

DOCKET NO. _____

**APPLICATION OF SOUTHWESTERN § PUBLIC UTILITY COMMISSION
PUBLIC SERVICE COMPANY FOR §
AUTHORITY TO CHANGE RATES § OF TEXAS**

**DIRECT TESTIMONY
of
DAVID C. HARKNESS**

on behalf of

SOUTHWESTERN PUBLIC SERVICE COMPANY

(Filename: HarknessRRDirect.doc)

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GLOSSARY OF ACRONYMS AND DEFINED TERMS

<u>Acronym/Defined Term</u>	<u>Meaning</u>
CIO	Chief Information Officer
CIP	Critical Infrastructure Protection
CRS	Customer Resource System
EEI	Edison Electric Institute
EMS	Energy Management System
ERP	Enterprise Resource Planning system
FERC	Federal Energy Regulatory Commission
GIS	Geographic Information System
GL	General Ledger
GRC	Governance, Risk Management, and Compliance
IT	Information Technology
NERC	North American Electric Reliability Corporation
NMPRC	New Mexico Public Regulation Commission
NMS	Network Management System
O&M	Operation and maintenance
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
Operating Company	One of the Operating Companies
PC	Personal Computer

<u>Acronym/Defined Term</u>	<u>Meaning</u>
PTT	Productivity Through Technology
SCADA	Supervisory Control and Data Acquisition
SIEM	Security Incident & Event Management
SPS	Southwestern Public Service Company, a New Mexico corporation
Test Year	April 1, 2018 through March 31, 2019
Total Company or total company	Total SPS (before jurisdictional allocation)
Update Period	April 1, 2019 through June 30, 2019
Updated Test Year	July 1, 2018 through June 30, 2019
WAM	Work and Asset Management system
WAN	Wide Area Network
WBS	Work Breakdown Structure
Xcel Energy	Xcel Energy Inc.
XES	Xcel Energy Services Inc.

LIST OF ATTACHMENTS

<u>Attachment</u>	<u>Description</u>
DCH-RR-1	Business Systems Organization Chart (<i>Non-native format</i>)
DCH-RR-2	Electric General and Software Capital Additions for July 1, 2017 through March 31, 2019 (<i>Filename: DCH-RR-2.xlsx</i>)
DCH-RR-3	Electric General and Software Capital Additions for April 1, 2019 through June 30, 2019 (<i>Filename: DCH-RR-3.xlsx</i>)
DCH-RR-A (Updated Test Year)	Summary of XES Expenses to SPS by Affiliate Class and Billing Method (<i>Filename: DCH-RR-ABCD.xlsx</i>)
DCH-RR-B(CD) (Updated Test Year)	XES Expenses by Affiliate Class, Activity, Billing Method, and FERC Account (<i>Filename: DCH-RR-ABCD.xlsx</i>)
DCH-RR-C (Updated Test Year)	Exclusions from XES Expenses to SPS by Affiliate Class and FERC Account (<i>Filename: DCH-RR-ABCD.xlsx</i>)
DCH-RR-D (Updated Test Year)	Pro Forma Adjustments to XES Expenses by Affiliate Class and FERC Account (<i>Filename: DCH-RR-ABCD.xlsx</i>)

**DIRECT TESTIMONY
OF
DAVID C. HARKNESS**

1 **I. WITNESS IDENTIFICATION AND QUALIFICATIONS**

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

3 A. My name is David C. Harkness. My business address is 414 Nicollet Mall,
4 Minneapolis, Minnesota 55401.

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

6 A. I am filing testimony on behalf of Southwestern Public Service Company, a New
7 Mexico corporation (“SPS”) and wholly-owned electric utility subsidiary of Xcel
8 Energy Inc. (“Xcel Energy”).

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

10 A. I am employed by Xcel Energy Services Inc. (“XES”) as Chief Information
11 Officer (“CIO”) and Vice President.

12 **Q. Please briefly outline your responsibilities as CIO and Vice President.**

13 A. I am responsible for the XES Business Systems organization, which performs
14 Xcel Energy’s shared Information Technology (“IT”) functions. The key types of
15 activities performed include all enterprise application development and
16 maintenance, management of IT infrastructure, data center operations and
17 architecture, and IT governance. Also as part of this role, I am responsible for IT
18 disaster recovery and implementing capital projects that address cyber security
19 needs. I report to the Chief Administrative Officer.

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

21 A. I hold a Bachelor of Arts degree from the University of Iowa with a major in
22 Computer Science and Applied Mathematics.

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

2 A. I have more than 30 years of experience in the field of IT, with over 25 of those
3 years being in a management role. I joined Xcel Energy in November 2009,
4 following six years at the Public Service Company of New Mexico Resources in
5 Albuquerque, New Mexico, where I first served as Senior Director, Business
6 Process Outsourcing, then as Senior Director of Business Transformation and,
7 finally, as Vice President and CIO for more than three years. While in New
8 Mexico, I was also appointed by Governor Richardson to New Mexico's
9 Information Technology Commission, where I helped establish and direct the IT
10 Strategy for the State of New Mexico. Prior to that experience, I held several IT
11 Leadership roles for McLeod USA, MCI, and Rockwell International, where I
12 began my career in 1986.

13 **Q. Have you attended or taken any special courses or seminars relating to**
14 **public utilities?**

15 A. Yes. I attended the University of Idaho Utility Executive Course in 2006. I also
16 attended a Merger and Acquisition course at Northwestern University's Kellogg
17 School of Management in 2007.

18 **Q. Are you a member of any professional organizations?**

19 A. Yes. I serve on two utility CIO committees. The Edison Electric Institute
20 ("EEI") Executive Advisory Committee is made up of 25 utility CIOs and is
21 designed so those CIOs are better able to advise their Chief Executive Officers on
22 critical technology risks and advances, as well as assist in policy development
23 surrounding standards, regulation, and legislation. In addition, I serve as Chair on

1 the EEI/AGA (American Gas Association) Technical Advisory Council made up
2 of 16 utility CIOs. That Council discusses best practices, lessons learned, and
3 case studies of various IT projects and operations. I also serve on the IT
4 Committee of the Knowledge Utility Executive Summit, an annual conference of
5 senior leaders in the utility industry. The summits address pressing topics in the
6 industry, including issues related to IT.

7 **Q. Have you filed testimony or testified before any regulatory authorities?**

8 A. Yes. I filed testimony before the Public Utility Commission of Texas regarding
9 business systems operation and maintenance (“O&M”) expenses and capital costs
10 in SPS’s previous six rate cases, Docket Nos. 47527, 45524, 43695, 42004,
11 40824, and 38147. I also filed testimony on those same topics before the New
12 Mexico Public Regulation Commission (“NMPRC”) on behalf of SPS in Docket
13 Nos. 15-00139-UT, 15-00296-UT, 16-00269-UT, 17-00255-UT and
14 19-00170-UT. In addition, I have filed testimony before the NMPRC on behalf of
15 Public Service Company of New Mexico regarding IT costs and operations.

