

Schedule RES-D-4

Company Response to OPC Data Requests

1. Company Responses to OPC Data Requests 1001 thru 1013.
2. Company Response to OPC Data Requests 1001 Attachment
3. Flaherty Direct Testimony Allocations
4. Flaherty Rebuttal 10.17.17
5. FY 2018 Annual Report CAM
6. Krick Direct Testimony and Affidavit
7. Krick Rebuttal 10.17.17

OPC Data Request 1001-1013 GO-2019-0356, G0-2019-0357 Response

Spire Missouri Overhead ISRS Accounting Procedures

1. What is the Spire Missouri definition of overhead? Is it different for Spire Missouri East and Spire Missouri West? Please supply a complete list and descriptions of all overheads used by Spire Missouri. Are all overheads charged entirely or in portion to construction? If no, please identify the overheads not charged entirely or in portion to construction. Are all overheads charged to construction also charged to ISRS projects? If no, please identify the construction overheads not charged to ISRS projects.

Generally speaking, overhead costs, in the context of ISRS and other capital projects, are those cost that are allocated rather than directly charged to an ISRS project. The definition of overhead for Spire Missouri East and Spire Missouri West is the same. Please see OPC DR 1001, Attachment 1 for a comprehensive description of the various costs that are allocated as overheads to ISRS projects.

2. Are all the overhead components charged to ISRS book plant and taxes identified in the following matrices? If no, please identify and describe the components needed to complete the Spire Missouri list as ISRS overhead not listed in the book and tax matrices listed following these data requests.

Yes, the matrices provide a fairly comprehensive and complete listing of the various cost components that make up the overheads allocated to ISRS projects. The Company has not identified any cost component that is allocated to ISRS projects, but not identified in the matrices. It will, however, update its response if it subsequently determines that some component has not been listed.

3. Are the ISRS overhead components fully described in existing Company documentation? If yes, please provide copies of the documentation that fully describes each component. If no, please provide a full description of each overhead component.

Please see OPC DR 1001, Attachment 1 which includes the Presentation made by Spire Missouri and provided to OPC on June 6, 2019 for an identification of such costs. Also please see the Company's most recent Commission-approved Cost Allocation Manual which describes the various factors, both fixed and variable, that are used to allocate different cost components between functional areas.

4. Is each book overhead component compliant with the USOA definitions, instruction, and account description? If no, please identify the specifics for each non-compliant overhead component and the support for using non-compliant USOA accounting.

Yes, while Spire Missouri's allocation of costs to the overhead component of its ISRS projects generally complies with the USOA Gas Plant Instructions, it should be recognized that the Company is required to follow the allocation guidance provided in its Commission-approved Cost Allocation Manual. To the extent there is any

difference between the two, the Commission-approved Cost Allocation Manual would control.

5. Please identify the USOA account(s) used to record the costs of each overhead component.

Please see Spire Missouri's response to OPC DR 11 for a listing of accounts.

6. Is it Spire Missouri's intention that its overhead components match the "Overhead construction costs" contained in the USOA Gas Plant Instructions section 4, (A) thru (C)? If no, what was the criteria used to select the components treated as ISRS overheads? Can Spire Missouri produce the records to satisfy the requirements USOA Gas Plant Instructions section 4, part (C) for 2018 and 2019?

It is Spire Missouri's intention that costs allocated to and included in the overhead component of its ISRS projects generally conform with the USOA Gas Plant Instructions, with recognition of the fact that the Company is required to follow the allocation guidance provided in its Commission-approved Cost Allocation Manual. To the extent there is any difference between the two, the Commission-approved Cost Allocation Manual would control. Spire Missouri can and has produced records showing the nature and amount of overheads allocated to construction projects.

7. Do any of the Spire Missouri ISRS overhead components contain affiliate charges to Spire Missouri in the period 2016 thru 2019? If yes please identify the amount of affiliate charges to each Spire Missouri ISRS overhead component by good or service provided to Spire Missouri.

There are no direct affiliate charges included in such overhead components. To the extent that there are affiliate costs allocated to the Company's shared services function, and then reallocated to various functions and activities as overheads, there are indirect costs. This shared services approach reduces the costs to all business units of various corporate support and operational services by eliminating duplication and permitting such costs to be spread over all business units. Based on the comprehensive analyses conducted by Thomas Flaherty and presented in the Company's last rate case proceedings, such an approach has, in fact, reduced the level of these costs borne by each business unit compared to what they would have been on a stand-alone basis.

8. Please identify the factor(s) used to assign costs for each overhead component to specific ISRS project.

Spire Missouri's Commission-approved Cost Allocation Manual generally identifies the costs that are subject to allocation to various functional areas including ISRS projects. The CAM also describes the different factors and cost drivers used to

perform such allocations, which vary depending on the cost component being allocated. Additional details on how the allocation process works can be found in the direct testimony of Tim Krick and Thomas Flaherty that was submitted as part of the evidentiary record in the Company's last general rate case proceedings (Case Nos GR-2017-0215 and 0216). For OPC's convenience copies of the Company's CAM and the above-referenced testimony are attached.

9. Is Supervision costs an ISRS overhead component costs? If yes, how is supervision costs assigned to ISRS projects? Does supervision costs include the time of all Spire Missouri management including its officers? If no, how is labor supervision charged to ISRS projects.

A. Yes, for Field Operations, supervisors of field-based personnel, generally charge a series of clearing accounts, which correspond to their respective function (Service, Construction & Maintenance, etc.). These clearings accounts are allocated based on the productive hours worked over the corresponding time period by those respective departments. The costs, which are proportioned to O&M are summarized in the various Supervision FERC accounts, while on the Capital side costs are proportioned to the individual projects. Due to various factors including weather, seasonality of the work, etc. the allocation between various projects (O&M vs Capital) will fluctuate from month to month or year to year. To minimize this impact the allocations are based on the fiscal year to date number of hours proportioned to various work orders.

B. No, supervision costs do not include the time of all Spire Missouri management including its officers. Regarding Administrative / Back Office functions supervision costs would generally only be allocated to an ISRS project, if individuals charged the A&G Salaries (920's) accounts listed in DR 11. A portion of these costs would be "transferred" to projects based the Transfer Rate – General.

10. Is supervision of direct labor activities charged to construction based on the time supervised employees perform construction related activities? If no, how are supervisors' time treated relative to direct labor charged to ISRS projects.

A. Yes. See response to OPC question 9.

11. For each ISRS overhead component listed in the book and tax matrices, please describe its precise relationship to ISRS construction and the specific basis used to charge this costs to ISRS projects.

A. Please see the table below. It should be noted that only costs included in the transfers to construction calculation are included in the table below. Non-transferable costs have been excluded as they do not flow through to ISRS projects.

Component Description	USOA Account(s)	Notes
Group Insurance	926200 – Group Insurance 926280 – Group Insurance – D&O	Allocated to Capital through Transfers to Construction – Benefits Rate
Pension	926100 – Pensions	Allocated to Capital through Transfers to Construction – Benefits Rate
Director Fees	930300 – Misc General Expenses – Directors Expenses	Allocated to Capital through Transfers to Construction – General Rate
A&G Salaries	920000 – A&G Salaries	Allocated to Capital through Transfers to Construction – General Rate
Injuries & Damages	925200 – Injuries & Damages – Insurance Premiums 925200 – Injuries & Damages – Claims 925280 – Injuries & Damages – Insurance Premiums – D&O	Allocated to Capital through Transfers to Construction – General Rate
General Office & Supplies	921000 – Gen Office Supplies & Expenses	Allocated to Capital through Transfers to Construction – General Rate
Employee Benefits-Other	926300 – Employee Benefits – Other	Allocated to Capital through Transfers to Construction – Benefits Rate
Misc. A & G	930300 – Misc General Expenses – Directors Expenses	Allocated to Capital through Transfers to Construction – General Rate
Line of Credit Fees	930000 – Misc General Expenses	Excluded from Capital / Transfers to Construction calculations
Other	Multiple Clearing Accounts	See Presentation
Payroll Taxes		Payroll taxes are proportion to capital, passed on the

		amount of payroll charges to capital
Capitalized Depreciation		Allocated to individual projects
Capitalized Interest (AFUDC)		Allocated to individual projects
CWIP	107000 – Construction Work in Progress	

12. Are any of the overhead components listed in the book and tax matrices directly charged to specific construction projects? If yes, please identify the components that are directly charged to specific ISRS projects and the basis determining the amount charged.

A. No, they are not.

13. Do any of the ISRS Overhead components listed in the book and tax matrices include Spire Inc. costs allocated to Spire Missouri? If yes, please identify the components including these costs and the amounts charged to ISRS projects in the upcoming filing.

A. Please see the response to Data Request 1007.

Spire Missouri Overhead Matrix Book

Spire-Missouri Overhead Matrix Tax

Description		
Group Insurance	926200 – Group Insurance	
FAS 106	Report from Financial Reporting with calculations from the following accounts: 228530 – Group Ins – Annuitants, 228540 – Supl Empl Rtrmt Plan-Annuit, 228550 – Salary Prot Plan-	

	Annuitants, 228560 Additional Ins. – Annuitants	
Pension Funding	228230 - Pensions	We use forecast and verify with Treasury the payments were made.
401(K)	926100 - Pensions	
A & G Wages & Salaries	Accounts 921000 General Office Supplies & Expenses, and 925200 Injuries & Damages – Insurance Premiums	
Property Insurance	924000 Property Insurance Premium	
Workers Comp Insurance	925000 Injuries & Damages	
Rents	931000 – Admin & Gen – Rent	
Other Benefits	926300 Employee Benefits - Other, 926320 Employee Benefits – Special Payments, 926330 – Employee Benefits – Educ Assist Tuition Reimb, 925220 Injuries & Damages – Claims.	
Capitalization Factor for above items	920000 Admin and Gen Salaries, 920180 Admin and Gen Salaries – Equity Compensation, 921000 Gen Office Supplies & Expenses, 926000 Pension and Group Insurance, 926320 Employee Benefits – Special Payments.	We take a percentage of the construction payroll expense over the total payroll expense.
Payroll Taxes	107000 CWIP	We take the amount from A/C 107000 and multiply by the P/R Tax Rate.
Property Taxes	393000 Stores Equipment, 394000 Tools, Shop and Garage Equipment, 398000 Misc. Equipment, 396000 Power Equipment	The accounts to the left are MFG taxes and we also include amounts from the property tax bills.
Capitalized Interest		We take yearly averages of the balances in the following accounts in PowerTax: 375200, 375300, 391000,

		392100, 392200, and 393000 and multiply the average balance by the capitalization factor.
Capitalized Depreciation		We take the yearly depreciation of the following accounts in power tax: 375200, 375300, 391000, 392100, 392200, 393000, 394000, 396000, 396100, 398000, 375700, 392710, 394700, 396700, 39700 and we multiply the total by the capitalization factor.
Other		932000 for Office Equipment Maintenance times the AFUDC capital percentage.
CWIP		We take portions of Overheads, Interest, Payroll Taxes, and capitalized depreciation from reports provided by accounting.

REFERENCE

USOA GAS PLANT INSTRUCTIONS

2. Gas Plant to be recorded at costs.

3. Components of construction cost.

A. The cost of construction properly includable in the gas plant shall include, where applicable, the direct and overhead costs as listed and defined hereunder:

- (1). Contract work
- (2) Labor
- (3) Material and supplies over \$500
- (4) Transportation
- (5) Special machine service

- (6) Shop Service
- (7) Protection
- (8) Injuries and Damages
- (9) Privileges and permits
- (10) Rents
- (11) Engineering and supervision
- (12) General administration capitalized
- (13) Engineering services
- (14) Insurance in connection with construction excluding workmen's compensation or similar insurance on employees included as "Labor" in item 2 above
- (15) Law expenditures incurred in connection with construction not included in items 7, protection, and 8 injuries and damages.
- (16) Taxes on physical property including land during construction
- (17) AFUDC
- (18) Earnings and Expenses during construction
- (19) Training costs
- (20) Line pack gas
- (21) LNG "heel"
- (22) Studies

4. Overhead Construction Costs.

A. All overhead construction costs, such as engineering, supervision, general office salaries and expenses, construction engineering and supervision by others than the accounting utility, law expenses, insurance, injuries and damages, relief and pensions, taxes and interest, shall be charged to particular jobs or units on the basis of the amounts of such overheads reasonably applicable

thereto, to the end that each job or unit shall bear its equitable proportion of such costs and that the entire cost of the unit, both direct and overhead, shall be deducted from the plant accounts at the time the property is retired.

B. As far as practicable, the determination of pay roll charges includible in construction overheads shall be based on time card distributions thereof. Where this procedure is impractical, special studies shall be made periodically of the time of supervisory employees devoted to construction activities to the end that only such overhead costs as have a definite relation to construction shall be capitalized. The addition to direct construction costs of arbitrary percentages or amounts to cover assumed overhead costs is not permitted.

C. The record supporting the entries for overhead construction costs shall be so kept as to show the total amount of each overhead for each year, the nature and amount of each overhead expenditure charged to each construction work order and to each utility plant account, and the bases of distribution of such costs.

Spire-Missouri Overhead Matrix Tax

Description		
Group Insurance	926200 – Group Insurance	
FAS 106	Report from Financial Reporting with calculations from the following accounts: 228530 – Group Ins – Annuitants, 228540 – Supl Empl Rtrmt Plan-Annuit, 228550 – Salary Prot Plan-Annuitants, 228560 Additional Ins. – Annuitants	
Pension Funding	228230 - Pensions	We use forecast and verify with Treasury the payments were made.
401(K)	926100 - Pensions	
A & G Wages & Salaries	Accounts 921000 General Office Supplies & Expenses, and 925200 Injuries & Damages – Insurance Premiums	
Property Insurance	924000 Property Insurance Premium	
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Rents	931000 – Admin & Gen – Rent	
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Other		932000 for Office Equipment Maintenance times the AFUDC capital percentage.
CWIP		We take portions of Overheads, Interest, Payroll Taxes, and capitalized depreciation from reports provided by accounting.

Spire Missouri: Overheads Overview

June 2019



Agenda

- Allocations Overview
 - General Overview
 - Shared Services / CAM
 - Transportation Clearings / Depreciation Capitalized
 - Field Operations Clearings
 - Other Allocations / Clearings
 - Transfers to Construction
- Capital Project Costs
 - Direct vs Indirect
 - Examples
- Questions



Overheads Overview

Overview of Spire Overheads

- Shared Services / CAM – allocates payroll and non-payroll costs between legal entities based on drivers (customers, system miles, three factor, etc.)
 - Corporate / Distribution Operations Shared Services / CAM
- Clearings – collects and allocates payroll and non-payroll costs based on (hours, vehicles hours, payroll, etc.)
 - Field Operations / Gas Operations
 - Transportation
 - Business & Economic Development
 - Operations Services / Engineering
- Overheads / Transfers to Construction– allocates payroll and non-payroll portion of administrative and general overhead costs from O&M to Capital/Removal
 - General
 - Benefits
- Other
 - Payroll Taxes
 - Allowance for Funds Used During Construction (AFUDC)



Shared Services / Cost Allocation Manual (CAM)

- Allocates corporate / shared services payroll and non-payroll costs between legal entities based on fixed proportions:
 - Three Factor Method (Executive, Corporate Communications, Legal/Claims/Insurance, Strategy & Corporate Development, Project Management, Internal Audit, Finance, External Affairs, etc.)
 - Revenue
 - Fixed Assets
 - Payroll
 - % of Fixed Assets (Insurance)
 - Percentage of Payroll (HR – Pension / Group Insurance)
 - Headcount (Human Resources, Health & Safety)
 - Customers (Customer Service, Measurement)
 - System Miles (Engineering)
 - Square Footage (Facilities)
 - IT Factors – Invoices, Headcount, System Users (Information Technology Services)
 - Gas Supply (Sendout)



Transportation Clearings / Depreciation Capitalized

- Collects and allocates payroll and non-payroll vehicle and equipment costs associated with the day to day operation and maintenance based on the type of work (O&M vs Capital/Removal), on which the vehicle and equipment hours were charged:
 - Small Trucks
 - Medium Trucks
 - Special Truck (Leak Trucks, Dump Trucks)
 - Specialty Equipment (Trenchers, Compressors, Tractors, etc.
- Costs associated with cars are allocated on a fixed percentage based on the number of vehicles assigned to each cost center (department).



Other Allocations / Clearings

Business & Economic Development

- Allocates portion of payroll for Business Development Representatives to new business main capital projects based on historical time study

Operations Services / Engineering

- Collects and allocates payroll and non-payroll costs associated with pre-construction design (Construction Engineering, Right-of-Way) and during / post construction general services (GIS), among other costs to capital projects
 - Applies fixed proportion to Capital/Removal – 80% vs O&M – 20%

Facilities

- Collects and allocates payroll and non-payroll costs associated with the utilities, janitorial, etc. of the Field Operations (regional offices, satellites, etc.) facilities.
 - Costs allocated based the headcount assigned to each functional area

Information Technology Services

- Collects and allocates payroll and non-payroll costs associated with operating, maintaining, and supporting distribution operations oriented software (Maximo, G4, GIS)
 - Costs allocated based on the number of Field Operations users



Field Operations / Gas Operations

- Collects and allocates payroll and non-payroll costs, which are collected in clearing accounts, generally for “non-productive” activities:
 - Allowed Time – holiday, vacation, sick leave, etc.
 - Non-Productive Time – shop time, setup / breakdown, breaks, weather standby etc.
 - Supervision - light duty, system processing, off-hour standby, management/supervision, etc.
 - Training – on the job training, safety, vehicle / equipment, etc.
 - Tools – setup, repair, calibration, etc.
- Costs allocated based on the proportion of productive hours / dollars to various types of work (O&M vs Capital)

	\$ Millions	Capital	O&M
MO East	\$ 53.1	58%	42%
MO West	\$ 21.0	48%	52%



Overheads - Transfers to Construction

- Transfers to Construction* = Transferable Base x Transfer Rate
 - “Transfers” dollars from Income Statement to Balance Sheet
 - Credits - O&M – Transfers to Construction
 - Debits – Capital – Benefits / General Overheads
 - General – apportioned / follows non-payroll charges to capital projects
 - Benefits – apportioned / follows payroll charges to capital projects
- Missouri East – FY '18 ~ \$46 mil
 - General - \$40 mil x 48% = ~\$18 mil
 - Benefits - \$57 mil x 49% = ~ \$28 mil
- Missouri West – FY '18 ~ \$24 mil
 - General - \$26 mil x 61% = \$15 mil
 - Benefits - \$20 mil x 43% = \$9 mil

* Adjusted for non-service cost for pensions and portion of annual incentive plan, which cannot be capitalized



Overheads - Transferable Base

- Transferable Base – collection of administrative and general overhead costs:
 - General Base (MO East – FY '18 ~ \$38 mil / MO West ~ FY '18 - \$26 mil)
 - Administrative & General Salaries (920.000, 920.180, 920.190)
 - General Office Supplies & Expenses (921.000)
 - Injuries & Damages – Claims (925.220)
 - Injuries & Damages – Insurance Premiums (925.200, 925.280)
 - Miscellaneous General Expenses – Directors Expenses (930.300)
 - Benefits Base (MO East – FY '18 ~ \$57 mil / MO West ~ FY '18 - \$20 mil)
 - Group Insurance (926.200, 926.280)
 - Pensions (926.100)
 - Employee Benefits – Other (926.300)



Overheads - Transfers Rates

- Transfer Rates – percentage of capital payroll vs total payroll
 - General Rate = $[(\text{Capital} + \text{Removal Payroll}) + (\text{Capital} + \text{Removal Contractor Spend} \times 50\%)] / (\text{Total Payroll} + \text{Total Contractor Payroll} - \text{A\&G Payroll})$
 - FY '18 Rates
 - MO East – 48%
 - MO West – 61%
 - Benefits Rate = $(\text{Capital} + \text{Removal Payroll}) / (\text{Total Payroll} - \text{A\&G Payroll})$
 - FY '18 Rates
 - MO East – 49%
 - MO West – 43%



Capital Project Costs

Capital Project Cost Overview

- Direct Expenditures:
 - Costs directly charged to a project
 - Examples – Payroll, Purchases, Stores / Inventory, Contractor
- Indirect Expenditures:
 - Costs indirectly charged to a project through an allocation
 - Examples: Department Clearings, Mechanical Equipment, General Overheads, Benefit Overheads, Payroll Taxes, AFUDC



Missouri East Capital Project

WO 901534 – Replace 1,030 Feet – 10th Street – Phase II

- ISRS - Part Cast Iron Replacement Program
- Completed with Internal Crews, which drives

– Direct Expenditures:

- Payroll

– Indirect Expenditures:

- Payroll Taxes
- Department Clearings
- Mechanical Equipment
- Benefits Overheads

Expenditure Type	\$	%
Direct Payroll	480,526	23%
Contractor	-	0%
Purchases	164,130	8%
Stores / Inventory	42,687	2%
Direct	\$ 687,343	33%
Department Clearings	537,290	26%
Mechanical Equipment	121,724	6%
General Overheads	257,901	12%
Benefits Overheads	389,935	19%
Other - Payroll Taxes / AFUDC	81,304	4%
Indirect	\$ 1,388,154	67%
Total	\$ 2,075,497	100%



Missouri West Capital Project

WO 801862 – Replace 6,550 Feet – East 57th to East 50th

- ISRS - Part of Bare Steel Replacement Program
- Completed with External Contractor (includes their “overheads”) which drives

– Direct Expenditures:

- Contractor

– Indirect Expenditures:

- General Overheads

Expenditure Type	\$	%
Direct Payroll	18,125	1%
Contractor	900,358	69%
Purchases	3,938	0%
Stores / Inventory	133,010	10%
Direct	\$ 1,055,431	81%
Department Clearings	65,568	5%
Mechanical Equipment	6,523	1%
General Overheads	146,655	11%
Benefits Overheads	23,781	2%
Other - Payroll Taxes / AFUDC	6,064	0%
Indirect	\$ 248,591	19%
Total	\$ 1,304,022	100%



Questions

Exhibit No:
Issue: Allocations
Witness: Thomas J. Flaherty
Type of Exhibit: Direct Testimony
Sponsoring Party: Laclede Gas Company;
Missouri Gas Energy
Case Nos.: GR-2017-0215; GR-2017-0216
Date Prepared: April 11, 2017

**LACLEDE GAS COMPANY
MISSOURI GAS ENERGY**

**GR-2017-0215
GR-2017-0216**

DIRECT TESTIMONY

OF

THOMAS J. FLAHERTY

APRIL 2017

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SCHEDULE TJF-D1	Summary of Experience
SCHEDULE TJF-D2	Definitions, Necessity and Benefits
SCHEDULE TJF-D3	Overlap Analysis
SCHEDULE TJF-D4	Cost Management Governance and Processes
SCHEDULE TJF-D5	Cost Trends 2013-2016
SCHEDULE TJF-D6	Allocation Factors Analysis

DIRECT TESTIMONY OF THOMAS J. FLAHERTY

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Q. PLEASE STATE YOUR NAME AND BY WHOM YOU ARE EMPLOYED.

A. My name is Thomas J. Flaherty, and I am a Partner in the Power and Utilities Practice of Strategy&, which is part of the PwC network. My business address is 2001 Ross Avenue, Suite 1800, Dallas, Texas 75201.

Q. WOULD YOU BRIEFLY SUMMARIZE YOUR ACADEMIC AND PROFESSIONAL BACKGROUND?

A. I graduated from the University of Oklahoma with a B.B.A. degree in Accounting in 1973 and immediately joined Touche Ross & Co., where I began my career as a management consultant. Subsequently, I worked for Deloitte & Touche (formed by the merger of Touche Ross and Deloitte, Haskins & Sells in 1989) for more than 30 years until joining Booz Allen Hamilton (Booz Allen) as a Senior Vice President. In May 2008, Booz Allen announced a separation of its government and commercial consulting practices into two separate companies, Booz Allen Hamilton (government) and Booz & Company (commercial), respectively. As a result of PwC acquiring Booz & Company in July 2015, I became a Partner of Strategy&.

Q. WHAT KIND OF CONSULTING WORK HAVE YOU PERFORMED?

A. Over the course of my consulting career, I have specialized in the public utility industry and have performed a variety of assignments. I have participated in numerous regulatory consulting engagements for gas, electric, water and, telephone utilities encompassing rate base, operating income, capital structure, rate of return, revenue requirements, affiliate transactions, and cost allocations. Specifically, I have

1 previously testified with respect to affiliated interest issues related to service company
2 formation, activity necessity and benefits, budgeting and cost management, cost
3 comparability and, cost apportionment processes.

4 These engagements were conducted for American Electric Power (AEP)
5 Texas Central Company (TCC) and AEP Texas North Company (TNC),
6 Southwestern Electric Power Company, Entergy Texas, Inc., Reliant Energy, Oncor
7 Electric Delivery Company, LLC, PNM Resources (PNM), Florida Power & Light,
8 Lone Star Transmission, LLC, Sempra Energy, Commonwealth Edison, Southern
9 Company Gas, Southwestern Bell, US West, GTE of the Southwest, GTE South,
10 Centel, Continental Telephone and, others.

11 Additionally, I have performed organization and operations reviews of
12 regulatory bodies in the states of Arizona, Georgia, Illinois, Iowa, Kansas, Minnesota,
13 Ohio, Oklahoma and, Wyoming and on behalf of the Federal Power Commission
14 (currently the Federal Energy Regulatory Commission (FERC)). I have also
15 conducted construction management, prudence reviews and management reviews in a
16 number of the same jurisdictions above, as well as others.

17 I have participated in numerous other consulting engagements in the areas of
18 mergers and acquisitions, strategic planning, profitability improvement, competitive
19 analyses, organizational restructuring, marketing, litigation assistance, economic
20 feasibility studies and, financial analysis, among others. These engagements have
21 encompassed a variety of industries in addition to utilities, including securities,

1 healthcare, retail, real estate, engineering, construction, transportation and,
2 manufacturing, among others.

3 **Q. HAVE YOU PROVIDED TESTIMONY IN REGULATORY PROCEEDINGS**
4 **PRIOR TO THIS CASE?**

5 A. Yes, I have pre-filed direct testimony and appeared for cross-examination in the states
6 of Arizona, Arkansas, California, Colorado, Delaware, Florida, Georgia, Iowa, Idaho,
7 Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Minnesota,
8 Mississippi, Missouri, Montana, New Jersey, New Mexico, North Carolina, Ohio,
9 Oklahoma, Oregon, Texas, Utah, Washington and, Wyoming, in the District of
10 Columbia, and before the FERC. The testimony I presented was principally directed
11 toward certain accounting, regulatory, management, operational and, financial areas
12 regarding the telecommunications, electric or gas industries.

13 **Q. HAVE YOU TESTIFIED BEFORE THE MISSOURI PUBLIC SERVICE**
14 **COMMISSION PRIOR TO THIS CASE?**

15 A. Yes, I have filed testimony in 7 cases in the electric and gas industries (Case Nos. ER-
16 84-168, EO-85-17, EM-96-149, ER-85-128, EO-85-185, EM-91-213, EM-97-151)
17 and one case in the telecommunications industry (Case No. TC-93-224) before the
18 Commission.

19 **Q. DO YOU HOLD ANY PROFESSIONAL CERTIFICATIONS?**

20 A. Yes. I am a Certified Management Consultant and a member of the Institute of
21 Management Consultants.

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1 **II. PURPOSE OF DIRECT TESTIMONY**

2 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

3 A. The purpose of my direct testimony is to address several items related to the
4 incurrence and recovery of charges between Spire Shared Services¹, and Laclede Gas
5 Company, including its operating units Laclede Gas (LAC) and Missouri Gas Energy
6 (MGE) (collectively referred to as "Laclede"), a gas distribution company owned by
7 Spire Inc. (Spire). These charges relate to services performed by Spire Shared
8 Services on behalf of Spire's operating companies, including Laclede. My direct
9 testimony will examine the nature of these costs to determine whether: (1) they are
10 necessary to meet Spire's and Laclede's responsibilities to customers, shareholders,
11 and governmental entities; (2) they provide identifiable and commensurate benefits to
12 the operating companies, including Laclede and its customers; (3) any potential
13 overlap or duplication exists in activity performance; (4) these costs are appropriately
14 controlled and managed within Spire and Laclede; (5) the changes in these costs over
15 time are reasonable, and; (6) these costs are appropriately assigned or allocated to
16 Laclede.

17 I will begin by describing the Spire organization, including how services are
18 provided from Spire Shared Services to the operating companies, including Laclede.

19 Next, I will focus on the question of necessity of the activities performed by Spire
20 Shared Services and the availability and nature of any benefits from performance of

¹ As explained below in Section IV, although employees in the Spire organization provide shared services through a functional model rather than a legal entity, I will refer to those services as being provided by "Spire Shared Services."

1 these activities to Spire subsidiaries, and to Laclede specifically. I will also assess the
2 extent of any duplication in service performance between Spire Shared Services and
3 Laclede. I will then discuss the cost management processes in place within Spire
4 Shared Services and Laclede and the manner in which they are used to plan, manage
5 and constrain costs. My testimony will also examine the costs of providing shared
6 services to Laclede and how they have evolved over time, as well as the methods used
7 and factors adopted to assign costs to Spire affiliates, including Laclede.

8 **Q. HOW DID YOU APPROACH THE EVALUATION OF SPIRE SHARED**
9 **SERVICES COSTS?**

10 A. I was retained to provide an objective assessment of the reasonableness of Spire
11 shared service costs, specifically in the context of those billed to Laclede. My
12 analysis utilized both qualitative and quantitative assessments to establish a
13 comprehensive framework within which the reasonableness of activities and their
14 related costs could be determined. This framework incorporated the identification of
15 several specific criteria that served as evaluative attributes to guide the overall
16 analysis:

- 17 • Are the activities performed necessary for the enterprise?
- 18 • Do the activities provide demonstrated benefits?
- 19 • Is there any duplication or overlap in performance of these activities?
- 20 • Do the budgeting and control governance structure and processes provide
21 for effective cost management?
- 22 • Do cost trends provide evidence of effective cost control? Do cost
23 assignments and allocation of Spire Shared Services costs reflect
24 appropriate principles?

