

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF SOUTHWESTERN)	
PUBLIC SERVICE COMPANY'S)	
APPLICATION FOR REVISION OF ITS)	
RETAIL RATES UNDER ADVICE)	CASE NO. 15-00139-UT
NOTICE NO. 255,)	
)	
SOUTHWESTERN PUBLIC SERVICE)	
COMPANY,)	
)	
APPLICANT.)	
)	

DIRECT TESTIMONY

of

BRAD BALDRIDGE

on behalf of

SOUTHWESTERN PUBLIC SERVICE COMPANY

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GLOSSARY OF ACRONYMS AND DEFINED TERMS

<u>Acronym/Defined Term</u>	<u>Meaning</u>
Base Period	Calendar Year 2014
CWIP	Construction Work in Progress
FERC	Federal Energy Regulatory Commission
ISD	In-Service Date
O&M	Operation and Maintenance
ROW	Right of Way
SPS	Southwestern Public Service Company, a New Mexico corporation
Test Year	Calendar Year 2016
Xcel Energy	Xcel Energy Inc.

LIST OF ATTACHMENTS

<u>Attachment</u>	<u>Description</u>
BB-1	Organization Chart – Distribution Operation (<i>Filename:</i> BB-1.xlsx)
BB-2	Electric Distribution Capital Additions for the period January 1, 2015 through December 31, 2016 (<i>Filename:</i> BB-2.xlsx)
BB-3	Workpapers (<i>Filename:</i> BB-3.xlsx)

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I. WITNESS IDENTIFICATION AND QUALIFICATIONS

1 **Q. Please state your name and business address.**

2 A. My name is Brad Baldrige. My business address is 600 S. Tyler Street,
3 Amarillo, Texas 79101.

4 **Q. On whose behalf are you testifying in this proceeding?**

5 A. I am filing testimony on behalf of Southwestern Public Service Company, a New
6 Mexico corporation (“SPS”) and wholly-owned electric utility subsidiary of Xcel
7 Energy Inc. (“Xcel Energy”). Xcel Energy is a registered holding company that
8 owns several electric and natural gas utility operating companies.¹

9 **Q. By whom are you employed and in what position?**

10 A. I am employed by SPS, the service company subsidiary of Xcel Energy, as Senior
11 Director, Distribution Operations.

¹ Xcel Energy is the parent company of four wholly-owned electric utility operating companies: Northern States Power Company, a Minnesota corporation; Northern States Power Company, a Wisconsin corporation; Public Service Company of Colorado, a Colorado corporation; and SPS. Xcel Energy’s natural gas pipeline subsidiary is WestGas InterState, Inc. Xcel Energy also has two transmission-only operating companies, Xcel Energy Southwest Transmission Company, LLC and Xcel Energy Transmission Development Company, LLC, both of which are regulated by the Federal Energy Regulatory Commission (“FERC”).

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1 **Q. Please briefly outline your responsibilities as Senior Director, Distribution**
2 **Operations.**

3 A. My responsibilities as Senior Director, Distribution Operations include leading
4 the SPS Distribution Operations organization. Distribution Operations includes
5 electric distribution design and layout, construction, operations, maintenance, and
6 emergency repair activities for the SPS distribution systems. As such, I provide
7 the central point of contact for all issues regarding SPS Distribution Operations. I
8 also have responsibility for overseeing and managing Distribution control center
9 operations. Additionally, I am responsible for deploying Distribution Operations
10 personnel in an effective and efficient manner, with an emphasis on safety,
11 reliability, customer satisfaction, and compliance.

12 **Q. Please describe your educational background.**

13 A. I graduated from Texas Tech University, in Lubbock, Texas in 1999, receiving a
14 Bachelor of Science in Electrical Engineering.

15 **Q. Please describe your professional experience.**

16 A. Upon earning my engineering degree in 1999, I was hired by SPS in Lubbock,
17 Texas as a distribution engineer. As a distribution engineer, I was responsible for
18 the design, procurement of materials, and management of projects primarily

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1 related to the extension of electrical service to new customers in and around the
2 Lubbock, Texas area. In 2001, I accepted a position as a substation maintenance
3 engineer in Lubbock. In this position, I provided engineering analysis and
4 solutions regarding equipment for electric substations and interchanges on the
5 SPS distribution and transmission systems. In 2004, I was promoted to
6 Distribution Design Engineering Manager, leading a team of designers and
7 engineers responsible for the design of projects that safely serve new electric
8 customers and provide for distribution system reliability. In 2011, I was
9 promoted to Director of Distribution Engineering, Construction, and Maintenance
10 for the Texas Panhandle division of SPS. In January of 2014, I began my current
11 position as Senior Director of Distribution Operations for SPS, where I devote my
12 time to operating SPS's Texas and New Mexico electric distribution system.

13 **Q. Do you hold a professional license?**

14 A. Yes. I am a Registered Professional Engineer in the State of Texas and the State
15 of New Mexico.

16 **Q. Have you filed testimony before any regulatory authorities?**

17 A. Yes. I have filed testimony before the Public Utility Commission of Texas
18 regarding Distribution Utility capital additions and expenses.

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**II. ASSIGNMENT AND SUMMARY OF TESTIMONY AND
RECOMMENDATIONS**

1 **Q. What is your assignment in this proceeding?**

2 A. My testimony addresses: (1) Distribution Utility capital additions from the end of
3 the Base Period (December 31, 2014) through the end of the Test Year,
4 (December 31, 2016);² (2) the adjustment for voltage conversion expenses for the
5 Test Year; and (3) a proposed addition to a rule tariff. More specifically, I will:

- 6 • describe how Distribution Utility capital projects are ranked and
7 selected for funding;
8
9 • describe capital projects for the Distribution Utility business area that
10 are to be placed in-service between January 1, 2015 and December 31,
11 2016, and the process by which the Distribution Utility business area
12 manages capital plant additions;
13
14 • explain the Test Year adjustments for (i) voltage conversion expenses;
15 and (ii) the corrected allocation of expenses in five distribution-related
16 FERC accounts; and
17
18 • support a proposed change to a rule tariff regarding relocation of SPS
19 facilities.

20
21 In addition, I sponsor Schedules P-8 and P-10 of SPS's Rate Filing
22 Package.

² The Base Period is calendar year 2014. The Test Year is calendar year 2016.

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1 **Q. Please summarize the conclusions and recommendations in your testimony.**

2 A. The Distribution Utility capital additions of \$215.56 million (total company) for
3 the period January 1, 2015 through December 31, 2016 are reasonable and
4 necessary, and support SPS's ability to provide safe and reliable electric service to
5 its customers.

6 O&M costs for voltage conversions, which are expected to increase by
7 \$700,000 from the Base Period to the Test Year, are also reasonable and
8 necessary as they enable SPS to provide reliable and safe energy service to its
9 New Mexico retail customers. Also, the allocation of expenses in five
10 distribution-related FERC operations and maintenance ("O&M") accounts should
11 be corrected so that expenses are allocated to both the New Mexico retail
12 jurisdiction and the Texas retail jurisdiction, instead of just to the Texas retail
13 jurisdiction, to accurately assign costs to the jurisdictions that benefit from the
14 work related to these costs.

15 Finally, I support a proposed rule tariff, Rule Tariff No. 27, Temporary or
16 Permanent Relocation/Modification of Company Facilities and Fees, that
17 addresses requests for SPS to temporarily or permanently relocate its facilities.
18 The proposed tariff ensures that SPS receives full cost recovery for these types of

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- 1 requests and is provided adequate notice of the request. SPS witness Richard M.
- 2 Luth sponsors this proposed rule tariff.

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III. CAPITAL PLANT ADDITIONS DURING THE TEST YEAR

1 **Q. Please describe the scope of activities and functions performed by the**
2 **Distribution Utility business area.**

3 A. The Distribution Utility business area assists the SPS executive leadership with
4 engineering support and managerial reporting for SPS operations. Distribution
5 Utility is comprised of the following functional areas: (1) SPS Utility President;
6 (2) Electric Distribution Design Engineering, Construction, and Maintenance; (3)
7 Community Service and Economic Development; (4) Business Customer
8 Relations; and (5) Vegetation Management. These functional areas focus on
9 reliability, safety, customer service, operational efficiency, and the fiscal
10 oversight necessary to construct, operate, and maintain SPS's electric distribution
11 system in New Mexico and Texas. Please refer to Attachment BB-1 for a copy of
12 the Distribution Utility business area organizational chart.

13 **Q. As part of this rate case, is SPS asking to include Distribution Utility capital**
14 **additions in its rate base?**

15 A. Yes. The capital additions to SPS's New Mexico distribution system support
16 SPS's ability to provide electric service to its New Mexico retail customers and
17 are appropriately included in rate base.