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A. I support the Updated Test Year (July 1, 2018 through June 30, 2019)¹ O&M expenses and administrative and general expenses for the Business Systems class of affiliate services. In regard to this affiliate class, my testimony will:

- describe the services included in the class;
- explain that those services are reasonable and necessary for SPS's operation;
- explain that the costs for those services are reasonable and necessary;
- explain that these services do not duplicate services that SPS provides to itself through its own employees or that are provided from any other source; and
- explain that charges from XES to SPS for those services are no higher than the charges to SPS affiliates for the same or similar services.

¹ The Test Year in this case is April 1, 2018 through March 31, 2019, and the Update Period is April 1, 2019 through June 30, 2019. The Updated Test Year consists of the last nine months of the Test Year and the three months in the Update Period. In addition to supporting the Updated Test Year costs, I have also reviewed the costs for the first three months of the Test Year for the classes I support and find those costs to be reasonable.

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1 that closed to plant-in-service through March 31, 2019, the end of the Test Year
2 in this case, and *estimated* dollar amounts of Business Systems-related capital
3 additions that SPS expects to close to plant-in-service during the Update Period.
4 Second, as part of SPS's 45-day case update filing, I will provide the *actual* dollar
5 amount of Business Systems-related capital additions that closed to plant-in-
6 service during the Update Period. Together, these two pieces of testimony will
7 provide the actual dollar amount of Business System-related capital additions
8 closed to plant-in-service during the period July 1, 2017 through June 30, 2019.

9 **Q. Please summarize your testimony and recommendations.**

10 A. The estimated Updated Test Year (July 1, 2018 through June 30, 2019) costs for
11 the services of the Business Systems affiliate class of \$35,018,674³ (total SPS
12 before jurisdictional allocations, or "total company") are reasonable and necessary
13 because they support SPS's ability to provide electric service to its Texas retail
14 customers.

- 15 • The costs are for the IT services provided to SPS by XES. The
16 services include the provision and maintenance of computer hardware
17 and software, and voice and data communication networks, used by
18 SPS in providing electric service; the systems that support business
19 functions including billing, accounting, payroll, outage management
20 and dispatch, supply chain, and other general business operations;
21 routine support and improvements for these technologies and systems;
22 preparing for and mitigating cyber security risks; and employing
23 technology and data to advance information analysis and improve
24 business operations.
- 25 • The services are necessary to provide the technology infrastructure and
26 systems that enable the provision of efficient, effective, and safe
27 electric service to SPS's customers. Technology is necessary for much
28 of SPS's work including to efficiently dispatch work to the field,
29 operate generating facilities, effectively purchase fuel, manage and

³ This dollar amount reflects nine months of actual costs and three months of estimated costs.

1 monitor the electrical system, bill customers for service, develop
2 budgets and track expenditures, pay employees, and offer programs to
3 customers and respond to their inquiries.

- 4 • The costs are reasonable because they are shared with other affiliates,
5 include reasonable personnel costs, and are subjected to rigorous
6 budgeting and cost control processes.
- 7 • SPS does not provide these services for itself, and the services do not
8 duplicate services provided by others.
- 9 • Each charge from SPS's affiliates for these services is no higher than
10 the charge by those affiliates to any other entity for the same or similar
11 service.

12 In addition, the costs of the Business Systems capital additions placed in
13 service between July 1, 2017 and March 31, 2019, of \$61,965,538 (total
14 company), are reasonable and necessary and were prudently incurred. These
15 capital projects consist of software, hardware, systems and related technology
16 infrastructure investments, and cyber security solutions that support Xcel
17 Energy's business operations including those of SPS and are used in supplying
18 electric service to SPS's customers. They are necessary to maintain existing IT
19 systems and infrastructure, to prevent threats to the security of the IT systems, to
20 replace aging technology, and to deploy efficiency solutions that enable the
21 organization to continue to provide customers with high levels of service.

22 Further, SPS incurred Business Systems capital costs for projects placed in
23 service between April 1, 2019 and June 30, 2019 as shown on Attachment
24 DCH-RR-3. These costs are also reasonable and necessary to provide and protect
25 the IT infrastructure necessary for the provision of electric service by SPS, and
26 were also prudently incurred.

1 The affiliate charges of \$41,406,012 that are included in the July 1, 2017
2 through March 31, 2019 capital projects, and the estimated affiliate charges
3 shown on Attachment DCH-RR-3 that are included in the April 1, 2019 through
4 June 30, 2019 capital projects, reflect reasonable and necessary costs and
5 services; the charge from SPS's affiliate for a particular service is no higher than
6 the charge by that affiliate to any other entity for the same or similar service.

7 **Q. You mention that certain costs that you present in your testimony are**
8 **estimated. Please explain why this is the case and what items are estimated.**

9 A. As explained by SPS witness William A. Grant, SPS will be using an Updated
10 Test Year in this case. SPS's initial filing presents actual affiliate O&M expenses
11 for the Test Year (April 1, 2018 through March 31, 2019) and estimated
12 information for the time period of April 1, 2019 through June 30, 2019, which is
13 the Update Period. Accordingly, the first nine months of SPS's Updated Test
14 Year (i.e., July 2018 through March 2019) consist of actual cost information and
15 the last three months (i.e., April through June 2019) contain estimated cost
16 information. For this reason, certain SPS witnesses refer to the Updated Test
17 Year in direct testimony as the "estimated Updated Test Year."

18 Regarding the Business Systems affiliate costs I support, as explained by
19 SPS witness Melissa L. Schmidt, actual figures for April and May 2019 have been
20 provided and June 2019 figures have been estimated based on the forecasted
21 budget. However, these expenses have not gone through the full pro forma
22 adjustment review process. With respect to the Business Systems capital costs
23 (and related affiliate expense) that I support, the costs for projects placed in
24 service between April 1, 2019 and June 30, 2019 have been estimated.

1 **Q. Will your testimony be updated to replace the estimated costs that you**
2 **present and support with actual costs?**

3 A. Yes. SPS will file an update 45 days after the application has been filed. The
4 update will provide actual costs to replace the estimates provided in the
5 application for the Update Period. As part of that process, my Attachments
6 DCH-RR-A through D will be updated to remove estimates of Business Systems
7 affiliate O&M expenses incurred by SPS during the Updated Test Year and then
8 replace those estimates with actual expenses, which will be used to establish
9 SPS's base rates in this case.

10 Additionally, my Attachment DCH-RR-3 will be updated to remove
11 estimates of Business Systems-related capital additions closed to plant-in-service
12 in the Update Period and then replace those estimates with actual capital additions
13 closed to plant-in-service during that period.