25

1 To answer these questions I relied on a number of publicly available and/or
2 internal Laclede sources of information. I reviewed internal Laclede information such
3 as descriptions of Spire Shared Services budgeting and cost control processes,
4 organization structures, etc., to develop a better understanding of management
5 processes related to activities and costs and to provide background for subsequent
6 analyses. Interviews with Spire Shared Services functional managers, as well as their
7 direct reports within Laclede, were conducted to understand: (1) the nature and value
8 of the activities being performed; and (2) the scope and structure of Spire's Shared
9 Services and Laclede's cost management processes, including initial budgeting and
10 ongoing cost review and control. I also analyzed detailed historical data related to
11 Spire Shared Services costs and billings to Laclede.

12 **Q. HOW IS YOUR DIRECT TESTIMONY ORGANIZED?**

13 A. My direct testimony is structured into the following sections:

- 14 • Organization and Services: This section of my testimony describes how Spire
15 Shared Services is organized and the way in which it provides services to
16 Spire's affiliates, including Laclede.
- 17 • Activity Necessity and Benefit: This section of my testimony examines how
18 the activities provided by Spire Shared Services meet specific needs and
19 provide explicit benefits to Laclede's and Spire's customers and stakeholders.
- 20 • Activity Overlap: In this section, I explore the potential overlap of activity
21 performance between Spire Shared Services and Laclede.
- 22 • Cost Management: This section of the testimony describes the budgeting and
23 cost control governance structure and processes in place at Spire, Spire Shared
24 Services and Laclede and how they are used to manage and limit costs.
- 25 • Cost Levels and Trends: In this section, I analyze costs that are billed to
26 Laclede from Spire Shared Services and provide a view of the composition of
27 these costs and related trends in occurrence.

1 • Cost Allocations: In this section of my testimony, I assess the methodologies
2 used to direct charge or assign Spire Shared Services costs to the operating
3 companies, including Laclede.

4 **Q. HAVE YOU INCLUDED ANY ATTACHMENTS TO YOUR TESTIMONY?**

5 A. Yes. I have included several different Schedules:

- 6 • SCHEDULE TJF-D1: Summary of Experience
- 7 • SCHEDULE TJF-D2: Definitions, Necessity and Benefits
- 8 • SCHEDULE TJF-D3: Overlap Analysis
- 9 • SCHEDULE TJF-D4: Cost Management Governance and Processes
- 10 • SCHEDULE TJF-D5: Cost Trends 2013-2016
- 11 • SCHEDULE TJF-D6: Allocation Factor Analysis

12
13 **Q. WERE THESE SCHEDULES PREPARED BY YOU OR UNDER YOUR**
14 **DIRECT SUPERVISION?**

15 A Yes, they were.

16 **III. SUMMARY OF DIRECT TESTIMONY**

17 **Q. PLEASE DESCRIBE THE PROCESS YOU UNDERTOOK TO CONDUCT**
18 **THE RELATED ANALYSES YOU HAVE RELIED ON.**

19 A. I reviewed information related to Spire Shared Services and Laclede’s activities and
20 costs, e.g., organizational charts, cost levels, cost types, cost distribution, employee
21 headcount, etc. This data provided a detailed view of Spire Shared Services activities
22 and costs and became the basis for subsequent analyses completed.

23 The data was initially assessed in terms of trends and composition, and then
24 interviews were conducted with Spire Shared Services and Laclede managers and
25 staff. Interviews focused on the nature of Spire Shared Services activities performed,

1 the organizational construct of these shared services functions, their interaction with
2 Laclede, and the manner in which costs were managed, among other topics. This
3 additional information provided insight into the operations of Spire Shared Services at
4 both the corporate and Gas Company (GasCo)² levels and enabled subsequent
5 analysis related to cost allocation, trends and benchmarking. These analyses, taken
6 together, provided the basis for the conclusions I reached regarding the
7 reasonableness of Spire Shared Services costs.

8 **Q. PLEASE SUMMARIZE YOUR DIRECT TESTIMONY.**

9 A. To assess the reasonableness of the Spire Shared Services costs billed to Laclede and
10 total shared service costs incurred by Laclede, I conducted a variety of quantitative
11 and qualitative analyses designed to provide a comprehensive basis for evaluation.
12 These analyses lead me to conclude that:

- 13 • The functions performed by Spire Shared Services are similar in nature to
14 those performed by service companies of comparable utilities. Therefore the
15 costs incurred relate to those functions that are generally recognized within the
16 utility industry to be efficiently provided by a centralized organization. The
17 activities performed by Spire Shared Services would need to be performed by
18 Laclede if they were not performed by Spire Shared Services at the Corporate
19 and GasCo levels and, based on my experience and prior analyses, would
20 likely be incurred at a higher cost than presently reflected in the direct charges
21 or assignments to these operating companies due to the loss of scale
22 efficiencies.
- 23 • The activities performed for Laclede by Spire Shared Services are necessary to
24 satisfy responsibilities to customers, shareholders, and government entities
25 and/or to support management effectiveness. They are generally non-
26 discretionary in nature and include activities that support overall corporate
27 governance, as well as compliance with legal and regulatory requirements. As

² The term GasCo refers to utility operations shared service functions, and are provided only to the gas utilities.

1 a public utility, Laclede would need to perform these services even if it were
2 not a part of Spire.

- 3 • Additionally, review of these activities indicates they provide direct benefits to
4 Laclede and its customers in terms of lower costs and/or more reliable
5 operations. These benefits are realized by Laclede and its customers in the
6 form of enhanced corporate performance and reduced risk, among other areas.
7 The benefits derived from centralization can be enhanced by the scope and
8 scale of the operations being covered. In this case, Laclede is a direct
9 beneficiary of the breadth of the Spire organization. Based on the analysis
10 performed, Spire Shared Services O&M billings declined by 13.9% in real
11 terms during the 2013-2016 period, largely reflecting synergies from
12 acquisitions and the continued corporate emphasis on cost control mechanisms
13 in place at Spire. O&M billings to Laclede responded to the same drivers,
14 declining by 9% in real terms.
- 15 • Of the approximately 90 discrete activities performed by Spire, about 26
16 displayed the potential for overlap with activities performed by other shared
17 service functions or operations, based on a review of general activity
18 descriptions. An in-depth evaluation of potential overlap areas, including
19 interviews with both responsible Spire and Laclede managers, revealed that all
20 such activities are not duplicative and do not result in unnecessary or
21 additional costs. Rather, these activities are complementary in nature with
22 normal operating company activities and a logical extension of Spire Shared
23 Services.
- 24 • Spire has a defined cost management governance structure in place and
25 effectively performs budgeting and cost control processes to manage the costs
26 its shared service functions incur in performing the related activities. These
27 budget processes include collaborative up-front discussion of planned costs
28 for Spire Shared Services with the operating companies and ongoing monthly
29 variance review of actual-to-planned cost performance. Laclede and the other
30 operating companies have multiple opportunities through various governance
31 bodies and informal mechanisms to inform, shape and affect planned Spire
32 Shared Services costs. Cost management reviews are regularly held to ensure
33 that costs are managed within budget. Further, Spire conducts periodic third-
34 party sourcing analyses to understand its relative cost position and to achieve a
35 competitive cost structure. The combination of these factors indicates that
36 Spire performs continuous and diligent monitoring of costs.

- 1 • The cost allocation methods that I reviewed indicate that Spire direct charges
2 costs, as necessary and appropriate, to Laclede and assigns costs using cost-
3 causative allocation factors when direct charging is not possible. Spire Shared
4 Services cost allocation processes are appropriately structured and result in an
5 appropriate level of costs being allocated, based on reasonable allocation
6 factors, to each of the operating companies, including Laclede. Spire Shared
7 Services work order-based allocation process is a straight-forward mechanism
8 designed to link costs to the benefitting locations that cause those costs to be
9 incurred, and is structured in a manner which ensures that appropriate
10 allocation factors are used. This allocation methodology is similar to others
11 adopted within the utility industry and follows accepted allocation principles.
12 While it may seem ideal to implement 100% direct charging, it is not practical
13 and can be burdensome. My review indicates that Spire charges directly when
14 it is practical and allocates along accepted factors when it is not.
- 15 • Overall, Spire Shared Services and Laclede specific A&G activities and costs
16 for the period are: consistent with those typically performed by similar
17 companies; necessary and provide benefits to customers; stringently budgeted
18 and controlled; distributed on a representative cost-causative bases consistent
19 with normal industry practice, and because of the scale and scope of services
20 provided, greater economies of scale have been realized than would have been
21 otherwise.

22 The combination of all these analyses and their results lead me to conclude
23 that the Spire Shared Services costs billed to Laclede are reasonable and provide
24 direct value to Laclede's customers from their incurrence.

25 **Q. ARE YOUR CONCLUSIONS SOLELY BASED ON YOUR EVALUATION OF**
26 **SPIRE'S COSTS?**

27 A. No. My assessment reflects both my specific review of Spire Shared Services and my
28 general and specific knowledge of utility service companies. As I mentioned above, I
29 have previously been involved in the creation of, or cost reviews of, a number of
30 service companies or shared services entities. My approach used for the evaluation of
31 Spire is generally consistent with the approach used in the evaluations of other service

1 companies for which I have filed testimony before the Commission, which is
2 described below. A more detailed list of cases I have participated in is included in
3 SCHEDULE TJF-D1.

- 4 • Texas-New Mexico Power. In Docket Nos. 36025 and 38480, I reviewed the
5 reasonableness of charges to Texas-New Mexico Power (TNMP) from PNM
6 Resources Services Company. In these testimonies, conducted in 2008 and in
7 2010, I assessed the necessity and benefits of the services provided to TNMP
8 from PNM, as well as the reasonableness of costs charged to TNMP. I also
9 reviewed the budgeting and cost control processes in place and the relative
10 cost position of PNM to comparable utility service companies.
- 11 • Oncor Electric Delivery. In Docket No. 35717, I assessed the reasonableness
12 of EFH Corporate Services Company (EFH Corporate Services) costs charged
13 to Oncor. In this testimony, I considered the necessity and benefits of services
14 provided by EFH Corporate Services, the allocation of costs among the
15 Energy Future Holdings Corp (EFH) companies, the budgeting and cost
16 control process in place, the comparability of costs to those of similar utility
17 service companies and the changes in costs and allocation of costs over time.
- 18 • SWEPCO. In Docket No. 37364, I evaluated the reasonableness and necessity
19 of the services provided by AEPSC to SWEPCO. In addition, my evaluation
20 covered the costs associated with these services to determine whether those
21 costs provided identifiable benefits to SWEPCO and its customers, whether
22 those costs were appropriately controlled and managed by AEPSC, and
23 whether the allocation process for these costs reflects a reasonable approach to
24 distribution of these costs.
- 25 • Entergy Gulf States. In Docket Nos. 30123 (filed in 2004), 34800 (filed in
26 2007), and 37744 (filed in 2009), I evaluated the reasonableness of charges to
27 Entergy Gulf States (EGSI) by Entergy Services (ESI) and Entergy Operations
28 (EOI) by assessing activity necessity and benefits and reviewing the nature and
29 effectiveness of the budgeting and cost control processes in place.
- 30 • AEP Texas Central Company (TCC) and Texas North Company (TNC). In
31 Docket Nos. 33309 and 33310 in 2006, I assessed the reasonableness of
32 AEPSC costs charged to TCC and TNC. This testimony addressed cost
33 trends, the necessity and benefits of the services provided by AEPSC, the
34 allocation of these costs among affiliates, the budgeting and cost control

- 1 process, the comparability of costs to those of similar utility service
2 companies, and the overall reasonableness of costs charged to TCC and TNC.
- 3 • Reliant Energy HL&P. My testimony in Docket No. 22355 supported the
4 preparation of Reliant Energy HL&P's unbundled cost of service rate filing by
5 evaluating the reasonableness of the costs of corporate support functions that
6 were included in the distribution service charge. I also evaluated costs and
7 cost trends and the necessity of the activities performed by the corporate
8 support functions, as well as whether any duplication of activities existed
9 between corporate support functions and operating companies.
 - 10 • GTE Southwest. In Docket No. 5610, I conducted cost studies to assess the
11 reasonableness of GTE Service Corp. costs allocated to GTE Southwest.
12 Citing my testimony, the Supreme Court of Texas ultimately agreed that "the
13 vast majority of the functions performed by GTE Service Corp are
14 nondiscretionary, fundamental activities for a large telecommunications
15 company; they are therefore necessary."
 - 16 • Southwestern Bell. In Docket Nos. 4545 and 8585 I reviewed the necessity
17 and reasonableness of service company costs, the extent of any activity
18 duplication between the service company and the operating company, the
19 external costs for alternative performance by third-parties (value studies) and
20 the cost allocation mechanisms in place. These analyses were conducted to
21 assess the reasonableness of service company costs and the extent to which the
22 operating company had control over these costs.
 - 23 • Lone Star Transmission. In Docket No. 40020, I reviewed the reasonableness
24 and necessity of services provided by NextEra Energy Resources, NextEra
25 Energy Transmission and Florida Power & Light to Lone Star Transmission. I
26 also evaluated the related Lone Star affiliate activities, its budgeting and cost
27 control processes, cost allocations, and whether those costs were comparable
28 with other companies.
 - 29 • Commonwealth Edison. In Docket No. 97-0566, I reviewed the
30 reasonableness of service company charges from Exelon Business Services
31 (EBS) to Commonwealth Edison (ComEd) and filed testimony before the
32 Illinois Commerce Commission. This testimony addressed the necessity and
33 benefits of activity performance, the existence of any activity overlap between
34 EBS and ComEd, the nature of the budgeting and cost control processes, the
35 nature and causation of changes to costs over time, the comparability of costs
36 with other peers, the execution of the cost allocation process and, the
37 availability and attractiveness of alternative ways of EBS activity provision.

- Nicor Gas: In Docket 17-0124 before the Illinois Commerce Commission I conducted a comprehensive review of the costs charged and / or allocated from Southern Company Services (SCS) and AGL Services Company (AGSC) to Nicor Gas (Nicor). This review and testimony addressed all aspects of service company cost incurrence, activity value, activity overlap, cost planning and control, cost levels and trends, cost comparability, and self-performance and market analyses of options for performance.

IV. ORGANIZATION AND SERVICES

Q. PLEASE DESCRIBE THE OVERALL CORPORATE ORGANIZATION OF SPIRE, SPECIFICALLY THE ROLE FULFILLED BY SPIRE SHARED SERVICES.

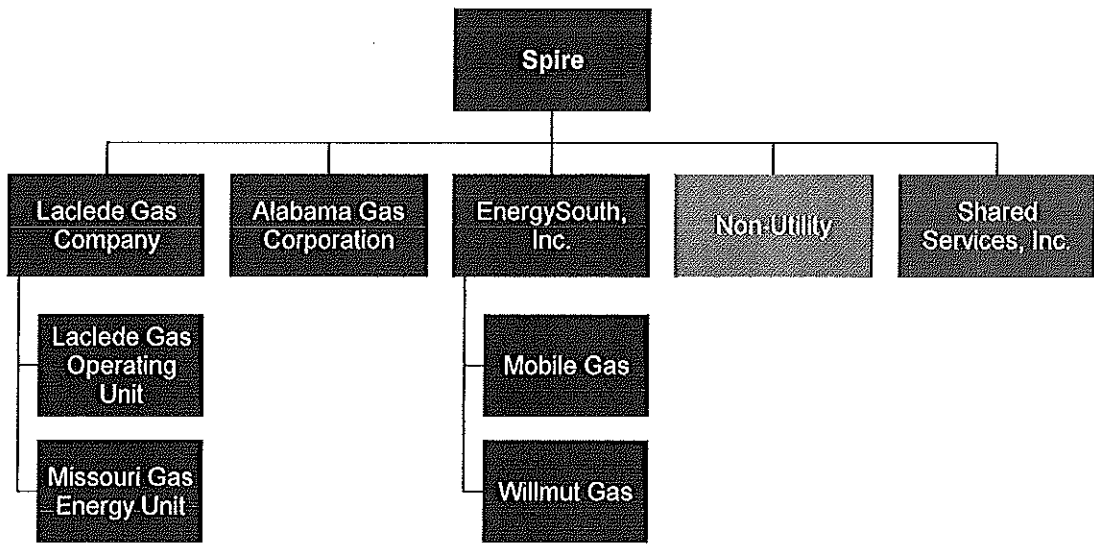
A. Spire is a mid-sized publicly traded utility serving natural gas to customers in Missouri, Mississippi and Alabama. Spire's regulated business consists of five gas utility operating units or companies: Laclede Gas (LAC) and Missouri Gas Energy (MGE) in Missouri, Alagasco and, Mobile Gas in Alabama, and Willmut Gas in Mississippi. These operating companies serve approximately 1.7 million customers.

Although Spire has created a legal shared services entity, it has not created discrete organizational elements within this legal entity, rather it has adopted a shared services model to manage the cost of providing common and centralized or center-led services across its operating companies and business units to leverage scale and reduce costs to the customer. All employees are employed directly by the operating companies or other affiliates. The legal entity is leveraged as an accounting vehicle to assign and allocate costs in accordance with the shared services model

Figure IV-1 shows Spire's current entity structure.

1

Figure IV-1 Spire Entity Structure



2

3

4

Figure IV-2 shows Spire’s overall organizational reporting structure as it exists today. While there is no specific officer responsible for Spire Shared Services there is a general alignment of the functions that comprise both Corporate and GasCo shared services as shown below. Spire leverages this structure to manage the cost of providing centralized or center-led services across its operating companies and business units to leverage scale and reduce costs to the customer while using the legal shared services entity to track shared services cost which are subsequently allocated to the operating units.

5

6

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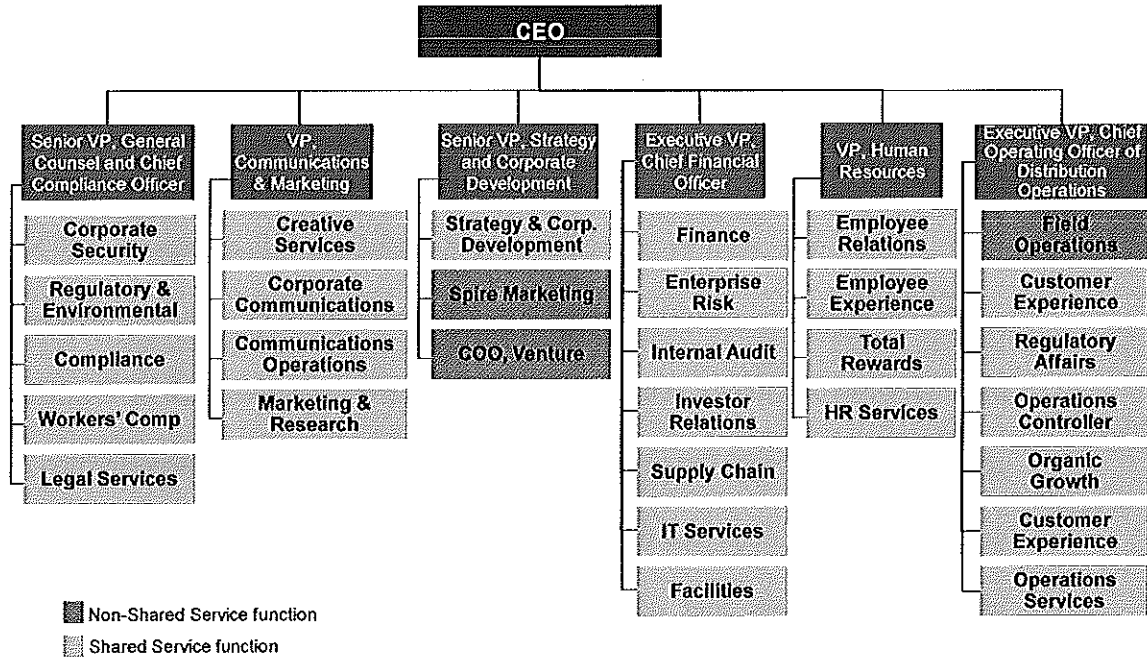
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10

11

12

Figure IV-2 Spire Reporting Structure



1

2 **Q. HAS THE SPIRE SHARED SERVICES MODEL REACHED MATURITY AT**
3 **THIS TIME?**

4 **A.** No, it is still in transition. Spire is the product of several recent utility company
5 acquisitions by the former Laclede Group, the parent company of Laclede. Spire is
6 also still in the process of integrating its most recent acquisitions, i.e., Willmut Gas
7 and Mobile Gas. In addition, the Spire Shared Services organization is still
8 developing both its overall functional composition, and its end-state structure, i.e., a
9 formal entity or an informal, but integrated, service delivery structure.

10 **Q. WHAT IS THE RATIONALE FOR PROVIDING COMMON SERVICES**
11 **FROM A FORMAL SHARED SERVICES MODEL?**

12 **A.** A formal shared services organization typically provides common services that are
13 required as part of the ongoing operations of an organization and are relevant to more

1 than a single entity. The related activities are performed in a centralized manner on
2 behalf of all owned businesses and are often referred to as corporate center or
3 headquarters activities.

4 Given the number of entities and geographical dispersion of Spire's
5 operations, there are clear economies of scale and scope to be achieved by providing
6 these services on either a centralized or center-led basis across each of the operating
7 companies. This occurs as a result of having the function or activity performed in one
8 group, rather than dispersed throughout Spire's businesses, thus avoiding duplication
9 within the business and maximizing the utilization of resources dedicated to
10 providing these services. From a service perspective, it allows the centralized or
11 center-led groups to focus on building expertise and maximizing productivity where
12 the activities are being performed.

13 The nature of the activities provided by Spire's Shared Services and other
14 service companies in the utility industry is broadly consistent, the specific
15 circumstances of each utility will dictate the optimal composition and sizing of its
16 service company.

17 **Q. HOW IS SPIRE SHARED SERVICES ORGANIZED?**

18 A. Spire Shared Services is organized functionally. For example, Supply Chain activities
19 are managed within the Supply Chain function, even though these activities occur
20 across the different operating companies. Rather than aligning the Supply Chain
21 business within the separate operating companies and managing as self-contained
22 business units, Spire has chosen to manage Supply Chain activities within a single

1 organizational unit, i.e., center-led, reporting to a Director of Supply Chain. This
2 allows the Supply Chain function to become a center of excellence, by sharing best
3 practices and resources, and creating consistent policies and procedures across
4 operating companies, customizing where necessary through their center-led approach,
5 which leverages, where appropriate, “embedded” functional employees in the
6 operating companies. A functional organizational structure is common among utilities
7 as it allows these entities to create focused organizations to support optimal
8 deployment of resources and sharing of best practices across each function, while
9 maintaining “dotted-line responsibility” to operating company leadership. Within
10 Spire Shared Services, the functional groupings are as follows:

- 11 • Finance, which includes Treasury; Tax; Controller; Financial Planning and
12 Analysis.
- 13 • Investor Relations, which includes Investor Communications; Rating Agency
14 Communications.
- 15 • Strategic Planning, which includes Long Term Strategy; Acquisitions (IOU
16 and Municipal); Integration Support; Supply Initiatives – Process
17 Improvement; and Non-Utility Growth.
- 18 • Information Technology Services, which includes Application Delivery; Data
19 Warehouse; Telecommunications; Enterprise Architecture & Strategy;
20 Infrastructure; Business Support Services; Information Security; and
21 Compliance.
- 22 • Facilities, which includes Real Estate Procurement and Disposition;
23 Maintenance & Custodial Services; Work Space Management; Facilities
24 Planning; Construction Management; and Other Support Services.
- 25 • Enterprise Risk & Continuous Improvement, which includes Project
26 Management; Integration Execution; and Business Improvement.
- 27 • Internal Audit, which includes Management Performance Evaluation;
28 Environmental Assessment; and External (SOX) Audit Coordination.

- 1 • Legal, which includes Financial Legal Services; Workers' Compensation;
2 Review and Execution of Contracts; Claims and Insurance; General Legal
3 Advice; Ethics and Compliance Services; Litigation; and Corporate Security.
- 4 • Supply Chain, which includes Supplier Relationship Management; Sourcing
5 and Procurement Services; Payment Services (Accounts Payable); Employee
6 Expense Management; and Inventory and Store Room Management.
- 7 • Human Resources, which includes Employee Relations; Employee Experience
8 - Organizational Development; Employee Experience - Learning
9 Management; Total Rewards - Compensation and Benefits; and HR Services.
- 10 • Corporate Communications & Marketing, which includes Internal
11 Communications; External Communications; Creative Services; Marketing
12 and Research; and Communications Operations.
- 13 • Customer Experience, which includes Credit and Collections; Customer
14 Contact; Dispatch; Community & Agency Services; Accounts Receivables;
15 and Meter Reading and Billing Services.
- 16 • Gas Supply and Operations, which includes Instrumentation and Control; Gas
17 Supply Purchasing, Sales / Risk Management; System Control; Underground
18 Storage / LNG; and Plants and Stations.
- 19 • External Affairs, which includes State and Local Governmental Affairs; and
20 Regulatory.
- 21 • Operations Controller, which includes Planning and Budgeting; Variance
22 Analysis; Business Analysis & Performance Measurement; and Operational
23 and Productivity Metrics.
- 24 • Organic Growth – Sales, which includes Customer Growth; Customer Care;
25 Project Planning; Energy Efficiency; and Economic Development.
- 26 • Operations Services, which includes Construction Engineering, System
27 Planning, GIS and, Right-of-Way; Pipeline Safety Compliance and Integrity;
28 Employee Health and Safety, Environmental Compliance and Crisis
29 Management; Meter Integrity; and Fleet Management.

30
31 Employees within Spire Shared Services are aligned with these functions and
32 the related sub-functions. It is common for employees that are part of an operating
33 company to functionally report to a Spire Shared Services function, creating a center-

1 led organization. For example, the Human Resources function is comprised of
2 employees who are embedded within the utility operating companies, however they
3 report functionally to Corporate Human Resources. Other employees, who work more
4 centrally for more than one operating company allocate their time through Spire
5 Shared Services, such as Organic Growth. Employees who dedicate their time to a
6 specific operating company are generally treated as employees of that operating
7 company.

8 Formal service agreements in place govern the provision of shared services to
9 Laclede and the other operating companies. In some cases, employees are embedded
10 within the utilities, and work exclusively for the benefit of the operating company,
11 albeit functionally reporting to one of the Spire Shared Service functions.

12 As described above, a portion of these employees (primarily field staff) are on
13 the operating company payroll as their work is performed for the sole benefit of a
14 specific operating company, while the rest of these employees reflect Spire Shared
15 Services functions because they perform work for two or more operating companies.
16 This model allows Spire to ensure that there is no duplication of activities across the
17 organization and that services are being provided in the most efficient manner,
18 regardless of whether the costs for that employee are being captured as part of
19 operating company costs or Spire Shared Service costs.

20 It is also possible for Spire Shared Service employees to be physically located
21 at the offices of one operating company, while providing service to other operating
22 companies. While these staff members do spend a fair amount of their time providing

1 services to the operating company at which they are located, they can also devote time
2 to activities that benefit other operating companies. One reason for this arrangement
3 is that the needs of an individual operating company may not be so great as to warrant
4 a dedicated, full-time specialized staff member, whereas the needs of the Spire system
5 as a whole create the need for adequate resource availability. Accordingly, this
6 arrangement results in a more cost-effective provision of services for operating
7 companies than could otherwise be achieved without shared services.

8 **Q. IS THE CENTER-LED SERVICE MODEL SPECIFIC TO THE UTILITY**
9 **INDUSTRY?**

10 A. No. Similar shared services models are prevalent in many other industries, although
11 service companies outside the utility industry are generally not legal entities as is
12 common within the utility sector. The provision of services from a centralized shared
13 services organization is utilized extensively because of its inherent cost and capability
14 deployment advantages. Many of the world's leading companies and government
15 agencies utilize this model.

16 **Q. WHAT DO YOU CONCLUDE FROM THIS REVIEW?**

17 A. The functions performed by Spire Shared Services are clearly similar in nature to
18 those performed by the service companies of other utilities, as well as by service
19 companies outside of the utility industry. While factors such as management
20 preference, operating model selection, geographic scope and, number and type of
21 affiliated operating companies have led different companies to choose different
22 approaches to define which services should be provided commonly and centrally, all

1 of these types of companies have determined that a significant number of services are
2 provided most efficiently through a centralized or center-led entity, but find they can
3 also enhance effectiveness through some amount of deployment at operating
4 companies within this model.

5 **V. ACTIVITY NECESSITY AND BENEFITS ANALYSIS**

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

7 A. This section analyzes the activities performed by Spire Shared Services to determine
8 whether those activities are necessary for Laclede to provide cost effective gas
9 distribution services. As part of this review, this section also assesses whether these
10 activities provide benefits to Spire and its operating companies by enabling them to
11 function in a more efficient fashion.

12 **Q. WHAT IS THE RATIONALE FOR PERFORMING THE ACTIVITY**
13 **NECESSITY AND BENEFIT ANALYSIS?**

14 A. To provide the basis from which to assess cost reasonableness, it is first necessary to
15 understand the reason why a cost is being incurred. Many activities performed, and
16 the related costs incurred, result from the non-discretionary demands placed upon the
17 business as a result of its corporate form (e.g., publicly traded), normal business
18 requirements (e.g., satisfy governmental requirements), or corporate fiduciary
19 responsibilities (e.g., reduce overall risk to the enterprise).

20 This analysis assesses the need for activity performance and whether
21 discernable benefits to the operating companies, such as Laclede, can be identified. A
22 common set of attributes was developed to evaluate the necessity of each activity

1 performed by Spire Shared Services and to understand the nature of these activities.
2 Experience with the purpose, structure and performance of other similar entities was
3 also utilized to perform this evaluation. A common set of attributes was also
4 developed for use in identifying the benefits of activity performance by Spire Shared
5 Services. These attributes provide a basis against which each cost category can be
6 evaluated to determine the nature of the benefit.