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1 **Q. What is the time period for the Distribution Utility capital additions you are**
2 **addressing in your testimony?**

3 A. As discussed in my testimony, projects included in rate base are those
4 Distribution Utility projects that are planned to be completed and placed in
5 service between January 1, 2015 through the end of the Test Year (December 31,
6 2016).

7 **Q. What is the dollar amount of the Distribution Utility capital additions that**
8 **SPS is requesting in this case?**

9 A. The total dollar amount of Distribution Utility capital additions for SPS during the
10 period January 1, 2015 through December 31, 2016, is approximately \$215.56
11 million (total company). Attachment BB-2 provides a list of all SPS Distribution
12 Utility additions for the 24-month period to be included in rate base. I will
13 discuss this attachment in detail later in my testimony.

14 **Q. What are the primary business drivers affecting the level of Distribution**
15 **Utility capital additions?**

16 A. The business drivers that impact the capital additions for the Distribution Utility
17 business area are safety, quality of service, environmental requirements, mandated
18 regulatory requirements, and financial prudence. Components of these drivers

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1 include system growth, capacity expansion, and replacement for normal wear and
2 tear of the electric distribution assets and the fleet vehicles.

3 **Q. How are capital expenditures determined for Distribution Utility?**

4 A. Distribution Utility has a well-defined process for identifying, ranking and
5 determining electric distribution projects. At a high level, the process of
6 determining capital expenditures within the business area begins with completing
7 all the steps necessary to evaluate the capital expenditures for a project's life
8 cycle. The identification and assessment of problems, or "risks," along with their
9 related solutions, or "mitigations," is central to this process. Risks are problems
10 that can result in negative consequences to SPS's customers, the environment, or
11 SPS's ability to provide safe and reliable service. Mitigations are solutions that
12 address the risks. Each risk can have one or more identified mitigations.
13 Therefore, to ensure each risk is being addressed correctly, both the risk and the
14 mitigations are ranked and the solution that provides the best value is selected.

15 **Q. Please outline the steps necessary to build the capital expenditures budget for**
16 **the Distribution Utility business area.**

17 A. The following key steps are necessary to ensure that a comprehensive capital
18 budget is prepared with a focus on providing safe and reliable electric service:

Step 1 - Engineering and operations personnel identify potential risks and mitigations, the estimated life of the project, the associated costs, and the estimated in-service date.

Step 2 - Each risk and mitigation and its associated attributes are reviewed for accuracy, completeness and reasonableness.

Step 3 - As each risk and mitigation is submitted for consideration, it is scored based on certain criteria and the likelihood of the risk occurring as well as the consequences of not addressing the risk.

Step 4 - All risks and mitigations are ranked or prioritized.

Step 5 - After ranking, the business area determines which risks/mitigations will be funded during the year.

Step 6 - Risks/mitigations are assigned a capital project number based on the type of work involved. Capital projects are either classified as “specific” or “routine.”

Step 7 - Capital project numbers are automatically tied to closing patterns based on the attributes of the work. Alternatively, in-service dates are given to large specific projects.

Step 8 - All capital projects that are included within the authorized funding level are reviewed and approved both at the business area level and at the corporate level.

5 The determination of the estimated in-service date of all large projects
6 (not in Step 1 above) and the closing patterns associated with different types of
7 work (not in Step 7 above) determine the date the project goes from
8 construction-work-in-progress (“CWIP”) to plant-in-service and becomes a plant
9 addition. The process of moving projects from CWIP to plant-in-service is
10 described in more detail by SPS witness Lisa H. Perkett, as it relates to integrating
11 SPS’s capital budget across all business areas at the corporate level.

11

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1 **Q. Please describe how engineering and operations personnel identify and**
2 **propose risks and mitigations for inclusion in the capital expenditures budget**
3 **(Step 1).**

4 A. The electric distribution system serves a diverse range of customers across an
5 equally diverse topography. As a result, numerous problems or risks can occur.
6 As described in the beginning of my testimony, each functional area is made up of
7 operating areas across the service territory. As capital spending is determined and
8 throughout the year as new issues are identified, each operating area brings risks
9 and mitigations forward based on its knowledge of the assets and operations
10 within its territory. The operating areas' focus is on building, operating, and
11 maintaining physical assets while achieving quality improvements and cost
12 efficiencies. Engineers that support the operating areas also submit risks and
13 mitigations for consideration. All risks and mitigations are submitted as project
14 requests and entered into Risk Register, a software tool used to track and rank
15 project requests based on the inputs provided.

16 An example of a risk and mitigation that would be entered into Risk
17 Register is as follows:

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1 Risk- Overloaded 12.5 kV transformer at Dumas 19th Street

2 Mitigation- Reinforce Dumas 19th Street 115/12.5 kV transformer #2 to 28
3 MVA and add feeder.

4 **Q. When engineering and operations personnel are identifying risks and**
5 **mitigations within Step 1, please describe how they estimate the costs of**
6 **proposed capital projects.**

7 A. Estimates are constructed based on historical actuals of projects with similar
8 scope and scale. Known variations from historical actuals are taken into
9 consideration in developing the final estimate.

10 **Q. Please describe the review process (Step 2).**

11 A. Budgeting personnel focus on asset health, standardization, and mitigation of risk,
12 and provide coordination and consistency in evaluating project requests within the
13 electric distribution organization. A thorough review of each submission ensures
14 that the proposed projects will be ranked and scored appropriately based on their
15 merits. Additional review may occur after the project requests are scored based
16 on the comparative ranking of individual projects. Corporate guidelines and
17 economic factors (such as inflation) are identified annually and their impacts are
18 included in the budgeting process and the review.

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1 **Q. Please describe how the risks and mitigations are scored (Step 3).**

2 A. In order to facilitate the review and ranking process, project requests that are
3 presented and entered into Risk Register must include specific information
4 regarding their annual costs and benefits. Engineering and operations personnel
5 work with budgeting personnel to score each risk and mitigation individually
6 before ranking the projects. The business values used to score risks and
7 mitigations and assign a risk score are as follows:

- 8 • Reliability – Identification of the overloaded facilities, potential
9 customer minutes out and the annual hours at risk, failure probabilities,
10 peak day hours, age of facilities, potential customer outages;
- 11 • Safety – Identification of the yearly incident rate before and after the
12 risk is mitigated;
- 13 • Environmental – Evaluation of compliance before and after the risk is
14 mitigated, and the estimated exposure;
- 15 • Legal – Evaluation of compliance before and after the risk is
16 mitigated; and
- 17 • Financial – Identification of the gross cash flow, such as incremental
18 revenue, realized salvage value, incremental recurring costs, etc., and
19 identification of avoided costs such as quality of service pay-outs and
20 failure repairs.

21 **Q. Please describe how and why projects are ranked (Step 4).**

22 A. Funding for projects is not unlimited and typically the cost for projects identified
23 exceeds the available funding. Therefore, it is important to rank or prioritize the

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1 risks and mitigations prior to authorizing or deploying the work. In addition, the
2 volume and diverse types of risks require that a systematic process be used to
3 perform asset specific risk assessment over the life cycle of the asset. That
4 assessment is then ranked against other asset assessments that have been reviewed
5 using the same criteria. Non-discretionary projects and discretionary projects
6 providing the most value receive a higher ranking based on the business values
7 discussed earlier: safety, reliability, environment, legal, and financial.

8 **Q. Please describe how the authorized funding or spending guideline is**
9 **determined and applied (Step 5).**

10 A. The capital expenditure guidelines are determined at the corporate level for both
11 the legal entity and the business area, as explained in the direct testimony of SPS
12 witness Gregory J. Robinson. Capital expenditures associated with non-
13 discretionary projects are included in the budget first and then any authorized
14 spending is targeted at discretionary projects based on their ranking. Non-
15 discretionary projects and discretionary projects that fall within the approved
16 funding guidelines are included in the annual capital expenditures budget.

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1 **Q. Please describe how risks and mitigations are assigned project numbers**
2 **(Step 6).**

3 A. Project numbers are assigned based on the type of work the project request
4 entails. The project requests for electric distribution fall into the following types
5 of work (*i.e.*, “categories”):

- 6 • Capacity
- 7 • Equipment purchases
- 8 • Asset health
- 9 • Mandates
- 10 • New service
- 11 • Street lights
- 12 • Reliability
- 13 • Other

14 Each of these areas will be discussed in more detail later in my testimony.

15 **Q. Why are in-service dates or closing patterns determined and assigned to**
16 **capital projects (Step 7)?**

17 A. Closing patterns are developed to forecast when the construction of assets is
18 expected to be complete and the assets placed in service. Thus, closing patterns
19 determine how and when capital expenditures are moved from CWIP to plant in-
20 service.