14 **Q. Were Attachments DCH-RR-1 through DCH-RR-D prepared by you or**
15 **under your direct supervision and control?**

16 A. Yes, as to Attachment DCH-RR-1 and the project descriptions on Attachment
17 DCH-RR-3. Attachment DCH-RR-2 and the cost information contained in
18 Attachment DCH-RR-3 were prepared by SPS witness Mark P. Moeller and his
19 staff. My staff and I have reviewed these attachments, and I believe them to be
20 accurate. Attachments DCH-RR-A through DCH-RR-D were prepared by Ms.
21 Schmidt and her staff. My staff and I have reviewed these attachments and I
22 believe them to be accurate. Although the information I have described also is
23 present in these other witnesses' attachments, I have presented this information in

1 the attachments to my testimony for the convenience of those reviewing my
2 testimony.

1 **III. AFFILIATE EXPENSES FOR THE BUSINESS SYSTEMS**
2 **CLASS OF SERVICES**

3 **Q. Earlier in your testimony, you referred to an “affiliate class.” What do you**
4 **mean by the terms “affiliate class” or “affiliate class of services”?**

5 A. A portion of SPS’s costs reflects charges for services provided by a supplying
6 affiliate, specifically XES or one of the Operating Companies. These charges
7 have been grouped into various affiliate classes, or aggregations of charges, based
8 upon the business area, organization or department that provided the service or, in
9 a few instances, the accounts that captured certain costs. In her direct testimony,
10 Ms. Schmidt provides a detailed explanation of how the affiliate classes were
11 developed and are organized for this case.

12 **Q. Which affiliate class do you sponsor?**

13 A. I sponsor the Business Systems class of affiliate services.

14 **A. Overview of Business Systems Class of Services and Related**
15 **Affiliate Costs**

16 **Q. Where does the Business Systems affiliate class fit into the overall affiliate**
17 **structure?**

18 A. Attachment MLS-RR-6 to Ms. Schmidt’s direct testimony provides a list and a
19 pictorial display of all affiliate classes, dollar amounts for those classes, and
20 sponsoring witness for each class. As seen on that attachment, the Business
21 Systems affiliate class was part of the Utilities & Corporate Services business area
22 during the Updated Test Year. Attachment DCH-RR-1 to my testimony is an
23 organization chart showing the Business Systems organization.

1 **Q. What services are grouped into the Business Systems affiliate class?**

2 A. The costs of Xcel Energy’s centralized IT services are grouped in the Business
3 Systems class. These services are provision and maintenance of computer
4 hardware and software, voice and data communication networks, and related
5 technology support for SPS and the other Operating Companies; provision of IT
6 systems that support business functions including billing, accounting, payroll,
7 outage management and dispatch, supply chain, and other general business
8 operations; routine support and improvements for these technologies and systems;
9 preparation for and mitigation of cyber security risks; and employment of
10 technology and data to advance information analysis and improve business
11 operations.

12 **Q. What is the dollar amount of the Updated Test Year XES charges that SPS**
13 **requests, on a total company basis, for the Business Systems affiliate class?**

14 A. The following table (next page) summarizes the dollar amount of the estimated
15 Updated Test Year XES charges for the Business Systems affiliate class. I will
16 update the table below as part of SPS’s 45-day case update filing to reflect the
17 Updated Test Year costs for the Business Systems affiliate class.

Table DCH-RR-1

		Requested Amount of XES Class Expenses Billed to SPS (Total Company)		
Class of Services	Total XES Class Expenses	Requested Amount	% Direct Billed	% Allocated
Business Systems	\$281,014,322	\$35,018,674	15.11%	84.89%

Total XES Class Expenses

Dollar amount of total Updated Test Year expenses that XES charged to all Xcel Energy companies for the services provided by this affiliate class. This is the amount from Column E in Attachment DCH-RR-A.

Requested Amount of XES Class Expenses Billed to SPS (Total Company)

Requested dollar amount of XES expenses to SPS (total company) for this affiliate class after exclusions and pro forma adjustments. This is the amount from Column K in Attachment DCH-RR-A.

% Direct Billed

The percentage of SPS's requested XES expenses (total company) for this class that were billed 100% to SPS.

% Allocated

The percentage of SPS's requested XES expenses (total company) for this class that were allocated to SPS.

2 **Q. Please describe the attachments that support the information provided on**

3 **Table DCH-RR-1.**

4 **A.** There are four attachments to my testimony that present information about the
5 requested SPS affiliate expenses for the Business Systems affiliate class.

6 **Attachment DCH-RR-A:** Provides a summary of the affiliate expenses
7 for this class during the Updated Test Year. The summary starts with the total of
8 the XES expenses to SPS for the services provided by this affiliate class and ends
9 with the requested dollar amount of XES expenses to SPS (total company) for this

1 affiliate class after exclusions and pro forma adjustments. The columns on this
2 attachment provide the following information.

Column A —	Line No.	Lists the Attachment line numbers.
Column B —	Affiliate Class	Lists the affiliate class.
Column C —	Billing Method (Cost Center)	Shows the billing method that XES uses to charge the expenses to the affiliates, and the billing method short title. In her direct testimony, Ms. Schmidt explains the billing methods and defines the codes.
Column D —	Allocation Method	Shows the allocation method applicable to the billing method (cost center).
Column E —	Total XES Billings for Class to all Legal Entities (FERC Acct. 400-935)	Shows XES billings to all legal entities for the affiliate class.
Column F —	XES Billings for Class to all Legal Entities Except for SPS (FERC Acct. 400-935)	Shows XES billings to all legal entities except SPS for the affiliate class.
Column G —	XES Billings for Class to SPS (Total Company) (FERC Acct. 400-935)	Shows XES billings to SPS (total company) for the affiliate class.
Column H —	Exclusions	Shows the total dollars to be excluded from Column G. Exclusions reflect expenses not requested, such as expenses not allowed or other expenses excluded from the cost of service.
Column I —	Per Book	Shows XES billings to SPS (total company), for the affiliate class, after the exclusions shown in Column H. The dollar amount in Column I is Column G plus Column H.

Column J —	Pro Formas	Shows the total dollar amount of pro forma adjustments to the dollar amount in Column I. Pro forma adjustments reflect revisions for known and measurable changes to the Updated Test Year expenses.
Column K —	Requested Amount (Total Company)	Shows the requested amount (total company) for the affiliate class. The dollar amount in Column K is Column I plus Column J.
Column L —	% of Class Charges	Shows the percentage of affiliate class charges billed using the cost center.

In her direct testimony, Ms. Schmidt provides a consolidated summary of affiliate expenses for all classes during the Test Year and Updated Test Year, as well as the Test Year.

Attachment DCH-RR-B(CD): Provides the detail of the XES expenses for the Business Systems affiliate class that are summarized on Attachment DCH-RR-A. The detail shows the XES expenses billed to SPS for the Business Systems affiliate class, itemized by the amount, with each expense listed by individual activity and billing method (cost center). When summed, these amounts tie to the amounts shown on Attachment DCH-RR-A, and the detail regarding the expenses is organized to support that attachment. Specifically, the columns on this attachment provide the following information.

Column A —	Line No.	Lists the Attachment line numbers.
Column B —	Legal Entity Receiving XES Expenses	Shows the legal entity (Xcel Energy or one of its subsidiaries) that received the XES expense.
Column C —	Affiliate Class	Lists the affiliate class.
Column D —	Cost Element	Provides the cost element number.