7 **Q. WHAT WAS THE SCOPE OF THE NECESSITY ANALYSIS PERFORMED**
8 **FOR SPIRE SHARED SERVICES?**

9 A. The necessity analysis identified and assessed all activities performed by Spire's
10 Shared Services functions (Finance, Investor Relations, Strategic Planning, IT
11 Services, Facilities, Enterprise Risk & Continuous Improvement, Internal Audit,
12 Legal, Supply Chain, Human Resources, Corporate Communications and Marketing,
13 Customer Experience, Gas Supply and Operations, External Affairs, Operations
14 Controller, Organic Growth – Sales, Operations Services), to establish the underlying
15 rationale behind the execution of those activities.

16 The activities performed by Spire Shared Services are typical of those that are
17 often centralized to provide policy consistency or realize economies of scale.
18 Generally, these service company activities are related to meeting external
19 requirements on the business or to managing a large, complex business comprised of
20 multiple segments, geographies or units. For this analysis, each of the individual
21 Spire Shared Services activities were assessed to understand the nature of the business
22 driver creating the need to perform this activity.

1 Q. HOW DID YOU DEVELOP A COMPREHENSIVE LIST OF THE
2 ACTIVITIES PERFORMED BY SPIRE SHARED SERVICES?

3 A. Multiple approaches were utilized to develop the list of activities to be tested against
4 the necessity and benefits attributes: (1) detailed analysis of Spire Shared Services
5 cost by function using financial data captured by discrete organizational entity or cost
6 type; (2) review of organization charts and conduct of interviews to confirm the
7 nature of the activities performed in each department; (3) review of Spire's Shared
8 Services agreement and "services" provided, and; (4) past experience in defining the
9 activities of service companies at other utilities.

10 In total, 90 separate activities were identified which describe the scope of the
11 activities performed by Spire Shared Services. The list of these activities – or
12 "services" as they are referred to within the Spire Shared Services function – is
13 shown, by function and class of service, in Schedule TJF-D2. This Schedule also
14 contains the results of the assessment of each activity and its related necessity and
15 benefit to Laclede. These 90 activities are grouped within 17 classes of service that
16 can be derived from Spire's accounting and billing information.

17 In general, activities related to corporate governance, legal compliance, and
18 regulatory mandates are activities required to satisfy responsibilities to customers,
19 shareholders, and government entities, as well as to enable effective business
20 management. Activities associated with management control, operational execution
21 and strategic planning are largely internally focused and related to management
22 effectiveness. Thus, as corporate support services costs are considered by the

1 Missouri Public Service Commission (MPSC) for appropriateness, it should be
2 recognized that Spire has little discretion over whether to perform a large number of
3 these activities. These activities are a necessary part of being a publicly traded
4 business and fulfill a variety of fiduciary requirements, in addition to providing a
5 basis for effective corporate management.

6 **Q. COULD YOU PLEASE DESCRIBE HOW YOUR NECESSITY AND**
7 **BENEFIT ANALYSIS WAS CONDUCTED?**

8 A. The necessity and benefits of Spire Shared Service activities were assessed by
9 conducting several key analyses. I initially established an evaluative framework to
10 define the basis for categorization of activities, in terms of necessity and benefit and
11 then reviewed the activities performed to understand the nature of the related
12 activities and the rationale for their performance. Finally, I assessed the benefits of
13 performance to determine what outcomes are obtained from performance of the
14 various activities.

15 **Q. WHAT SPECIFIC CRITERIA DID YOU UTILIZE IN ESTABLISHING THE**
16 **FRAMEWORK FOR ASSESSING THESE ACTIVITIES?**

17 A. I used several criteria in my assessment of the necessity and benefit of Spire Shared
18 Services activities:

- 19 • Do the activities represent legitimate and useful business activities?
- 20 • Is the performance of these activities discretionary?
- 21 • Are these activities consistent with those performed by other similar
- 22 companies?
- 23 • Are there benefits observable from activity performance?

1 These criteria provided a definitive basis for the conduct of the assessment and
2 established a specific framework against which the activities could be compared.

3 **Q. HOW DID YOU DETERMINE WHETHER AN ACTIVITY SHOULD BE**
4 **CONSIDERED NECESSARY?**

5 A. I defined a series of attributes, shown below, against which I tested each activity.

Necessity Attribute	Definition
Corporate Governance	Activities that are necessary to ensure that corporate and portfolio fiduciary responsibilities and enterprise-wide management and operation is effectively executed.
Regulatory Mandate	Activities that are required to fulfill statutory, regulatory and other commitments or mandates.
Legal Compliance	Activities performed as a direct result of legal proceedings, avoidance of legal proceedings, or compliance with legal requirements.
Management Control	Activities performed specifically to provide analysis, decision support data, and results to management personnel.
Operational Execution	Activities that are fundamental functions performed on a daily basis to support business requirements.
Strategic Planning	Activities that encompass operating company planning and activities directed at providing enterprise-wide direction.

6 Based on activity definitions, the influence of the factors described above on each
7 activity was evaluated by determining what specific business driver or drivers were
8 most closely related to the activity. These drivers define a purpose for performing the
9 activity.

10 As an example, I will describe how the necessity analysis was applied to
11 activities in two different departments. First, one of the activities within Finance –
12 Planning and Analysis (Budget Development, Variance Reporting) – is the

1 development and monitoring of the budget. The necessity attributes related to this
2 activity are corporate governance, because budget development and monitoring is an
3 integral part of any firm's management and is required for effective stewardship of a
4 company's resources; management control, because this activity provides detailed
5 information about the operational resources and allocations of a company; operational
6 execution, because it involves and drives a fundamental operational activity, and;
7 strategic planning, since budgets and monitoring provide an indication of the expected
8 financial performance which derives from a company's strategic choices.

9 Another activity within Finance is the processing of the General Ledger. This
10 activity is required for management control and operational execution, because it
11 forms the basis of financial information for managers and involves daily recording
12 and reporting of financial transactions.

13 As another example, consider a Supply Chain activity: Sourcing and
14 Procurement Services. This activity is necessary for two reasons. First, it is needed
15 for management control because it involves analysis of contracts and identification of
16 optimal procurement channels. Second, providing procurement services supports the
17 integral operations of Spire and its operating companies and is necessary to enable
18 planned operational execution.

19 **Q. WERE ALL OF THE ACTIVITIES EVALUATED AS PART OF YOUR**
20 **ANALYSIS CONSIDERED NECESSARY?**

21 **A.** Yes. All activities evaluated in the necessity analysis were found to relate to at least
22 one business attribute and were found necessary to support the business needs of

1 Spire and / or meet third party requirements. The Spire Shared Service activities are
2 nondiscretionary in nature, as outlined in the framework utilized to evaluate the
3 necessity of service company activities. The MPSC can satisfy itself that the
4 activities being performed are reasonable and necessary for Missouri ratepayers by
5 focusing on the nature and the scope of the activities or services provided to the
6 operating companies, and in particular to Laclede. These activities are typically found
7 within parent or service companies, as described earlier in my testimony, and are
8 centralized and not avoidable in nature.

9 **Q. DESCRIBE YOUR APPROACH TO THE BENEFITS ASSESSMENT.**

10 A. The direct corollary to necessity of activity performance is the nature and extent to
11 which direct or indirect benefits are also created. In assessing the benefits of
12 performance of these activities by Spire Shared Services, it is important to understand
13 that benefits are not solely measured by quantitative factors. Benefits can relate to
14 tangible impacts, such as costs reduced or avoided; they may also relate to intangible
15 areas that do not provide readily measurable impact. For example, an activity such as
16 Rating Agency Communications has no discernable direct dollar-related benefit, but
17 is absolutely necessary to fulfill regulatory and fiduciary responsibilities which further
18 enable key corporate activities to occur, and can have an impact on ultimate cost of
19 credit in the future.

20 Therefore, the benefit associated with activity performance in many areas is
21 that key elements of a corporation are enabled to function in a more effective and
22 efficient fashion and in compliance with external requirements. Such is the case for

1 many activities found necessary for management control, operational execution, and
2 strategic management.

3 Based on the attributes listed below, I evaluated the benefits that would be
4 derived from the activities being performed for Laclede by Spire Shared Services.

Benefit Attribute	Definition
Reduce Risk	Actions designed to reduce liability and mitigate exposure to financial, operational, fiduciary and other types of risk.
Increase Employee Productivity	Programs that enhance employees' abilities to perform their jobs more productively.
Provide Management Information	Activities conducted primarily to provide decision support data and analysis to management personnel.
Enhance Corporate Performance	Activities performed to enhance the abilities and effectiveness of management with respect to the business.
Reduce or Avoid Costs	Activities performed to improve the cost effectiveness of operations.
Increase Reliability	Activities performed to increase the reliability of energy delivery/supply and to minimize the impact of disruptions.

5 The results of the assessment are shown in Schedule TJF-D2, which depicts,
6 for each activity, the nature of the related benefits that accrue to Laclede's customers
7 from activity performance.

8 **Q. DO THESE IDENTIFIED BENEFITS DIRECTLY RELATE TO**
9 **CUSTOMERS AS WELL?**

10 **A.** Yes. For each of the attributes utilized to assess the benefits derived from performing
11 Spire Shared Service activities, there is a direct correlation between the benefits

1 received by Spire as an entity and, more importantly, the benefits received by Laclede
2 and its customers.

3 The activities performed by Spire Shared Services would need to be
4 performed by Laclede for customers to achieve the same benefits in the absence of
5 this common approach to service delivery. By providing them through an efficient
6 center-led organization, Laclede customers realize all the benefits of these activities,
7 but at a lower cost than they would incur should Laclede provide them on its own.

8 **Q. COULD YOU PLEASE DESCRIBE HOW THE BENEFITS ANALYSIS WAS**
9 **CONDUCTED?**

10 A. Yes. Based on activity definitions, I evaluated the general benefits that would derive
11 from such an activity being performed by Spire Shared Services. A qualitative
12 assessment of each of the activities – similar to the assessment conducted for the
13 necessity analysis – was conducted for the benefit analysis. For example, Pipeline
14 Safety Compliance and Integrity, an activity within the Operations Services function,
15 reduces risk to employees, Laclede and Spire overall; provides information on system
16 quality; enhances work execution; increases the reliability of the system, and; avoids
17 injury-related costs. Likewise, the Telecommunications activity in Information
18 Technology Services reduces operational risk through access and contact; improves
19 employee productivity through the provision of effective information sharing
20 processes, and; improves reliability through the ability to monitor, send or exchange
21 information on system performance.

22 **Q. WHAT ARE THE RESULTS OF THE BENEFITS ANALYSIS?**

1 A. The benefit assessment provided insights into how each individual activity relates to
2 the primary mission of Spire Shared Services and to the support of the operating
3 companies. All of the activities are judged to provide either direct or indirect benefit
4 to Laclede or its customers, with many activities providing benefits in several
5 categories. Thus, the activities evaluated are a necessary element of Spire's and
6 Laclede's management and execution processes and result in direct and indirect
7 benefits across the Spire business, particularly the operating companies, and more
8 specifically Laclede.

9 **Q. IF THESE ACTIVITIES WERE NOT PERFORMED BY SPIRE SHARED**
10 **SERVICES, WOULD BENEFITS TO LACLEDE POSSIBLY BE**
11 **FOREGONE?**

12 A. Yes. Many benefits being realized by Laclede would be lost and ultimately customers
13 would be disadvantaged either through higher costs, reduced performance levels or
14 higher business risk, among other potential shortcomings (as shown in Schedule TJF-
15 D2).

16 **Q. IF THESE ACTIVITIES WERE NOT PERFORMED BY SPIRE SHARED**
17 **SERVICES, WOULD LACLEDE BE REQUIRED TO PERFORM OR**
18 **OTHERWISE OBTAIN THESE SERVICES?**

19 A. Yes. As discussed, all the activities are required either to satisfy responsibilities to
20 customers, shareholders and government entities or to improve the effectiveness of
21 the management and organization.

1 For example, the Finance function performs credit risk management. This
2 activity is required to: ensure management control over market financing and agency
3 relationships; provides market information to management, and; supports operational
4 execution through the conduct of necessary financing and commercial arrangements
5 to enable operations funding. If Laclede were not part of Spire and were a stand-
6 alone entity, it would still need to conduct credit risk management for the reasons
7 described above. As a necessary activity for a publicly traded enterprise, credit risk
8 management is a normal cost of doing business. It also provides several benefits such
9 as reduced credit risk, provision of management information, and may improve
10 corporate performance through reduced costs.

11 Another example is provided by the Facilities group, which supports
12 Workspace management. The group stocks operating company offices with required
13 furniture and performs other workspace design. This group centrally manages
14 Facilities to optimize capital, O&M spend and asset maintenance activities. These
15 services are necessary to support the operational execution of Spire and the operating
16 companies. Additionally, these two services provide a number of additional benefits
17 between them: 1) reduced operational risk; 2) enhanced business performance through
18 higher efficiency, and; 3) reduced operating costs. Should these services not be
19 provided by Spire Shared Services on a centrally managed basis, Laclede would incur
20 greater stand-alone costs or would need to identify another way to obtain them.

21 These examples are illustrative of the many other activities performed by
22 Spire Shared Services. All of the activities reviewed are necessary for Spire Shared

1 Services to perform for its operating companies, and would therefore be expected to
2 be performed by all operating companies if they were stand-alone companies. Should
3 Spire Shared Services not presently provide these services, the operating companies
4 would need to provide them through their own resources or obtain them from a third
5 party.

6 **Q. PLEASE SUMMARIZE THE RESULTS OF YOUR ASSESSMENT OF SPIRE**
7 **SHARED SERVICE ACTIVITY NECESSITY AND BENEFITS.**

8 A. As this analysis has demonstrated, the activities performed by Spire Shared Services
9 are largely nondiscretionary in nature and are required to both satisfy responsibilities
10 to customers, shareholders, and government entities and/or support management
11 effectiveness. These activities provide direct benefits to Laclede and its customers in
12 terms of lower costs and more reliable operations, and would need to be performed by
13 Laclede if they were not being performed by Spire Shared Services. Providing these
14 services from a centralized structure is inherently more efficient than distributing
15 them among the operating companies.

16 Given the results of this analysis, I believe that centralization or the center-led
17 nature of these activities is the optimal means by which to provide required support or
18 fulfill third party requirements. In addition, the necessity of activities performance by
19 Spire Shared Services indicates that the execution of these activities is a reasonable
20 undertaking by Spire and it could be expected that related costs would be reasonable
21 given the analysis performed.

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VI. ACTIVITY OVERLAP

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Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?

A. This section describes the results of the comparison of activities performed by Spire Shared Services to activities performed by Laclede to identify and assess any potential overlap areas.

Q. PLEASE DESCRIBE THE RATIONALE FOR PERFORMING THE ACTIVITY OVERLAP ASSESSMENT.

A. The purpose of this analysis was to determine the extent to which there may be any potential overlap of activities between Spire Shared Services and Laclede. While some degree of parallel activity performance is not necessarily indicative of duplication of effort, any potential overlap needs to be assessed to verify whether duplicative effort has indeed been avoided. Where similarity in activities is identified, the potential for overlap should be addressed to establish whether costs incurred by the Spire Shared Services are reasonable.

Q. PLEASE DESCRIBE THE APPROACH UTILIZED.

A. As with the necessity and benefits analysis, the 90 activities which broadly describe the full scope of services provided to Laclede by Spire Shared Services were reviewed to identify any potential areas of overlap. To assess any potential overlap, interviews with representatives of the key Spire Shared Service functions and representatives of Laclede, as well as a detailed review of the organizational and payroll structures, were used to identify any similarities in the nature of the activities being performed at Spire Shared Services and Laclede. Interviews focused on the determination of the scope of

1 performance of similar activities and the assessment of whether differences in
2 purpose, focus, content and/or, beneficiary of the activities in question were
3 observable. These interviews were followed up with more focused discussions and
4 document reviews, as needed, to determine the nature and extent of any potential
5 overlap.

6 The analysis focused on identifying functionally similar activities located in
7 different organizations and on any potential areas of overlap for each of the Spire
8 Shared Service activities. For each area of potential overlap, a detailed description of
9 the role of Spire Shared Services and the role of the operating companies was
10 developed, as described in detail in Schedule TJF-D3. This Schedule identifies all of
11 the Spire Shared Service activities reviewed and the approximately 26 specific
12 activities where organizational structure and / or results of interviews indicated the
13 need for more directed review to identify similarities and differences in scope.

14 **Q. DID YOU UTILIZE ANY SPECIFIC CRITERIA TO FRAME THIS**
15 **ANALYSIS?**

16 **A.** Yes. Similar to the other analyses, I adopted several criteria to guide the assessment:

- 17 • Is the activity performed in a centralized or decentralized manner?
- 18 • Is there any overlap in activity performance?
- 19 • Where such overlap exists, is there adequate differentiation in scope?

20 These criteria provided a framework within which to evaluate the broad activities
21 performed by Spire Shared Services and Laclede.

22 **Q. COULD YOU PROVIDE AN EXAMPLE OF HOW SELECTED ACTIVITIES**
23 **COULD MISTAKENLY BE PERCEIVED TO BE OVERLAPPING?**

1 A. Yes. The Spire Shared Services Supply Chain function provides Inventory and
2 Storeroom Management Services. It manages the network of warehouses and
3 distribution centers, and manages inventory levels of the various SKUs, whereas
4 resources within the operating companies report functionally through Supply Chain,
5 but perform inventory management tasks at specific warehouses to ensure
6 coordination of efforts. Employees at these warehouses are embedded in and charge
7 directly to the specific host operating company. The operating company is in a better
8 position to perform localized logistics, while the Spire Shared Service function is in a
9 better position to take advantage of scale and provide centralized cost-effective
10 inventory management solutions. Therefore, these activities do not overlap in
11 performance or incur unnecessary and additional costs. Rather, these activities are
12 complementary in nature with operating company activities being the logical follow-
13 on to Shared Services' activities.

14 **Q. WOULD SOME OVERLAP IN ACTIVITY PERFORMANCE NECESSARILY**
15 **INDICATE OVERLAP OR INAPPROPRIATE COST INCURRENCE?**

16 A. No. Many activities, such as budgeting, planning, training, hiring or, managing will
17 be performed in each department or across organizations simply as a result of normal
18 business requirements. These activities may be similar in scope, but are performed
19 for either different purposes or to meet the specific operating requirements for the
20 department. In some cases, such as budgeting, there is a direct link between the
21 output of one department and the inputs to another department. In other cases – such
22 as engineering services, where a service company performs large-scale, complex

1 design work while the operating company performs routine, small scale drafting work
2 – there is a clear distinction in scale or complexity. Thus, it would not follow that
3 similar activity description or scope overlap would necessarily be inappropriate or
4 duplicative.

5 **Q. WHAT ARE THE RESULTS OF THE ACTIVITY OVERLAP ASSESSMENT?**

6 A. As described in detail in Schedule TJF-D3, I identified approximately 26 of the 90
7 Spire Shared Service activities where the potential for overlap required further
8 evaluation. After more detailed review, I did not identify any duplication between the
9 activities performed by Spire Shared Services and the operating companies. As
10 discussed above, certain activity and organizational descriptions did indicate the
11 potential for overlap, but closer scrutiny indicated differences in purpose, focus, scale,
12 content of the activity, or in the beneficiary of the activity performance. Activities
13 which are similar in nature and are performed both by Spire Shared Services and the
14 operating companies were found to be complementary and not duplicative.

15 To illustrate this point more clearly, the specific results of the review are
16 highlighted in the table below by summarizing the review of four of the
17 approximately 26 different activities for which the potential for overlap was assessed:

18
19
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Class of Service – Activity	Role of Spire Shared Services	Role of Operating Companies
Legal	Legal procures insurance	Operating companies provide detailed

<i>Claims and Insurance</i>	policies and negotiates insurance claims on an enterprise-wide basis.	claim and insurance-related information by completing incident reports, facilitating insurance company inspections, segregating costs by work order for insurance claims, etc.
<i>Human Resources Employee Relations</i>	Human Resources leads the network of specialists dealing with employee conflicts, disciplinary actions, flexible work arrangements, diversity activities, communications, community service, outplacement and severance, compliance and reporting and, labor relations.	Human Resources specialists functionally report to corporate but work with operating functions and are assigned issues by the Employee Relations group, based on availability and scope of the issue and ensure coordination of efforts and no overlap of responsibilities. Employees are embedded in and charge directly to the operating company.
<i>Corporate Communications & Marketing Creative Services & Marketing Research</i>	Corporate Communications & Marketing manages creative content and marketing for Spire. It is responsible for providing the tools, standards and templates to enable operating companies to engage in local communication efforts in a consistent manner.	Operating companies incorporate consistent standards in all communication with customers, regulatory agencies and other entities, and loop back customer feedback as input for Marketing Research being done by Corp. Communications & Marketing. Standards are applied to the specific company and market needs.
<i>Customer Experience / Supply Chain Meter Reading & Billing Services</i>	Customer Experience oversees meter-reads and generates bills based on usage, coordinates Special Billings, and ensures that all customers receive bills on time. Supply Chain procures meters and the Meter Shop performs tests and repairs for the operating companies.	Operating companies perform installation and meter maintenance in the field.

1 As this table suggests, there can be some similarity in activity description or
2 scope definition when viewed at a high level. However, when the activity purpose is
3 understood and the focus of these activities is deconstructed, it is clear that no
4 duplication exists. It should be expected that the operating companies will execute

1 certain activities within prescribed parameters that are established at the corporate
2 level. Similarly, it should be expected that corporate would establish overarching
3 policies or requirements that the operating companies would respond to in execution
4 of their recurring operations. Similar activity descriptions do not definitively suggest
5 that activity performance is overlapping or that duplicative costs are being incurred.
6 As demonstrated above, activity responsibilities are often distinguished by scope,
7 scale and coordination roles.

8 **Q. PLEASE SUMMARIZE YOUR REVIEW OF ACTIVITY OVERLAP.**

9 A. After determining which of Spire Shared Services' 90 activities were potentially
10 overlapping with activities performed by the operating companies, approximately 26
11 activities required further review. After subsequent evaluation, none of the activities
12 were found to be overlapping between Spire Shared Services and the operating
13 companies and therefore, no additional costs arise from any duplication.

14 This review of the discrete activities performed by Spire Shared Services and
15 the operating companies provided an opportunity to identify and assess the purpose of
16 these activities and to compare the relative scope of the activities being performed at
17 the corporate and operating company levels. The conduct of this analysis should be
18 viewed in the context of the analysis performed in the prior section regarding activity
19 necessity and benefit. As noted earlier, the operating company is in a better position to
20 perform localized logistics, while the Spire Shared Service function is in a better
21 position to take advantage of scale and provide centralized cost-effective inventory
22 management solutions. Therefore, these activities do not overlap in performance or

1 incur unnecessary and additional costs. Rather, these activities are complementary in
2 nature with operating company activities a logical extension of Spire's Shared
3 Services' activities. When taken together, these two analyses indicate that Spire
4 Shared Services and the operating companies are performing required activities in a
5 logical and reasonable manner and that this structure and execution provides for the
6 minimization of performance costs.

7 VII. COST MANAGEMENT

8 **Q. EXPLAIN THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY.**

9 A. The purpose of this section is to assess the structure, execution and effectiveness of
10 the various mechanisms employed as a means of limiting Spire Shared Service
11 expenditures and assuring appropriate scrutiny of spending. This review assessed the
12 manner in which the corporate center exercises ongoing control over the absolute
13 level of budgeted dollars, as well as determined the adequacy of operating company
14 involvement in reviewing total costs incurred at Spire Shared Services for service
15 provision. This analysis also focused on the governance structure in place to assure
16 adequate control of cost levels once budgeted. My review also includes an
17 assessment of the internal processes in place to view costs in both absolute and
18 relative terms. In this section I will review two mechanisms used to ensure that Spire
19 Shared Service operating costs are reasonable:

- 20 • Budgeting and cost control processes;
- 21 • Benchmarking;
- 22 • Third-Party Sourcing

23

1 Q. WHAT CRITERIA DID YOU USE IN ESTABLISHING THE FRAMEWORK
2 FOR ASSESSING THESE ACTIVITIES?

3 A. I developed a number of questions to assess Spire Shared Services' cost management
4 approach:

- 5 • Is the budgeting and cost control approach well defined and executed?
- 6 • Does activity cost budgeting provide adequate visibility into costs?
- 7 • Is the budgeting process consistent with that of similar companies?
- 8 • Do internal customers have adequate input into the budgeting process?
- 9 • Are costs sufficiently controlled over the course of the year?
- 10 • Is there evidence of ongoing cost evaluation?
- 11 • Is there evidence of execution against previous cost control programs?
- 12 • Can direct benefits of cost control be demonstrated?

13 **A. Budgeting and Cost Control**

14 Q. PLEASE EXPLAIN THE PURPOSE OF DISCUSSING THE SPIRE
15 CORPORATE AND OPERATING COMPANY BUDGETING AND COST
16 CONTROL APPROACHES.

17 A. This section assesses the structure, execution and effectiveness of the budget and cost
18 control process and governance structure as a means of managing Spire Shared
19 Service expenditures and assuring appropriate oversight is provided in their
20 development. The review was also structured to understand the manner in which
21 Spire Shared Services exercises control over the absolute level of budgeted dollars
22 and to understand the methods used by Laclede and other operating companies to
23 participate in shared services agenda priority setting and the budget development
24 process. An understanding of these two factors provides a basis for assessing the

1 adequacy of involvement in reviewing total costs incurred for services provided by
2 Spire Shared Services.

3 Understanding the nature of Spire's budgeting and cost control governance
4 structure and processes provides insight into the philosophy, approach and methods
5 Spire Shared Services and the operating companies undertake to minimize and control
6 these functional and overall shared services budgets. The governance structure
7 indicates the level at which cost management is performed within an organization and
8 thereby indicates the seriousness and attention that it is given. Likewise, processes
9 are indicative of the frequency and scrutiny with which shared services costs are
10 controlled and are fundamental to effective cost management.

11 The review was also structured to understand the manner in which Spire
12 Shared Services exercises ongoing control over the absolute level of budgeted dollars
13 and to understand the methods used by the operating companies to participate in the
14 budget management process as a basis for assessing the adequacy of involvement in
15 overall management and control of costs incurred for services provided by Spire
16 Shared Services.

17 It is important for the Commission to understand the Spire Shared Service
18 governance structure and process to evaluate the steps taken to control service
19 company budgets. This understanding provides a basis for assessing the necessity and
20 reasonableness of Laclede' shared services-related costs.

21 **Q. MR. FLAHERTY, HOW WOULD YOU CHARACTERIZE THE OVERALL**
22 **SPIRE BUDGETING PROCESS?**

1 A. I would describe this process as a top-down, results-driven process with a high degree
2 of responsibility and bottom-up participation from the operating companies. Ongoing
3 cost levels are tightly constrained at the corporate level based on the need to control
4 costs, helping Spire and Laclede to meet financial performance expectations and
5 create long-term value for customers while also conforming to operational
6 performance standards. This defined process is effective in establishing rigorous cost
7 performance standards and achieving desired performance levels by targeting baseline
8 expenditure levels. It is effective in obtaining commitments at both the Spire Shared
9 Services and operating company levels to meet these objectives. Finally, it is similar
10 to elements of the budgeting processes utilized by other utilities and service
11 companies with which I have been involved.

12 **Q. IS THE EMPHASIS ON MANAGEMENT PERFORMANCE STANDARDS**
13 **AND COST CONTROLS CONSISTENT WITH UTILITY CUSTOMER**
14 **INTERESTS?**

15 A. Yes. This top-down approach places narrow and enforceable control parameters on
16 the operating companies, specifically operating costs that drive Spire's and the
17 operating companies' earnings performance and services level that drive operating
18 company customer performance, including that of Laclede. But it also puts pressure
19 on the business to continuously improve operating efficiency and customer service
20 through productivity improvements necessary to meet budget requirements as well as
21 achieve service levels consistent with customer interests. Notably, management's
22 emphasis on operational performance creates a balance, and is in alignment with

1 customer interests since it also puts pressure on the business to maintain or improve
2 service levels. The emphasis on operating company accountability and participation
3 in “bottom-up” budget development ensures that a more customer-centric viewpoint
4 is incorporated into the budgeting process. In other words, when Laclede meets
5 earnings targets by controlling costs relative to revenues, customers benefit. Because
6 Laclede does so in a way that maintains or improves service levels, customers benefit
7 further. Regulators can ensure customer benefits are achieved and sustained by
8 implementing regulatory mechanisms that recognize and encourage utilities to control
9 costs and enhance service.

10 **Q. DOES SPIRE HAVE AN ADEQUATE GOVERNANCE STRUCTURE IN**
11 **PLACE TO SUPPORT COST MANAGEMENT?**

12 A. Yes. Six primary governing bodies are involved in Spire’s overall planning,
13 budgeting and cost control processes. These bodies participate in a series of
14 governance forums that occur periodically throughout the year. These bodies are:

- 15 • Leadership Council: The Leadership Council approves the budget and long-
16 term plans and steers operations in alignment with the overall strategy, and in
17 accordance with the budget.
- 18 • Audit Committee: The Audit Committee is comprised of selected Board of
19 Directors (Board) members that review annual performance, and intervene as
20 necessary when executive management is not performing according to
21 expectations or is not meeting official targets previously approved.
- 22 • Capital Review Committee: The Capital Review Committee prioritizes project
23 spend and reviews project resources and timeline and approves project
24 initiation.
- 25 • Program Management Office (PMO): The PMO reviews performance of
26 projects against budget restrictions and progress expectations. It also institutes
27 performance reviews and standards to accomplish project completion goals.

1 Finally, it is responsible for consolidated progress reporting, project
2 prioritization, invoicing and contract management.

3 • Operations Controller: The Operations Controller manages operating company
4 and Spire Shared Services resources and helps optimize performance. The
5 operations controller also ensures actual financial performance and benefits
6 match annual plan and formulate course-correction steps for deviations.

