establishing a "new" ISRS rate.

3. Authorizes Spire East to file an ISRS rate for each customer class as reflected in Appendix B, which generates \$ 2,158,784 annually.

Respectfully submitted,

/s/ Jeffrey A. Keevil

Jeffrey A. Keevil
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(573) 751-9285 (Fax)
Email: jeff.keevil@psc.mo.gov

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, or transmitted by facsimile or electronic mail to counsel of record this 6th day of August, 2018.

/s/ Jeffrey A. Keevil

MEMORANDUM

TO: Missouri Public Service Commission Official Case File
Case No. GO-2018-0309 - Tariff Tracking No. YG-2018-0163
Spire Missouri Inc.-East

FROM: Caroline Newkirk, Regulatory Auditor, Auditing Department
Kimberly K. Bolin, Regulatory Auditor, Auditing Department
Michael J. Ensrud, Rate & Tariff Examiner, Procurement Analysis

/s/ Mark L. Oligschlaeger 08/06/18
Auditing Department / Date

/s/ David M. Sommerer 08/06/18
Commission Staff Division / Date

/s/ Jeffrey A. Keevil 08/06/18
Staff Counsel's Office / Date

SUBJECT: Staff Report and Recommendation Regarding the Verified Application and Petition of Spire Missouri Inc. to Establish an Infrastructure System Replacement Surcharge for its Spire Missouri East Service Territory

DATE: August 6, 2018

BACKGROUND

On June 7, 2018, Spire Missouri Inc. ("Spire East" or "Company") filed a "Verified Application and Petition to Establish an Infrastructure System Replacement Surcharge for its Spire Missouri East Service Territory" with the Missouri Public Service Commission ("Commission"). The Application proposes to increase Spire East's Infrastructure System Replacement Surcharge (ISRS) rates and implement a revised Tariff Sheet with a proposed effective date of July 7, 2018.

Spire East made its filing pursuant to Sections 393.1009, 393.1012 and 393.1015 of the Revised Statutes of Missouri and Commission Rules 4 CSR 240-2.060, 2.080, and 3.265, which allow Missouri natural gas corporations to file a petition and proposed rate schedule with the Commission to recover certain infrastructure system replacement costs outside a formal rate case, through a surcharge on customers' bills.

Spire requested ISRS recovery for plant from October 1, 2017 through April 30, 2018, with pro forma ISRS costs updated through June 30, 2018.

Spire East requested an increase in ISRS revenue requirement in the amount of \$4,807,507 in this ISRS filing.

RELEVANT HISTORY

On April 30, 2018, Spire filed “Spire Missouri Inc.’s Request for Waiver of Rule 4 CSR 4.017(1) For ISRS Case Filings, Or in The Alternative, Notice of Intended Case Filing”.

On May 14, 2018, the Office of the Public Counsel filed a “Motion to Late File and Motion to reject Spire Missouri Inc.’s Request for Waiver of Rule 4 CSR 240.017(1) for ISRS Case Filings or Motion to Reject Sua Sponte”.

On May 24, 2018, the Commission issued an “Order Granting Requests for Waiver”.

On June 7, 2018, Spire East filed the “Verified Application and Petition of Spire Missouri Inc. to Establish an Infrastructure System Replacement Surcharge for its Spire Missouri East Service Territory”.

On June 8, 2018, the Commission issued an “Order Directing Notice, Setting Intervention Deadline, and Directing Filing”. The deadline for Staff’s recommendation memo is August 6, 2018.

In a separate order – issued on the same day - the Commission issued an “Order Suspending Tariffs” until October 5, 2018.

On June 27, 2018, Spire East filed “Request for Approval of Customer Notices and Bills” and supplied copies of the new language of various notices and bills.

On July 10, 2018, the Commission issued its “Order Approving Customer Notice” that approved the customer notices and bills that was filed on June 27, 2018.