Column E —	Activity	Provides a short title for the activity.
Column F —	Billing Method (Cost Center)	Identifies the billing method and short title. In her direct testimony, Ms. Schmidt explains the billing methods and defines the codes.
Column G —	FERC Account	Shows the FERC Account in which the expense was recorded for the operating companies.
Column H —	XES Billings for Class to all Legal Entities (FERC Acct. 400-935)	Shows the itemized amount of the listed XES expense that was billed to all legal entities for the affiliate class.
Column I —	XES Billings for Class to all Legal Entities Except SPS (FERC Acct. 400-935)	Shows the itemized amount of the listed XES expense that was billed to all legal entities except SPS for the affiliate class.
Column J —	XES Billings for Class to SPS (Total Company) (FERC Acct. 400-935)	Shows the itemized amount of the listed XES expense that was billed to SPS for the affiliate class. Therefore, the sum of this column provides total billings to SPS and ties to the total dollar amount for the affiliate class in Column G of Attachment DCH-RR-A.
Column K —	Exclusions	Shows the total dollars excluded from Column J. The total dollar amount for the affiliate class in Column K ties to the total dollar amount for the affiliate class in Column H of Attachment DCH-RR-A.
Column L —	Per Book	Shows XES billings to SPS (total company) for the affiliate class after the exclusions shown in Column K. The dollar amount in Column L is Column J plus Column K. The total dollar amount for the affiliate class in Column L ties to the total dollar amount for the affiliate class in Column I of Attachment DCH-RR-A.

Column M —	Pro Formas	Shows the dollar amount of pro forma adjustments to the dollar amount in Column L. The total dollar amount for the affiliate class in Column M ties to the total dollar amount for the affiliate class in Column J of Attachment DCH-RR-A.
Column N —	Requested Amount (Total Company)	Shows the requested amount (total company) for the affiliate class. The dollar amount in Column N is Column L plus Column M. The total dollar amount for the affiliate class in Column N ties to the total dollar amount for the affiliate class in Column K of Attachment DCH-RR-A.

1 Ms. Schmidt also provides a consolidated summary of this information for
2 all affiliate classes during the Test Year and the Updated Test Year.

3 **Attachment DCH-RR-C:** Both Attachments DCH-RR-A and
4 DCH-RR-B(CD) show exclusions to the XES expenses billed to SPS for the
5 Business Systems affiliate class (Attachment DCH-RR-A, Column H; Attachment
6 DCH-RR-B(CD), Column K). Attachment DCH-RR-C provides detail about
7 those exclusions listed on Attachments DCH-RR-A and DCH-RR-B(CD). The
8 columns on Attachment DCH-RR-C provide the following information.

Column A —	Line No.	Lists the Attachment line numbers.
Column B —	Affiliate Class	Lists the affiliate class.
Column C —	FERC Account	Identifies the FERC Account and FERC Account description for the expense that has been excluded.
Column D —	Explanations for Exclusions	Provides a brief rationale for the exclusion.
Column E —	Exclusions (Total Company)	Shows the dollar amount of the exclusion.

1 In her direct testimony, Ms. Schmidt describes the calculations underlying
2 the exclusions.

3 **Attachment DCH-RR-D:** Both Attachments DCH-RR-A and
4 DCH-RR-B(CD) show pro forma adjustments to SPS's per book expenses for the
5 Business Systems affiliate class (Attachment DCH-RR-A, Column J; Attachment
6 DCH-RR-B(CD), Column M). Attachment DCH-RR-D provides information
7 about those pro forma adjustments shown on Attachments DCH-RR-A and
8 DCH-RR-B(CD). The columns on Attachment DCH-RR-D provide the following
9 information.

Column A —	Line No.	Lists the Attachment line numbers
Column B —	Affiliate Class	Lists the affiliate class.
Column C —	FERC Account	Identifies the FERC Account and FERC Account description affected by the pro forma adjustment.
Column D —	Explanations for Pro Formas	Provides a brief rationale for the pro forma adjustment.
Column E —	Sponsor	Identifies the witness or witnesses who sponsor the pro forma adjustment.
Column F —	Pro Formas (Total Company)	Shows the dollar amount of the pro forma adjustment.

10 **Q. Does XES bill its expenses for the Business Systems affiliate class to SPS in**
11 **the same manner as it bills other affiliates for those expenses?**

12 A. Yes. As discussed by Ms. Schmidt, XES uses the same method for billing and
13 allocating costs to affiliates other than SPS that it uses to bill and allocate those
14 costs to SPS.

1 **Q. Are there any exclusions to the XES billings to SPS for the Business Systems**
2 **affiliate class?**

3 A. Yes. As I mentioned earlier, exclusions reflect expenses SPS is not requesting to
4 recover, such as expenses that are not related to the provision of utility service or
5 other below-the-line items. Exclusions are shown on Attachment DCH-RR-A,
6 Column H, and on Attachment DCH-RR-B(CD), Column K. The details for the
7 exclusions are provided in Attachment DCH-RR-C. Ms. Schmidt describes how
8 the exclusions were calculated. In SPS's 45-day case update, I will present an
9 updated Attachment DCH-RR-C that will provide actual exclusions to replace any
10 estimated exclusions included in my original attachment.

11 **Q. Are there any pro forma adjustments to SPS's per book expenses for the**
12 **Business Systems affiliate class?**

13 A. Yes. As I mentioned earlier, pro forma adjustments are revisions to Updated Test
14 Year expenses for known and measurable changes. Pro forma adjustments are
15 shown on Attachment DCH-RR-A, Column J, and on Attachment
16 DCH-RR-B(CD), Column M. The details for the pro forma adjustments,
17 including the witness or witnesses who sponsor each pro forma adjustment, are
18 provided in Attachment DCH-RR-D. As shown on that attachment, I am not a
19 sponsor for the pro forma adjustments for the Business Systems affiliate class.
20 Given the time of SPS's initial filing, only the first nine months of the Updated
21 Test Year have been subjected to a complete pro forma adjustment review
22 process. In SPS's 45-day case update, I will present an updated Attachment
23 DCH-RR-D that will complete the full pro forma adjustment review process for
24 the last three months of the Updated Test Year.

1 **B. The Business Systems Class of Services are Necessary Services**

2 **Q. Are the services that are grouped in the Business Systems affiliate class**
3 **necessary for SPS's operations?**

4 A. Yes. Business Systems provides a vital service that enables the provision of
5 efficient, effective, and safe electric service to SPS's customers. Dependence on
6 technology is continuing to increase. Technology is necessary for much of SPS's
7 work, including to efficiently dispatch work to the field, operate generating
8 facilities, effectively purchase fuel, manage and monitor the electrical system, bill
9 customers for service, develop budgets and track expenditures, pay employees,
10 and offer programs to customers and respond to their inquiries. The services
11 grouped in the Business Systems affiliate class are necessary to ensure that SPS
12 has the technology infrastructure and systems needed to perform these tasks.
13 They are functions required by all utilities and without which SPS would not be
14 able to provide electric service to its customers.