7 • Finance Controller: The Finance Controller manages corporate shared services
8 resources and helps optimize performance. The Finance Controller also
9 ensures actual financial performance and benefits match annual plan and
10 formulate course-correction steps for deviations.

11 Through the bodies above, Spire's governance structure includes participation from
12 the most senior levels of leadership, as well as from functional groups across both the
13 operating companies and the shared services.

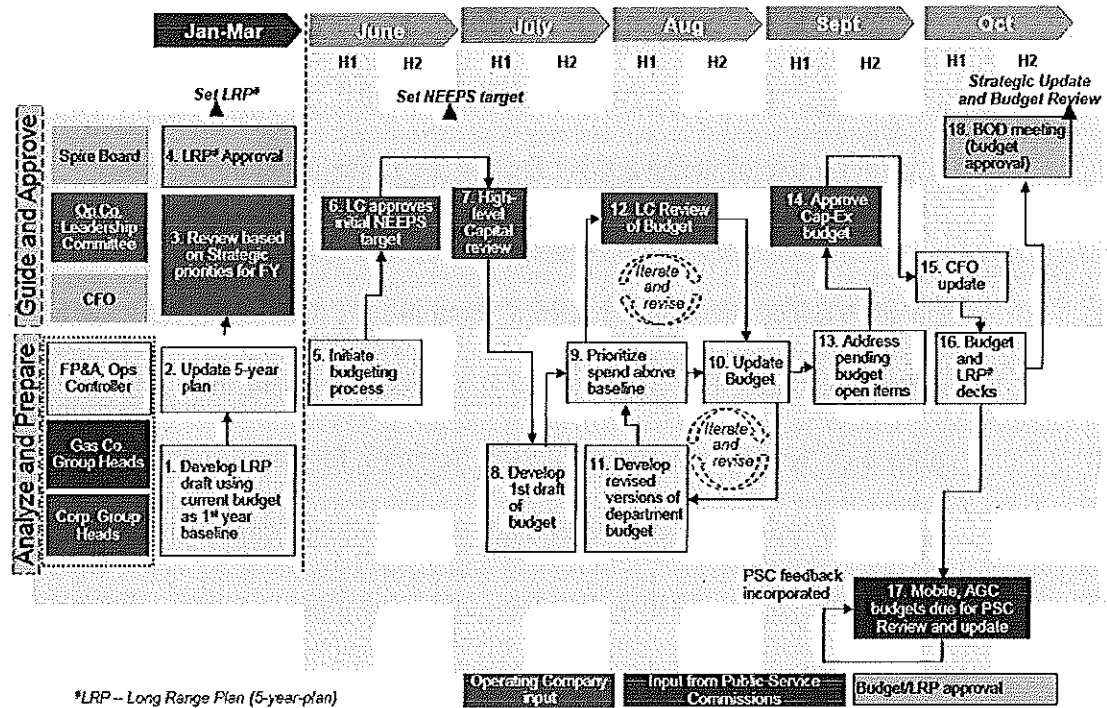
14 Accordingly, Spire has a robust planning, budgeting and cost control
15 governance structure in place with high levels of operating company participation.
16 Spire's governance structure is summarized in Schedule TJF-D4 (pages 1-2).

17 **Q. PLEASE SUMMARIZE SPIRE'S PLANNING AND BUDGETING PROCESS.**

18 A. Spire's annual budgeting process is preceded by the development of forecasts for long
19 range and near term planning (see process flow chart in Figure VII-1 below).
20 Functional groups collaborate across the operating companies and Spire Shared
21 Services to forecast factors such as demand and customer growth over a five-to-ten
22 year timeframe.

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Figure VII-1 Spire Planning & Budgeting Process Flow Chart



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13

Interaction between Spire Shared Services and the operating companies happens early and often throughout this process. For example, in the Gas Supply function, operating company individual managers develop long range plans at the facility level, in consultation with Spire Shared Services. Inputs such as these are collected across the functions and operating companies, rolled up into a long-range plan and a near-term plan, and reviewed through consultations between the operating companies and the Leadership Council. The emphasis on operating company participation in the planning process ensures that the resulting Spire Gas Supply strategy reflects operating company needs.

The annual budgeting process is then initiated by the Finance group in June, which draws on the forecasts, the Spire strategic plan and Board input to set

1 corporate-level goals in terms of focus, direction, and financial performance targets.
2 Once the strategic goals are set, the financial analysis phase identifies the financial
3 metrics (e.g., revenue, operating expenses, capital expenditures, etc.) which support
4 the achievement of the targets set forth in the strategic planning phase.

5 Each of the organizational units within an operating company or a Spire
6 Shared Services function prepares a “bottom-up”, detailed direct-view budget based
7 on the guidelines they receive from their leadership and their priorities. Operating
8 companies review the Spire Shared Services function budgets and can request
9 changes to priorities, outcomes and costs through direct discussions. Following
10 review, the Spire Shared Services and operating company direct budgets are
11 consolidated into one Spire control budget.

12 Once all the operating companies’ control budgets are established, the Finance
13 group collects and integrates all the budgets into a post-allocated view. The post-
14 allocated budgets are again reviewed by operating companies, the CRC, and finally by
15 the Leadership Council to ensure company budgets are reasonable and corporate
16 targets are met. The operating company leadership is represented in the Leadership
17 Council which approves the entire budget before it goes to the Spire Board for final
18 approval. The Board of Directors approves the budget in October, when it becomes
19 the approved control budget for the fiscal year.

20 This “top-down” target setting/“bottom-up” budgeting process ensures that
21 available budget dollars are applied for the benefits of customers in the most effective
22 manner. It recognizes that trade-offs and prioritization are necessary to maintain costs

1 within the pre-defined target levels, while achieving the desired operating
2 performance objectives (e.g., reliability, call center responsiveness, etc.).

3 **Q. HOW ARE “BOTTOM-UP” BUDGETS PREPARED BY THE OPERATING**
4 **COMPANIES?**

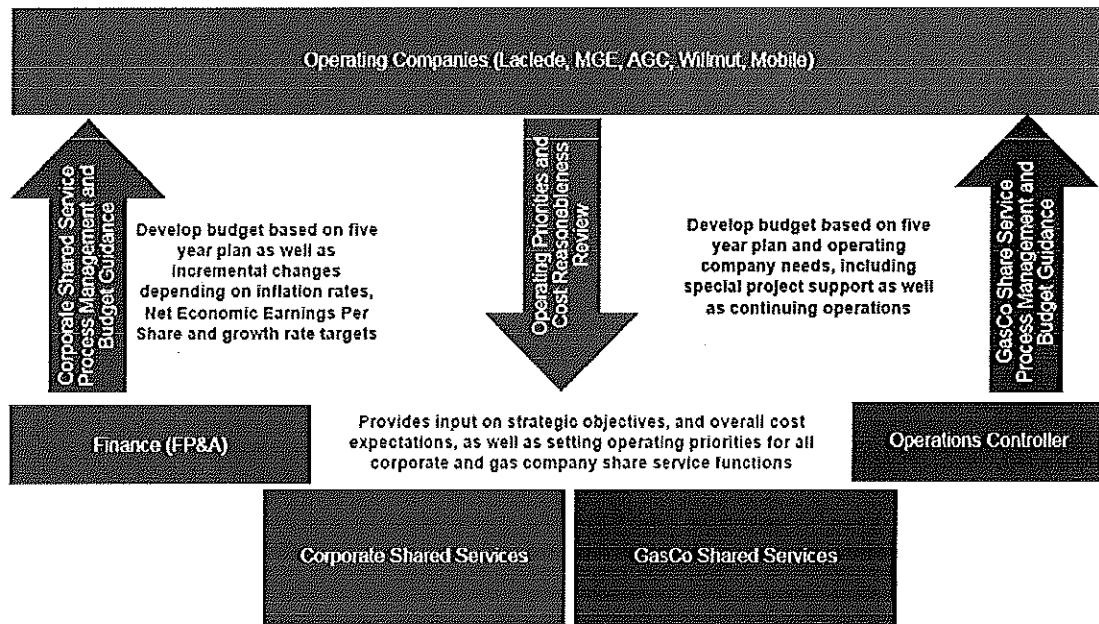
5 A. These budgets are prepared at the operating company individual department level,
6 e.g., Supply Chain. This process starts once corporate direction is received in June.
7 Detailed budgets are required for the first year of the budget, by organization, by
8 month, and for both O&M and capital expenditures. Budgets reflect local operating
9 requirements, business priorities and resource deployment plans. The operating
10 companies have direct control over costs incurred for their direct core activities and
11 planned costs for such activities are incorporated into the direct-view budget. These
12 control budgets also incorporate the planned Spire Shared Service distributed costs
13 consistent with the “top-down” constraints previously described. Before these Spire
14 Shared Service budget elements are finalized, discussions are held between operating
15 company subject matter experts and their shared services counterparts to refine
16 programs, priorities and cost levels.

17 As previously discussed, the “bottom-up”, direct-view budgets are
18 consolidated by Finance into a post-allocated (i.e., after all Spire Shared Service costs
19 are allocated) view for the operating company’s Presidents and Board to review,
20 usually in August.

21 **Q. DO OPERATING COMPANIES, SUCH AS LACLEDE, PROVIDE INPUT**
22 **INTO THE BUDGET LEVELS OF SPIRE SHARED SERVICES?**

1 A. Yes. The interaction is detailed in Figure VII-2 below. At the operational level,
 2 budgets are prepared by a process which is initiated by the individual Spire Shared
 3 Services functions. This is done by interacting closely over the year and at budget
 4 time with the operating companies for both directional input and service level
 5 expectations, as well as budget restrictions. At the governance level, operating
 6 company leadership is represented in the Leadership Council which approves the
 7 entire budget before it goes to the Spire Board for final approval.

8
 9 **Figure VII-2 Interaction Model – Shared Service Functions with**
 10 **Operating Companies**



11
 12 More informally, the operating companies interact with the Spire Shared
 13 Services functions and departments at the outset and throughout the planning and
 14 budgeting process. Laclede’s overall and departmental leadership has the opportunity
 15 to review the planned Spire Shared Service budget and compare against historical

1 levels, as well as anticipated changes in business operations. The Spire Shared
2 Services functions work with Laclede and other operating companies to discuss the
3 planned budgets and provide necessary explanations for budget levels and related
4 priorities. Open lines of communication are continuously maintained which include
5 recurring ad-hoc interactions with the operating company.

6 Taken together, these formal and informal interactions increase the
7 understanding between operating company leadership, managers and subject matter
8 experts with respect to shared services function plans. This bilateral input utilized to
9 establish the Spire Shared Services budget reflects the financial commitment and / or
10 cost limitation guidance provided at the outset of the budgeting process and the
11 internal cost constraints offered by operating company executives.

12 **Q. IS THE LEVEL OF INPUT PROVIDED BY LACLEDE INTO THE**
13 **ESTABLISHMENT OF SERVICE COMPANY BUDGETS ADEQUATE?**

14 **A.** Yes. As would be expected, overall budget constraints are established by Spire as
15 the parent organization of a multi-entity business. The Leadership Council consists
16 of leadership from Spire Shared Services functions and for the operating companies
17 which has final approval authority over the budget. Moreover, during the
18 development of the budget as well, there is continuous interaction and iteration
19 between Spire Shared Services and the operating companies.

20 This level of coordination between Spire Shared Services and the operating
21 companies provides reasonable assurance within the overall business that the
22 activities performed are appropriate and the level of services provided meets the

1 needs of the recipients of those services. The interaction, processes and governance
2 structures described above are effective mechanisms for ensuring that service
3 company charges are necessary and reasonable. Through the above described
4 complementary processes, the operating companies are able to exert adequate control
5 on the budget development process.

6 **Q. PLEASE DESCRIBE THE LACLEDE-SPECIFIC PROCESSES IN PLACE TO**
7 **MONITOR SPIRE SHARED SERVICE SPENDING.**

8 A. The leadership of Laclede holds weekly, monthly and quarterly staff meetings that
9 provide an opportunity to monitor Spire Shared Service performance, interaction,
10 budgeting and spending. These meetings are leveraged to review a number of general
11 and operational issues, for instance, to review performance and customer metrics,
12 discuss changes to project schedules, or assess employee programs. Through these
13 meetings Laclede functional and corporate leadership has the opportunity to discuss
14 specific business and functional performance, including Spire Shared Service
15 performance levels and costs. During the budgeting cycle, activity timing,
16 externalities and revised priorities are frequent topics of discussion to understand
17 implications to budgets. These meetings are also used to identify reasons for budget
18 variance and develop plans to correct spending.

19 Through these meetings and other cost management governance mechanisms,
20 Laclede maintains active and adequate involvement in monitoring Spire Shared
21 Service programs and in controlling current related costs.

1 Q. WHAT SPECIFIC CONTROL MECHANISMS EXIST TO MANAGE SPIRE
2 SHARED SERVICES COSTS AFTER THEY ARE ESTABLISHED?

3 A. Spire has developed an effective process to monitor service company cost incurrence,
4 which begins with functional variance analysis that is elevated to the most senior
5 levels of the enterprise and the operating companies.

6 Every month, the Finance organization prepares a detailed list of all Spire
7 Shared Services Corporate function charges to each operating company. The
8 Operations Controller does the same for GasCo function costs. These detailed Spire
9 Shared Services reports, or “bills”, contain an analysis of actual vs. budgeted costs
10 which highlight potential items that need to be investigated. These bills can be
11 generated for each “service” provided by the Spire Shared Services functions so that
12 the operating company can understand the cost drivers behind the service company
13 offerings. The functional operating company representatives then review these
14 detailed billed amounts and evaluate the charges. Unusual variances to planned
15 budgets or other unexpected or unexplained charges are discussed in detail with Spire
16 Shared Services functions and are investigated to determine their appropriateness
17 (e.g., is it a new charge or simply a timing issue?). These discussions occur formally,
18 through a monthly variance meeting between the operating company businesses and
19 Spire Shared Services function owners, as well as informally between functional
20 budget coordinators.

21 Monthly Departmental meetings inform the Monthly Business Review
22 Meetings at the operating company level. These results are consolidated from various

1 operating companies and presented in Leadership Council meetings, which review
2 results in a plan of action and potential challenges. Once a quarter, these results are
3 aggregated and reported to the Board.

4 The operating company's ability to control and challenge costs, including
5 those from the shared service functions, places a direct responsibility on Spire Shared
6 Services to meet the performance expectations of the operating companies as well as
7 the enterprise. As a result of the above described mutual interaction, the operating
8 companies are active in managing operating expenditure levels, controlling budgeted
9 dollars and achieving corporate targets for financial performance.

10 **Q. DOES SPIRE SHARED SERVICES CAPTURE ACTIVITY COSTS IN A**
11 **MANNER IN WHICH THEY CAN BE APPROPRIATELY REVIEWED AND**
12 **CHALLENGED, IF NECESSARY?**

13 **A.** Yes. Spire Shared Services records the relevant cost data at a very granular level and
14 is able to perform detailed analysis of actual costs against budgeted costs. Spire
15 Shared Services uses this system to produce detailed monthly cost reports that are
16 used by the operating companies to ensure that charges are reasonable when
17 compared to the agreed budgets and expectations. The structure and method in which
18 costs are budgeted, captured, reported and analyzed provide visibility into the nature
19 of the underlying activities, thereby providing the operating companies with insight
20 into the nature of the costs billed to them, as well as the ability to course-correct
21 spending if necessary.

1 **Q. ARE THERE IMPLICATIONS FOR NOT MEETING THE BUDGET**
2 **TARGETS?**

3 A. Yes. Not meeting budget targets has financial implications for Spire Shared Service
4 functions and employees because their annual incentive compensation is linked to
5 Spire meeting its financial performance targets and the employee's department
6 meeting its budget. In my experience, linking compensation to performance is a
7 common approach utilized by utilities and companies across many industries to
8 ensure that employees maintain the appropriate degree of focus on cost control.

9

10 **B. Benchmarking**

11 **Q. PLEASE DESCRIBE SPIRE'S CURRENT BENCHMARKING ACTIVITIES.**

12 A. Spire and / or Laclede conduct or participate in a variety of benchmarking studies to
13 ensure that its costs are reasonable and appropriate. These benchmarking studies
14 comprise both quantitative and qualitative metrics.

15 Cost benchmarking is performed to understand the relative position of Spire's
16 costs in relation to its peers. Service level benchmarking is performed to understand
17 the levels of service provided and the resulting customer satisfaction in relation to its
18 peers. While some metrics involve accurately measurable costs and are suitable for
19 cost benchmarking, other metrics such as customer satisfaction are more appropriate
20 for qualitative benchmarking. Both types of benchmarking activities are critical to
21 understand an organization's performance levels and opportunities for improvement.

1 Q. WOULD YOU ELABORATE ON HOW BENCHMARKING ACTIVITIES
2 ARE STRUCTURED AND EXECUTED AT SPIRE?

3 A. As stated above, Spire and / or Laclede participate in or conduct both quantitative and
4 qualitative benchmarking. On an annual basis, Spire conducts cost and performance
5 benchmarking over a variety of factors including A&G per Customer, Customers per
6 Employees, ROE, EBIDTA per Customer, etc., and looks at local operating company
7 trends over the last several years to ensure that Spire's costs are under control and are
8 trending in the right direction. This study is performed at an operating company level
9 and compares Alagasco, LAC, MGE, Mobile Gas and, Willmut Gas individually to a
10 large industry group. This, in turn, is used for long range strategic planning and
11 performance management.

12 From this analysis, Spire identifies companies which perform better than itself
13 on certain metrics and then conducts further research into those companies to see how
14 and where Spire can improve. With respect to performance management, Spire ranks
15 itself quarterly to a pool of 14 peers and reports its findings to the Board for further
16 discussion on improvement.

17 Spire, at an operating company level, also participates in the JD Power
18 Customer Satisfaction study. Through this, they are able to identify where each
19 operating company stands on various qualitative metrics such as Safety & Reliability,
20 Billing & Payment, Corporate Citizenship, Customer Service, Price, Communication,
21 and overall Customer Satisfaction. The JD Power study shows where each individual
22 operating company stands in the eyes of its customers against both regional and

1 national peers. This is used to track performance metrics and inform the budget
2 planning process to create a more cost sensible environment while keeping customer
3 satisfaction high.

4 **Q. IS SPIRE'S AND LACLEDE'S BENCHMARKING PROCESS USED AS A**
5 **COST CONTROL MECHANISM?**

6 A. Yes. The benchmarking activities undertaken independently by the various functions,
7 or externally on behalf of Spire and Laclede, help functional leadership to evaluate the
8 cost and service level performance and are used to drive improvements in costs as
9 well as service levels.

10 The benchmarking studies participated in or conducted allow performance
11 measurement in terms of costs and quality of service to the operating companies. For
12 example, within a peer group, relative comparison of cost components of
13 benchmarked activities will yield insight into cost drivers, thereby identifying cost
14 improvement levers. In addition, benchmarking studies can serve to manage
15 outsourcing arrangements as they provide an objective reference framework under
16 which shared services functions can evaluate performance. Finally, benchmarking can
17 serve as a strong motivational tool for functions to perform at cost and service levels
18 that are in line with the best companies in the industry.

19 **Q. DO YOU BELIEVE BENCHMARKING IS AN APPROPRIATE TOOL FOR**
20 **THE CONTROL OF SPIRE'S AND LACLEDE'S COSTS?**

21 A. Yes, I do. Benchmarking is a common management tool and is a significant support
22 component in Spire's and Laclede's pursuit of operational excellence. These

1 benchmarking activities are employed to help manage costs and improve
2 performance. Combined with other management mechanisms that Spire and Laclede
3 utilize, I believe that the benchmarking effort undertaken supports the effective
4 management of Spire's costs and is useful for both ongoing internal cost management
5 and process improvement.

6
7 **C. Third-Party Sourcing**

8 **Q. WHY IS THIRD-PARTY SOURCING BENEFICIAL?**

9 A. The use of third-party sourcing, which involves considering the cost and benefits of
10 employing outside versus internal resources, can be an effective cost control
11 mechanism. A company may opt to strategically use outside resources to perform
12 activities traditionally handled internally in a more cost efficient or operationally
13 effective manner. Such an approach has the potential to either reduce costs and/or
14 increase service levels. The extent to which companies are open to the use of external
15 resources as an execution tool is an indication of management's desire to pursue
16 opportunities to lower costs to customers.

17 **Q. ARE ALL DECISIONS TO USE OUTSIDE RESOURCES BASED SOLELY**
18 **ON FINANCIAL BENEFITS?**

19 A. No. There are several reasons for using outside resources that extend beyond the
20 financial benefits typically identified as primary reasons for third-party sourcing
21 certain functions. For example, companies often partner with a specialized service
22 provider that has access to additional skilled resources. Additionally, companies

1 outsource so that they can focus on core activities or to potentially improve certain
2 services.

3 **Q. IN WHAT CIRCUMSTANCES IS THE USE OF OUTSIDE RESOURCES**
4 **LESS LIKELY TO BE A VIABLE OPTION?**

5 A. There are several reasons why a company may choose not to obtain third-party
6 sourcing of a function, including risk of poor performance, inadequate access to data,
7 potential hidden costs, and limitation of future flexibility, among others. It may be
8 important for a company to keep control over a certain area, even if it is not a key
9 revenue-generating or customer-facing function. Control over particular activities can
10 also be an important element of remaining competitive and enhancing value from
11 operations.

12 **Q. PLEASE SUMMARIZE YOUR ASSESSMENT OF THE USE OF OUTSIDE**
13 **RESOURCES AT SPIRE AND LACLEDE.**

14 A. Significant decisions to utilize outside resources at Spire, especially those that impact
15 externally facing operations, are made by the business units and the management of
16 the individual functions and are approved by the Leadership Council. Such decisions
17 are based on maintaining or enhancing service levels while providing cost advantages
18 or gaining access to specialized resources not available internally.

19 An example of such a significant decision lies in the Customer Service
20 function, which uses outside resources to perform a portion of its call center
21 functions. In this case, outsourcing enabled this function to reduce its labor costs,
22 improve cost effectiveness, and achieve greater flexibility in handling calls. The

1 Facilities function is responsible for construction management and also outsources
2 projects because it is more cost-effective to do so for the type and infrequency of
3 work performed. For more minor items, such as the use of outside resources for
4 janitorial, grounds keeping and maintenance services to make them more cost-
5 effective than to have full-time employees on payroll, those decisions are made by the
6 Spire Shared Services function, which generally have more technical expertise.
7 Again, these functions have “dotted-line responsibility” to business unit leadership for
8 ensuring both performance levels and cost-effectiveness.

9 Another example is drawn from Human Resources, which has moved Payroll
10 to ADP. This is an ongoing effort to bring all the operating companies under one
11 system. In addition, external consultants are hired to help with benefits calculations to
12 ensure the benefits process operates effectively.

13 A different type of example resides within Legal where in-house performance
14 has risen to 65% of work performed, as more matter expertise has been moved in-
15 house. Despite this reversal in outside resource concentration, Legal still outsources
16 certain highly skilled areas of expertise, such as managing lawsuits related to property
17 taxes and patent infringement, where the non-recurring nature of the matter does not
18 justify full-time resources.

19 These examples demonstrate that Spire Shared Services is conducting regular
20 analyses to determine whether or not the use of third-party resources could be a means
21 to drive cost reduction or quality improvement. Such decisions and vendor selections
22 are based on criteria that include both cost and quality metrics. Accordingly, Spire

1 Shared Services is utilizing third-party sourcing analysis as a cost management tool to
2 ensure the reasonableness of costs incurred.

3 **Q. IS THE USE OF OUTSIDE RESOURCES THE ONLY WAY TO ACHIEVE**
4 **THESE BENEFITS?**

5 A. No. Spire also relies extensively on market studies and other mechanisms to ensure
6 that functions, even when provided in-house, are reasonably priced and reflective of
7 what is being offered or demanded in the competitive market place. Its use of wage,
8 salary and benefit studies to determine compensation levels for its in-house
9 employees is a good example of this approach.

10 **Q. WHAT DO YOU CONCLUDE FROM YOUR REVIEW OF SPIRE SHARED**
11 **SERVICES' AND LACLEDE'S OVERALL COST MANAGEMENT**
12 **APPROACHES?**

13 A. Spire's and Laclede's budgeting and cost control processes are similar to those of
14 other utilities with which I have been involved. I believe that these processes as
15 designed and applied are effective mechanisms for controlling Spire Shared Service
16 costs.

17 Spire's governance structures and processes provide effective "top-down"
18 means to control service company costs and measures for the operating companies to
19 exercise appropriate influence over Spire Shared Service costs. The use of a "top-
20 down" approach to budget setting provides a clear understanding of corporate targets
21 and the alignment of enterprise and operating company objectives; meanwhile the
22 detailed "bottoms up" build-up of operating company budgets within these

1 established target levels provides a direct linkage between business requirements and
2 organization level sources of costs. The ongoing cost control processes and the link
3 between achieving budget targets and compensation help to ensure that both Spire
4 Shared Services and the operating companies have the means and incentives to
5 monitor cost performance and adjust costs as required during a fiscal year.

6 Further, Spire Shared Services actively engages in the evaluation and use of
7 benchmarking and utilization of third-party resources as a means to drive cost and
8 service level improvements. Such analysis is a regular tool employed to evaluate the
9 most cost effective means of providing necessary and beneficial services. This
10 planning and control mechanism provides a sound framework for the control of Spire
11 Shared Service costs.

12 VIII. OVERALL COST LEVEL AND TRENDS

13 **Q. PLEASE DESCRIBE THE METHODOLOGY YOU UTILIZED FOR**
14 **PERFORMING THE COST TREND ANALYSES.**

15 **A.** The cost trend analyses I performed seeks to determine the extent to which Spire
16 management has focused on maintaining the cost efficiency of shared services
17 operations by evaluating how the costs associated with the activities performed by
18 Spire have changed over time. To develop the detailed cost trends, cost information
19 obtained directly from Spire's cost accounting system was utilized. To identify
20 trends, actual cost data was collected for 2013-2016 to provide for traditional year
21 summarization and provide a comparable basis for peer group comparison. Cost
22

1 information was collected so that it could be segmented by class of service (e.g.,
2 Human Resources, Legal), by operating company, by allocation factor, by cost type,
3 and by cost component. This level of detail was used to ensure that a full perspective
4 of the scope of Spire's charges was obtained.

5 Of course, it should be recognized that Spire Shared Services did not exist in
6 2013 and Spire itself has evolved over this time period through corporate acquisition
7 and expansion. To develop this multi-entity comparison necessitated aggregating
8 baseline data from more than Laclede through this period. This data was then aligned
9 with the current Spire Shared Services construct to enable comparison over the early
10 years of the comparison.

11 **Q. WHAT TYPES OF COSTS ARE ASSOCIATED WITH THE SERVICES**
12 **PROVIDED BY SPIRE TO ITS OPERATING COMPANIES?**

13 A. The composition of costs associated with the functions performed by Spire for its
14 operating companies, including Laclede, is typical of those cost types normally
15 incurred by service companies, as evidenced by the discussion in Section IV. This
16 section outlines how the nature of the activities performed by Spire is generally
17 consistent with the activities performed by the service companies of the utilities in the
18 peer group. Spire incurs a broad range of costs related to the functions it performs for
19 all its operating companies.

20 By their nature, the majority of these costs are fixed, that is, recurring and not
21 highly variable, e.g., payroll, rent, property insurance, operations third party services
22 and professional fees, and usually do not significantly fluctuate year-to-year, absent a

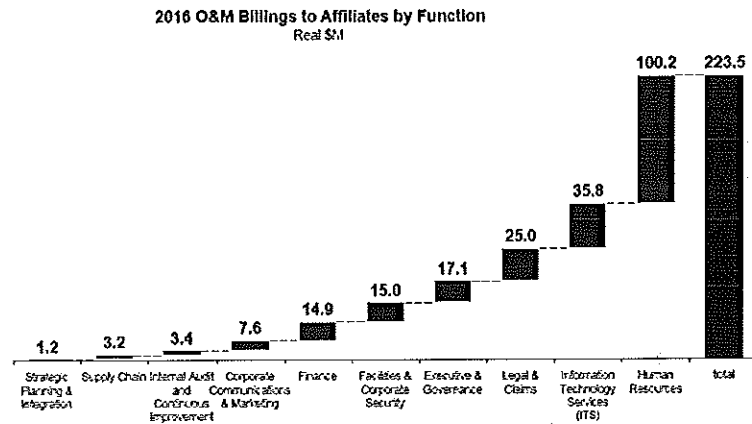
1 major change in business requirements. Examples of some of these less variable costs
2 are audit costs, shareholder costs and fiduciary costs, all costs required of a publicly
3 traded company.

4 **Q. WHAT IS THE COMPOSITION OF THESE COSTS?**

5 A. These O&M costs relate to 16 classes of service that the service company provides in
6 support of operating companies (illustrated in Figures VIII-1 and VIII-2 below and
7 corresponding to classes of services described previously in my testimony). These
8 cost categories comprise a predominant portion of the relevant operations and support
9 functions within the operating companies and include Corporate Shared Services
10 (Corporate Communications & Marketing, Finance, Internal Audit & Continuous
11 Improvement, Facilities, Executive & Governance, Human Resources, Information
12 Technology Services, Supply Chain, Legal, and Strategic Planning & Integration) and
13 GasCo Shared Services (Customer Experience, External Affairs, Operation
14 Controller, Operations Shared Services, Organic Growth - Sales and Gas Supply). A
15 break down is shown in Figures VIII-1 and VIII-2 below.