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1 **Q. How are closing patterns for electric distribution developed?**

2 A. Closing patterns are developed based on the type of work involved. Routine
3 projects are assigned to a closing pattern. The estimated in-service date is used for
4 large and complex projects. These patterns are determined by evaluating the type
5 of work (*e.g.*, underground relocation, overhead new services, underground
6 rebuids) and using historical data to evaluate what percentage of the expected
7 budgeted expenditures should close to plant in-service on a monthly basis. This
8 analysis is based on the average time of construction and the energized date of the
9 project. For example, Overhead Extension projects have a closing pattern of three
10 months and Underground Extension projects have a closing pattern of four
11 months due to the nature of the work involved. These closing patterns are
12 monitored and revised as construction practices change.

13 **Q. Please describe the capital expenditures budget approval process (Step 8).**

14 A. Capital projects that have been included in the approved funding are uploaded
15 into the Financial Management System. The Utility President executive
16 management team reviews and approves this list. After the business area has been
17 afforded the opportunity to make adjustments, the capital projects are available
18 for corporate approval. At the corporate level, the business area and legal entity

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1 capital expenditures budget is reviewed and approved as described by SPS
2 witness Robinson. After receiving approval at the Financial Council level, work
3 release plans are finalized and work can be deployed.

4 **Q. Please describe the capital expenditures budget deployment process (Step 9).**

5 A. After the capital expenditures budget is finalized, the approved project list
6 becomes the basis for the release of projects during the related calendar year.
7 This process is flexible to allow for additions and deletions within a given year.
8 For example, should an emergency occur during the year, priorities may change
9 and result in an adjustment to the list of projects included for funding. Projects
10 that were previously approved may be delayed to accommodate the emergency.

11 **Q. You stated earlier that Attachment BB-2 shows the planned plant additions**
12 **to be completed and placed in service for the Distribution Utility business**
13 **area between January 1, 2015 and December 31, 2016. What types of costs**
14 **are included in the \$215.56 million additions?**

15 A. The \$215.56 million consists of the plant additions expected to be completed
16 after the end of the Base Period for each of the calendar years 2015 and 2016.
17 The plant additions expected to be completed in 2015 total \$111.03 million and
18 the forecasted plant additions for 2016 total \$104.53 million. These dollars are

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1 reflected at the total company level and include the allowance for funds used
2 during construction, but do not include the capital cost of removal.

3 **Q. Please describe the information contained in Attachment BB-2, which**
4 **provides details regarding the Distribution Utility capital additions requested**
5 **in this case.**

6 A. Attachment BB-2 provides the following information:

Column A —	Functional Class	Identifies each project as either Electric Distribution or Electric General
Column B —	Parent Work Order Number	Provides the parent work order number for the project.
Column C —	Description	Provides a short description of the parent work order.
Column D —	Estimated ISD	Provides the estimated in-service date (“ISD”) of the parent work order.
Column E —	2015	Provides plant additions expected in calendar year 2015.
Column F —	2016	Provides plant additions expected in calendar year 2016.
Column G —	Total Period (Jan. 1, 2015 – Dec. 31, 2016)	Provides the total plant additions expected in calendar year 2015 and 2016.
Column H —	Category	Provides a high level category to which similar projects are assigned.

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1 **Q. Column D contains a number of dates before January 1, 2015. Why are**
2 **these dates included?**

3 A. For various projects, charges can continue for a short period after the in-service
4 date is recognized on a work order. These charges are for recognition of the final
5 bills from vendors, testing of the equipment, restoration of the ground, settlement
6 of any disputes, and returning unused stock to inventory

7 **Q. Please provide a definition for the categories listed in Attachment BB-2.**

8 A. The categories listed in Attachment BB-2 are used to group projects by type of
9 work as follows:

- 10 • “Asset Health” - includes the replacement for various parts of the
11 distribution system such as poles, wire, cross-arms, and protective
12 equipment.
- 13 • “Capacity” - includes all distribution system equipment associated with
14 upgrading or increasing capacity to handle system load growth.
- 15 • “CIAC” – contribution in aid to construction paid by a customer per
16 extension policy.
- 17 • “Equipment Purchase” – includes meters and transformers.
- 18 • “Mandates” - includes avian and poles, wire, labor, fleet, and other costs
19 associated with relocation of existing plant required by regulatory
20 agencies.
- 21 • “New Service” - includes all costs associated with extending facilities to
22 new customers.

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- 1 • “Other” - includes fleet, tools, right-of-way (“ROW”), land, and
2 miscellaneous costs associated with modifications or additions to the
3 distribution system or supporting assets.
- 4 • “Reliability” - includes all distribution system equipment associated with
5 upgrading or increasing capacity to maintain or improve the reliability of
6 the distribution system.
- 7 • “Street Lights” - includes items to support maintenance of the street light
8 equipment, light heads, steel poles, arms, contacts, wire, and labor
9 required for continuous operation.

10 **Q. Please describe these plant additions based on type of work.**

11 A. As noted in Step 6, project requests are assigned project numbers based on the
12 type of work involved. The individual electric distribution plant additions by
13 project are listed on Attachment BB-2. The subtotals by type of work for the
14 24-month period are listed below in Table BB-1:

Table BB-1
Plant Additions by Type of Work (in millions)

Category	2015	2016	Total	Percent of Total
Asset Health	\$ 11.71	\$ 20.10	\$ 31.81	14.76%
Capacity	61.83	38.99	100.82	46.77%
Equipment Purchase	12.58	12.06	24.64	11.43%
Mandates	0.71	0.72	1.43	0.66%
New Service	14.98	25.37	40.35	18.72%
Other	6.85	3.42	10.27	4.76%
Reliability	0.64	0.73	1.36	0.63%
Street Lights	1.74	3.15	4.89	2.27%
Total	\$ 111.03	\$ 104.53	\$ 215.56	100%

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1 **Q. Please describe the cost drivers for each type of work.**

2 A. Each type of work represents a unique group of similar projects. The projects can
3 be routine or specific, discretionary or non-discretionary. Significant items
4 include costs associated with new customers, increased capacity requirements,
5 reconstruction of existing facilities, street light expenditures, equipment purchases
6 (meters, transformers) and fleet vehicles.

7 **New Service:** New service projects comprise approximately \$40.35
8 million, or 18.72 percent, of the 24-month forecasted plant additions. \$38.48
9 million of the \$40.35 million in this category is for routine overhead new
10 extensions and routine underground new extensions. Projects required to support
11 this growth include the installation of feeders, primary and secondary extensions,
12 and service laterals. \$1.87 million is for specifically identified projects.

13 **Capacity:** Distribution line and substation capacity projects comprise
14 approximately \$100.82 million, or 46.77 percent, of the forecasted plant
15 additions. These projects include infrastructure work related to increasing feeder
16 and substation capacity to mitigate equipment overloads. This work generally
17 spans multiple years and is necessitated by increased load either from existing
18 customers or new customers. In addition, meeting the new transmission power

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1 factor requirements increases the cost of new distribution substations and capacity
2 upgrades. Of the \$100.82 million in capacity plant additions shown in Table
3 BB-1, the majority of the distribution line and substation projects are specific
4 projects and total \$94.06 million. The remainder, or \$6.76 million, are designated
5 as routine and include overhead reinforcements and underground reinforcements.

6 **Street Lights:** Street light projects are \$4.89 million, or 2.27 percent, of
7 the 24-month planned plant additions. Street light capital projects are largely
8 driven by new customer growth, road projects, normal wear and tear, and damage
9 repair or replacement. These projects also include the installation, removal, and
10 replacement of street/area lighting as required by construction standards and
11 SPS's tariffs.

12 **Asset Health:** Projects classified as asset health are related to
13 infrastructure that is experiencing high failure rates and, as a result, negatively
14 impact reliability of service and increase O&M expenditures. The 24-month plant
15 additions related to Asset Health total \$31.81 million, or 14.76 percent, of the
16 requested additions. \$5.60 million is related to specific projects and \$26.21
17 million relates to routine projects.

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1 **Reliability:** Because providing reliable customer service is a priority,
2 Distribution assets are monitored to ensure that they provide reliable service
3 throughout the year. When poor performing assets are identified, projects that
4 will improve asset performance are included in the budget. A total of \$1.36
5 million, or .63 percent, of the 24-month planned plant additions relates to
6 reliability projects.

7 **Mandates:** Mandated projects are required to meet Federal, State, or
8 local requirements. These projects include avian protection, relocating facilities
9 that are in direct conflict with street expansions within public right-of-ways, and
10 safety-related work required by a governing authority. These projects are
11 normally identified during planning meetings with local operating areas.
12 Mandated projects comprise approximately \$1.43 million, or .66 percent, of the
13 24-month planned plant additions. These projects are monitored monthly and
14 adjustments are made based on customer requests.