15 **Q. What are the specific services that are provided to SPS by the Business**
16 **Systems affiliate class?**

17 A. Business Systems provides and maintains the technology infrastructure utilized by
18 SPS and all of Xcel Energy, including hardware, voice and data networks,
19 databases, and the middleware that facilitates integration and communication
20 between systems. The responsibilities of Business Systems include SPS's
21 desktop computers, printers, and software, as well as distributed systems such as
22 servers, computer systems, communications systems, telephones, and electronic
23 communication networks. Business Systems also has responsibility for software
24 application development, data storage, and for updating or replacing systems and

1 applications as they age. Finally, Business Systems is responsible for
2 implementation of the capital projects discussed in Sections IV and V of my
3 testimony that protect SPS and all of Xcel Energy from cyber security attacks.

4 The major software applications that Business Systems supports are:

- 5 • Customer Resource System (“CRS”) - stores SPS customer data and
6 generates customer bills; this is used by call center agents as they respond
7 to SPS customer inquiries about outages and billing;
- 8 • Outage Management System and dispatch system - used to track customer
9 outages and dispatch repair crews in the SPS service territory;
- 10 • Meter Reading Management systems - used to manage the inventory of
11 meters and devices used to collect usage information from SPS customers;
- 12 • SCADA (“Supervisory Control and Data Acquisition”) system - used to
13 monitor system operations and the health of the SPS transmission grid;
- 14 • Work Management Systems - used for purchasing and management of
15 materials and inventory used in the generation, transmission, and
16 distribution business areas; enables maintenance of the infrastructure in
17 the SPS plants and in the SPS transmission and distribution network; and
- 18 • Financial systems - enables creation, tracking, reporting, and analysis of
19 budgets, forecasts, and actual financial results.

20 **Q. Please briefly describe the current activities of Business Systems in updating**
21 **or replacing systems and applications that are aging.**

22 A. Business Systems assesses whether the systems and applications are performing
23 their intended functions as well as the need for optimizing or changing their
24 functionality, and planning for their replacement when needed. Currently,
25 Business Systems is in the process of replacing a number of major software
26 applications that are used throughout Xcel Energy including multiple Work and
27 Asset Management (“WAM”) systems. These systems or applications are aging
28 and in most cases are beyond “end of life.” Rather than replacing each of these
29 applications individually, they are being replaced with an Enterprise Resource

1 Planning system (“ERP”) from the vendor SAP. ERP is a suite of integrated
2 applications that is used to collect, store, manage, and interpret data from many
3 business activities, and ERP is intended to be used across Xcel Energy. This
4 corporate-wide approach is more efficient than implementing multiple systems.
5 A corporate-wide approach also is much easier to support and maintain than a
6 collection of stand-alone applications.

7 **Q. Are any of the Business Systems class of services that are provided to SPS**
8 **duplicated elsewhere in XES or in any other Xcel Energy subsidiary such as**
9 **SPS itself?**

10 A. No. Within XES, none of the services grouped in the Business Systems affiliate
11 class are duplicated elsewhere. No other Xcel Energy subsidiary performs these
12 services for the Operating Companies. In addition, SPS does not perform these
13 services for itself.

14 **Q. Do SPS’s Texas retail customers benefit from the services that are part of the**
15 **Business Systems class of services?**

16 A. Yes. The services of the Business Systems class benefit SPS’s customers in many
17 ways. For example, the computers and computer systems are used to store and
18 retrieve data to bill customers; the communications systems are used to manage
19 the grid and the interactions between generation, transmission, and distribution;
20 the telephones and electronic communication networks are used to communicate
21 internally and with customers; and the software implemented protects from cyber
22 security attacks and allows for continued operation of all these systems.
23 Customers benefit through the use of these systems to track customer usage,

1 monitor status of the electric grid, address and manage service issues and
2 interruptions, generate customer bills, and support customer inquiries.

3 **C. The Business Systems Class of Services are Provided at a**
4 **Reasonable Cost**

5 1. *Additional Evidence*

6 **Q. Is there additional support for a portion of the expenses that you present in**
7 **this testimony?**

8 A. Yes. Of the estimated Updated Test Year costs for the Business Systems class,
9 18.65% are compensation and benefits costs for XES personnel. SPS witnesses
10 Michael T. Knoll and Richard R. Schrubbe establish that the level of Xcel
11 Energy's compensation and benefits is reasonable and necessary. In addition,
12 over half of the requested costs for this class were for goods or services procured
13 by contract. Xcel Energy's Supply Chain organization is responsible for the
14 sourcing and purchasing of goods and services needed by SPS, as well as the
15 review and processing of payments by vendors. SPS witness Gary J. O'Hara
16 provides testimony about these functions and demonstrates that the Supply Chain
17 processes and controls produce reasonable costs supporting SPS's operations.

18 2. *Budget Planning*

19 **Q. Is a budget planning process applicable to the Business Systems class of**
20 **affiliate costs?**

21 A. Yes. Annual budgets are created, which are applicable to the Business Systems
22 class of affiliate costs, using guidelines developed at the corporate level. Each
23 manager within the Utilities & Corporate Services business area, which includes

1 the Business Systems organization, carefully reviews historical spend
2 information, identifies changes that will be coming in the future, and analyzes the
3 costs associated with those changes prior to submitting a proposed budget. The
4 budgeting process is discussed in more detail by SPS witness Adam R.
5 Dietenberger.

6 **Q. During the fiscal year, does the Business Systems organization monitor its**
7 **actual expenditures versus its budget?**

8 A. Yes. Actual versus expected expenditures are monitored on a monthly basis by
9 management in the Business Systems organization. Deviations are evaluated each
10 month to ensure that costs are appropriate. In addition, action plans are developed
11 to mitigate variations between actual and budgeted expenditures. These
12 mitigation plans may either reduce or delay other expenditures so that overall
13 spending complies with the authorized budget. If authorized budget adjustments
14 are required, they are identified and approved at an appropriate level of
15 management.

16 **Q. Are employees within the Business Systems organization held accountable**
17 **for deviations from the budget?**

18 A. Yes. All management employees in the Utilities & Corporate Services business
19 area have specific budgetary goals that are incorporated into their performance
20 evaluations. Performance is measured on a monthly basis to ensure adherence to
21 the goals and provide for action plan development to address variances. All
22 Business Systems managers are required to manage their expenses to support the

1 budgetary goals. Failure to meet these performance targets will affect their
2 performance evaluation and overall compensation.