STAFF REVIEW AND REVENUE CALCULATIONS

On June 7, 2018, Spire Missouri, Inc. (“Spire” or “Company”), filed its Verified Application and Petition in Case No. GO-2018-0309 to establish an Infrastructure System Replacement Surcharge (ISRS) for its Spire Missouri East (“Spire East”) service territory (formerly known as Laclede Gas Company). This is the first ISRS filing since Spire East’s most recent general rate case, Case No. GR-2017-0215.

Section 393.1015.3, RSMo, states, “A gas corporation may effectuate a change in its rate pursuant to the provisions of this section no more often than two times every twelve months.” The Spire East tariffs filed with this Application have been suspended until October 5, 2018. In Case No. GO-2016-0333, which was filed in September of 2016, the effective date for Spire East’s revised ISRS rates was January 28, 2017. Since that date, Spire East has changed its ISRS

surcharge one additional time, in Case No. GO-2017-0202, with the effective date of June 1, 2017. Based upon Spire East's previous ISRS filings and the statute, Staff asserts that since this ISRS filing will be going into effect later than January 28, 2018, that Spire East is in compliance with the statute.

Commission Rule 4 CSR 240-3.265(18), Natural Gas Utility Petitions for Infrastructure System Replacement Surcharges, states:

The Commission shall reject an ISRS petition after a commission order in a general rate proceeding unless the ISRS revenues required in the petition, on an annualized basis, will produce ISRS revenues of at least the lesser of one-half of one percent (1/2%) of the natural gas utility's base revenue level approved by the commission in the natural gas utility's most recent general rate case proceeding or one (1) million dollars, but not in the excess of ten percent (10%) of the subject utility's base revenue level approved by the commission in the utility's most recent general rate proceeding.

Spire East's requested ISRS revenues exceed one-half of one percent of the natural gas utility's base revenue level approved by the commission in the most recent Spire East rate case, and Spire's cumulative ISRS revenues, including this filing, do not exceed ten percent of the base revenue levels approved by the commission in the last Spire East rate case.

In this Application, Spire East filed to recover ISRS qualifying infrastructure replacement costs incurred during the period of October 1, 2017, through June 30, 2018. The ISRS recovery requested for May and June 2018 plant in service additions was included on an estimated basis at the time Spire East's Application was filed, but documentation supporting actual ISRS plant addition costs for these months was supplied by Spire East during the course of Staff's audit.

As part of its examination of Spire East's application, Auditing Staff reviewed supporting workpapers, work order authorizations, and a sample of invoices supporting the work order authorizations, for the period of October 1, 2017, through April 30, 2018. Staff also determined the amount of plastic mains and services replaced for these months in order to exclude the associated replacement costs from the ISRS request, consistent with recent Western District Court of Appeals decision. For this purpose, Staff used the same methodology it recently applied in the remand proceedings for Case Nos. GO-2016-0332, GO-2016-0333, GO-2017-0201 and GO-2017-0202. Staff also communicated with Spire East's personnel to clarify Spire's application when necessary.

In the past, Staff has included ISRS eligible costs for the requested update period in its review of the Company's ISRS requests. However, due to the Western District Court of Appeals opinion in Cases No. GO-2016-0332 and GO-2016-0333, Staff's workload has significantly increased in relation to both the initial months and the requested update months. Due to the increased workload, and Spire East's delay in providing Staff work order authorizations and updated workpapers for the update period, Staff was unable to conduct a review of sample invoices supporting the requested cost recovery for the update months of May and June 2018 prior to the filing of Staff's Recommendation. Staff will perform the review of a sample of invoices for May and June 2018 costs subsequent to the filing of its Recommendation, and will update its Recommendation if necessary.

The following documentation was provided to Staff on the following dates:

- June 8, 2018 - Work order authorizations over \$50,000 for October 2017 through April 2018.
- June 19, 2018 - Work order authorizations between \$25,000 and \$50,000 for October 2017 through April 2018
- June 19, 2018 - Work Order Charge Details for October 2017 through April 2018
- July 3, 2018 - A sample of invoices for October 2017 through April 2018
- July 18, 2018 - Work order authorizations over \$50,000 for May and June 2018
- July 26, 2018 – Work order authorizations over \$25,000 for May and June 2018
- July 27, 2018 – Work order charge details for May and June 2018

In this case, Spire East did not provide supporting information concerning ISRS costs for the update period months of May and June 2018 until late in the audit process, as noted above. In the future, Staff requests that such information be provided to it as soon as possible after the costs are reasonably finalized to allow for continued use of the ISRS update period process for Spire East.