15 **Equipment:** Equipment purchases for SPS total \$24.64 million and make
16 up 11.43 percent of the 24-month planned plant additions. Although equipment
17 purchases are classified as a type of work, they include purchases of electric
18 transformers (\$20.23 million) and meters (\$4.51 million). The main drivers of the

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1 budget for transformers and meters are replacements due to normal wear and tear,
2 emergencies, new customer growth, and increased transformer prices associated
3 with the efficiency standards, raw materials, manufacturing, and delivery.

4 **Other:** Funding is needed for requirements other than the actual
5 construction of facilities. Those requirements are:

- 6 • Fleet – The fleet budget comprises approximately \$5.46 million of the
7 forecasted plant additions classified as “other.” It is necessary to
8 replace vehicles and equipment that have become less reliable over
9 time and costly to maintain.
- 10 • Right-of-Way – Capital forecasted plant additions associated with
11 obtaining right-of-ways and easements are planned at \$1.22 million for
12 the 24-month period.

13 Other capital requirements – Capital forecasted plant additions associated with
14 special tools and locate costs are estimated at \$3.47 million for the 24-month
15 period.

16 **Q. Your testimony previously explained how the Distribution Utility business**
17 **area develops cost estimates for proposed capital projects. Can you please**
18 **describe how cost estimates were developed for the Battle Axe Feeder and**
19 **Sage Brush Substation projects, which are the largest specific capital**
20 **projects in New Mexico proposed by the Distribution Utility business area?**

21 A. The Battle Axe feeder estimates are based on historical costs of comparable
22 projects utilizing standard construction. A variable in the estimate, conductor

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1 size, was determined utilizing known load requests. Once the conductor size was
2 determined, estimates were created on a per mile basis.

3 The Sage Brush Substation project was specifically scoped based on the
4 required technical specifications required for the substation. Estimates were
5 based upon current costs for items such as engineering and construction (labor),
6 materials, communications, and ROW. Once current costs were determined, a
7 corporate escalation factor was applied to account for inflation and estimate future
8 costs.

9 **Q. In addition to specific projects, does the Distribution Utility business area**
10 **develop a general capital budget?**

11 A. Yes. Distribution Utility develops a routine or “blanket” capital budget.

12 **Q. How are routine or blanket budgets developed?**

13 A. The budget for electric new service routine work is developed using a cost per
14 meter methodology. This process begins with developing a forecast for the
15 number of new meter sets for each local operating area. Inputs and assumptions
16 are also developed that reflect inflation factors used in determining the assumed
17 increase or decrease in the components that make up the new business costs. The
18 factors (labor, non-labor, contractor, material, equipment, and fleet inflation rates,

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1 bargaining labor increases and corporate overhead rates) reflect both corporate
2 and operating company rates. Historical data is used to determine the major
3 drivers or components that make up new business costs. The components are:
4 labor (both company and contracted), labor loadings, material (excluding meters
5 and transformers), equipment, transportation, overheads and other costs. Using
6 these components, SPS then develops a cost per meter component matrix for each
7 local operating area. The matrix provides SPS with the ability to apply the related
8 inflation factors to the specific components that make up the overall cost per
9 meter. SPS also uses this data for variance analysis against what actually
10 occurred during the year. The variance analysis allows SPS to determine which
11 components account for the difference in the forecast versus actual expenditures.

12 After the preliminary forecast has been determined, the data is reviewed
13 with management in each local operating area to determine if there will be
14 substantial changes in the operations (*e.g.*, crew mix, major projects, and labor
15 issues). Pending the outcome of these reviews, adjustments are made to the
16 preliminary forecast and the proposed routine budgets are submitted for final
17 approval.

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1 The budget for electric reconstruction routine blankets uses the averages
2 of historical values escalated by the corporate inflation rate (around 2% per year)
3 to determine expected levels of spend. This total expected budget is then
4 allocated to each service area using the average historical ratio of the past five
5 years. The allocation is adjusted to ensure unique, one-time projects in a service
6 area do not impact the calculation of the average five-year historical expenditures.

7 Routine project requests such as new business growth, reinforcements or
8 rebuilt, include a five-year expenditure history and estimated in-service in the
9 request. This routine grouping of projects serves to allocate funding for
10 performing core business functions, such as connecting new customers,
11 reconstruction of facilities, street lights expenditures, funds for the purchase of
12 new meters, transformers and fleet.

13 **Q. Have you assessed the reasonableness of the forecast used to determine the**
14 **forecasted plant additions for 2015 and 2016?**

15 A. Yes. The February 2015 forecast for 2015 and 2016 was developed following a
16 process that is well defined. The forecast can be broken down into two
17 components. The first component consists of investments associated with adding
18 new customers to the system, including the equipment purchases and installation

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1 costs and required reconstruction investments for road moves and non-
2 discretionary capacity projects. Other costs of doing business are also included in
3 this component such as fleet purchases, tool and equipment purchases, street
4 lighting, right of way work and facility locates. Each of the categories included in
5 this component are budgeted based on both historical analysis of actual spend and
6 forecasts which include adjustments to those historical trends. Given the increase
7 in material costs seen over the past few years, historical trends are helpful in
8 identifying expected quantities (number of meters or number of transformers or
9 feet of cable), but forward cost analyses are required for accurate expected costs.

10 The second component of the forecast consists of investments associated
11 with maintaining the health and reliability of the distribution assets already in
12 service. Reliability and capacity programs, such as the Feeder Performance
13 Improvement Program and substation and electric capacity projects, are funded
14 through this component. Projects that are necessary to maintain current levels of
15 service (which require adequate capacity) are also included as such projects are
16 identified due to realized or anticipated load growth on the existing infrastructure.
17 Individual projects are analyzed and prioritized so that the most significant work
18 is funded first. The specific projects are designed as mitigations to address one or

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1 more quantifiable risks to the health of the distribution system. The prioritization
2 of this work involves a risk-adjusted benefit-cost analysis that is objective and
3 consistent across all lines of business. Quality assurance checks are maintained
4 throughout the prioritization process with peer-reviews and inter-departmental
5 reviews.

6 **Q. Does SPS expect to experience load growth between the end of the Base**
7 **Period and the Test Year?**

8 A. Yes. SPS is expecting to continue to serve growth in 2016 by constructing an
9 estimated 163 miles of new distribution line. The forecasted construction is
10 required to serve the continued growth in New Mexico. SPS has constructed 380
11 miles of distribution line since 2011. Table BB-2 below shows the distribution
12 miles by year.

13 **Table BB-2**

Year	Miles
2011	35
2012	75
2013	130
2014	140

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1 **Q. Please explain the process the Distribution Utility business area follows to**
2 **manage capital costs.**

3 A. The budgeting department within the Distribution Utility business area monitors
4 all distribution capital dollars to ensure that authorized projects align with the
5 established forecast. Actual spending compared to forecasted levels is monitored
6 on a regular basis.

7 **Q. What incentives are in place to promote the accuracy of capital additions**
8 **budgeting and spending?**

9 A. All management employees in both operating areas and investment delivery have
10 specific budgetary goals that are incorporated into their performance evaluations.
11 Performance is measured on a monthly basis to ensure adherence to the goals and
12 provide for action plan development to address variances. Performance
13 management plans for all directors and managers include a metric associated with
14 their capital spend. This metric is designed to develop accurate capital project
15 costs and manage the planned capital additions. The scorecard for SPS also
16 contains a Key Performance Indicator associated with capital project accuracy.

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- 1 **Q. Are the Distribution Utility capital additions presented in Attachment BB-2**
2 **reasonably reflective of what you expect SPS to place in service during the**
3 **24-month period between January 1, 2015 and December 31, 2016?**
4 **A. Yes.**

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**IV. VOLTAGE CONVERSION COSTS AND CORRECTED ALLOCATION OF
FIVE DISTRIBUTION-RELATED FERC ACCOUNTS**

1 **Q. What topic do you address in this section of your testimony?**

2 A. I address two adjustments to Distribution Utility O&M expense for the Test Year:
3 (1) a \$700,000 increase in voltage conversion costs from the Base Period to the
4 Test Year; and (2) the allocation of costs during the Base Period for five FERC
5 accounts that should be corrected to appropriately assign costs to the jurisdictions
6 that benefit from the work related to these costs.

7 **Q. Turning first to the voltage conversion costs, what has caused the increase in**
8 **costs related to voltage conversions?**

9 A. Due to ROW constraints found throughout SPS's service territory in New
10 Mexico, voltage conversions of existing circuits are required for some projects to
11 support new growth. Increasing the voltage on certain, identified circuits will
12 allow SPS to increase its capacity in order to allow expanded service to be
13 provided from the existing lines without the need to acquire additional ROW and
14 construct additional lines. SPS expects to continue to make these voltage level
15 conversions, and incur costs associated with the conversions, each year for the
16 next several years.