1

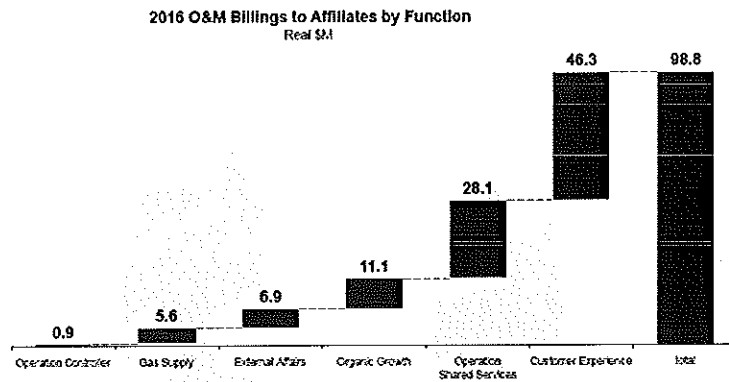
Figure VIII-1 2016 O&M Billings to Affiliates by Corporate Function



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Figure VIII-2 2016 O&M Billings to Affiliates by GasCo Function



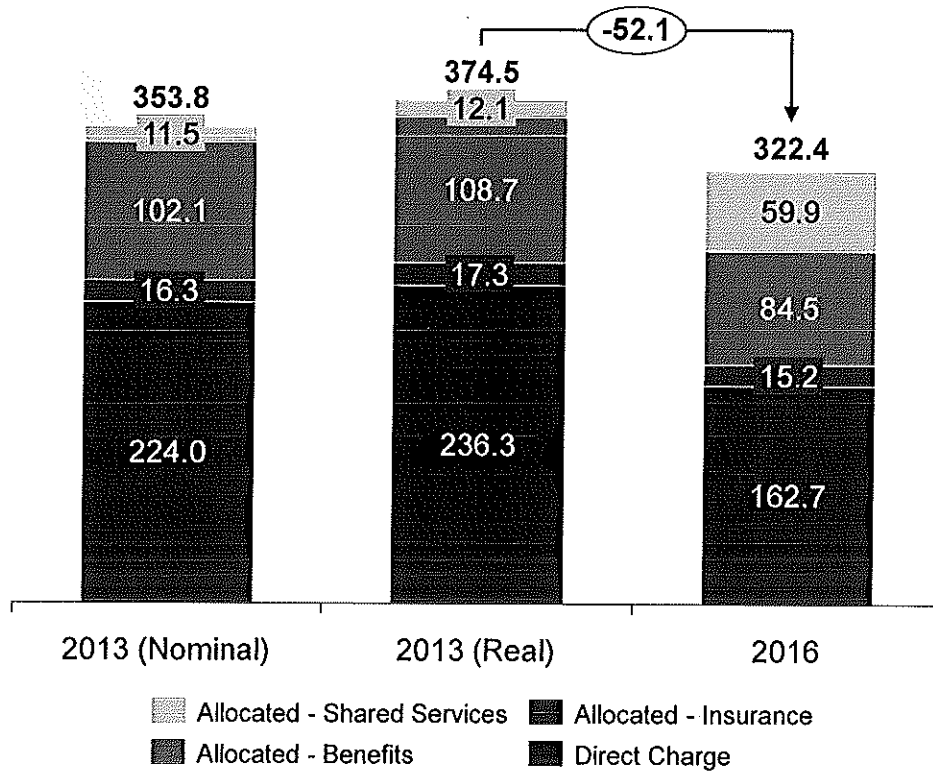
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5 **Q. HOW HAVE SPIRE SHARED SERVICES COSTS CHANGED OVER TIME?**

6 **A.** Spire Shared Services O&M billings have declined in nominal terms and have
 7 declined more markedly in real terms for the period 2013–2016. In nominal terms,
 8 costs have decreased \$32 million, from approximately \$354 million to \$322 million,
 9 representing a 3.1% annual decline over the 2013-2016 period. In real terms, after
 10 costs have been adjusted to reflect the impact of inflation, costs have declined
 11 \$52 million (2016 dollars), from approximately \$374 million to \$322 million over

1 this period, representing a 4.9% decline per year (i.e., Compound Annual Growth
 2 Rate (CAGR) from 2013-2016, as shown in Figure VIII-3 below. Inflation has been
 3 calculated in two parts: inflation in labor cost has been sourced from the Employment
 4 Cost Index, and inflation in non-labor cost has been sourced from the Producer Price
 5 Index. Spire's costs were then adjusted based on the year in which the specific cost
 6 was incurred. The weighted average escalation rate for 2013 costs calculated thus is
 7 5.80% overall, or 1.91% annually.

9 **Figure VIII-3 Spire O&M Trends (Adjusted for Inflation \$M)**
 10 **Real \$M; Weighted Average Annual Escalation Rate = 1.91%**



11
 12

1 Q. IS THE DECLINE IN REAL DOLLARS OF SPIRE'S O&M BILLINGS
2 DRIVEN BY ANY DOWNWARD CHANGE IN THE SIZE OF SPIRE'S
3 BUSINESS?

4 A. No, the decline was not driven by a downward change in the overall size of Spire's
5 business. To confirm this, two key metrics were analyzed to determine the relative
6 size of Spire's business over the last few years, for which we normalized or adjusted
7 for the inclusion of MGE, Alagasco and EnergySouth, There was an increase in the
8 scope and size of Spire's business as measured by total assets and gas volume. In
9 fact, from 2013 to 2015 total Spire assets increased by nearly 11% and total gas
10 volume increased by approximately 1.2%. Therefore, any change in costs cannot be
11 attributed to a reduction in the size and scope of Spire's business. Rather, the growth
12 in the size of Spire's business against a backdrop of real cost decreases suggests
13 efficiency improvements at the service company level, specifically in the form of
14 lower staff related costs.

15 Q. WHAT ARE THE HIGH LEVEL DRIVERS OF THESE OBSERVED COST
16 TRENDS OVER THE PERIOD?

17 A. The major driver largely responsible for the changes in Spire Shared Services costs
18 was restructuring as part of recent acquisitions and synergies associated with
19 combining its subsidiary's shared services.

20 Laclede acquired MGE in 2013 followed by Alagasco in 2014. In the next few
21 years they were able to realize synergies specifically through consolidating shared
22 services activities. For example between 2013 and 2016 Spire was able to lower

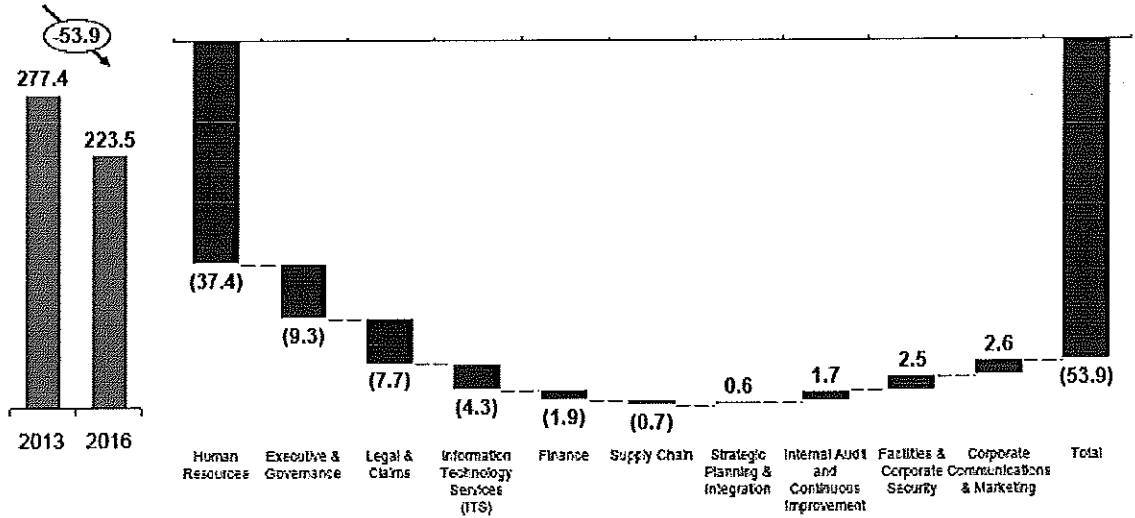
1 executive payroll by over \$7 million, lower its Human Resources benefits by \$38
2 million, lower its Legal labor cost by over \$2 million, and lower its property insurance
3 premiums by \$5 million due to increased scale and pooling of risk. This restructuring
4 did have some costs associated with it. For example, in 2016 Spire spent nearly \$2
5 million on costs associated with programs and communication as part of integrating
6 its businesses and restructuring under a common identity and within a new corporate
7 culture, and spent nearly \$3 million in costs associated with consolidating facilities
8 due to increased rent and additional security cost, which was driven primarily by the
9 expiration of a favorably costed corporate lease. Although this restructuring resulted
10 in a temporary increase in billings to affiliates in certain functions, Spire's corporate
11 integration program successfully reduced O&M spend. Immediate cost reductions
12 resulting from were seen in 2016, evidenced by the nearly \$52 million (real dollars)
13 decrease in total shared service costs from 2013-2016.

14 **Q. ARE THERE ADDITIONAL FACTORS THAT HAD AN IMPACT ON THE**
15 **COST TRENDS IN SERVICE COMPANY BILLINGS?**

16 A. To examine additional cost changes, I reviewed Spire's total shared service costs to
17 affiliates by class of service, which provides a more granular level of detail. As shown
18 in Figures VIII-4 and VIII-5 below, there are decreases in Information Technology
19 Services, Human Resources, Executive and Governance and, Legal & Claims,
20 partially offset by increases principally arising within the Corporate Communications
21 and Facilities functions.

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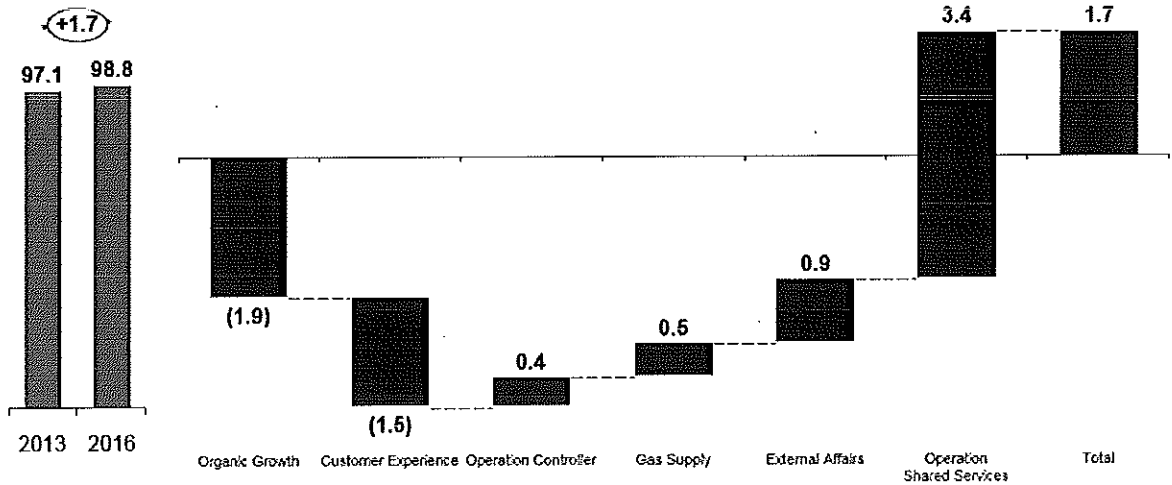
Figure VIII-4 2013-2016 Change in O&M Billings to Affiliates by Corporate Function
Real \$M; Weighted Average Annual Escalation Rate = 1.91%



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Figure VIII-5 2013-2016 Change in O&M Billings by Gas Co Function
Real \$M; Weighted Average Annual Escalation Rate = 1.91%



6

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8

9

Human Resources - \$37.4 million decrease: Spire routes the majority of its benefits costs (insurance, pensions, stock, etc.) through its Human Resources cost

1 center. The decrease in human resources spend is primarily due to benefits savings
2 driven by enterprise-wide headcount reductions, process improvements achieved
3 through restructuring and company integration initiatives, and lower pension expense
4 based on regulatory orders. Spire saved \$16 million from benefits from staffing
5 reductions, \$16 million on pension and other post-retirement benefits, and \$5 million
6 on Alagasco employee stock ownership programs.

7 *Executive & Governance - \$9.3 million decrease:* the decrease in Executive &
8 Governance costs were mostly driven by payroll reductions from acquisition
9 synergies.

10 *Legal & Claims – \$7.7 million dollar decrease:* This was driven by synergies
11 that led to a combined \$2 million savings in legal fees. Additionally, property
12 insurance premiums went down \$5 million due to increased scale and pooling of risk.

13 *Information Technology Services - \$4.3 million decrease:* The decrease in IT
14 costs is mainly due to a \$2.4 million dollar decrease in payroll and a \$600,000
15 reduction in third-party services primarily due to lower MGE outside services spend.
16 This \$3.0 million decline in utilities was offset by a \$2.3 million increase in
17 Professional, Legal & Consulting fees as Spire centralized the sourcing of database
18 administration, technical support, and Hyperion support.

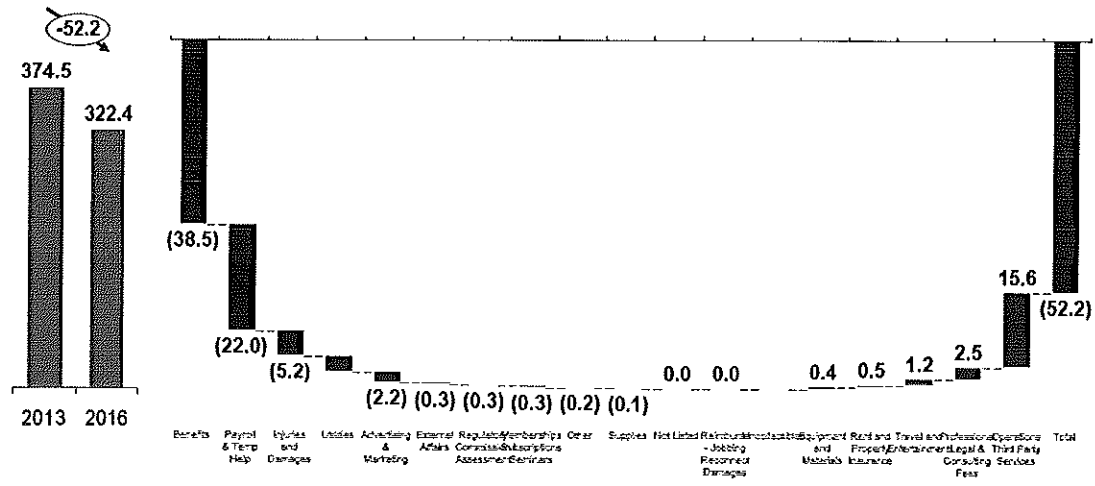
19 *Corporate Communications & Marketing - \$2.6 million increase:* This is due
20 to a one time cost of \$1.2 million associated with the corporate restructuring related to
21 the new Spire name, in addition to \$550K in Laclede pipeline replacement awareness

1 campaign, \$250,000 in United Way costs and \$250,000 in other miscellaneous
 2 services.

3 *Facilities - \$2.5 million increase:* Spire has experienced increased costs of
 4 \$2.3 million in rent due to the consolidation of facilities. The company has expanded
 5 and enhanced security enterprise wide, resulting in \$400,000 higher expense. There
 6 was a one-time expense for 24 hour security at all MGE locations during union
 7 negotiations in 2016.

8 For additional detail, Figure VIII-6 provides the breakdown of cost trends by
 9 cost type, including payroll and benefits, for those cost elements that experienced the
 10 greatest change during the period.

11 **Figure VIII-6 2013-2016 Change in O&M Billings to Affiliates by Function**
 12 **Real \$M; Weighted Average Annual Escalation Rate = 1.91%**
 13



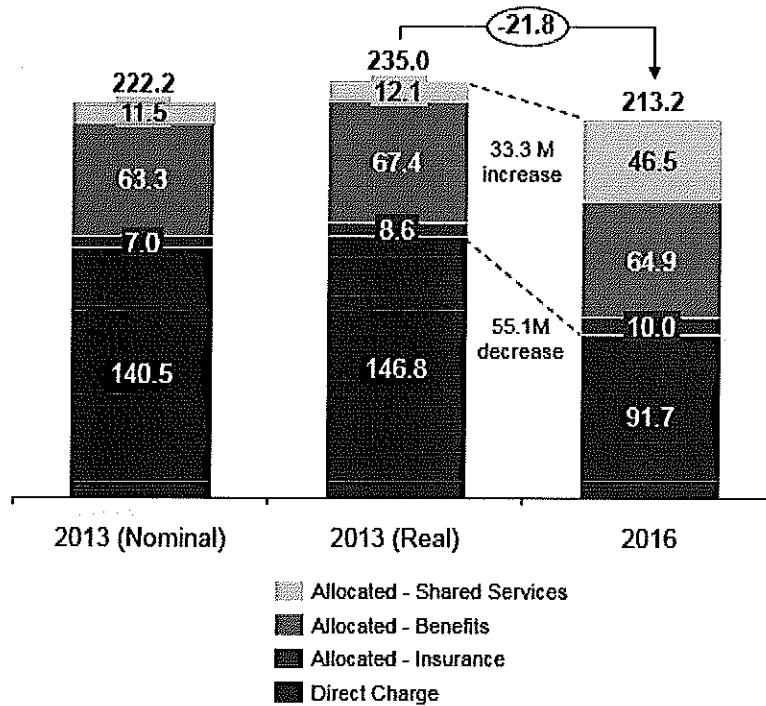
14

15 **Q. DID YOU REVIEW THE 2013-2016 COSTS INCURRED BY LACLEDE?**

16 **A.** Yes. Total spend by Laclede dropped by \$9 million in nominal dollars and \$21.8
 17 million in real dollars, representing a 1.4% and 3.3% decline per year respectively

1 (i.e., Compound Annual Growth Rate (CAGR) from 2013-2016. This is shown in
 2 Figure VIII-7 Below.

3 **Figure VIII-7 O&M Trends (Adjusted for Inflation \$M)**
 4 **Real \$M; Weighted Average Annual Escalation Rate= 1.91%**

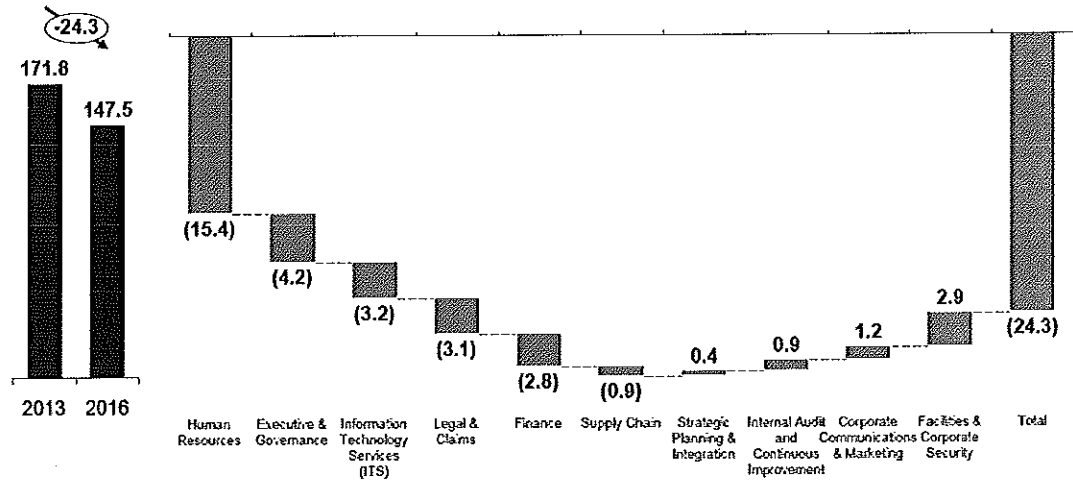


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In almost all classes of service, costs incurred by Laclede followed Spire trends discussed earlier in this section. The trends of Laclede are broken down by function in Figures VIII-8 and VIII-9.

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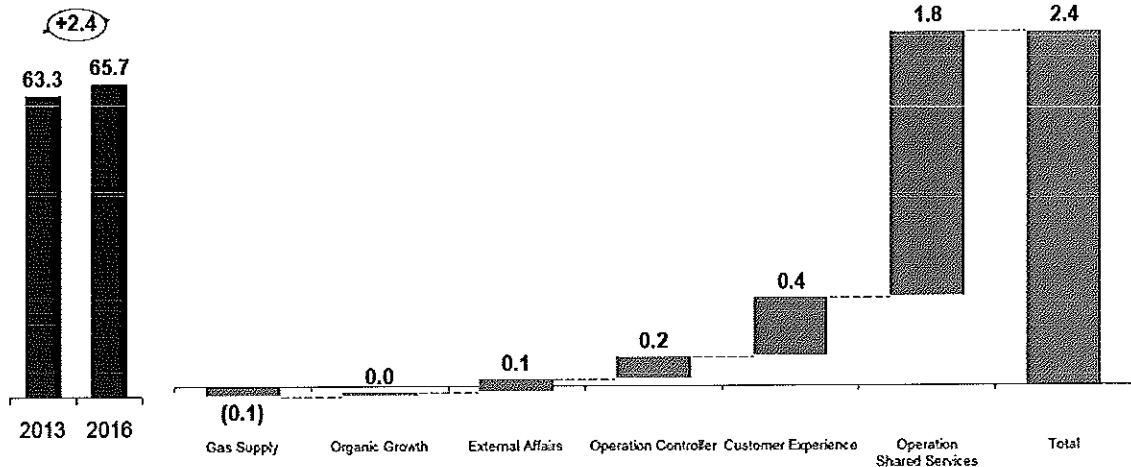
Figure VIII-8 Corporate Shared Services



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Figure VIII-9 GasCo Shared Services



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As seen in the graph, corporate shared service function billings dropped \$24.3 million in real dollars, while GasCo Shared Services stayed relatively steady with a \$2.4 million increase in real dollars. The biggest drivers of the decrease costs are similar to that of Spire as a whole. The corporate functions with the biggest drop in

1 spend are Human Resources, Information Technology Services, Legal and Executive
2 Governance.

3 **Q. WHAT ARE YOUR CONCLUSIONS RELATED TO THE CHANGES IN**
4 **SPIRE SHARED SERVICES COSTS FROM 2013 TO 2016?**

5 A. Based on the analysis performed, Spire Shared Services O&M billings declined by
6 13.9% in real terms during the 2013-2016 period, or 4.9% annually, reflecting
7 synergies from acquisitions and the corporate emphasis on cost control mechanisms in
8 place at Spire. The primary drivers for the changes in shared services costs across the
9 classes of services were described in detail earlier in this section; reduction of
10 headcount both at the executive and the operating levels through acquisition
11 integration, outsourcing of IT services and consolidation of functions across operating
12 companies into Spire Shared Services such as Customer Experience and Organic
13 Growth – Sales as well as a few one-time charges were the principal underlying
14 reasons for changes in billings across the classes of services. O&M billings to
15 Laclede responded to the same drivers, declining by 9% (3.3% annually) in real terms.
16 Further detail on each class of service will be provided by separate witnesses.

17 Overall, the decreases identified in Spire shared service billings represent its
18 commitment to controlling the cost of its services to its affiliates.

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IX. ALLOCATION PROCESS

Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?

A. The appropriate allocation of costs from Spire Shared Services to the Spire operating companies is a fundamental element of ensuring that service company costs are fairly and reasonably distributed. This section analyzes the process and methodology used to allocate Spire Shared Services costs to the Spire operating companies, including Laclede, to assess the reasonableness of this approach and to determine whether the methodology results in a reasonable allocation of costs.

Q. PLEASE DESCRIBE THE MANNER IN WHICH YOU PERFORMED YOUR ANALYSIS OF SHARED SERVICE COST ALLOCATION SYSTEM.

A. The assessment of the reasonableness of Spire’s Shared Services allocation process, methodology and results was structured to understand how Spire’s related policies and procedures for allocating the costs associated with the functions performed are aligned with fundamental tenets of cost causation and responsibility. Thus, an initial review of the overall cost incurrence, allocation process and methodology was undertaken to establish a basis for understanding the mechanics of the allocation process and the manner in which allocations were accomplished. This included a review of the most recent Spire Shared Services Cost Allocation Manual. Additionally, a comparison against allocation methodologies utilized by other companies was undertaken to determine whether the allocation factors used by Spire

1 Shared Services are comparable to those adopted by other companies and reasonable
2 in light of their specific application to the Spire Shared Services costs.

3 Standard time collection and reporting procedures were reviewed as a basis for
4 this analysis to understand the process for capturing Shared Services cost data. The
5 execution of the allocation process was further evaluated to determine the application
6 of the overall methodology and the individual allocation factors. The basis for
7 selection of specific allocation factors, the nature of these factors relative to
8 underlying cost causation, and the relationship of the benefits received to costs
9 allocated were assessed to provide a comprehensive perspective on the design,
10 operation and associated results of the application of the allocation factors.

11 **Q. WHAT SPECIFIC CRITERIA DID YOU UTILIZE IN ESTABLISHING THE**
12 **FRAMEWORK FOR ASSESSING THE SPIRE COST ALLOCATION**
13 **PROCESSES?**

14 **A.** I used several tests as a basis for the assessment of the allocation process at Spire:

- 15 • Are allocation methods fully documented?
- 16 • Do allocation methods reflect acceptable standards?
- 17 • Do allocation methods reflect cost causation?
- 18 • Are approaches taken in direct assignment and allocation consistent with those
19 applied by similar companies?

20 **Q. PLEASE EXPLAIN SPIRE SHARED SERVICES COST ALLOCATION**
21 **SYSTEM.**

22 **A.** To the maximum extent possible within reasonable cost-benefit standards, Spire
23 Shared Service costs are billed on a direct charge basis; in other words, costs incurred

1 for the benefit of only one operating company or affiliate are billed entirely to that
2 client or affiliate. Any costs incurred for the benefit of more than one operating
3 company or affiliate are billed to the entity for which the related service was
4 performed using cost-causative allocation factors. These include either an output
5 measure of the activity performed, the primary cost driver, or in absence of a primary
6 cost driver, a relevant proxy or multi-part factor.

7 Spire Shared Service costs incurred for the benefit of more than one operating
8 company or affiliate are allocated utilizing cost-causative allocation factors that are
9 built into different types of work orders. These work orders are used to regularly
10 collect time and other charges from Spire Shared Service employees and external
11 service providers. Three types of work orders are used:

- 12 • Specific Work Orders: These work orders are associated with non-recurring
13 tasks, such as projects having a defined beginning and end-date and executed
14 for a defined benefiting location.
- 15 • General Direct Work Orders: These work orders are used for recurring tasks,
16 which only benefit a single business unit.
- 17 • General Allocated Work Orders: These work orders are utilized for recurring
18 tasks that are performed in common for multiple business units.

19 Since all Spire Shared Service costs must be charged to one of these work order types,
20 by reviewing the allocation process associated with each type of work order, a
21 complete assessment of Spire Shared Service cost allocation methodology can be
22 performed.

23 **Q. CAN THE FULL COSTS OF EMPLOYEE ACTIVITIES OF A GENERAL**
24 **NATURE BE TIED TO A SINGLE ALLOCATION FACTOR?**

1 A. In most cases, no. Time reporting and labor costing procedures are in place to ensure
2 that labor costs are properly allocated and billed to the entities that benefit from their
3 services. Since employees perform several different types of activities which can
4 have different characteristics, an appropriate allocation factor must be selected for
5 each activity. Spire accomplishes this through the use of activity codes which direct
6 the billing for general work orders.

7 For general allocated work orders, the work order number contains a discrete
8 identification of the operating companies or business units that benefit from the
9 service performed and therefore directs the billing. An activity code identifies the
10 activity being performed and directs the allocation factor to be used among that group
11 of companies. When recording time, the employee must select the activity code which
12 reflects how the time was spent over a given time period. When they record their
13 time, they select the activity code which most appropriately reflects the activity they
14 performed. Each activity code, in turn, has a pre-determined allocation factor which
15 is appropriate to the nature of the activity. This methodology is documented in Spire
16 Shared Services' Cost Allocation Manual.

17 **Q. IS THE ALLOCATION METHODOLOGY UTILIZED BY SPIRE SHARED**
18 **SERVICES COMMON IN THE UTILITY INDUSTRY?**

19 A. Yes. Similar to Spire, other utility service companies attempt to directly charge
20 operating companies for services consumed whenever possible. For costs that are not
21 directly charged, service companies generally employ a process to allocate costs
22 among affiliates based on specific allocation factors that closely relate to the nature of

1 the activity. Although the precise nature of these factors varies from company to
 2 company, they generally embrace the principal feature of attempting to direct charge
 3 or allocate costs to the entity or entities for whose benefit the cost was incurred. Spire
 4 Shared Service methodologies also follow this general cost causation philosophy. As
 5 shown in Figure IX-1 below, all service companies within the peer group utilize a
 6 variety of allocation factors to distribute costs to the operating companies for which
 7 they perform related services.