Commission Rule 4 CSR 240-3.265 Natural Gas Utility Petitions for Infrastructure System Replacement Surcharges sets forth the definitions of natural gas utility plant projects that are eligible for ISRS treatment. Staff concluded each of the projects reviewed meets the ISRS rule qualifications, with the exception of plastic mains and services referenced above.

The methodology used by the Auditing Staff allows for consideration of all accumulated depreciation and deferred income taxes on ISRS qualifying infrastructure replacement costs through September 30, 2018. This methodology is consistent with past reviews conducted by

Auditing Staff and with Staff's view that the calculation of the ISRS revenue requirement should closely reflect the revenue requirement for ISRS qualifying plant as of the effective date of the ISRS rates.

In Spire East ISRS cases going back many years, both the Company and Staff have chosen to incorporate half of the value of certain income tax deductions in ISRS revenue requirement. This 50/50 split was agreed to because there had been a previous dispute over the applicability of these particular deductions to ISRS plant additions. Staff has continued in this case to reflect half of the value of the tax deductions in question in Spire East's ISRS revenue requirement in this case.

STAFF RECONCILIATION

Commission Rule 4 CSR 240-3.265(17) requires a reconciliation of the ISRS revenue Spire East collected from customers in the prior 12-month period to account for over or under-collection of previously approved ISRS revenue. Staff performed this reconciliation and found Spire East over-collected ISRS revenue by \$ 2,717,537 which is identical to the amount of over-collection calculated by Spire East. As a result of the reconciliation, Staff recommends including this amount of over-collected ISRS revenue in Spire East's ISRS rates as a reduction to the ISRS rate.

SUMMARY AND CONCLUSIONS

Based upon its review and calculations made in response to this ISRS Application, Staff recommends Spire East receive additional ISRS revenues of \$2,158,784 (see attached Appendix C to this memo). Staff would note that this amount could change based on Staff's review of the sample invoices for the update months referenced above, or based on the Commission's decision in the remand proceedings for Case Nos. GO-2016-0332, GO-2016-0333, GO-2017-0201 and GO-2017-0202.

Based upon its review and all of its calculations, Staff is recommending that Spire East receive ISRS revenues of \$2,158,784.¹ This is different than Spire East's requested ISRS-related revenue requirement of \$4,807,507 as sought. The difference is attributed to all the aforementioned revisions and corrections addressed above.

¹ This amount could change based on Staff's review of the sample invoices for the update months referenced above, or based on the Commission's decision in the remand proceedings for Case Nos. GO-2016-0332, GO-2016-0333, GO-2017-0201 and GO-2017-0202.

The ISRS rates that Staff is proposing will re-establish a new ISRS revenue requirement in the amount of \$2,158,784² after ISRS was reduced to zero as part of GR-2017-0215. This is a reduction of \$2,648,723 from the requested \$4,807,507 ISRS reimbursement.

THE ISRS RATE SCHEDULES

Staff's recommended rates are consistent with the methodology used to establish Laclede's (Spire predecessor entity) past ISRS rates and consistent with the overall methodology used to establish ISRS rates for other gas utilities. Staff's recommended ISRS rates are contained in Appendix B, attached hereto and incorporated by reference.