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1 **Q. Please describe the circuits where voltage conversions will be necessary.**

2 A. SPS is experiencing load growth on circuits out of substations Ochoa and
3 Whitten. These circuits are built at 12.47kV. In order to meet load growth in the
4 area, SPS is building a new substation, Battle Axe Substation, which will be
5 constructed at 22.9kV. The Battle Axe circuits will tie to the existing circuits out
6 of Ochoa and Whitten. Circuit ties will allow load to be transitioned from Ochoa
7 and Whitten substations to Battle Axe substation for growth as well as for
8 restoration. In order to limit SPS's impact to the land and to limit the required
9 ROW, SPS will utilize portions of existing Ochoa circuits and Whitten circuits.
10 This will require that 15 miles of these circuits be converted from 12.47kV to
11 22.9kV. SPS estimates that the cost of labor and materials for the voltage
12 conversion will be \$700,000. The majority of this amount is based on the cost of
13 labor necessary to improve insulation on the distribution lines to accommodate a
14 higher voltage level, at an average cost per mile.

15 **Q. Is the increase for voltage conversion costs reasonable and necessary?**

16 A. Yes. This increase is reasonable and represents the level of distribution utility
17 business spending on voltage conversions needed to support growth in these tight
18 ROW areas.

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1 **Q. Turning next to the corrected allocation of costs collected in five distribution-**
2 **related FERC accounts, which five accounts are affected?**

3 A. The five FERC accounts are Accounts 581-Load Dispatching, 582-Station
4 Expenses, 585-Street Lighting and Signal System Expenses, 587-Customer
5 Installation Expenses, and 592-Maintenance of Station Equipment.

6 **Q. Please explain the corrected allocation for these accounts for the Test Year.**

7 A. In 2015, the Distribution Operations organization determined that costs charged to
8 work orders that are booked to these five FERC accounts were established in the
9 accounting system to record costs directly to the Texas jurisdiction and none to
10 any other jurisdiction. However, the costs charged to these work orders benefit
11 the entire distribution system, which serves both the New Mexico and Texas retail
12 jurisdictions, and thus should be allocated between the two retail jurisdictions.
13 This correction was made in the cost of service as discussed by SPS witness Mr.
14 Freitas.

15 **Q. What is the effect of the allocation adjustment to the five FERC accounts?**

16 A. The New Mexico distribution O&M is approximately \$1.1 million higher with the
17 allocation method applied than if the charges were inappropriately charged
18 directly to the Texas jurisdiction.

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- 1 **Q. Is the correction to the five FERC accounts reasonable and necessary?**
- 2 A. Yes. The correction appropriately assigns costs to the jurisdictions that benefit
- 3 from the work related to these costs.

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**V. PROPOSED TARIFF MODIFICATION TO ADDRESS REQUESTS TO
RELOCATE FACILITIES**

1 **Q. What topic do you discuss in this section of your testimony?**

2 A. In this section of my testimony, I support a proposed rule tariff addition, Tariff
3 No. 27. This new rule tariff addresses requests for SPS to temporarily or
4 permanently relocate its facilities.

5 **Q. Does SPS receive requests to relocate, either temporarily or permanently, its**
6 **facilities?**

7 A. Yes. SPS receives these types of requests on a regular basis. For example, SPS
8 receives requests to raise distribution lines to allow oil field equipment to pass
9 under those lines.

10 **Q. Does SPS experience difficulty sometimes in undertaking such requests for**
11 **relocation?**

12 A. Yes. Sometimes fulfilling these types of requests can be challenging due to a lack
13 of notice or availability of personnel, or both. In addition, it is important to
14 ensure SPS is completely reimbursed for performing this type of work by the
15 requestor. SPS witness Richard M. Luth proposes a new tariff provision (Rule
16 Tariff No. 27, Temporary or Permanent Relocation/Modification of Company

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1 Facilities and Fees) that specifically addresses these types of requests and
2 addresses these types of issues.

3 **Q. Does proposed Rule Tariff No. 27 sufficiently address the issues SPS has**
4 **encountered in responding to requests to temporarily or permanently**
5 **relocate its facilities?**

6 A. Yes. The proposal requires sufficient notice (*i.e.*, at least seven days prior) and
7 requires payment of the costs incurred by SPS from the entity requesting the
8 facilities be relocated. At the same time, the provision allows SPS flexibility as
9 necessary to respond to special facts or circumstances.

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VI. CONCLUSION

1 **Q. Were Attachments BB-1 through BB-3 and the Schedules in the RFP that**
2 **you sponsor prepared by you or under your direct supervision and control?**

3 **A. Yes.**

4 **Q. Do you incorporate the RFP Schedules you sponsor into your testimony?**

5 **A. Yes.**

6 **Q. Does this conclude your pre-filed direct testimony?**

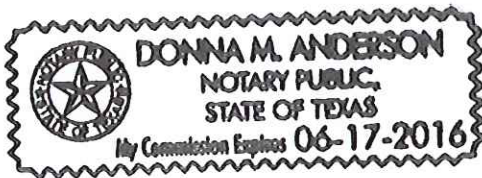
7 **A. Yes.**

VERIFICATION

STATE OF TEXAS)
) ss.
COUNTY OF POTTER)

BRAD BALDRIDGE, first being sworn on his oath, states:


I am the witness identified in the preceding direct testimony. I have read the testimony and the accompanying attachments and am familiar with their contents. Based upon my personal knowledge, the facts stated in the testimony are true. In addition, in my judgment and based upon my professional experience, the opinions and conclusions stated in the testimony are true, valid, and accurate.





BRAD BALDRIDGE

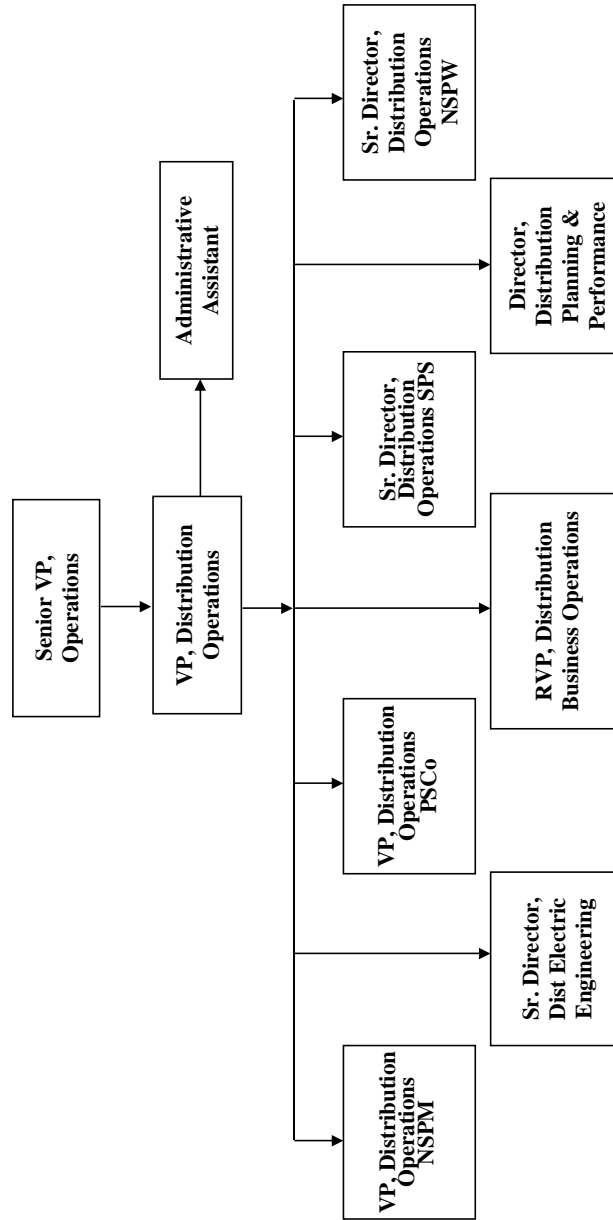
SUBSCRIBED AND SWORN TO before me this 27 day of May, 2015.