8 **Figure IX-1 Allocation Factors of Service Companies for Spire Peers**

Primary Factors	Black Hills	Dominion	NISource	SCANA	TECO	WEC	SPIRE
General							
Direct	✓	✓	✓	✓	✓	✓	✓
Revenue – Related Ratios							
Revenues		✓		✓			
Sales – Units Sold / Transported	✓	✓			✓	✓	
Number of Customers	✓	✓	✓	✓	✓	✓	✓
Expenditure-Related Ratios							
Total Expenditures			✓	✓		✓	
Operations and Maintenance Expenditures		✓	✓		✓	✓	
Capital Expenditures					✓		
Service Company Billings	✓	✓	✓	✓	✓	✓	
Labor / Payroll-Related Ratios							
Labor / Payroll				✓	✓		
Number of Employees	✓	✓	✓	✓	✓	✓	✓
Unit-Related Ratios							
Usage	✓	✓	✓		✓	✓	✓
Capacity	✓	✓			✓	✓	
Other Units Related	✓	✓	✓		✓	✓	✓
Asset-Related Ratios							
Total Assets	✓	✓	✓		✓	✓	
Current Assets							
Gross Plant	✓	✓				✓	
Composite Ratios							
Other Composite Ratios	✓	✓	✓	✓	✓	✓	✓

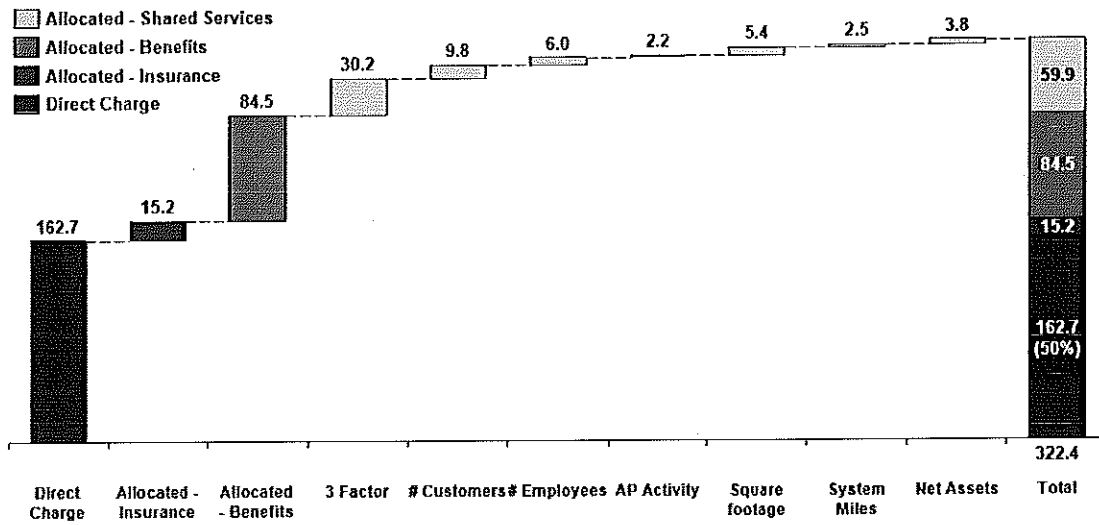
9
 10 As indicated in these summaries, there is great variability as to how individual
 11 companies approach cost allocation with the process reflecting and balancing
 12 management discretion and regulatory requirements. Consequently, multiple and
 13 different factors can be relied upon depending on the particular circumstances of the

1 regulatory environment, organizational model, activity delineation or management
2 prerogative. Spire's process reflects its broad composition of activities and services
3 and its philosophy related to allocation factor selection, which is to be as cost-
4 causative as possible and direct charge wherever appropriate.

5 Figures IX-2 and IX-3 show the percent of costs that are direct versus
6 allocated at Spire and at Laclede respectively. Overall, 50% of Spire's costs are
7 direct-charged with the other 50% are allocated to the operating companies, while
8 43% of Laclede's costs from Spire Shared Services are direct-charged and 57% are
9 allocated. This difference is due to the mechanics of the cost accumulation and
10 allocation processes, specifically how some shared costs for the two Missouri
11 operating companies are charged through the Spire Shared Services entity rather than
12 being directly charged. For example, the fixed asset accountants that administer the
13 processes for both LAC and MGE do not direct charge because the majority of the
14 tasks are for the benefit of both utilities, and can't be accurately tracked for purposes
15 of direct charging. In Alabama the functions are performed primarily for the benefit
16 of one company and therefore are direct charged, although this trend will change as
17 the company integrates Mobile and Willmut and combines systems on one platform.
18 There are also other costs such as insurance and benefits that mechanically are
19 allocated differently due to existing allocation processes under legacy Laclede that
20 were not redesigned when the Spire Shared Services entity went into place.

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Figure IX-2 Spire O&M Billings by Allocation Category

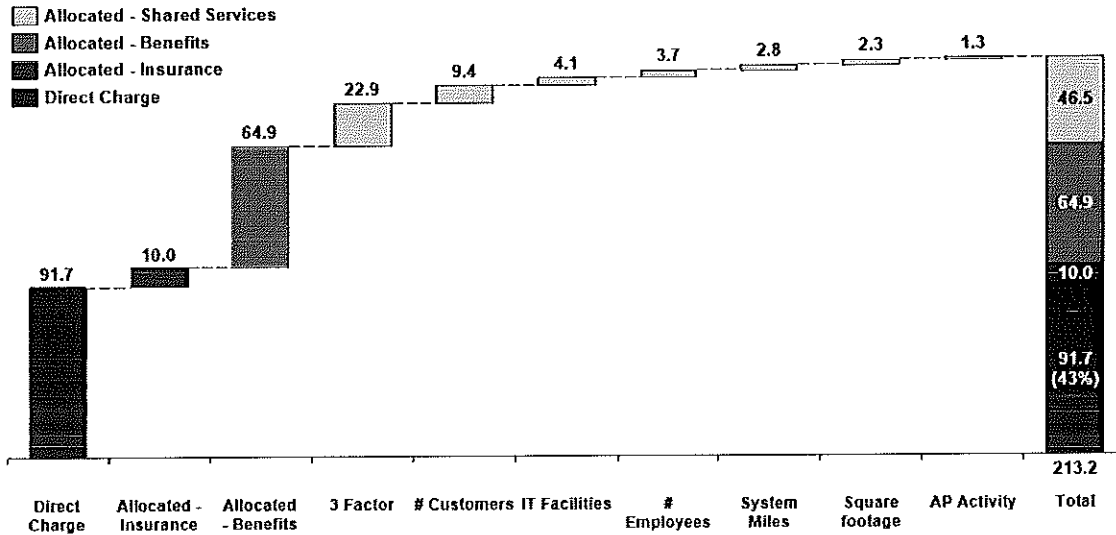


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Figure IX-3 Laclede O&M Billings by Allocation Category



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Q. ARE THE COST ALLOCATION FACTORS UTILIZED BY SPIRE SHARED SERVICES REASONABLE?

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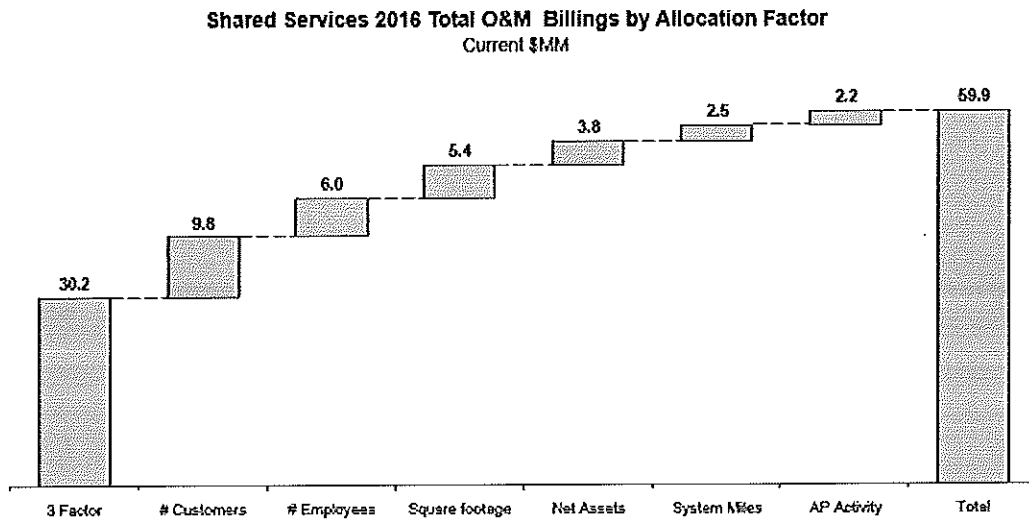
1 A. Yes. The cost allocation factors utilized by Spire Shared Services are similar to those
2 of its peers and designed to link causal factors to how expenditures are allocated.
3 While my experience highlights that there is no universally accepted methodology for
4 cost allocation, there is consensus on the general criteria to be followed when creating
5 and implementing an allocation system. The criteria include identification of cause,
6 fairness and determination of benefit. In the case of Spire Shared Services, the
7 general criteria for cost allocation are clearly defined in the company's Cost
8 Allocation Manual. This document states and explains the cost allocation policy in
9 place and, at the same time, formalizes the procedures for the application of such a
10 policy. The manual also provides a basis of communication between all employees
11 concerning cost allocation matters

12 Many of the allocation factors utilized by Spire Shared Services are used by
13 other companies in the utility industry. The appropriateness of the allocation factors
14 currently utilized was assessed by comparing Spire Shared Services' allocation factors
15 to those used by the service companies of other similar utilities.

16 Spire Shared Services has elected to utilize a reasonable number of allocation
17 factors to allocate costs to the operating companies and business units in the most
18 reasonable and granular way possible. Though adding an element of administrative
19 complexity, this approach provides an advantage relative to other companies since the
20 resulting cost allocation bears a closer relationship to underlying causation given the
21 array of factors applied.

1 As shown in Figure IX-4 below, seven factors account for 100% of all costs
 2 allocated by Spire Shared Services; however, as noted above, these factors are then
 3 further subdivided into multiple groupings of businesses that benefit from that
 4 activity, often creating two or three unique allocators from one factor. For example,
 5 Corporate Communications & Marketing allocates costs associated with content
 6 development for billing of LAC and MGE customers to Missouri Utilities only,
 7 whereas work they do for Investor Relations is charged on a corporate-wide three-
 8 factor basis. Strategic Planning is another example where costs are allocated based on
 9 who benefits from the project. Certain projects are allocated corporate-wide because
 10 they benefit the entire organization, whereas other projects are allocated to Gas
 11 Utilities only because they focus on improvements that only benefit the Gas Utilities.

12 **Figure IX-4 Laclede 2016 Total Allocated O&M Billings by Allocation Factor**
 13 **(Current \$MM)**
 14



15

1 This review of allocation factors suggests that the primary allocation factors
2 utilized are directly relevant to the nature of the work performed. They are also
3 generally consistent with the factors utilized by Spire Shared Services' peer
4 companies, which supports the reasonableness of its allocation factors.

5 **Q. GIVEN THE NATURE OF UTILITY SHARED SERVICES, SHOULDN'T**
6 **THE NUMBER AND TYPE OF ALLOCATION FACTORS USED BY THESE**
7 **ENTITIES BE RELATIVELY CONSISTENT?**

8 A. Not necessarily. As discussed above in Section IV, the exact composition of
9 functions included in a service company will be driven by the specific circumstances
10 associated with each company. The number and nature of the allocation factors
11 selected by a company will reflect the activities performed by that service company.
12 Additionally, some companies will decide that they wish to provide a more granular
13 approach to cost allocation. The greater the number of allocation factors, the more
14 costs can be directly linked to their causal factors, but with that comes added
15 complexity and potential for error, such as a cost being precisely charged, but to the
16 wrong place because of confusion. We have found utilities generally successfully
17 allocate costs on a fair and reasonable basis using 7 primary factors.

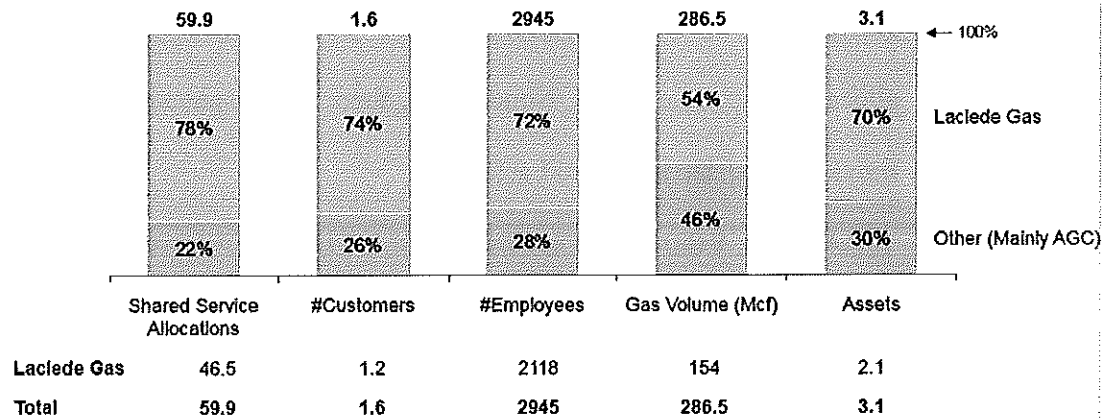
18 **Q. WHAT PORTIONS OF SPIRE SHARED SERVICE COSTS ARE**
19 **DISTRIBUTED TO LACLEDE GAS COMPANY?**

20 A. For calendar year 2016, Laclede Gas Company, which includes the LAC and MGE
21 operating units, was charged \$46.5 million or a 78% share of Spire Shared Services
22 total allocated O&M billings. This share of total allocations is in line with

1 expectations given Laclede's size, operating characteristics, and Spire Shared Service
 2 deployment maturity relative to other companies. For instance, prior to adding
 3 EnergySouth, Laclede accounted for 70% of total assets, and nearly 74% and 72% of
 4 total customers and employees, respectively; all within the range of Laclede's 78%
 5 share of billings, particularly considering that during 2016 Alagasco was directly
 6 billed a larger portion of its shared service costs relative to Laclede (65% Direct at
 7 Alagasco, 43% Direct at Laclede). This translates to Laclede currently using the Spire
 8 Shared Services model more than Alagasco, naturally resulting in a higher percentage
 9 of cost from Spire Shared Services being allocated to Laclede.

10 Allocations compared to other organizational metrics is depicted in Figure IX-
 11 5 below.

13 **Figure IX-5 2016 Laclede Allocations from Spire Shared Services**
 14 **Compared to Share of Other Organizational Metrics (\$MM Except Employees)**
 15



1 **Q. DOES LACLEDE HAVE INPUT INTO THE ALLOCATION PROCESS?**

2 A. While no single operating company controls the development of cost allocation
3 methodology, which originates within the shared service functional group providing
4 the service to be billed and is documented in the Spire Shared Service Cost Allocation
5 Manual, operating companies are involved in the allocation process in two forms.

6 The first form of involvement occurs during budget development. Laclede has
7 the opportunity to provide input directly to the relevant functional groups during the
8 budgeting process when these entities are developing their budget plans. Secondly,
9 Laclede reviews shared service billing on a monthly basis, where it has the
10 opportunity to obtain enhanced explanation, accounting detail, understanding and
11 justification for these activities and costs that are allocated and the bases for
12 allocations. Through these mechanisms, which occur throughout the year, Laclede
13 addresses its service needs. Since the allocation process and factors are designed to
14 provide for equitable shared service cost distribution across the diverse Spire
15 enterprise, it is less critical for Laclede to be as closely involved with specific
16 allocation factor selection. Nonetheless, there is transparency to this process which
17 provides adequate insight to Laclede.

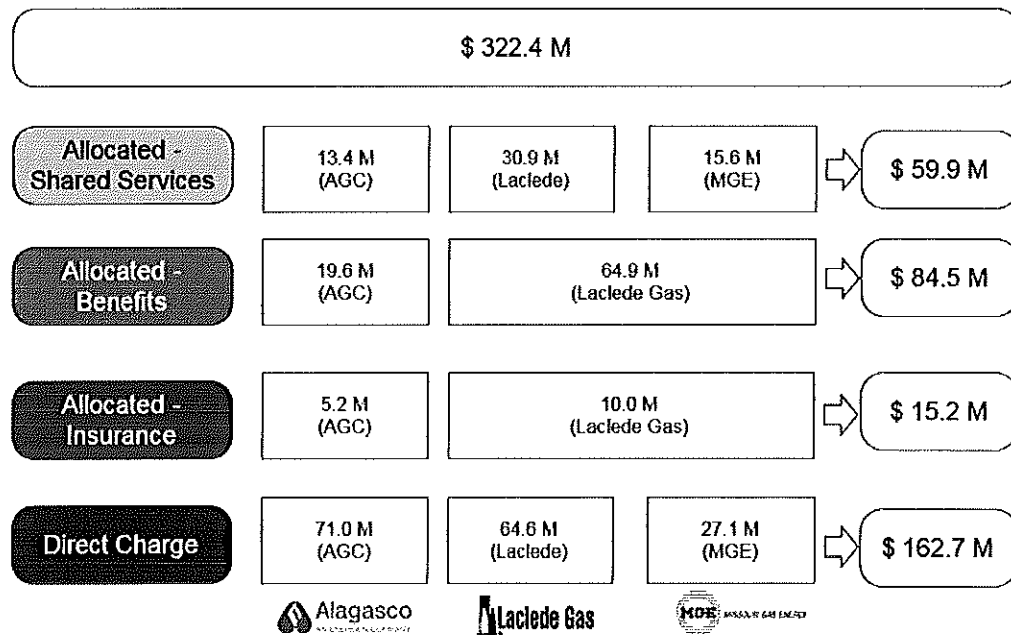
18 **Q. WHAT DO YOU CONCLUDE FROM THIS REVIEW OF SPIRE SHARED**
19 **SERVICES COST ALLOCATION PROCESS?**

20 A. Spire Shared Services' cost allocation process is appropriately structured and results
21 in an appropriate level of costs being allocated, based on reasonable allocation
22 factors, to each of the operating companies, including Laclede.

1 Spire's allocation process using work orders is a straight-forward mechanism
 2 designed to link costs to the benefiting locations that cause those costs to be incurred,
 3 and is structured in a manner which ensures that the appropriate allocation factors are
 4 used. Spire uses direct billing to charge for services performed on behalf of a single
 5 business unit. As discussed before, for 2016, approximately 50% of all Spire shared
 6 service charges were direct charges. Figure IX-6 illustrates the composition of Spire's
 7 2016 O&M costs.

8 When an allocation factor is used, Spire uses factors which are acceptable and
 9 reasonable, as confirmed by the fact that companies in the peer group use similar
 10 allocation factors.

11 **Figure IX-6 Shared Services 2016 O&M Billings By Type and Operating Unit**



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X. OVERALL CONCLUSIONS

Q. DOES YOUR TESTIMONY SUPPORT THE REASONABLENESS OF SPIRE SHARED SERVICES COSTS?

A. Yes. My testimony should be viewed in the context of the broader evidentiary material presented by Laclede in this case, which consists of more granular analysis of specific activity costs, as well as discussion of internal decision-making and management processes. My analysis leads me to conclude that the activities performed by Spire Shared Services are necessary for effective and efficient business operations and service delivery to customers of the operating companies. The services performed by Spire’s shared service functions are consistent with those performed by the service companies of utility peers. Because of the scale of the Spire organization and the scope of services provided by Spire’s shared services, greater economies of scale have been realized for transactional related services.

These activities are also non-discretionary in nature and would be required of any public company to meet responsibilities to customers, shareholders and government entities and to operate the business effectively and efficiently. Laclede, its customers and shareholders receive identifiable benefits from the performance of Spire’s shared service activities. If Laclede were not a part of Spire, it would need to provide the same services through other means with less scale and internal expertise, capabilities and systems, resulting in a higher cost and less benefit for customers.

I also conclude that there is no duplication in performance of these activities between Spire Shared Services and Laclede. Activities performed by Spire Shared

1 Services are often complemented by activities performed within Laclede; however
2 these activities do not represent duplicative efforts. Complementary activity is
3 common between shared services functions and operating companies and is indicative
4 of clearly defined organizational roles.

5 Through a well-defined budget process, Laclede and the other Spire operating
6 companies and business units have appropriate and effective mechanisms to provide
7 adequate input into service and cost levels. Laclede and Spire Shared Services
8 employ multiple internal and external mechanisms to regularly monitor and control
9 costs that are effective and consistent with typical processes used to exercise rigor
10 over cost incurrence.

11 The allocation methods I reviewed follow accepted methods for cost
12 assignment and are consistent with methods used within the industry. For Spire
13 Shared Services, direct charging remains the preferred method of billing, but cost-
14 causative factors are used to allocate costs when necessary.

15 Costs within Spire Shared Services functions, both direct charges and
16 allocations, have declined between 2013 and 2016, overall, when viewed on a per-
17 unit basis. And these costs have declined approximately 14% in real terms. This
18 outcome indicates a corporate focus on cost containment and benefits each of the
19 operating companies, including Laclede. While overall Spire Shared Service
20 functional costs to Laclede have declined 9% in real terms, the allocated portion of
21 billings to Laclede, when adjusted for inflation, have increased, but these were more
22 than offset by a reduction in direct charges. This is predominantly due to Spire's

1 recent transition (mid-2015) toward a more defined shared services structure, which
2 has resulted in allocated shared services making up a larger portion of the overall
3 declining shared services charges. While this transition has resulted in increased
4 shared services costs allocated through the new Spire Shared Services entity, these
5 increases have been more than offset by shared services direct charge reductions
6 within Laclede, meaning overall shared service costs for Laclede have gone down.

7 Given the comprehensiveness of my review and the results of the analyses I
8 conducted, I believe that Spire Shared Services costs for the periods reviewed are
9 reasonable and appropriately allocate and that Spire's activities provide benefits to
10 Laclede's customers that are commensurate with the costs allocated to Laclede.

11 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

12 **A.** Yes, it does.

strategy&

April 2017

Affiliate Transaction Cost Study

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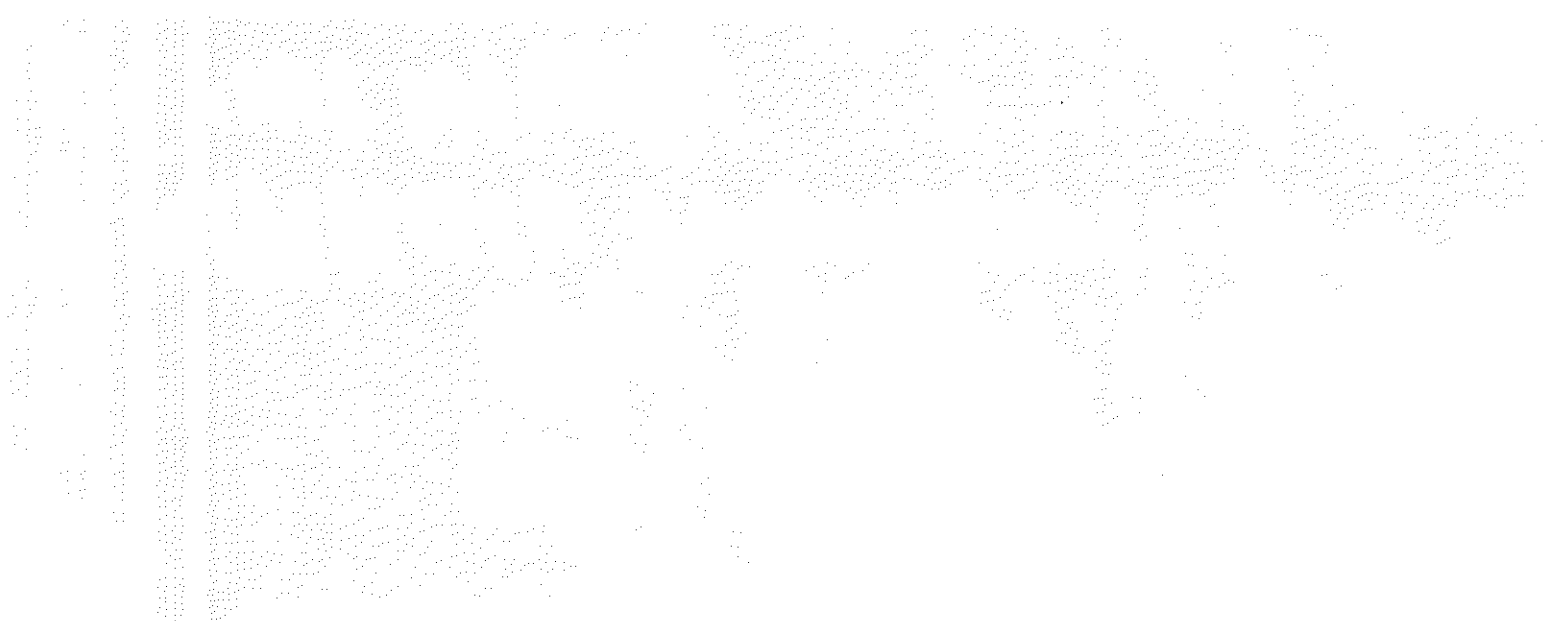
Schedule - TJF – D1



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Schedule 1 – Summary of Experience



Summary of Experience

Alaska Public Utilities Commission

- Anchorage Sewer Utility

Arizona Corporation Commission

- U S WEST Communications - Docket No. E-1051-88-146

Arkansas Public Service Commission

- FPL Group, Entergy Corporation, WCB Holding corp. and Entergy Arkansas, Inc. - Docket No. 00-329U
- Beaumont, Texas
- Entex, Inc.
- Gulf States Utilities Company

California Public Utilities Commission

- The Washington Water Power Company and Sierra Pacific Power Company - Application No. 94-08-043
- Pacific Enterprises and ENOVA Corporation - Application No. A-96-10-038

District of Columbia, Public Service Commissions

- Baltimore Gas and Electric Company and Potomac Electric Power Company - Formal Case No. 951

Colorado Public Utilities Commission

- Public Service Company of Colorado and Southwestern Public Service Company - Docket No. 95A-513EG

Summary of Experience (continued)

Connecticut Public Utilities Commission

- Northeast Utilities - NSTAR

Delaware Public Service Commission

- Atlantic City Electric Company and Delmarva Power & Light Company - Docket No. 97-65

Federal Energy Regulatory Commission

- Baltimore Gas and Electric Company and Potomac Electric Power Company - Docket No. EC96-10-000
- IES Utilities Inc., Interstate Power Company, Wisconsin Power & Light Company, South Beloit Water, Gas & Electric Company, Heartland Energy Services and Industrial Energy Applications, Inc. - Docket No. EC96-13-000
- Trans-Alaska Pipeline System - Docket No. OR78-1
- Middle South Energy, Inc. - Docket No. ER-82-483-000
- Middle South Energy, Inc. - Docket No. ER-82-616-000
- Kansas Power and Light Company and Kansas Gas and Electric Company Docket No. EC91-2-000
- Southwestern Public Service Company and Public Service Company of Colorado - Docket No. EC96-2-000
- The Washington Water Power Company and Sierra Pacific Power Company - Docket No. EC94-23-000
- Northern States Power Company and Wisconsin Energy Corporation - Docket Nos. EC95-16-000 and ER95-1357-000
- Midwest Power Systems Inc. and Iowa-Illinois Gas and Electric Company - EC95-4
- Ohio Edison Company, Pennsylvania Power Company, The Cleveland Electric
- Illuminating Company, and The Toledo Edison Company - ER97-412-000
- Atlantic City Electric Company and Delmarva Power & Light Company - EC97-7 Union Electric and Central Illinois Public Service Company - EC-96-7-000

Summary of Experience (continued)

Florida Public Service Commission

- Florida Power & Light Company and Entergy Corporation - Docket No. 001148
- Florida Power & Light Company – Docket No. 120015-E1

City of Garland, Texas

- General Telephone Company of the Southwest
- Lone Star Gas Company

Georgia Public Service Commission

- Georgia Power Company - Docket No. 3673-U

City of Houston, Texas

- Houston Lighting & Power Company

Idaho Public Utilities Commission

- The Washington Water Power Company and Sierra Pacific Power Company - Case Nos. WWP-E-94-7 and WWP-G-94-4

Illinois Commerce Commission

- Illinois Power - Docket No. 84-0055
- Iowa-Illinois Gas and Electric Company and Mid-American Company Energy - Docket No. 94-0439
- Central Illinois Public Service Company, CIPSCO Incorporated and Union
- Electric Company - Docket No. 95-0551
- Commonwealth Edison Company – Docket No. 07-0566

Summary of Experience (continued)

Indiana Utility Regulatory Commission

- IPALCO and PSI Resources
- Citizens Energy – Indianapolis Water - Cause No. 43936

Iowa Utilities Board

- Midwest Resources Inc., Midwest Power Systems Inc. and Iowa-Illinois Gas and Electric Company - Docket No. SPU-94-14
- IES Industries Inc., Interstate Power Company, WPL Holdings, Inc. - Docket No. SPU-96-6

Kansas Corporation Commission

- Southwestern Bell Telephone Company - Docket Nos. 117,220-U and 123,773-U
- Kansas Gas & Electric - Docket No. 120,924-U
- Kansas Power and Light Company and Kansas Gas and Electric Company
Docket No. 174,155-U
- Western Resources and Kansas City Power and Light - Docket No. 190,362-U
- Western Resources, Inc. and Kansas City Power and Light - Docket No. 97- WSRE-676-MER
- Great Plains Energy and Westar Energy – Docket No. 16-KCPE-593-ACQ

Summary of Experience (continued)

Kentucky Public Service Commission

- Louisville Gas & Electric Company - Case Nos. 5982, 6220, 7799, 8284, 8616 8924
- South Central Bell Telephone Company - Case Nos. 6848, 7774 and 8150
- Kentucky-American Water Company - Case No. 8571
- Duke Energy Corporation - Case No. 2005-00228

Louisiana Public Service Commission

- American Electric Power Company, Inc., Southwestern Electric Power and Central and South West Corporation - Docket No. U-23327
- Entergy Louisiana, Inc. and Entergy Gulf States, Inc. Merger with FPL Group, Inc. - Docket No. U-25354

Maryland Public Service Commission

- Baltimore Gas and Electric Company and Potomac Electric Power Company - Order No. 73405, Case No. 8725
- FirstEnergy Corporation - Docket No. 123376

Massachusetts Department of Telecommunications and Energy

- Boston Edison, Cambridge Electric Light Company, Commonwealth Electric Company and Commonwealth Gas Company – Docket D.T.E. 99-19
- NSTAR and Northeast Utilities - D.P.U 10-170

Summary of Experience (continued)

Michigan Public Service Commission

- Wisconsin Electric Power Company and Northern States Power Company No. U-10913

Minnesota Public Service Commission

- Continental Telephone Company - Docket No. PR-121-1
- Northern States Power Company - Docket No. E002/GR-89-865
- Northern States Power Company and Wisconsin Energy Corporation - Docket No. E, G002/PA-95-500

Mississippi Public Service Commission

- Mississippi Power & Light Company - Docket No. U-4285
- Entergy Mississippi, Inc., Entergy Corporation, FPL Group, Inc. and WCB Holding Corporation – Docket No. 2000-UA-925