3 3. *Cost Trends*

4 **Q. Please state the dollar amounts of the actual per book charges from XES to**
5 **SPS for the Business Systems class of services for the three fiscal years**
6 **preceding the end of the Updated Test Year and the estimated per book**
7 **charges for the estimated Updated Test Year.**

8 A. The following table shows, for the fiscal years 2016, 2017, and 2018 (calendar
9 years), the actual per book, and, for the Updated Test Year, the estimated per
10 book affiliate charges (Column I on Attachment DCH-RR-A) from XES to SPS
11 for the services grouped in the Business Systems affiliate class:

12 **Table DCH-RR-2**

	(Per Book) Charges Over Time			
Class of Services	2016	2017	2018	Updated Test Year (Estimated)
Business Systems	\$28,586,130	\$30,358,428	\$34,029,860	\$35,098,694

13 **Q. What are the reasons for this trend?**

14 A. Using Per Book charges for 2016 as a baseline, the increase in costs between
15 2016 and the Updated Test Year of \$6.5 million was primarily due to three major
16 drivers. First, costs for network equipment for shared assets increased by \$1.5
17 million. SPS shared asset costs (recorded in FERC Account 931) increased due
18 to an increase in total Xcel Energy network equipment capital additions.

1 However, a large SPS native credit (recorded in FERC Account 922) offset the
2 shared costs resulting in an overall decrease. Shared asset costs occur when
3 employees in two or more of the Xcel Energy legal entities use or share an asset
4 owned by one of the Xcel Energy legal entities, which is the case with certain
5 assets supported by Business Systems. The transactions result in the sharing of
6 the costs for that asset, including depreciation. Ms. Schmidt and Mr. Moeller
7 address the type of shared asset costs requested in this case. Second, Business
8 Systems labor expenses increased by \$3.9 million. This was primarily from
9 insourcing IT operations that were previously provided by outside contractors.
10 The increase in labor expense was partially offset by a decrease in outside labor
11 expenses of \$1.7 million. Third, Business Systems experienced an increase in
12 software maintenance costs of \$2.6 million. The software maintenance increase is
13 partially from Productivity Through Technology (“PTT”) (WAM and General
14 Ledger (“GL”)), as well as keeping software maintenance current to continue to
15 receive security patches and other necessary updates.

16 4. *Staffing Trends*

17 **Q. Please provide the staffing levels for the Business Systems class of services for**
18 **the three fiscal years preceding the end of the Updated Test Year and the**
19 **Updated Test Year.**

20 A. The following table (next page) shows, for the fiscal years 2016, 2017, and 2018
21 (calendar years) and for the Updated Test Year, the average of the end of month
22 staffing levels for the Business Systems class of services.

1

Table DCH-RR-3

	Average of End of Month # of Staff			
Class of Services	2016	2017	2018	Updated Test Year (Estimated)
Business Systems	230	290	358	376

2 **Q. What are the reasons for this trend?**

3 A. The increase in average staffing levels from 2016 to 2018 was due to an initiative
4 by Business Systems to insource IT operations that were previously provided by
5 outside contractors. There are several reasons for this initiative. Some of the
6 outside personnel had high rates of turnover, resulting in a loss of expertise
7 specific to Xcel Energy. Insourcing improves the retention of institutional
8 knowledge. In many cases, the Xcel Energy insourced personnel have supported
9 Xcel Energy for long periods of time on a contract basis. Insourcing also
10 provides Xcel Energy with the added ability to manage processes internally and
11 not depend on outside vendors. Finally, outside contractors with access to critical
12 systems and data who were located offshore were replaced with new employees
13 who would be directly employed by and located within Xcel Energy, enhancing
14 security and helping maintain compliance with North American Electric
15 Reliability Corporation (“NERC”) Critical Infrastructure Protection (“CIP”)
16 requirements. The increase in average staffing levels between 2018 and the
17 Updated Test Year is attributed to a continuation of Business System’s ongoing
18 insourcing initiative.

1 5. *Cost Control and Process Improvement Initiatives*

2 **Q. Separate from the budget planning process, does the Business Systems**
3 **affiliate class take any steps to control its costs or to improve its services?**

4 A. Yes. As part of ongoing operations, service delivery model options and
5 improvement opportunities are implemented as appropriate. These may include
6 increasing or decreasing the scope of outsourced services; increasing or
7 decreasing the use of consultants based on opportunities to create value or address
8 new risk exposures; changing service delivery providers based on quality,
9 stability or price; and shifting resources to the most critical needs as business
10 priorities and risks change. Business Systems also utilizes competitive bidding
11 practices and a multi-vendor sourcing strategy where possible, which encourages
12 vendors to compete against each other for Xcel Energy’s business, and thus have
13 an incentive to keep the price of their services competitive. Also, having multiple
14 vendors available minimizes the risks associated with relying solely on one
15 vendor.

16 **Q. Are there specific strategies utilized for assessing service performance?**

17 A. Yes. In addition to identifying service needs and assessing delivery options as
18 described above, service level and business value metrics are monitored to
19 understand performance and identify improvement opportunities. Examples of
20 the metrics that are monitored are daily bill performance (the number of meter
21 reads processed and bills distributed); call handling times in the customer and IT
22 help desk environments; up-time for critical systems such as the Energy
23 Management System (“EMS”), SCADA, and trading desk environments; and time

1 to recover for all unexpected technology outages. In addition, a number of IT
2 services and systems are tracked for their up-time, real-time performance, and
3 critical error recovery.

4 **D. The Costs for the Business Systems Class of Services are Priced in**
5 **a Fair Manner**

6 **Q. For those costs that XES charges (either directly or through use of an**
7 **allocation) to SPS for the Business Systems class of services, does SPS pay**
8 **any more for the same or similar service than does any other Xcel Energy**
9 **affiliate?**

10 A. No. The XES charges to SPS for any particular service are no higher than the
11 XES charges to any other Xcel Energy affiliate. The costs charged for particular
12 services are the actual costs that XES incurred in providing those services to SPS.
13 A single, specific allocation method, rationally related to the cost drivers
14 associated with the service being provided, is used with each cost center (billing
15 method). In her direct testimony, Ms. Schmidt discusses the selection of billing
16 methods and XES's method of charging for services in more detail.

17 **Q. How are the costs of the Business Systems affiliate class billed to SPS?**

18 A. My Attachment DCH-RR-B(CD) shows all of the costs in this class broken out by
19 activity and, in conjunction with Column C in my Attachment DCH-RR-A, shows
20 the billing method associated with each activity. My Attachment DCH-RR-A
21 shows the allocation method (Column D) associated with each billing method
22 (Column C) used in the affiliate class.

23 In SPS's 45-day case update, I will present updated Attachments
24 DCH-RR-A and DCH-RR-B(CD) so that the entries for the last three months of

1 the Updated Test Year provide actual data and conform to the information
2 provided for the first nine months. In the event the predominant allocation
3 methods for the Business Systems affiliate O&M expenses on my updated
4 Attachments DCH-RR-A and DCH-RR-B(CD) differ from those discussed below,
5 I will explain those differences in supplemental testimony in SPS's 45-day case
6 update filing.