Most ISRS filings utilize the most-current annual report figures to establish the customer-count used in the calculation of rates. These ISRS rates are calculated based on the customer-count used in the last rate case Case No. GR-2017-0215. The relevant statute clearly allows for this substitution when it states the following:

393.1015. Documentation to be submitted — notice to be published — examination of proposal — authorization by commission, when — pretax revenues, factors to be considered — revised rate schedule, filed when — rulemaking authority. —

5. (1) The monthly ISRS charge may be calculated based on a reasonable estimate of billing units in the period in which the charge will be in effect, which shall be conclusively established by dividing the appropriate pretax revenues by the customer numbers reported by the gas corporation in the annual report it most recently filed with the commission pursuant to subdivision (6) of section 393.140, and then further dividing this quotient by twelve. **Provided, however, that the monthly ISRS may vary according to customer class and may be calculated based on customer numbers as determined during the most recent general rate proceeding of the gas corporation so long as the monthly ISRS for each customer class maintains a proportional relationship equivalent to the proportional relationship of the monthly customer charge for each customer class. (Emphasis Added)**

This change in method of calculation was necessary because of revisions that took place in the rate cases, and by newly-designed and newly-established rate classes.

² See footnote above.

Spire is current on its FY 2018 assessment. At this time, Staff cannot confirm whether it is current on its FY 2019 assessment. The PSC Annual Report is up to date. Staff is not aware of any other matter before the Commission that affects or is affected by this filing except as noted above.

RECOMMENDATION

Based upon the rationale stated above, Staff recommends the Commission issue an order in this case that:

1. Rejects Spire East's ISRS tariff sheet (YG-2018-0163) P.S.C. MO No. 7 Consolidated, First Revised Sheet No. 12 cancelling P.S.C. MO. No. 7 Consolidated, Original Sheet No. 12, as filed on June 7, 2018.
2. Approves the Staff's recommended ISRS surcharge revenues in this docket in the incremental pre-tax revenue amount of \$2,158,784 re-establishing a "new" ISRS rate.
3. Authorizes Spire East to file an ISRS rate for each customer class as reflected in Appendix B, which generates \$ 2,158,784 annually.

SPIRE MISSOURI INC. -EAST
CASE NO. GO-2018-0309 & YG-2018-0163

ISRS RATE DESIGN

<u>Customer Rate Class</u>	<u>Cust #</u>	<u>Customer Charge</u>	<u>Ratio To Residential</u>	<u>Weighted Cust #</u>	<u>Customer Percentage</u>	Staff's Total ISRS Rev Req	
						\$2,158,784	
						<u>Cal ISRS Charge</u>	<u>ISRS Revenues</u>
Residential	604,973	\$22.00	1.0000	604,973	86.0152%	\$0.26	\$1,856,882
SGS (Small Gen. Service	36,743	\$35.00	1.5909	58,455	8.3111%	\$0.41	\$179,419
LGS-Large Gen. Service	3,882	\$125.00	5.6818	22,057	3.1360%	\$1.45	\$67,700
LV-Large Volume Service	67	\$914.25	41.5568	2,784	0.3959%	\$10.63	\$8,546
SL-Unmetered Gas Light	84	\$6.00	0.2727	23	0.0033%	\$0.07	\$70
IN-Interruptable	20	\$837.40	38.0636	761	0.1082%	\$9.74	\$2,337
General LP	36	\$17.94	0.8155	29	0.0042%	\$0.21	\$90
Vehicular Fuel	8	\$23.38	1.0627	9	0.0012%	\$0.27	\$26
LVTSS-Large Volume Transport & Sales Service	147	\$2,131.41	96.8823	14,242	2.0249%	\$24.78	\$43,713
TOTAL	645,960			703,333	100.00%		\$2,158,784

* Due to rounding to the nearest penny, the designed ISRS rates will over-collect by \$2653. However, it should be noted that the total amount collected will be trued-up at a later date.

**Spire Missouri East
ISRS Revenue Requirement Calculation**

ISRS Activity:**Gas Utility Plant Projects - Main Replacements and Other Projects Extending Useful Life of Mains:****Work Orders Placed in Service**

Gross Additions	38,033,532
Deferred Taxes	(210,191)
Accumulated Depreciation	<u>(352,621)</u>

Total Net 37,470,720

Gas Utility Plant Projects - Service Line Replacements and Insertion Projects:**Work Orders Placed in Service**

Gross Additions	9,244,675
Deferred Taxes	(152,123)
Accumulated Depreciation	<u>(194,151)</u>