Missouri Public Service Commission

- Union Electric Company - Case Nos. ER-84-168 and EO-85-17
- Union Electric Company and Central Illinois Public Service Company - Case No. EM-96-149
- Kansas City Power & Light Company - Case Nos. ER-85-128 and EO-85-185
- Kansas Power and Light Company and Kansas Gas and Electric Company - Case No. EM-91-213
- Southwestern Bell Telephone - Case No. TC-93-224
- Western Resources and Kansas City Power and Light – EM 97-515

Summary of Experience (continued)

Nevada Public Service Commission

- Bell Telephone Company of Nevada - Docket No. 425
- Central Telephone Company - Docket No. 91-7026
- The Washington Water Power Company and Sierra Pacific Power Company - Docket No. 94-8024

New Jersey Board of Public Utilities

- Atlantic City Electric Company and Delmarva Power & Light Company - Docket No. EM-97-020103

New Mexico Public Service Commission

- Public Service Company of New Mexico
- Southwestern Public Service Company and Public Service Company of Colorado - Case No. 2678
- PECO Energy and New Mexico Gas Company - Case No. 13-00231-UT

New Mexico State Corporation Commission

- Continental Telephone of the West - Docket No. 942
- General Telephone Company of the Southwest - Docket Nos. 937 and 990
- Mountain States Telephone and Telegraph Company - Docket Nos. 943, 1052, and 1142
- U S WEST Communications - Docket No. 92-227-TC

City of New Orleans, Louisiana

- New Orleans Public Service Company

Summary of Experience (continued)

New York, State of, Public Service Commission

- Long Island Lighting Company and Brooklyn Union Gas Company - Case 95-G-0761
- Consolidated Edison – Public Service Electric and Gas

North Carolina Utilities Commission

- Duke Energy Corporation - Docket No. E-7, Sub 795

Ohio Public Utilities Commission

- Ohio Bell Telephone Company - Case No. 79-1184-TP-AIR
- Cleveland Electric Illuminating Company
- Cinergy Corporation - Case No. 05-732-EL-MER and Case No. 05-733-EL-AAM

Oklahoma Corporation Commission

- Organization and Operations Review
- Southwestern Bell Telephone Company - Cause No. 26755
- Public Service Company of Oklahoma - Cause Nos. 27068 and 27639
- Southwestern Bell Telephone Company - Cause No. 000662
- AEP - Public Service Company of Oklahoma and Central and South West Corporation - Cause No. PUD-980000444

Oregon, Public Utility Commission of

- Pacific Power and Light Company - Revenue Requirements Study
- Portland General Electric Company - Revenue Requirements Study
- The Washington Water Power Company and Sierra Pacific Power Company

Summary of Experience (continued)

Pennsylvania Public Utility Commission

- FirstEnergy Corporation - Docket No. A-2010-2176520

City of Sherman, Texas

- General Telephone Company of the Southwest

Tennessee Public Service Commission

- United Inter-Mountain Telephone Company - Docket Nos. U-6640, U-6988 and U-7117
- Texas Attorney General
- Southwestern Bell Telephone Company

Texas, Public Utility Commission of

- Texas Power & Light Company - Docket Nos. 178 and 3006
- Southwestern Bell Telephone Company - Docket Nos. 2672, 3340, 4545 and 8585
- Houston Lighting & Power Company - Docket Nos. 2448, 5779 and 6668
- Lower Colorado River Authority - Docket No. 2503
- Gulf States Utilities Company - Docket No. 2677
- General Telephone Company of the Southwest - Docket Nos. 3094, 3690 and 5610
- Central Telephone Company - Docket No. 9981
- Southwestern Public Service Company and Public Service Company of Colorado Docket No. 14980

Summary of Experience (continued)

Texas, Public Utility Commission of (cont'd)

- AEP - Central and SouthWest - Docket No. 19265
- FPL Group, Inc. and Entergy Corporation - Docket No. 23335
- Reliant Energy HL&P - Docket No. 22355
- PNM Resources - Texas-New Mexico Power - Docket No. 30172
- Entergy Gulf States - Docket No. 30123, 34800 and Entergy Texas Inc. – Docket No. 37744
- AEP - Texas Central Company - Docket No. 33309
- AEP - Texas North Company - Docket No. 33310
- Oncor Electric Delivery – 35717
- Texas-New Mexico Power - Docket No. 36025 and 38480
- AEP - Southwestern Electric Power Company - Docket No. 37364 and 40443
- Lone Star Transmission - Docket No. 40020
- Wind Energy Transmission Texas - Docket No. 40606 and 44746

Utah Public Service Commission

- Utah Power and Light Company - Docket No. 76-035-06

Virginia State Corporation Commission

- FirstEnergy Corporation - Case No. PUE-2010-00056

Summary of Experience (continued)

Vermont Public Service Board

- New England Telephone and Telegraph Company - Docket Nos. 3806 and 4546

City of Waco, Texas

- Texas Power & Light Company

Washington Utilities and Transportation Commission

- The Washington Water Power Company and Sierra Pacific Power Company - Docket No. UE-94-1053 and UE-94-1054
- Puget Sound Power and Light Company and Washington Natural Gas Company - UE-960195

West Virginia Public Service Commission

- FirstEnergy Corporation - Case No. 10-0713-E-PC

Wisconsin Public Service Commission

- Northern States Power Company and Wisconsin Energy Corporation - 6630-UM-100 and 4220-UM-101
- WPL Holdings, IES Industries Inc., Interstate Power Company, Inc. - Docket No. 6680-UM-100

Wyoming Public Service Commission

- Cheyenne Light, Fuel and Power Company (Southwestern Public Service Company and Public Service Company of Colorado) - Docket Nos. 20003-EA-95- 40 and 30005-GA-95-39
- Mountain States Telephone and Telegraph Company - Docket No. 9343, Subs. 5 and 9
- Organization and Operations Review Pacific Power and Light Company - Docket No. 9454, Sub. 11

strategy&

April 2017

Affiliate Transaction Cost Study

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Schedule - TJF – D2



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Schedule 2 – Sub-Function Definitions, Necessity, and Benefits

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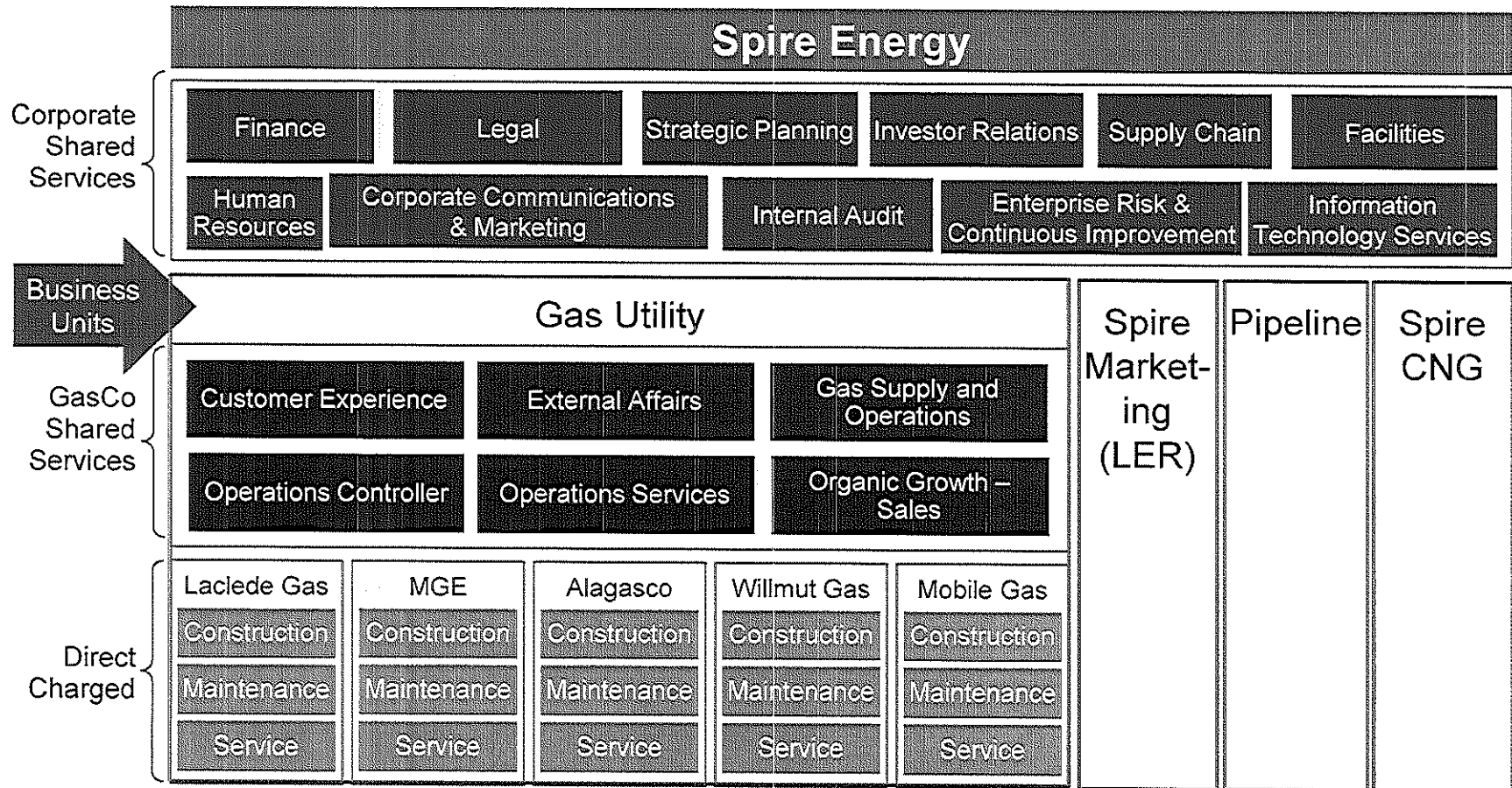
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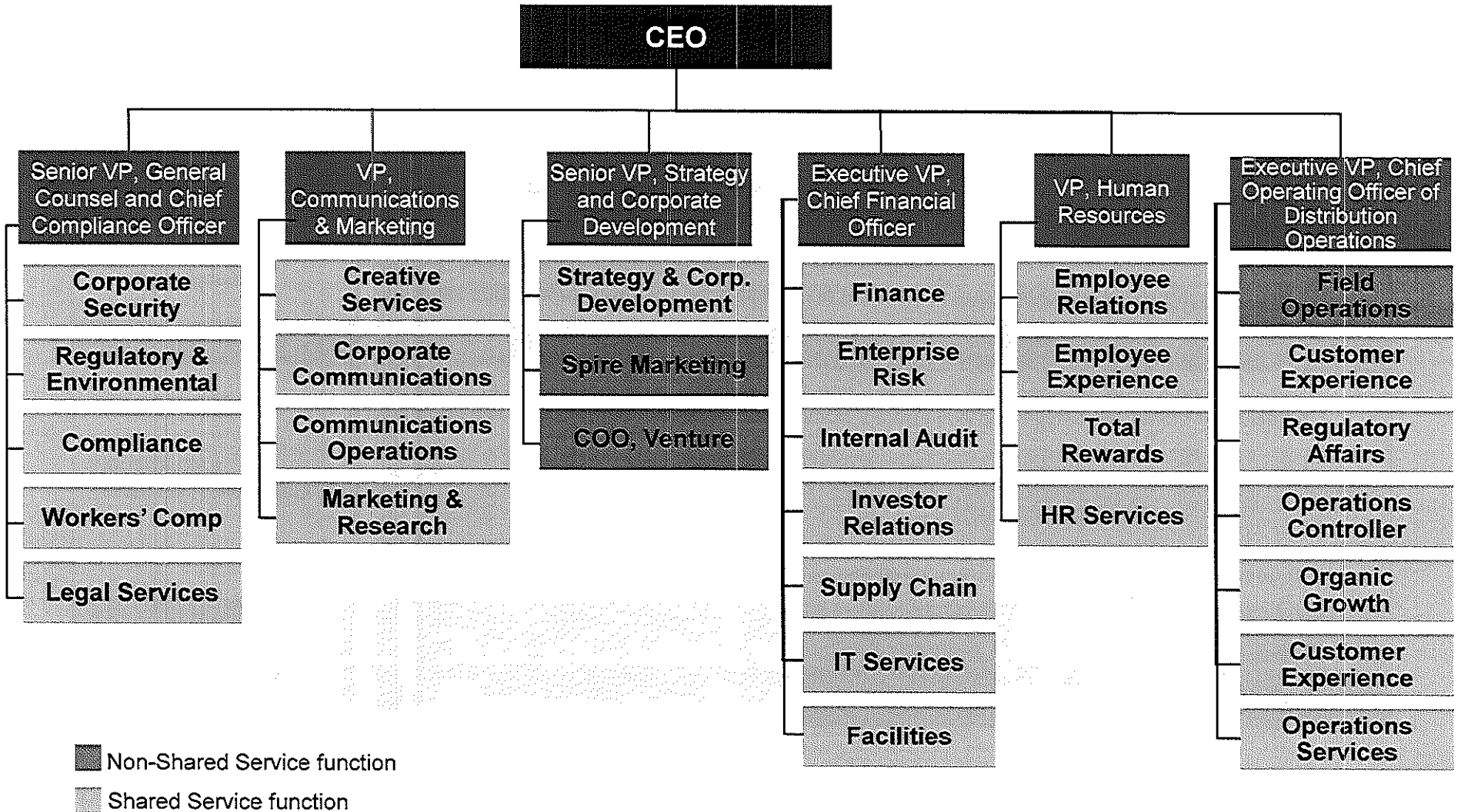
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Spire Functions Overview



Source: Information shared by Spire

Spire Reporting Structure Overview



Spire Sub-Function Analysis

Sub-Function	Definition
Finance (Treasury)	
Credit Risk Management	Evaluates the initial and ongoing credit worthiness of counterparties and vendors in relation to fuel procurement, wholesale trading and marketing.
Trusts and Investment Management	Manages employee benefit trusts including pension fund, welfare trust fund and the 401K trust fund.
Cash Management	Manages day-to-day cash needs by maintaining a credit line that allows borrowing of funds as necessary to meet operational requirements and managing cash receipts and deposits .
Finance (Tax)	
Tax Compliance	Prepares and files all state and federal income tax returns and administers Internal Revenue Service, state and local protests, appeals and, examinations
Tax Planning Analysis	Plans federal and state taxes, forecasts payment, and works closely with the Legal Department to monitor tax related legislation and rulemaking activities at the federal, state and local levels
Property and Gross Receipts Tax	Processes gross receipt taxes and handles all property related taxes.

Source: Interviews with Shared Services and Operating Companies, Spire's function description document

Spire Sub-Function Analysis

Sub-Function	Definition
Finance (Controller)	
Regulatory / Case Filings	Supports rate case filings by consolidating relevant accounting information and works with the Vice President of Rates and Regulatory Affairs within Spire.
External Reporting Coordination	Provides specialized knowledge of SEC and FERC rules and filing requirements and files a combined SEC Form 10-K and Form 10-Q.
External Audit Coordination	Coordinates external financial audits as required by the Sarbanes-Oxley Act and other national accounting standards from PCAOB.
General Ledger	Maintains financial data and records for the enterprise centrally and records, maintains and reports information necessary for preparing financial statements.
Accounting	Manages commercial accounting as well as plant, property and equipment accounting centrally.
Finance (Financial Planning and Analysis)	
Long Range Financial Planning	Manages the development of the annual 5-year plan, collects input from key stakeholders to update and revises the plan based on current year performance to date.
Budget Development, Variance Reporting	Drafts budget for Corporate Shared Services in coordination with Functional heads within the Operating Companies and Corporate. In addition, manages the budgeting process for the entire organization and conducts periodic meetings with various functions to ensure the budget is on track and to discuss any variances
Internal Reporting	Provides standard and ad hoc internal reports necessary for enterprise leadership, as well as the tools and templates necessary to support the internal reporting needs of affiliates

Source: Interviews with Shared Services and Operating Companies, Spire's function description document

Spire Sub-Function Analysis

Sub-Function	Definition
Investor Relations	
Investor Communications	Provides investor communications pertaining to Spire's market issuances and investor inquiries, and handles associated costs incurred (e.g., transfer agent fees, NYSE listing fees, annual meeting, mailing expenses etc.). Supported by External Communications (in Corporate Communications and Marketing) for certain content.
Rating Agency communications	Communicates with the rating agencies related to debt issuances and ongoing credit ratings
Strategic Planning	
Long Term Strategy	Formulates strategy to enhance customer and shareholder value and evaluates and leads strategic projects, acquisitions and divestitures, mid-stream and upstream opportunities and, business innovation.
Acquisitions (IOU and Municipal)	Determines strategic fit, value-creation and coordinates transaction processes, including interaction with investment banks and consultants. Responsible for origination, due diligence and negotiation.
Integration Support	Guides the vision and the steps required to integrate operations and leverage acquisition opportunities in close coordination with Enterprise Risk and Continuous Improvement, which is responsible for execution of the post-merger integration plan.
Supply Initiatives – Process Improvement	Evaluates various processes across the companies to identify areas of improvement, with a focus on supply initiatives and gas price hedging.
Non-Utility Growth	Leads opportunity development for enabling organic growth of the business by expansion into new products and services.

Source: Interviews with Shared Services and Operating Companies, Spire's function description document

Spire Sub-Function Analysis

Sub-Function	Definition
Information Technology Services	
Application Delivery	Leads application development, application management, software acquisition and maintenance, and supports/builds or customizes software applications as needed to effectively operate the business.
Data Warehouse	Manages data within the enterprise and helps provide managers information for decision-making (used in HRIS, Safety and Health Records, Finance, Supply Chain, Operations etc.)
Telecommunications	Manages equipment to support inter- and intra-company communication, including office and field telephone services, Remote Terminal Units (RTUs), cellular / wireless and video conferencing.
Enterprise Architecture and Strategy	Defines the technology strategy from platform selection to interfacing techniques to maintain value to and support of the business.
Infrastructure	Maintains the infrastructure environment to support the computing and storage needs of various information technology applications, including disaster recovery. Manages workstations across the enterprise and is responsible for Data Center Operations.
Business Support Services	Resolves all business issues including internal customer service to troubleshoot and resolve employee concerns.
Information Security & Compliance	Ensures assets are protected from information breach, which involves maintaining anti-virus, encryption and other protection software and managing information security through access control.

Source: Interviews with Shared Services and Operating Companies, Spire's function description document

Spire Sub-Function Analysis

Sub-Function	Definition
Facilities	
Real Estate Procurement and Disposition	Purchases, manages and disposes of land and buildings. Manages discrete real estate transactions, leasing of office space or property from others, and property inspections.
Maintenance & Custodial Services	Conducts regular maintenance for all Spire property – including buildings, storage locations, warehouses etc. Also conducts repairs, preventive maintenance and ground care
Work Space Management	Manages new workspace design, engineering, estimating, and contracting and also manages furniture, workspace layout planning etc.
Facilities Planning	Provides the long term facilities plan and manages the capital projects to successful completion
Construction Management	Manages all non-operations projects construction-type services including remodeling and building improvements, new building shifts as needed for operations as well as office relocation services
Other Support Services	Manages office services including mail, office supplies, event support and conference room support. Also manages information records by providing files needed and off-site storage coordination

Source: Interviews with Shared Services and Operating Companies, Spire's function description document

Spire Sub-Function Analysis

Sub-Function	Definition
Enterprise Risk & Continuous Improvement	
Project Management	Provides project management support for significant internal initiatives, such as enterprise-wide new process initiatives, cross-functional collaborations etc.
Integration Execution	Executes the post-merger integration plan to enhance customer service, safety, and operational execution, while achieving synergies forecasted during acquisition. Works closely with the Strategic Planning team for overall integration plan and periodic performance checks and reviews.
Business Improvement	Launches enterprise-wide initiatives focused on improving performance standards and best practices that enable enhanced customer service and corporate performance, risk reduction, and overall cost reduction
Internal Audit	
Management Performance Evaluation	Coordinates inspection and evaluation of internal management's performance related to particular execution and control issues and follow-up to prior findings. Provides recommendations for failure control, including management response.
Environmental Assessment	Conducts internal audit to evaluate current engineering, construction, maintenance and storage processes to assess environmental effects against regulatory requirements and company standards
External (SOX) Audit Coordination	Coordinates financial and controls testing as required by the Sarbanes-Oxley Act, as well as with process owners and external auditor for independent external auditor testing and attestation.

Source: Interviews with Shared Services and Operating Companies, Spire's function description document

Spire Sub-Function Analysis

Sub-Function	Definition
Legal	
Financial Legal Services	Reviews SEC reports prepared by Finance as required by federal law (e.g., 10-K, 8-K), and ensures that financial activities are in compliance with governmental and regulatory requirements.
Workers' Compensation	Manages legal issues that arise related to processing of workers' compensation, union contracts, benefits, and employment related arbitrations.
Review and Execution of Contracts	Drafts, negotiates and interprets contracts of all different types in daily operations (e.g., vendor contracts, purchase and sale agreements, software licenses, etc.).
Claims and Insurance	Manages the investigations of third party injury and property loss claims. Responsible for procuring insurance policies and negotiating insurance claims on an enterprise-wide basis.
General Legal Advice	Provides legal advice on all matters to senior leadership on interactions with regulatory commissions, acquisitions, tax issues, budget allocations, capital projects, environmental, health and safety issues.
Ethics and Compliance Services	Designs, implements and administers Spire's ethics and compliance program.
Manage Litigation	Manages all phases of the litigation process including matter initiation and defense and handles actions ranging from contractor disputes to right of way issues.
Corporate Security	Manages physical security for all Spire buildings and storage locations.

Source: Interviews with Shared Services and Operating Companies, Spire's function description document

Spire Sub-Function Analysis

Sub-Function	Definition
Supply Chain	
Supplier Relationship Management	Facilitates negotiations between suppliers and Operating Companies to ensure that standards are applied and negotiates corporate / national discounts in order to leverage scale.
Sourcing and Procurement Services	Defines enterprise-wide purchasing program, and communicates with Inventory and Storeroom to ensure lead time expectations are managed.
Payment Services (Accounts Payable)	Processes invoices and issuance of payments to suppliers.
Employee Expense Management	Manages system deployed by the business to process, pay, and audit employee-initiated expenses, which include, but are not limited to, expenses incurred for travel and entertainment.
Inventory and Store Room Management	Manages safe storage of inventory and communicates with sourcing and procurement for inventory addition as required.

Source: Interviews with Shared Services and Operating Companies, Spire's function description document

Spire Sub-Function Analysis

Sub-Function	Definition
Human Resources	
Employee Relations	Provides support in areas of employee relations, including labor relations, employee counseling and conflict resolution, disciplinary actions, flexible work arrangements, diversity activities, communications, community service, outplacement and severance, compliance and reporting.
Employee Experience - Talent Acquisition	Leads recruiting, producing marketing material for talent acquisition, and developing the talent acquisition strategy overall.
Employee Experience - Organizational Development	Designs, develops and leads succession planning, individual and team development, organization effectiveness, organizational design, employee engagement
Employee Experience - Learning Management	Develops content for training, and schedules various safety and technical trainings for employees throughout the year.
Total Rewards - Compensation and Benefits	Manages design, development and administration of all benefits and compensation programs, including health and welfare benefits, work/life balance and wellness programs.
HR Services (Including HRIS, Payroll)	Manages records of data input, dashboards, metrics and, compliance of all employees readily accessible for management decisions and staffing purposes and also handles payroll administration.

Source: Interviews with Shared Services and Operating Companies, Spire's function description document

Spire Sub-Function Analysis

Sub-Function	Definition
Corporate Communications and Marketing	
Internal Communications	Manages all employee communications across the enterprise. Supports efforts to ensure employees are informed: Intranet, weekly e-newsletter to all employees, informational fliers, etc.
External Communications	Monitors the external media landscape to develop appropriate organizational and operational responses to any changes. Additionally, manages Spire’s community relations and community outreach efforts as these issues are localized and unique to each operating company.
Creative Services	Manages the look and feel of any and all materials bearing a company logo. Also manages photography and videography and ensures established brand standards are upheld throughout organization.
Marketing and Research	Manages all customer communications across the enterprise, including bill content, messaging, and inserts, as well as traditional marketing and advertising efforts. Also serves as the hub for all company-related research.
Communications Operations	Manages the department’s back office functions and various logistics tying the overall team together, ensuring they stay connected.

Source: Interviews with Shared Services and Operating Companies, Spire’s function description document

Spire Sub-Function Analysis

Sub-Function	Definition
Customer Experience	
Credit and Collections	Provides financial information related to non-residential customer creditworthiness, prepares responses to credit-related customer complaints to regulatory agencies, provides statistical information and measurements related to credit and collection activity.
Customer Contact	Manages call centers handling customer complaints and response and works directly with dispatch services to respond to emergency requests.
Dispatch	Responds to emergency customer requests by assigning nearest field personnel to handle the request (work in coordination with field operations group).
Community & Agency Services	Provides customer information and other support to enable social service organizations to achieve positive local impact through coordinated efforts.
Accounts Receivables	Manages records of aged receivables, and works closely with credit and collections group to ensure that these are collected or written-off as bad debt.
Meter Reading and Billing Services	Executes customer meter reading and billings programs, and maintains records (e.g., customer information, usage history).

Source: Interviews with Shared Services and Operating Companies, Spire's function description document

Spire Sub-Function Analysis

Sub-Function	Definition
Gas Supply and Operations	
Instrumentation and Control	Manages hardware and system development of measurement and control equipment, as well as overall improvements in instrumentation design .
Gas Supply Purchasing, Sales / Risk Management	Manages available and required gas supply resources in response to varying market needs.
System Control	Handles pressure and flow control in the pipelines and ensures safety of operations by monitoring system pressure and detecting failure modes.
Underground Storage / LNG	Manages underground storage facilities for LNG and ensures proper storage and access.
Plants and Stations	Manages Laclede Pipeline (liquids facilities) and propane vaporization facilities.
External Affairs	
State and Local Governmental Affairs	Develops, promotes and shapes public policy in jurisdictions of Spire operation. Provides tools such as talking points and visual aids, develops model bills or draft legislation for the operating companies.
Regulatory	Provides policy direction and coordination regarding overall regulatory policy, including managing issues and filings related to state jurisdictions, as well as support for FERC matters.

Source: Interviews with Shared Services and Operating Companies, Spire's function description document

Spire Sub-Function Analysis

Sub-Function	Definition
Operations Controller	
Planning and Budgeting, Variance Analysis	Manages the budget (and variance) of all GasCo Shared Services and represents the Operating Companies in variance meetings. Conducts monthly budget meetings to ensure operations is on track.
Business Analysis & Performance Measurement	Performs analysis to ascertain operational performance and efficiencies of various processes and identifies process standardization opportunities across different processes and groups.
Operational and Productivity Metrics	Develops standards for operational productivity, and reviews metrics that will enable informed decision making. Also develops financial models and business cases for evaluation of operational performance

Source: Interviews with Shared Services and Operating Companies, Spire's function description document

Spire Sub-Function Analysis

Sub-Function	Definition
Organic Growth – Sales	
Customer Growth	Develops strategies to increase customer base profitably, and retain existing customer base by focusing on relationships and providing reliable access to gas service.
Customer Care	Performs specialized relationship management of large customers, ensuring tailored services and immediate attention to urgent needs.
Project Planning	Develops financial models for new projects involving the incorporation of a new industrial customer and from the laying out of the infrastructure through servicing and maintenance of the same.
Energy Efficiency	Drives energy efficiency efforts to improve customer relations by helping them save as well as retaining customer base and load
Economic Development	Engages in economic development projects in the regions in which Spire operates to ensure access to gas and identify and scope state and local projects.

Source: Interviews with Shared Services and Operating Companies, Spire's function description document

Spire Sub-Function Analysis

Sub-Function	Definition
Operations Services	
Construction Engineering, System Planning, GIS and, Right-of-Way	Supports Operations with construction projects in construction engineering, right-of-way clearance, GIS support, and planning.
Pipeline Safety, Compliance and Integrity	Supports Operations with ensuring PHMSA compliance and integrity of pipeline by pressure monitoring, inspections, corrosion control and, monitoring external factors affecting in expectation of safety issues.
Employee Health and Safety, Environmental Compliance and Crisis Management	Maintains records of employee health and safety, and helps ensure environmental compliance and response to crisis like storms, earthquakes, etc.
Meter Integrity	Ensures proper working of customer meters and triggers replacement as necessary.
Fleet Management	Manages the entire fleet used for maintenance and operations from procurement through maintenance and retirement or disposal of fleet.

Source: Interviews with Shared Services and Operating Companies, Spire's function description document

Corporate Cost Justification – Necessity Attributes

Necessity Attributes	Definitions
Corporate Governance	Activities that are necessary to ensure that corporate and portfolio fiduciary responsibilities and enterprise-wide management and operation is effectively executed. Examples include performing shareholder activities, managing cross-business issues, performing risk management activities and evaluating internal controls.
Regulatory Mandate	Activities that are required to fulfill statutory, regulatory and other commitments or mandates. Examples include submitting SEC filings, filing IRS documents and complying with FERC requirements.
Legal Compliance	Costs incurred and activities performed as a direct result of legal proceedings, avoidance of legal proceedings, or compliance with legal requirements. Examples include performing litigation activities and responding to discovery requests.
Management Control	Activities performed specifically to provide analysis, decision support data and results to management personnel. Examples include managing projects and reporting results and developing management reports.
Operational Execution	Includes fundamental functions performed on a daily basis. Examples include performing maintenance activities, performing general accounting, and tracking employee information.
Strategic Planning	Activities that encompass business unit planning and activities directed at providing enterprise-wide direction. Examples include monitoring marketplace activities, performing strategic planning, and providing business planning assistance.