Notary Public, State of Texas
My Commission Expires: 6/17/2016

Southwestern Public Service Company

Organization Chart - Distribution Operations



Southwestern Public Service Company

Electric Distribution Capital Additions For Period
January 1, 2015 through December 31, 2016

Line No.	Functional Class (A)	Parent (B)	Description (C)	Estimated ISD (D)	2015 (E)		2016 (F)		Total Plant Additions for Period January 1, 2015 - December 31, 2016 (G)		Category (H)
					\$		\$		\$		
1	Electric Distribution	10018159	Overhead Pools - Elect Dist Su	Routine	18,879.72		-		18,879.72		Other
2	Electric Distribution	10129881	Txn-(023) Oh Services	Routine	1,193,756		1,231,389		2,425,145		New Service
3	Electric Distribution	10129882	Txn-(0025) Ug Services	Routine	1,384,896		1,552,138		2,937,034		New Service
4	Electric Distribution	10129884	Txn-Elec Non-Refundable Ciac	Routine	(254,898)		(1,365,000)		(1,619,898)		Other
5	Electric Distribution	10129885	Txn-(0031) New Elec Meters	Routine	1,430,293		2,457,876		3,888,169		Equipment Purchase
6	Electric Distribution	10129886	Txn- (0032) New Bus. Transform	Routine	7,298,910		9,597,129		16,896,038		Equipment Purchase
7	Electric Distribution	10129891	Txn-(022) Oh Rebuilds	Routine	2,936,060		3,198,637		6,134,697		Asset Health
8	Electric Distribution	10129895	Txs-(023) Oh Services	Routine	554,168		572,793		1,126,961		New Service
9	Electric Distribution	10129896	Txs--(025) Ug Services	Routine	37,809		41,435		79,245		New Service
10	Electric Distribution	10129900	Txs-Elec Non-Refundable Ciac	Routine	(60,700)		(395,000)		(455,700)		Other
11	Electric Distribution	10129902	Txs-(022) Oh Rebuilds	Routine	1,612,507		1,725,855		3,338,362		Asset Health
12	Electric Distribution	10129911	Nm Blanket-(023) Oh Services	Routine	679,311		684,105		1,363,416		New Service
13	Electric Distribution	10129912	0025 Blanket - New Mexico Ug S	Routine	1,020,484		1,104,562		2,125,046		New Service
14	Electric Distribution	10129916	Nmx-Elec Non-Refundable Ciac	Routine	(202,616)		(957,000)		(1,159,616)		Other
15	Electric Distribution	10129919	0022 Cap. Blanket - New Mexico	Routine	1,854,769		1,895,790		3,750,559		Asset Health
16	Electric Distribution	10138573	Txs-(1912) Capital Ug Extensio	Routine	373,395		401,540		774,935		New Service
17	Electric Distribution	10138574	Txn-(1912) Capital Ug Extensio	Routine	1,163,508		1,457,647		2,621,155		New Service
18	Electric Distribution	10138575	NM-UG Extension	Routine	706,846		800,519		1,507,365		New Service
19	Electric Distribution	10143255	Tx Blnt-Overhead Extensions	Routine	880,314		3,268,415		4,148,730		New Service
20	Electric Distribution	10143257	Txn - Oh Street Light	Routine	449,016		475,817		924,833		Street Lights
21	Electric Distribution	10143258	Txn-Ug Street Lights	Routine	445,457		476,744		922,201		Street Lights
22	Electric Distribution	10143259	Tx Blanket-Ug Convers/Rebuilds	Routine	197,369		318,468		515,837		Asset Health
23	Electric Distribution	10143260	Tx Blanket-Oh Replacements	Routine	440,356		516,255		956,610		Capacity
24	Electric Distribution	10143261	Underground Reinforcements	Routine	2,065		4,218		6,282		Capacity
25	Electric Distribution	10143262	Txn Blanket-Oh Relocations	Routine	393,200		333,789		726,990		Mandates
26	Electric Distribution	10143263	Txn Blanket-Ug Relocations	Routine	(22,318)		639		(21,679)		Mandates
27	Electric Distribution	10143268	Txn Blanket-Subst Cap Reinforc	Routine	265,950		23,387		289,336		Capacity
28	Electric Distribution	10143273	Txs Blanket-Oh Extension	Routine	217,232		1,085,032		1,302,264		New Service
29	Electric Distribution	10143278	Txs Blanket- Oh Street Lights	Routine	177,595		184,665		362,260		Street Lights
30	Electric Distribution	10143280	Txs Blanket-Ug Convers/Rebuild	Routine	63,106		101,616		164,722		Asset Health
31	Electric Distribution	10143281	Txs Blanket-Oh Reinforcement	Routine	333,622		355,276		688,897		Capacity
32	Electric Distribution	10143283	Txs Blanket-Oh Relocations	Routine	127,304		98,701		226,005		Mandates
33	Electric Distribution	10143284	Txs Blanket-Ug Relocations	Routine	57,965		107,568		165,532		Mandates
34	Electric Distribution	10143295	NM Blanket-Oh Extension	Routine	1,021,148		5,109,067		6,130,214		New Service

Southwestern Public Service Company

Electric Distribution Capital Additions For Period
January 1, 2015 through December 31, 2016

Line No.	Functional Class (A)	Parent (B)	Description (C)	Estimated ISD (D)	Total Plant Additions for Period			Category (H)
					2015 (E)	2016 (F)	January 1, 2015 - December 31, 2016 (G)	
35	Electric Distribution	10143297	NM Blanket-Oh Street Lights	Routine	339,610	372,516	712,126	Street Lights
36	Electric Distribution	10143298	Nm Blanket-Ug Street Lights	Routine	326,030	373,580	699,609	Street Lights
37	Electric Distribution	10143299	Nm Blanket-Ug Conv/Rebuilds	Routine	33,649	54,215	87,864	Asset Health
38	Electric Distribution	10143300	Nm Blanket-Oh Reinfore	Routine	420,291	485,758	906,049	Capacity
39	Electric Distribution	10143302	Nm Blanket-Oh Relocations	Routine	130,603	129,209	259,811	Mandates
40	Electric Distribution	10143303	Nm Blanket-Ug Relocations	Routine	24,685	45,548	70,233	Mandates
41	Electric Distribution	10229515	Sps-Poor Perf Fdr Replace Blkt	Routine	476,127	448,183	924,310	Reliability
42	Electric Distribution	10231687	Tx N-Dist Substation Equip Rep	Routine	772,034	1,131,988	1,904,022	Asset Health
43	Electric Distribution	10245224	Nm-Worst Performing Feeders	Routine	-	219,725	219,725	Reliability
44	Electric Distribution	10390363	Scrap Sale Credits-SPS	Routine	254	-	254	Other
45	Electric Distribution	10393741	Collect crdis from CRS billing	Routine	(108,799)	-	(108,799)	Other
46	Electric Distribution	10437246	Capitalized Locating Costs-Ele	Routine	322,907	117,025	439,932	Other
47	Electric Distribution	10525459	Elec New Bus Carryover - SPS	Routine	3,875,382	8,061,117	11,936,499	New Service
48	Electric Distribution	10525465	Elec Recon Carryover - SPS	Routine	968,088	1,755,831	2,723,919	Asset Health
49	Electric Distribution	10650049	Dist Sub - Non-Discr - Conting	Routine	-	1,611,864	1,611,864	Capacity
50	Electric Distribution	10695231	E&S Elec Distribution_SPS	Routine	(109,837)	-	(109,837)	Other
51	Electric Distribution	10779823	SPS Storm Recovery Project	Routine	169,237	83	169,320	Asset Health
52	Electric Distribution	10797039	Inspect/Replace Poles_New Mexi	Routine	431,308	941,447	1,372,755	Asset Health
53	Electric Distribution	10797065	Inspect/Replace Poles_Texas	Routine	1,133,270	1,913,614	3,046,884	Asset Health
54	Electric Distribution	10952542	Reliability Monitoring System	Routine	148,465	46,580	195,045	Reliability
55	Electric Distribution	10952543	Reliability Monitoring System	Routine	11,074	12,643	23,717	Reliability
56	Electric Distribution	10955146	Environmental Work SPS-EL	Routine	(2,170)	123,338	121,168	Capacity
57	Electric Distribution	11088138	Environmental Work SPS - NM -	Routine	-	263,817	263,817	Capacity
58	Electric Distribution	11178582	Texas North Avian Protection P	Routine	(63)	-	(63)	Asset Health
59	Electric Distribution	11308465	RRFP (TxS)	Routine	182	0	182	Asset Health
60	Electric Distribution	11325536	TX Pole Trussing	31-Dec-19	143,691	97,294	240,985	Asset Health
61	Electric Distribution	11325537	NM Pole Trussing	31-Dec-19	35,821	46,168	81,989	Asset Health
62	Electric Distribution	11362705	Convert Zodiac T1 69 to 115 kV	31-Jan-15	1,501	-	1,501	Capacity
63	Electric Distribution	11362706	Convert Hart T1 69 to 115 kV	31-Dec-14	34,228	-	34,228	Capacity
64	Electric Distribution	11362709	Reinf Dumas 19th St 115/12.5kV	31-Jan-15	(103)	-	(103)	Capacity
65	Electric Distribution	11362743	Reinf Sand Dunes 14 to 28 MVA	31-Dec-14	12,037	-	12,037	Capacity
66	Electric Distribution	11362747	Dist Sub Reliability Imp Plan	Routine	(3,219)	-	(3,219)	Asset Health
67	Electric Distribution	11500752	Convert Lynn Co to 115/23KV 14	2-Mar-15	750,015	-	750,015	Capacity
68	Electric Distribution	11501081	Reinf So Loving 69/12.5KV 28MV	31-Jan-15	154	-	154	Capacity