7 **Q. What are the predominant billing allocation methods used for the billing**
8 **costs that SPS seeks to recover for the Business Systems affiliate class of**
9 **services?**

10 A. Approximately 96.5% of the requested XES charges to SPS for this class were
11 charged using one of the following ten billing allocation methods:

- 12 • Number of Computers: 30.92% of XES charges to SPS - \$10,827,256;
- 13 • Average of a Select Set of Software Allocators: 26.10% of XES
14 charges to SPS - \$9,140,739;
- 15 • Direct Billing: 15.11% of XES charges to SPS - \$5,290,630;
- 16 • Average of all Software Percentages: 7.15% of XES charges to SPS -
17 \$2,505,569;
- 18 • Number of Phones, Radios, and Computers: 6.74% of XES charges to
19 SPS - \$2,394,967;
- 20 • Assets, Revenue, Number of Employees: 3.08% of XES charges to
21 SPS - \$1,079,187;
- 22 • Electric Transmission Plant: 2.30% of XES charges to SPS - \$805,321;
- 23 • Electric Production Plant/Electric Transmission Plant/Electric
24 Distribution Plant: 2.09% of XES charges to SPS - \$732,969;
- 25 • Number of Meters/Number of Residential Contacts handled by the
26 Call Centers: 1.83% of XES charges to SPS - \$641,585; Number of
27 Employees: 1.09% of XES charges to SPS - \$415,032.

1 **Q. Why is it appropriate to allocate costs based upon the “Number of**
2 **Computers” method for the costs captured in the cost centers that use that**
3 **allocation method?**

4 A. For the cost centers charged using the “Number of Computers” method as the
5 allocator, the costs are driven by the machines in the environment. For example,
6 the costs of the IT help desk service, collected in Cost Center 200148, are
7 assigned using this allocation method, and these costs are driven by the number of
8 computers in use. Thus, allocating these costs based on the number of computers
9 is appropriate for the allocation of costs to affiliates because it allocates costs for
10 the services in accordance with cost causation and the distribution of the benefits
11 of the services received. For the cost centers that assign costs based upon this
12 allocation method, the per unit amounts charged by XES to SPS as a result of the
13 application of this allocation method are no higher than the unit amounts billed by
14 XES to other affiliates for the same or similar services and represent the actual
15 costs of the services.

16 **Q. Why is it appropriate to allocate costs based upon the “Average of Select Set**
17 **of Software Allocators” for the costs captured in the cost centers that use**
18 **that allocation method?**

19 A. For the cost centers charged using the “Average of Select Set of Software
20 Allocators” method as the allocator, the costs are those of the resources (including
21 team members, servers, and databases) for managing the information systems
22 infrastructure and providing other consolidated services to support the selected
23 software applications throughout the entire IT environment. For example, the

1 server costs supporting the selected software applications are collected in Cost
2 Center 200111 EAI (Enterprise Application Integration) and are assigned using
3 the “Average of Select Set of Software Allocators” method as the allocator. The
4 cost driver for these support activities is the selected software applications. This
5 allocator averages the percentages applied under the diverse allocations used for
6 the supported applications and applies the resulting percentage to allocate these
7 costs. This allocation reflects cost causation and the distribution of the benefits of
8 the services received. For the cost centers that assign costs based upon this
9 allocation method, the per unit amounts charged by XES to SPS as a result of the
10 application of this allocation method are no higher than the unit amounts billed by
11 XES to other affiliates for the same or similar services and represent the actual
12 costs of the services.

13 **Q. Why is the “Direct Billing” method appropriate for assigning the costs**
14 **captured in the cost centers that use that allocation method?**

15 A. For the cost centers that are assigned using the “Direct Billing” method, the costs
16 normally reflect work that was performed specifically for SPS only. In some
17 cases, however, the direct billing occurred after the application of an off-line
18 allocator that tracks the relevant cost drivers. In either situation, the cost centers
19 charged using the “Direct Billing” method are appropriate because the assignment
20 of costs is in accordance with the distribution of benefits for the services received.
21 For example, the costs to lease point-to-point SPS network circuits are assigned
22 using the “Direct Billing” method. The cost of these services benefitted SPS, the
23 work was performed specifically for SPS alone, and the cost driver is SPS’s

1 communication requirements. Thus, the “Direct Billing” method is appropriate
2 because it assigns costs in accordance with cost causation and benefits received.
3 For the cost centers that assign costs using Direct Billing, the per unit amounts
4 charged by XES to SPS are no higher than the unit amounts billed by XES to
5 other affiliates for the same or similar services and represent the actual costs of
6 the services.

7 **Q. Why is it appropriate to allocate costs based upon the “Average of all**
8 **Software Percentages” (allocators for critical applications) for the costs**
9 **captured in the cost center that uses that allocation method?**

10 A. For Cost Center 200115, which uses the “Average of All Software Percentages”
11 method as the allocator, the costs are those of the resources (including team
12 members, servers, and databases) for managing the information systems
13 infrastructure and providing other consolidated services to support operationally
14 critical software applications throughout the entire IT environment. The cost
15 driver for these support activities is the software applications. This allocator
16 averages the percentages applied under the diverse billing allocations used for the
17 supported applications and applies the resulting percentage to allocate these costs.
18 This allocation reflects cost causation and the distribution of the benefits of the
19 services received. For the cost center that assigns costs based upon this allocation
20 method, the per unit amounts charged by XES to SPS as a result of the application
21 of this allocation method are no higher than the unit amounts billed by XES to
22 other affiliates for the same or similar services and represent the actual costs of
23 the services.

1 **Q. Why is it appropriate to allocate costs based upon the “Number of Phones,**
2 **Radios, and Computers” method for the costs captured in the cost center**
3 **that uses that allocation method?**

4 A. For Cost Center 200172, which uses the “Number of Phones, Radios, and
5 Computers” method as the allocator, the costs are those related to Xcel Energy’s
6 internal and external IT Network. The network supports the phones, radios, and
7 computers across all of Xcel Energy and the cost driver for these costs is therefore
8 the number of these machines. Thus, this cost center allocates costs among the
9 Xcel Energy legal entities based upon the proportionate share of phones, radios,
10 and computers within each Xcel Energy legal entity (i.e., the number of machines
11 in a particular legal entity as a percentage of the total number of machines of all
12 of the legal entities). This allocation reflects cost causation and the distribution of
13 the benefits of the services received. For the cost center that assigns costs based
14 upon this allocation method, the per unit amounts charged by XES to SPS as a
15 result of the application of this allocation method are no higher than the unit
16 amounts billed by XES to other affiliates for the same or similar services and
17 represent the actual costs of the services.