Spire Sub-Function Necessity Analysis

Sub-Function	Necessity Attributes					
	Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	Strategic Planning
Finance (Treasury)						
Credit Risk Management						
Trusts and Investment Management						
Cash Management						
Finance (Tax)						
Tax Compliance						
Tax Planning Analysis						
Property and Gross Receipts Tax						

■ Indicates underlying activity causation

Spire Sub-Function Necessity Analysis

Sub-Function	Necessity Attributes					
	Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	Strategic Planning
Finance (Controller)						
Regulatory / Case Filings						
External Reporting Coordination						
External Audit Coordination						
General Ledger						
Accounting						
Finance (Financial Planning and Analysis)						
Long Range Financial Planning						
Budget Development, Variance Reporting						
Internal Reporting						

 Indicates underlying activity causation

Spire Sub-Function Necessity Analysis

Sub-Function	Necessity Attributes					
	Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	Strategic Planning
Investor Relations						
Investor Communications						
Rating Agency Communications						
Strategic Planning						
Long Term Strategy						
Acquisitions (IOU and Municipal)						
Integration Support						
Supply Initiatives – Process Improvement						
Non-Utility Growth						

■ Indicates underlying activity causation

Spire Sub-Function Necessity Analysis

Sub-Function	Necessity Attributes						
	Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	Strategic Planning	
Information Technology Services							
Application Delivery				■			
Data Warehouse							
Telecommunications							
Enterprise Architecture and Strategy							
Infrastructure							
Business Support Services							
Information Security & Compliance							

■ Indicates underlying activity causation

Spire Sub-Function Necessity Analysis

Sub-Function	Necessity Attributes					
	Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	Strategic Planning
Facilities						
Real Estate Procurement and Disposition						
Maintenance & Custodial Services						
Work Space Management						
Facilities Planning						
Construction Management						
Other Support Services						

 Indicates underlying activity causation

Spire Sub-Function Necessity Analysis

Sub-Function	Necessity Attributes					
	Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	Strategic Planning
Enterprise Risk & Continuous Improvement						
Project Management						
Integration Execution						
Business Improvement						
Internal Audit						
Management Performance Evaluation						
Environmental Assessment						
External (SOX) Audit Coordination						

■ Indicates underlying activity causation

Spire Sub-Function Necessity Analysis

Sub-Function	Necessity Attributes					
	Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	Strategic Planning
Legal						
Financial Legal Services						
Workers' Compensation						
Review and Execution of Contracts						
Claims and Insurance						
General Legal Advice						
Ethics and Compliance Services						
Manage Litigation						
Corporate Security						

■ Indicates underlying activity causation

Spire Sub-Function Necessity Analysis

		Necessity Attributes					
Sub-Function		Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	Strategic Planning
Supply Chain							
Supplier Relationship Management							
Sourcing and Procurement Services							
Payment Services (Accounts Payable)							
Employee Expense Management							
Inventory and Store-Room Management							

 Indicates underlying activity causation

Spire Sub-Function Necessity Analysis

Sub-Function	Necessity Attributes					
	Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	Strategic Planning
Human Resources						
Employee Relations						
Employee Experience - Talent Acquisition						
Employee Experience - Organizational Development						
Employee Experience - Learning Management						
Total Rewards - Compensation and Benefits						
HR Services (Including HRIS, Payroll)						

 Indicates underlying activity causation

Spire Sub-Function Necessity Analysis

Sub-Function	Necessity Attributes					
	Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	Strategic Planning
Corporate Communications and Marketing						
Internal Communications	■			■	■	
External Communications	■			■	■	
Creative Services				■	■	
Marketing and Research				■		■
Communications Operations				■		

■ Indicates underlying activity causation

Spire Sub-Function Necessity Analysis

Sub-Function	Necessity Attributes					
	Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	Strategic Planning
Customer Experience						
Credit and Collections						
Customer Contact						
Dispatch						
Community & Agency Services						
Accounts Receivables						
Meter Reading and Billing Services						

■ Indicates underlying activity causation

Spire Sub-Function Necessity Analysis

Sub-Function	Necessity Attributes					
	Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	Strategic Planning
Gas Supply and Operations						
Instrumentation and Control						
Gas Supply Purchasing, Sales / Risk Management						
System Control						
Underground Storage / LNG						
Plants and Stations						
External Affairs						
State and Local Governmental Affairs						
Regulatory						

■ Indicates underlying activity causation

Spire Sub-Function Necessity Analysis

Sub-Function	Necessity Attributes					
	Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	Strategic Planning
Operations Controller						
Planning and Budgeting, Variance Analysis						
Business Analysis & Performance Measurement						
Operational and Productivity Metrics						

 Indicates underlying activity causation

Spire Sub-Function Necessity Analysis

Sub-Function	Necessity Attributes					Strategic Planning
	Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	
Organic Growth - Sales						
Customer Growth						
Customer Care						
Project Planning						
Energy Efficiency						
Economic Development						

 Indicates underlying activity causation

Spire Sub-Function Necessity Analysis

Sub-Function	Necessity Attributes					
	Corporate Governance	Regulatory Mandates	Legal Compliance	Management Control	Operational Execution	Strategic Planning
Operations Services						
Construction Engineering, System Planning and GIS						
Pipeline Safety Compliance and Integrity						
Employee Health and Safety, Environmental Compliance and Crisis Management						
Meter Integrity						
Fleet Management						

 Indicates underlying activity causation

Corporate Cost Justification – Benefit Attributes

Benefits Attributes	Definitions
Reduce Risk	Actions designed to reduce liability and mitigate exposure to financial, operational, fiduciary and other types of risk through activities such as implementing safety programs, performing internal audit, and developing policies, procedures and manuals.
Increase Employee Productivity	Programs that enhance employees' abilities to perform their jobs more productively. Examples include implementing certain automated systems, providing certain types of training, implementing and administering employee health awareness programs, developing procedures, policies and practice manuals, developing employee communications and implementing and administering quality programs.
Provide Management Information	Activities conducted primarily to provide decision support data and analysis to management personnel. Examples include developing budgets, monitoring operational and financial performance, performing corporate development, conducting strategic assessments and developing integrated information systems.
Enhance Corporate Performance	Activities performed to enhance the abilities and effectiveness of management with respect to the business, including developing strategic plans, managing the performance review process, maintaining the inter/intranet and conducting benchmarking studies.
Reduce or Avoid Costs	Activities performed to improve the cost effectiveness of operations. Activities include implementing certain automated systems, negotiating discounts with outside vendors and performing certain credit and collections activities.
Increase Reliability	Activities performed to increase the reliability of energy delivery/generation and to minimize the impact of disruptions.

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes					
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs	Increase Reliability
Finance (Treasury)						
Credit Risk Management	■		■	■	■	
Trusts and Investment Management	■		■	■	■	
Cash Management	■		■	■	■	
Finance (Tax)						
Tax Compliance	■		■	■	■	
Tax Planning Analysis	■		■	■	■	
Property and Gross Receipts Tax	■		■	■	■	

■ Indicates underlying activity causation

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes					
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs	Increase Reliability
Finance (Controller)						
Regulatory / Case Filings	■		■			
External Reporting Coordination	■		■	■		
External Audit Coordination	■		■	■	■	
General Ledger	■		■	■		
Accounting	■		■	■	■	
Finance (Financial Planning and Analysis)						
Long Range Financial Planning	■	■	■	■	■	
Budget Development, Variance Reporting	■	■	■	■	■	
Internal Reporting	■	■	■	■	■	

■ Indicates underlying activity causation

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes					
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs	Increase Reliability
Investor Relations						
Investor Communications	■		■	■		
Rating Agency communications	■		■	■		
Strategic Planning						
Long Term Strategy	■		■	■		
Acquisitions (IOU and Municipal)			■	■		
Integration Support	■		■	■	■	
Supply Initiatives – Process Improvement			■	■	■	
Non-Utility Growth	■		■	■		

■ Indicates underlying activity causation

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes					
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs	Increase Reliability
Information Technology Services						
Application Delivery						
Data Warehouse						
Telecommunications						
Enterprise Architecture and Strategy						
Infrastructure						
Business Support Services						
Information Security & Compliance						

■ Indicates underlying activity causation

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes				
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs
Facilities					
Real Estate Procurement and Disposition					
Maintenance & Custodial Services					
Work Space Management					
Facilities Planning					
Construction Management					
Other Support Services					

■ Indicates underlying activity causation

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes					
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs	Increase Reliability
Enterprise Risk & Continuous Improvement						
Project Management	■			■	■	
Integration Execution	■			■	■	
Business Improvement	■	■		■	■	■
Internal Audit						
Management Performance Evaluation	■		■	■	■	
Environmental Assessment	■					
External (SOX) Audit Coordination	■					

■ Indicates underlying activity causation

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes					
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs	Increase Reliability
Legal						
Financial Legal Services						
Workers' Compensation						
Review and Execution of Contracts						
Claims and Insurance						
General Legal Advice						
Ethics and Compliance Services						
Manage Litigation						
Corporate Security						

■ Indicates underlying activity causation

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes					
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs	Increase Reliability
Supply Chain						
Supplier Relationship Management						
Sourcing and Procurement Services						
Payment Services (Accounts Payable)						
Employee Expense Management						
Inventory and Store Room Management						

■ Indicates underlying activity causation

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes					
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs	Increase Reliability
Human Resources						
Employee Relations						
Employee Experience - Talent Acquisition						
Employee Experience - Organizational Development						
Employee Experience - Learning Management						
Total Rewards - Compensation and Benefits						
HR Services (Including HRIS, Payroll)						

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes					
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs	Increase Reliability
Corporate Communications and Marketing						
Internal Communications	■	■	■	■	■	■
External Communications	■	□	■	■	■	■
Creative Services	■	□	■	■	■	■
Marketing and Research	■	□	■	■	■	■
Communications Operations	■	□	■	■	■	■

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes					
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs	Increase Reliability
Customer Experience						
Credit and Collections	■		■	■	■	
Customer Contact	■		■	■	■	
Dispatch			■	■	■	
Community & Agency Services			■	■	■	
Accounts Receivables			■	■	■	
Meter Reading and Billing Services	■		■	■	■	

■ Indicates underlying activity causation

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes					
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs	Increase Reliability
Gas Supply and Operations						
Instrumentation and Control	■				■	
Gas Supply Purchasing, Sales / Risk Management	■				■	
System Control	■	■	■	■	■	■
Underground Storage / LNG	■	■	■	■	■	■
Plants and Stations	■	■	■	■	■	■
External Affairs						
State and Local Governmental Affairs	■	■	■	■	■	■
Regulatory	■	■	■	■	■	■

■ Indicates underlying activity causation

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes					
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs	Increase Reliability
Operations Controller						
Planning and Budgeting, Variance Analysis						
Business Analysis & Performance Measurement						
Operational and Productivity Metrics						

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes					
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs	Increase Reliability
Organic Growth - Sales						
Customer Growth						
Customer Care						
Project Planning						
Energy Efficiency						
Economic Development						

Spire Sub-Function Benefit Analysis

Sub-Function	Benefit Attributes					
	Reduce Risk	Increase Employee Productivity	Provide Management Information	Enhance Corporate Performance	Reduce or Avoid Costs	Increase Reliability
Operations Services						
Construction Engineering, System Planning and GIS						
Pipeline Safety Compliance and Integrity						
Employee Health and Safety, Environmental Compliance and Crisis Management						
Meter Integrity						
Fleet Management						

■ Indicates underlying activity causation

strategy&

April 2017

Affiliate Transaction Cost Study

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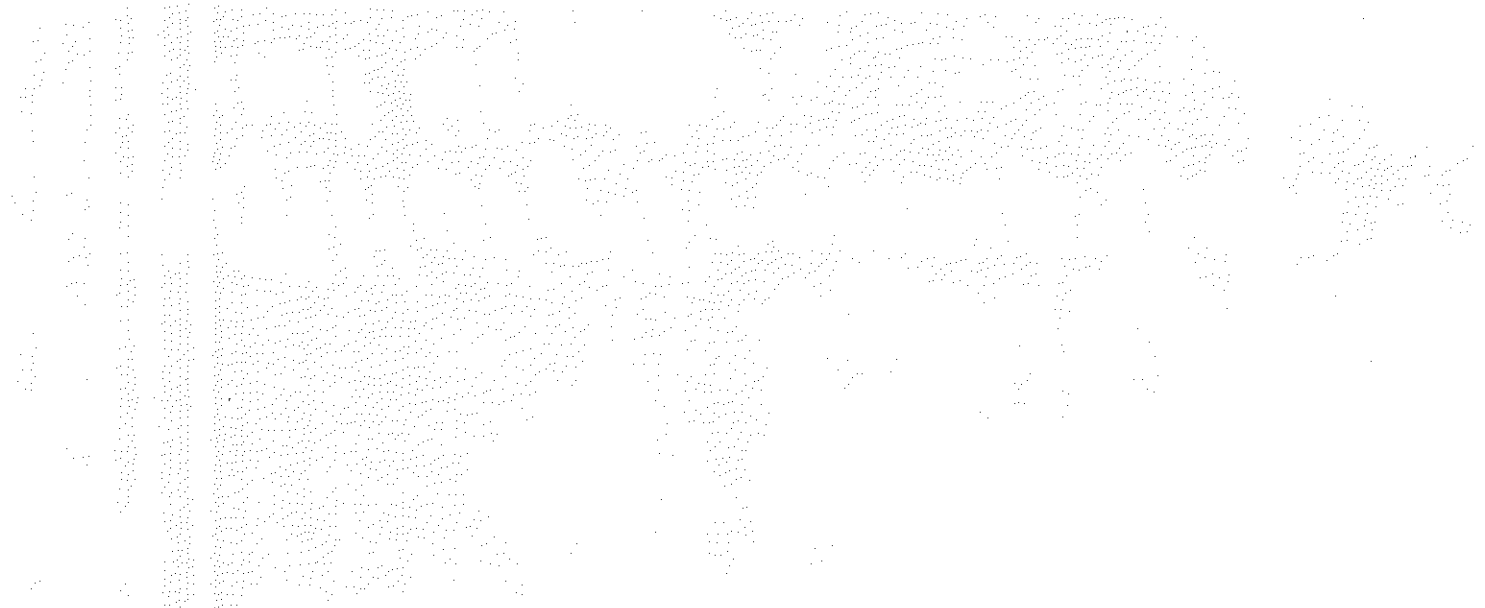
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Schedule 3 – Sub-Functions – Overlap Analysis



Spire Sub-Function Overlap Analysis

Sub-Function	Potential Overlap	Overlap / Complementary Sub-Function Analysis
Finance (Treasury)		
Credit Risk Management		
Trusts and Investment Management		
Cash Management		
Finance (Tax)		
Tax Compliance		
Tax Planning Analysis		
Property and Gross Receipts Tax		

Finance (Tax): Plans federal and state tax, forecasts payment, and works closely with the Legal Department to monitor tax related legislation and rulemaking activities at the federal, state and local levels

Legal: Manages litigation related to property tax and other tax issues, and advises Finance and senior leadership on tax related legislation updates in the various areas of Spire operation

Overlapping Complementary

■ Indicates underlying activity causation

Spire Sub-Function Overlap Analysis

Sub-Function	Potential Overlap	Overlap / Complementary Sub-Function Analysis
Finance (Controller)		<p>Finance (Controller): Provides necessary data and rate case financial analysis, prepares and submits filing documents to the Rates and Regulatory Affairs team within External Relations.</p> <p>External Relations: In coordination with the various Operating Companies, consolidates information from the Finance group with all the other material required for rate case filings. Prepares for interface with commissions, and works with employees within Operating Companies and external participants to serve as expert witnesses.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Regulatory / Case Filings		
External Reporting Coordination		
External Audit Coordination		
General Ledger		
Accounting		<p>Financial Planning and Analysis: Develops the annual budget and subsequent variance analysis for Corporate Shared Service functions in coordination with functional heads (such as Investor Relations, Supply Chain, ITS, HR etc.) within Corporate and Operating Companies. In addition, manages the budgeting process for the entire organization.</p> <p>Operations Controller: Develops the annual budget and subsequent variance analysis for GasCo Shared Service functions in coordination with functional heads (such as External Affairs, Gas Supply and Operations, Customer Experience etc.) within Gas Co Shared Services and Operating Companies. Also support variance analysis for all remaining operational functions.</p> <p>Operations Functions: Develops the annual budget for the Operating Company functions outside of Corporate and GasCo Shared Service functions. In addition, provides insight and input for the budgeting process for Shared Services based on business need.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Finance (Financial Planning & Analysis)		
Long Range Financial Planning		
Budget Development, Variance Reporting		
Internal Reporting		

 Indicates underlying activity causation

Spire Sub-Function Overlap Analysis

Sub-Function	Potential Overlap	Overlap / Complementary Sub-Function Analysis
Investor Relations		<p>Investor Relations: Manages the relationship with investor groups on an enterprise-wide basis. Delivers presentations and answers questions on Spire's financial and operational results and projections.</p> <p>Corp. Communications & Marketing: Helps support content formatting and presentation visuals as well as developing material templates in support of Investor Communications.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Investor Communications		
Rating Agency communications		
Strategic Planning		<p>Strategic Planning: Guides the vision and the steps required to leverage the acquisition synergies in close coordination with the Strategy Execution group which is within the Operating Companies.</p> <p>Enterprise Risk & Continuous Improvement: Executes the post-merger integration plan to enhance customer service, safety, and operational execution, while achieving synergies forecasted during acquisition. Works closely with the Strategic Planning team for overall integration plan and periodic performance checks and reviews.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Long Term Strategy		
Acquisitions (IOU and Municipal)		
Integration Support		
Supply Initiatives – Process Improvement		
Non-Utility Growth		

■ Indicates underlying activity causation

Spire Sub-Function Overlap Analysis

Sub-Function	Potential Overlap	Overlap / Complementary Sub-Function Analysis
Information Technology Services		
Application Delivery		
Data Warehouse		<p>Information Technology Services: Provides the necessary tools required to manage and administer data sources and incorporates features as required by Human Resources</p> <p>Human Resources: Manages content (data entry and maintenance) of employee records and training.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Telecommunications		
Enterprise Architecture and Strategy		
Infrastructure		
Business Support Services		<p>Information Technology Services: Performs all system analyst and system administrator functions, field technical support, Help Desk functions and addresses all IT/hardware failures</p> <p>Operations Functions: Resolves business process issues faced by employees (such as how to access a particular feature, how to navigate tools etc.), Personnel are aware of how the IT systems work, but do not troubleshoot or fix it. Instead, they leverage the systems to tackle operational issues faced by employees. There is no overlap between the roles of IT and Operational Companies</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Information Security & Compliance		

■ Indicates underlying activity causation

Spire Sub-Function Overlap Analysis

Sub-Function	Potential Overlap	Overlap / Complementary Sub-Function Analysis
Enterprise Risk & Continuous Improvement		<p>Enterprise Risk & Continuous Improvement: Executes the post-merger integration plan to enhance customer service, safety, and operational execution, while achieving synergies forecasted during acquisition. Works closely with the Strategic Planning team for overall integration plan and periodic performance checks and reviews.</p> <p>Strategic Planning: Guides the vision and the steps required to leverage the acquisition synergies in close coordination with the Strategy Execution group which is within the Operating Companies.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Project Management		
Integration Execution		
Business Improvement		
Internal Audit		<p>Internal Audit: Conducts periodic reviews to ensure compliance with environmental laws and requirements</p> <p>Operations Services: Performs real-time monitoring of pipelines to ensure Safety Compliance.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Management Performance Evaluation		
Environmental Assessment		
External (Sox) Audit Coordination		

 Indicates underlying activity causation

Spire Sub-Function Overlap Analysis

Sub-Function	Potential Overlap	Overlap / Complementary Sub-Function Analysis
Legal		<p>Legal: Manages litigation related to property tax and other tax issues, and advises Finance and senior leadership on tax related legislation updates in the various areas of Spire operation</p> <p>Finance (Tax): Plans federal and state tax, forecasts payment, and works closely with the Legal Department to monitor tax related legislation and rulemaking activities at the federal, state and local levels</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Financial Legal Services		
Workers' Compensation		
Review and Execution of Contracts		
Claims and Insurance		<p>Legal: Procures insurance policies and negotiates insurance claims on an enterprise-wide basis. Arrange and control insurance operations meetings to ensure all work is kept under privilege.</p> <p>Operations Functions: Provide detailed claim and insurance-related information by completing incident reports, facilitating insurance company inspections, segregating costs by work order for insurance claims, etc.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
General Legal Advice		
Ethics and Compliance Services		
Manage Litigation		
Corporate Security		

 Indicates underlying activity causation

Spire Sub-Function Overlap Analysis

Sub-Function	Potential Overlap	Overlap / Complementary Sub-Function Analysis
Supply Chain		
Supplier Relationship Management		
Sourcing and Procurement Services		
Payment Services (Accounts Payable)		
Employee Expense Management		
Inventory and Storeroom Management		

Supply Chain: Operates the network of warehouses and distribution centers, and manages inventory levels of the various SKUs

Operations Functions: Resources report functionally through supply chain but perform inventory management tasks at warehouses to ensure coordination of efforts and ensure no overlap of responsibilities. Employees are embedded in and charge directly to the operating company.

Overlapping Complementary

■ Indicates underlying activity causation

Spire Sub-Function Overlap Analysis

Sub-Function	Potential Overlap	Overlap / Complementary Sub-Function Analysis
Human Resources		<p>Human Resources: Operates the network of Human Resources specialists dealing with employee conflicts, disciplinary actions, flexible work arrangements, diversity activities, Human Resources communications, community service, outplacement and severance, compliance and reporting, and labor relations</p> <p>Operations Functions: Human Resources specialists functionally report to Human Resources but work with operating functions and are assigned new issues to resolve by the Employee Relations group, based on availability and scope of the issue and ensure coordination of efforts and no overlap of responsibilities. Employees are embedded in and charge directly to the operating company.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Employee Relations		
Employee Experience - Talent Acquisition		
Employee Experience - Organizational Development		
Employee Experience - Learning Management		
Total Rewards - Compensation and Benefits		
HR Services (Including HRIS, Payroll)		

Human Resources: Operates the network of Human Resources specialists dealing with employee conflicts, disciplinary actions, flexible work arrangements, diversity activities, Human Resources communications, community service, outplacement and severance, compliance and reporting, and labor relations

Operations Functions: Human Resources specialists functionally report to Human Resources but work with operating functions and are assigned new issues to resolve by the Employee Relations group, based on availability and scope of the issue and ensure coordination of efforts and no overlap of responsibilities. Employees are embedded in and charge directly to the operating company.

Overlapping Complementary

Human Resources: Manages content (data entry and maintenance) of employee records and training

Information Technology Services: Provides the necessary tools required to manage and administer and incorporates features as required by Human Resources.

Overlapping Complementary

■ Indicates underlying activity causation

Spire Sub-Function Overlap Analysis

Sub-Function	Potential Overlap	Overlap / Complementary Sub-Function Analysis
Corporate Communications and Marketing		<p>Corp. Communications & Marketing : Helps support content formatting and presentation visuals as well as developing material templates in support of Investor Communications..</p> <p>Investor Relations: Manages the relationship with investor groups on an enterprise-wide basis. Delivers presentations and answers questions on Spire's financial and operational results and projections.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Internal Communications		
External Communications		
Creative Services		
Marketing and Research		
Communications Operations		<p>Corp. Communications & Marketing: Manages creative content and marketing for Spire. Responsible for providing the tools, standards and templates to enable operating companies to engage in local communication efforts in a consistent manner.</p> <p>Operations Functions: Incorporate consistent standards in all communication with customers, regulatory agencies and other entities, and loop back customer feedback as input for Marketing Research being done by Corp. Communications & Marketing.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>

■ Indicates underlying activity causation

Spire Sub-Function Overlap Analysis

Sub-Function	Potential Overlap	Overlap / Complementary Sub-Function Analysis
Customer Experience		<p>Customer Experience: Dispatch serves as the intermediary between Customer Contact and Field Operations – emergency calls are routed by customer contact personnel to Dispatch, who then coordinate with the nearest available field personnel to resolve the issue</p> <p>Operations Functions: Field Personnel within Operating Companies are dispatched by Dispatch Services to attend to urgent customer requests.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Credit and Collections		
Customer Contact		
Dispatch		
Community & Agency Services		<p>Customer Experience: Conducts meter-reading and generates bills based on usage, coordinates Special Billing, and ensures that all customers receive bills on time.</p> <p>Operations Functions: Performs installation and meter maintenance, including all meter shop functions. Procures meters and instrument transformers and provides regulatory-required tests; refurbishes devices where necessary. While the Customer Experience group is responsible for automated reading and interaction with customers, Operating Companies are responsible for the servicing and maintenance of the meters to ensure they are working properly.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Accounts Receivables		
Meter Reading and Billing Services		

■ Indicates underlying activity causation

Spire Sub-Function Overlap Analysis

Sub-Function	Potential Overlap	Overlap / Complementary Sub-Function Analysis
Gas Supply and Operations		
Instrumentation and Control		
Gas Supply Purchasing, Sales / Risk Management		
System Control		
Underground Storage / LNG		
Plants and Stations		
External Affairs		
State and Local Governmental Affairs		<p>External Affairs: Develops, promotes and shapes enabling public policy in jurisdictions of Spire operation. Closely monitors the federal legislative landscape to identify regulatory and legislative changes at the federal level that could impact Spire and its operating companies.</p> <p>Corporate Communications & Marketing: Closely monitors the external media landscape to develop appropriate organizational and operational responses to any changes. Additionally, manages Spire's community relations and community outreach efforts as these issues are localized and unique to each operating company.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Regulatory		<p>External Affairs: In coordination with the various Operating Companies, consolidates information from the Finance group with all the other material required for rate case filings. Prepares for interface with commissions, and works with employees within Operating Companies and external participants to serve as expert witnesses.</p> <p>Finance (Controller): Coordinates rate case financial analysis, prepares and submits filing documents to the Rates and Regulatory Affairs team within External Relations.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>

■ Indicates underlying activity causation

Spire Sub-Function Overlap Analysis

Sub-Function	Potential Overlap	Overlap / Complementary Sub-Function Analysis
Operations Controller		
Planning and Budgeting, Variance Analysis		<p>Operations Controller: Develops the annual budget for GasCo Shared Service functions (such as External Affairs, Gas Supply and Operations, Customer Experience etc.) in coordination with functional heads within Gas Co Shared Services and Operating Companies.</p> <p>Financial Planning and Analysis: Develops the annual budget for Corporate Shared Service functions (such as Investor Relations, Supply Chain, ITS, HR etc.) in coordination with functional heads within Corporate and Operating Companies. In addition, manages the budgeting process for the entire organization</p> <p>Operations Functions: Develops the annual budget for the Operating Companies outside of Corporate and GasCo Shared Service functions. In addition, provides insight and input for the budgeting process for Shared Services based on business need.</p> <p style="text-align: right;"><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Business Analysis & Performance Measurement		
Operational and Productivity Metrics		
		<p>Operations Controller: Serves to bring various groups in and across the Operating Companies together - enabling sharing of best practices and aligning of goals. It also shares performance insights to standardize processes and resolve differences to enhance corporate performance.</p> <p>Operations Functions: Operating Companies are responsible for executing productivity enhancement initiatives highlighted in the meetings facilitated by Operations Controller, but do not do similar productivity analysis on their own.</p> <p style="text-align: right;"><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>

 Indicates underlying activity causation

Spire Sub-Function Overlap Analysis

Sub-Function	Potential Overlap	Overlap / Complementary Sub-Function Analysis
Organic Growth- Sales		<p>Organic Growth: Manages programs targeted at increasing gas customer base and develops strategies, and rolls out various drives and initiatives, develops relationships with large customers, engineers, builders and construction managers. Helps ensure reliable access to gas services by working closely with Operating Companies.</p> <p>Operations Functions: Executes the Organic Growth initiatives and strategies on the ground. For example, installs the facilities required by new customers.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p> <hr/> <p>Organic Growth: Develops project plans for projects initiated specifically to support new customer pipeline installation.</p> <p>Operations Services: Provide centralized engineering design and program management services for major projects such as construction of new facilities and environmental retrofits. Also provide program management services such as technology selection, vendor selection, and contract execution for large scale or complex engineering projects – with input from the operating companies. Manages large-scale projects, large-scale replace or repair decisions.</p> <p>Operations Functions: Perform routine maintenance support services and manages small scale projects (facilities installation) and replace or repair decisions where local knowledge is required. In addition, monitors equipment, ensures compliance with technical directives and Spire standards.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Customer Growth		
Customer Care		
Project Planning		
Energy Efficiency		
Economic Development		

■ Indicates underlying activity causation

Spire Sub-Function Overlap Analysis

Sub-Function	Potential Overlap	Overlap / Complementary Sub-Function Analysis
Operations Services		
Construction Engineering, System Planning, GIS and, Right-of-Way		<p>Operations Services: Provide centralized engineering design and program management services for major projects such as construction of new facilities and environmental retrofits. Also provide program management services such as technology selection, vendor selection, and contract execution for large scale or complex engineering projects – with input from the operating companies. Manages large-scale projects, large-scale replace or repair decisions.</p> <p>Organic Growth: Develops project plans for projects initiated specifically to support new customer pipeline installation.</p> <p>Operations Functions: Perform routine maintenance support services and manages small scale projects (facilities installation) and replace or repair decisions where local knowledge is required. In addition, monitors equipment, ensures compliance with technical directives and Spire standards.</p> <p><input type="checkbox"/> Overlapping <input checked="" type="checkbox"/> Complementary</p>
Pipeline Safety Compliance and Integrity		
Employee Health and Safety, Environmental Compliance and Crisis Management		
Meter Integrity		
Fleet Management		

Operations Services: Provide centralized engineering design and program management services for major projects such as construction of new facilities and environmental retrofits. Also provide program management services such as technology selection, vendor selection, and contract execution for large scale or complex engineering projects – with input from the operating companies. Manages large-scale projects, large-scale replace or repair decisions.

Organic Growth: Develops project plans for projects initiated specifically to support new customer pipeline installation.

Operations Functions: Perform routine maintenance support services and manages small scale projects (facilities installation) and replace or repair decisions where local knowledge is required. In addition, monitors equipment, ensures compliance with technical directives and Spire standards.

Overlapping Complementary

Operations Services: Performs real-time monitoring of pipeline to ensure Safety Compliance.

Internal Audit: Conducts periodic reviews to ensure compliance with environmental laws and requirements.

Overlapping Complementary

■ Indicates underlying activity causation