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January 1, 2015 through December 31, 2016

Line No.	Functional Class (A)	Parent (B)	Description (C)	Estimated ISD (D)	Total Plant Additions for Period			Category (H)
					2015 (E)	2016 (F)	January 1, 2015 - December 31, 2016 (G)	
69	Electric Distribution	11501161	Inst NewCarlsbad 115/12.5kV 28	31-Mar-15	2,838,277	-	2,838,277	Capacity
70	Electric Distribution	11501164	Inst NewCarlsbad 115/12.5kV 28	31-Mar-15	1,620,408	-	1,620,408	Capacity
71	Electric Distribution	11501180	Inst China Draw 69/12.5kV 28MV	31-May-15	4,788,498	-	4,788,498	Capacity
72	Electric Distribution	11501182	Inst China Draw 69/12.5kV 28MV	30-Jun-15	2,333,901	-	2,333,901	Capacity
73	Electric Distribution	11501341	Conv Wado to 115/12.5kV &MVA	31-May-16	-	3,707,358	3,707,358	Capacity
74	Electric Distribution	11501343	Build Lipscomb Substation /s	31-Dec-15	3,627,310	-	3,627,310	Capacity
75	Electric Distribution	11501345	Remove Booker Substation	31-Aug-16	-	380,550	380,550	Asset Health
76	Electric Distribution	11501349	Convert Booker T1 115/35kV 28M	31-May-16	211,749	500,493	712,242	Capacity
77	Electric Distribution	11501356	Conv Kress Rural to 115/12 kV	31-Mar-15	29,868	-	29,868	Capacity
78	Electric Distribution	11501357	Conv Plainview No 115/12.5kV 2	31-Mar-15	63,711	-	63,711	Capacity
79	Electric Distribution	11524011	NM-Elec-Easement	Routine	363,192	476,308	839,500	Other
80	Electric Distribution	11524017	TxN-Elec Easement	Routine	8,295	9,963	18,259	Other
81	Electric Distribution	11524023	TxS-Elec Easement	Routine	83,086	83,000	166,086	Other
82	Electric Distribution	11548040	Reconductor 4.2kV Zodiac Fdr 3	31-Mar-15	256,667	-	256,667	Capacity
83	Electric Distribution	11608577	SPS Storm Recovery Project-NM	Routine	31,695	15	31,711	Asset Health
84	Electric Distribution	11647788	Reserve 115/5 kV 28 MVA XFMR-S	31-Dec-16	-	487,504	487,504	Asset Health
85	Electric Distribution	11647836	Feeder breaker degradation - S	31-Dec-19	129,050	293,482	422,532	Asset Health
86	Electric Distribution	11647839	ELR - Substation Relays - SPS	31-Dec-19	-	136,847	136,847	Asset Health
87	Electric Distribution	11647843	ELR - Substation Regulators -	31-Dec-19	-	94,633	94,633	Asset Health
88	Electric Distribution	11647849	Substation Fence Improvement -	31-Dec-19	-	13,942	13,942	Asset Health
89	Electric Distribution	11647868	Load Data Enhancement Project	31-Dec-19	-	163,290	163,290	Asset Health
90	Electric Distribution	11647877	Load Data Enhancement Project	31-Dec-19	-	163,290	163,290	Asset Health
91	Electric Distribution	11647891	Inst Battle Axe 115/12.5kV 28MV	31-Oct-15	6,878,313	-	6,878,313	Capacity
92	Electric Distribution	11647895	Install Battle Axe 12.5kV Feed	31-May-16	-	4,287,766	4,287,766	Capacity
93	Electric Distribution	11647930	Inst CoburnCk 115/13.2 kV 14MV	31-May-16	-	4,832,534	4,832,534	Capacity
94	Electric Distribution	11647945	Install Coburn Creek 13.2kV Fe	31-Dec-16	-	374,511	374,511	Capacity
95	Electric Distribution	11647948	Convert Soncy to 115/13.2kV 50	31-Dec-15	2,616,189	-	2,616,189	Capacity
96	Electric Distribution	11647950	Conv Channing to 230/35kV 2-28	31-Dec-15	4,777,698	-	4,777,698	Capacity
97	Electric Distribution	11647969	Inst Pringle Int 115/34.5kV 28	28-Feb-15	2,734,401	-	2,734,401	Capacity
98	Electric Distribution	11647974	Inst Pringle Int 35kV Feeders	31-Jul-14	19,915	-	19,915	Capacity
99	Electric Distribution	11647979	Install Sunset 115/13.2kV 28MV	31-Dec-16	-	2,752,419	2,752,419	Capacity
100	Electric Distribution	11647982	Install Sunset 13.2kV Feeders	31-Dec-16	-	478,186	478,186	Capacity
101	Electric Distribution	11648019	Reinf Muleshoe West 69/12.5kV	31-May-15	2,194,824	-	2,194,824	Capacity
102	Electric Distribution	11648033	Reinf Muleshoe Valley 115/12.5	31-Dec-15	2,167,733	-	2,167,733	Capacity

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Electric Distribution Capital Additions For Period
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Line No.	Functional Class (A)	Parent (B)	Description (C)	Estimated ISD (D)	Total Plant Additions for Period			Category (H)
					2015 (E)	2016 (F)	January 1, 2015 - December 31, 2016 (G)	
103	Electric Distribution	11648035	Inst Muleshoe East 12.5/2.4 3-	30-Apr-15	762,149	-	762,149	Capacity
104	Electric Distribution	11648040	Rebuild Plainview City 69/2.4k	31-Dec-16	-	2,417,267	2,417,267	Capacity
105	Electric Distribution	11658673	TXN Lidar Projects	31-Dec-14	446	-	446	Mandates
106	Electric Distribution	11697941	Capitalized Locating Costs-Ele	Routine	96,181	29,404	125,585	Other
107	Electric Distribution	11750438	Administrative and General Exp	31-Oct-14	16,267	-	16,267	Other
108	Electric Distribution	11758881	Substation Land - New Mexico	Routine	1,054,782	575,000	1,629,782	Capacity
109	Electric Distribution	11765674	Dist Subs Asset Health WCF-SPS	Routine	958,055	2,015,115	2,973,170	Asset Health
110	Electric Distribution	11780161	Construct Kilgore 115/4.2kV 14M	31-Mar-15	2,775,595	-	2,775,595	Capacity
111	Electric Distribution	11786998	Substation Land - TX	Routine	132,000	150,000	282,000	Capacity
112	Electric Distribution	11789410	Inst Camex 115/13.2kV 28MVA T3	28-Feb-15	2,242,827	-	2,242,827	Capacity
113	Electric Distribution	11789416	Inst Higg East 115/12.5kV 28MV	31-May-15	2,990,744	-	2,990,744	Capacity
114	Electric Distribution	11789422	Purch Land for Higg East Sub	30-Sep-14	38,859	-	38,859	Capacity
115	Electric Distribution	11796794	Reinf Livingston Ridge 69/12.5	30-Nov-14	(240)	-	(240)	Capacity
116	Electric Distribution	11810405	Inst North Loving 12.5kV Feede	31-Dec-15	140,333	-	140,333	Capacity
117	Electric Distribution	11810408	Recon Pringle OF 12.5kV Fdr 12	30-Nov-14	10,173	-	10,173	Capacity
118	Electric Distribution	11810416	Order new 69/13 kV 7 MVA trans	31-Oct-16	-	290,960	290,960	Asset Health
119	Electric Distribution	11810418	Order SPS reserve 115/13 kV 14	31-Oct-16	-	581,921	581,921	Asset Health
120	Electric Distribution	11810420	Inst No Loving 115/12.5kV 28MV	30-Jun-15	2,552,185	-	2,552,185	Capacity
121	Electric Distribution	11856216	Ama	31-Dec-14	328,034	-	328,034	New Service
122	Electric Distribution	11865706	Potash #2 Replace Failed XFMR	30-Sep-14	2,985	-	2,985	Asset Health
123	Electric Distribution	11881592	Wreck out Muleshoe East	30-Nov-15	105,906	-	105,906	Asset Health
124	Electric Distribution	11928521	Ama	31-Dec-14	185,893	-	185,893	New Service
125	Electric Distribution	11933544	Pearl-Lea Rd Sub Tie	31-Dec-14	68,249	-	68,249	New Service
126	Electric Distribution	11960081	Replace existing Hereford 69/1	31-Dec-16	352	2,004,368	2,004,721	Capacity
127	Electric Distribution	11961812	CAR	30-Jan-15	220,618	-	220,618	Capacity
128	Electric Distribution	11961813	CAR	31-Oct-15	610,012	-	610,012	New Service
129	Electric Distribution	11961815	Pam	31-Mar-15	204,321	-	204,321	Capacity
130	Electric Distribution	11973063	Car	30-Nov-14	11	-	11	New Service
131	Electric Distribution	11980696	Hob	31-Dec-14	4,271	-	4,271	Capacity
132	Electric Distribution	11981974	Install Sage Brush #1 115/25KV	31-May-16	-	4,194,619	4,194,619	Capacity
133	Electric Distribution	11981975	Install Sage Brush #1 Feeders	31-Jul-16	-	2,364,441	2,364,441	Capacity
134	Electric Distribution	11981976	Purchase land for new substatio	31-May-15	200,000	-	200,000	Other