Total Net 8,898,401

Gas Utility Plant Projects - Regulator Stations:**Work Orders Placed in Service**

Gross Additions	-
Deferred Taxes	-
Accumulated Depreciation	<u>-</u>

Total Net -

Gas Utility Plant Projects - Main Relocations net of Reimbursements:**Work Orders Placed in Service**

Gross Additions	1,650,699
Deferred Taxes	(10,341)
Accumulated Depreciation	<u>(18,687)</u>

Total Net 1,621,671

**Increase in Accumulated Deferred Income Taxes and Accumulated Depreciation
Associated with Eligible Infrastructure System Replacements which are included in a
Currently Effective ISRS**

Total Incremental Accumulated Depreciation
Total Incremental Accumulated Deferred Taxes

Total ISRS Rate Base	47,990,792
Overall Rate of Return per GR-2017-0215	<u>7.20%</u>
UOI Required	3,454,233
Income Tax Conversion Factor	<u>1.34135</u>
Revenue Requirement Before Interest Deductibility	<u>4,633,335</u>

Total ISRS Rate Base	47,990,792
Weighted Cost of Debt per GR-2017-0215	<u>1.8900%</u>
Interest Deduction	907,026
Marginal Income Tax Rate	<u>25.4482%</u>
Income Tax Reduction due to Interest	230,822
Income Tax Conversion Factor	<u>1.34135</u>
Revenue Requirement Impact of Interest Deductibility	<u>309,613</u>

Total Revenue Requirement on Capital	4,323,722
Depreciation Expense	632,976
Net Property Taxes	354,368
ISRS Revenue Overcollection January 2014 through May 2018	<u>(2,717,537)</u>

Total ISRS Revenues per Company 2,593,528

Total ISRS Revenue per Staff 1,724,039

Average of Company and Staff Recommendations 2,158,784

**Spire Missouri East
ISRS Revenue Requirement Calculation**

ISRS Activity:

Gas Utility Plant Projects - Main Replacements and Other Projects Extending Useful Life of Mains:

Work Orders Placed in Service

Gross Additions	38,033,532
Deferred Taxes	(170,899)
Accumulated Depreciation	<u>(352,621)</u>

Total Net 37,510,012

Gas Utility Plant Projects - Service Line Replacements and Insertion Projects:

Work Orders Placed in Service

Gross Additions	9,244,675
Deferred Taxes	(35,139)
Accumulated Depreciation	<u>(194,151)</u>

Total Net 9,015,385

Gas Utility Plant Projects - Regulator Stations:

Work Orders Placed in Service

Gross Additions	-
Deferred Taxes	-
Accumulated Depreciation	<u>-</u>

Total Net -

Gas Utility Plant Projects - Main Relocations net of Reimbursements:

Work Orders Placed in Service

Gross Additions	1,650,699
Deferred Taxes	(10,341)
Accumulated Depreciation	<u>(18,687)</u>

Total Net 1,621,671

**Increase in Accumulated Deferred Income Taxes and Accumulated Depreciation
Associated with Eligible Infrastructure System Replacements which are included in a
Currently Effective ISRS**

Total Incremental Accumulated Depreciation	
Total Incremental Accumulated Deferred Taxes	

Total ISRS Rate Base	48,147,068
Overall Rate of Return per GR-2017-0215	7.20%
UOI Required	<u>3,465,482</u>
Income Tax Conversion Factor	1.34135
Revenue Requirement Before Interest Deductibility	<u>4,648,424</u>

Total ISRS Rate Base	48,147,068
Weighted Cost of Debt per GR-2017-0215	1.8900%
Interest Deduction	909,980
Marginal Income Tax Rate	25.4482%
Income Tax Reduction due to Interest	231,574
Income Tax Conversion Factor	1.34135
Revenue Requirement Impact of Interest Deductibility	<u>310,622</u>

Total Revenue Requirement on Capital	4,337,802
Depreciation Expense	632,976
Net Property Taxes	354,368
ISRS Revenue Overcollection January 2014 through May 2018	<u>(2,717,537)</u>

Total ISRS Revenues 2,607,608