Southwestern Public Service Company

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January 1, 2015 through December 31, 2016

Line No.	Functional Class (A)	Parent (B)	Description (C)	Estimated ISD (D)	Total Plant Additions for Period			Category (H)
					2015 (E)	2016 (F)	January 1, 2015 - December 31, 2016 (G)	
135	Electric Distribution	11982003	TAM	31-Oct-16	-	1,517,920	1,517,920	Capacity
136	Electric Distribution	11982006	Convert Coble 69/12.5kV to 115	30-Nov-16	-	1,827,313	1,827,313	Capacity
137	Electric Distribution	11982007	Convert Morton 69/4.16kV to 11	30-Jun-16	-	1,400,728	1,400,728	Capacity
138	Electric Distribution	11982147	Purchase Land @ Ponderosa #1	30-Jun-16	-	212,751	212,751	Capacity
139	Electric Distribution	11982434	Convert Springlake - 115/12.5kV	30-Apr-16	-	281,004	281,004	Capacity
140	Electric Distribution	11982455	Convert Springlake - 115/12.5k	31-May-16	-	1,260,290	1,260,290	Capacity
141	Electric Distribution	11982984	Purchase 115/25kV 50 MVA rsv	31-May-16	-	948,081	948,081	Asset Health
142	Electric Distribution	11982985	Grid Resiliency Initiatives	31-Dec-19	131,915	1,351,540	1,483,455	Asset Health
143	Electric Distribution	11982990	Reinf Pearl - 6.1MVA to 28MVA-	31-Dec-15	2,991,431	-	2,991,431	Capacity
144	Electric Distribution	11983002	Reinf Pearl - 6.1MVA to 28MVA-	31-Dec-16	-	469,013	469,013	Capacity
145	Electric Distribution	11993823	Reinf Dollarhide 3220-Srv Made	28-Feb-15	1,990,082	-	1,990,082	Capacity
146	Electric Distribution	12005657	Car	30-Apr-15	1,272,202	-	1,272,202	Capacity
147	Electric Distribution	12010824	Convert Soncy T1 69 to 115/13.	31-Dec-15	398,068	-	398,068	Capacity
148	Electric Distribution	12012419	New Mexico Meter Blanket	Routine	623,997	-	623,997	Equipment Purchase
149	Electric Distribution	12012423	New Mexico Transformer Blanket	Routine	3,227,040	-	3,227,040	Equipment Purchase
150	Electric Distribution	12037970	Car	30-Apr-15	280,318	-	280,318	Capacity
151	Electric Distribution	12060659	Reconductor Northeast Hobbs 23	1-Jun-15	1,761,135	-	1,761,135	Capacity
152	Electric Distribution	12073202	Purchase New XFMR @ Pearl Sub	1-Apr-15	488,807	-	488,807	Capacity
153	Electric Distribution	12075694	Sem	31-Jul-15	678,060	-	678,060	New Service
154	Electric Distribution	12076123	Kingsmill Breaker Addition	30-Apr-15	26,222	-	26,222	Capacity
155	Electric Distribution	12076633	SPS - TX LED Street Lighting C	31-Dec-20	-	1,000,372	1,000,372	Street Lights
156	Electric Distribution	12076635	NM - LED Street Light Conversi	31-Dec-20	-	264,098	264,098	Street Lights
157	Total Electric Distribution				\$ 104,478,274.62	\$ 99,107,909.81	\$ 203,586,184.43	
158								

Southwestern Public Service Company

Electric Distribution Capital Additions For Period
January 1, 2015 through December 31, 2016

Line No.	Functional Class (A)	Parent (B)	Description (C)	Estimated ISD (D)	2015 (E)	2016 (F)	Total Plant Additions for Period		Category (H)
							January 1, 2015 - December 31, 2016	(G)	
159	Electric General	10143265	TX-North Elec Tools & Equip	Routine	260,581	350,196		610,777	Other
160	Electric General	10143269	Txn Blanket-Subst Tools And Eq	Routine	344,681	382,848		727,529	Other
161	Electric General	10143286	TX-South Elec Tools & Equip	Routine	195,423	203,724		399,147	Other
162	Electric General	10143305	Nm Blanket-Elec Tools/Equip	Routine	207,036	204,295		411,331	Other
163	Electric General	10184480	TX-Transportation Tools & Equip	Routine	299,851	172,608		472,460	Other
164	Electric General	10230401	TX Metering Sys-Tools & Equip	Routine	57,125	57,710		114,835	Other
165	Electric General	10231827	Logistics-TX Tools	Routine	32,899	35,000		67,899	Other
166	Electric General	10233669	Tx-Construct Dist Sub Tools & Equip	Routine	39,746	42,742		82,488	Other
167	Electric General	10557129	Fleet New Unit Purchases	Routine	2,011,499	1,994,546		4,006,044	Other
168	Electric General	10606260	Capital Transportation Blanket	31-Dec-18	(54,160)	(4,740)		(58,899)	Other
169	Electric General	10741599	Fleet New Unit Purchase El Ops	Routine	950,654	563,113		1,513,767	Other
170	Electric General	11715939	SPS-Dist Sub Communication Equi	Routine	880,343	398,169		1,278,512	Other
171	Electric General	11717140	NM-Dist Sub Communication Equi	Routine	775,220	398,169		1,173,389	Other
172	Electric General	11880100	NM Metering Sys-Tools & Equip	Routine	18,516	-		18,516	Other
173	Electric General	11945198	SPS - Misc Office Equip/Furnit	30-Sep-14	26,555	-		26,555	Other
174	Electric General	11955968	TX-Elec Dist Communication Equi	Routine	39,152	-		39,152	Other
175	Electric General	11981977	Install Sage Brush #1 Comm wor	31-May-16	0	323,512		323,512	Other
176	Electric General	11981980	Install Ponderosa #1 Comm Equi	31-May-17	-	0		0	Other
177	Electric General	11982459	Convert Springlake - 115/12.5kV	30-Jun-15	71,000	-		71,000	Capacity
178	Electric General	11983013	SPS-Subs Furniture Blanket	31-May-16	373,104	298,627		671,731	Other
179	Electric General	12021351	TX-Subs Furniture Blanket	Routine	4,967	-		4,967	Other
180	Electric General	12081144	TX Networking Equipment	30-Mar-15	5,408	-		5,408	Other
181	Electric General	11628928	GIS Phasing - SPS	31-Dec-14	10,595	-		10,595	Other
182	Electric General - Software								
183	Total Electric General Plant (Distribution)				\$ 6,550,193.35	\$ 5,420,520.37	\$	11,970,713.72	
184									
185	Total Distribution Operations				\$ 111,028,467.97	\$ 104,528,430.18	\$	215,556,898.15	

Southwestern Public Service Company

Workpapers to Attachment BB-2

Category	2015	2016	Total	Percent of Total
Asset Health	\$11.71	\$20.10	\$31.81	14.76%
Capacity	61.83	38.99	100.82	46.77%
Equipment Purchases	12.58	12.06	24.64	11.43%
Mandates	0.71	0.72	1.43	0.66%
New Service	14.98	25.37	40.35	18.72%
Other	6.85	3.42	10.27	4.76%
Reliability	0.64	0.73	1.36	0.63%
Street Lights	1.74	3.15	4.89	2.27%
Total	\$111.03	\$104.53	\$215.56	100%

Category	2015 Routine	2015 Specific	2016 Routine	2016 Specific	Total Specific	Total Routine
Asset Health	\$11.16	\$0.55	\$15.05	\$5.05	\$5.60	\$26.21
Capacity	2.65	59.18	4.11	34.88	\$94.06	\$6.76
Equipment Purchases	12.58	0.00	12.06	0.00	\$0.00	\$24.64
Mandates	0.71	0.00	0.72	0.00	\$0.00	\$1.43
New Service	13.11	1.87	25.37	0.00	\$1.87	\$38.48
Other	6.27	0.58	2.80	0.62	\$1.20	\$9.08
Reliability	0.64	0.00	0.73	0.00	\$0.00	\$1.36
Street Lights	1.74	0.00	1.88	1.26	\$1.26	\$3.62
Total	\$48.85	\$62.18	\$62.71	\$41.81	\$103.99	\$111.57
						\$215.56