18 **Q. Why is it appropriate to allocate costs based upon the “Asset, Revenue,**
19 **Number of Employees” method for the costs captured in the cost centers that**
20 **use that allocation method?**

21 A. The “Asset, Revenue, and Number of Employees” allocation method produces an
22 allocation of costs that recognizes the complexity, risk, and overall business
23 activity levels that drives the costs included in the cost centers and measures the

benefits received from those activities. For the cost centers billed using this allocator, there is no one specific cost driver for the support tasks and services provided, and the services benefit multiple Xcel Energy affiliates. For example, the software maintenance costs associated with systems used by all Operating Companies are collected in Cost Center 200074, which uses this allocation method. Within the Xcel Energy holding company group, those legal entities that have proportionately more assets, revenues, and employees will have more focus placed on their operations due to those subsidiaries' relative influence on the consolidated business balance sheet, income statement and statement of cash flow, and the subsidiaries will benefit accordingly from the services provided. Thus, allocating these costs based upon the average of the total asset ratio, revenue ratio, and the employee ratio is appropriate because it allocates costs in accordance with cost causation and benefits received. Ms. Schmidt discusses this allocation method in more detail in her testimony. For the cost centers that assign costs based upon this allocation method, the per unit amounts charged by XES to SPS as a result of the application of this allocation method are no higher than the unit amounts billed by XES to other affiliates for the same or similar services and represent the actual costs of the services.

Q. Why is it appropriate to allocate costs based upon the “Electric Transmission Plant” method for the costs captured in the cost centers that use that allocation method?

A. For the cost centers that use “Electric Transmission Plant” as an allocator, the costs are driven by the transmission plant of the Operating Companies. For example, Cost Center 200124, which uses the “Electric Transmission Plant”

1 method as the allocator, captures the costs associated with application
2 development and maintenance of the EMS and SCADA systems that support the
3 electric transmission plant of the Operating Companies. Thus, this cost center
4 allocates costs among the Xcel Energy Operating Companies based upon the
5 proportionate share of gross transmission plant of each Operating Company (i.e.,
6 the gross plant of a particular Operating Company as a percentage of the total
7 plant for all of the Operating Companies). This allocation reflects cost causation
8 and the distribution of the benefits of the services received. For the cost centers
9 that assign costs based upon this allocation method, the per unit amounts charged
10 by XES to SPS as a result of the application of this allocation method are no
11 higher than the unit amounts billed by XES to other affiliates for the same or
12 similar services and represent the actual costs of the services.

13 **Q. Why is it appropriate to allocate costs based upon the “Electric Production**
14 **Plant/Electric Transmission Plant/Electric Distribution Plant” method for**
15 **the costs captured in the cost centers that use that allocation method?**

16 A. For the cost centers that use “Electric Production Plant/Electric Transmission
17 Plant/Electric Distribution Plant” as an allocator, the costs are driven by the
18 transmission, distribution, and production plant of the Operating Companies. For
19 example, Cost Center 200180, which uses the “Electric Production Plant/Electric
20 Transmission Plant/Electric Distribution Plant” method as the allocator, captures
21 the costs associated with application development and maintenance of
22 information operations that impact the electric transmission, distribution, and
23 production plant of the Operating Companies. In addition, certain costs

1 associated with the maintenance of the EMS are allocated using this method.
2 Thus, this cost center allocates costs among the Xcel Energy Operating
3 Companies based upon the proportionate share of gross transmission, distribution,
4 and production plant of each Operating Company (i.e., the gross plant of a
5 particular Operating Company as a percentage of the total plant for all of the
6 Operating Companies). This allocation reflects cost causation and the distribution
7 of the benefits of the services received. For the cost centers that assign costs
8 based upon this allocation method, the per unit amounts charged by XES to SPS
9 as a result of the application of this allocation method are no higher than the unit
10 amounts billed by XES to other affiliates for the same or similar services and
11 represent the actual costs of the services.

12 **Q. Why is it appropriate to allocate costs based upon the “Number of**
13 **Meters/Number of Residential Contacts Handled by the Call Centers”**
14 **method for the costs captured in the cost center that uses that allocation**
15 **method?**

16 A. For Cost Center 200171, which uses the “Number of Meters/Number of
17 Residential Contacts Handled by the Call Centers” method as the allocator, the
18 costs are for the CRS system, which is Xcel Energy’s customer service and billing
19 system. The cost drivers for the CRS system are the number of meters for which
20 usage is stored and bills are issued, and the number of customer service calls
21 handled by the call centers. Thus, this cost center allocates costs among the
22 Operating Companies based upon the average of the proportionate share of meters
23 (i.e., the number of meters within a particular Operating Company as a percentage

1 of the total number of meters for all of the Operating Companies) and the
2 proportionate share of call center calls (i.e., the number of calls originating from
3 within a particular Operating Company as a percentage of the total number of
4 calls for all of the Operating Companies). This allocation reflects cost causation
5 and the distribution of the benefits of the services received. For the cost center
6 that assigns costs based upon this allocation method, the per unit amounts charged
7 by XES to SPS as a result of the application of this allocation method are no
8 higher than the unit amounts billed by XES to other affiliates for the same or
9 similar services and represent the actual costs of the services.

10 **Q. Why is it appropriate to allocate costs based upon the “Number of**
11 **Employees” method for the costs captured in the cost centers that use that**
12 **allocation method?**

13 A. For the cost centers that use the “Number of Employees” method as the allocator,
14 the costs are driven by the employees. For example, Cost Center 200165 –
15 PeopleSoft, which uses the “Number of Employees” method as the allocator,
16 captures costs for the corporate human resources system used by all of the
17 affiliates. Thus, this cost center allocates costs among the Xcel Energy legal
18 entities based upon the proportionate share of employees of each Xcel Energy
19 legal entity (i.e., the number of employees of a particular legal entity as a
20 percentage of the total number of employees of all of the legal entities). This
21 allocation reflects cost causation and the distribution of the benefits of the
22 services received. For the cost centers that assign costs based upon this allocation
23 method, the per unit amounts charged by XES to SPS as a result of the application

1 of this allocation method are no higher than the unit amounts billed by XES to
2 other affiliates for the same or similar services and represent the actual costs of
3 the services.

4 **Q. You have covered the allocation methods used to bill 96.5% of the costs**
5 **associated with this affiliate class. Why have you not specifically covered the**
6 **remaining 3.5% of the costs of this class?**

7 A. I have described the predominant allocation methods associated with this affiliate
8 class. The remaining costs are billed using 22 different allocators, no one of
9 which is used to bill more than 0.75% of the costs. The cost centers (billing
10 methods) used to charge the remaining 3.5% of the costs in this class are
11 presented in my Attachment DCH-RR-B(CD), discussed earlier. A reader may
12 reference that attachment and then refer to the specific cost center (billing
13 method) summary provided in Ms. Schmidt's Attachment MLS-RR-13 for an
14 explanation of the particular allocators used and the cost drivers for the activities
15 reflected in that particular cost center.

16 **Q. Have you determined that the costs reflected in the remaining 3.5% of costs**
17 **associated with this class of services have been billed using an appropriate**
18 **billing method and allocation method?**

19 A. Yes. I, or one of my staff working at my direction, have reviewed each of the cost
20 centers and the associated allocators used to bill the remaining 3.5% of the costs
21 of this class. The cost drivers reflected in the allocation method used to bill the
22 costs of each cost center (billing method) are consistent with and reflect the cost
23 drivers of the services captured in each particular cost center (billing method).

1 Therefore, the billing methods and allocation methods are appropriate because the
2 allocation of costs is in accordance with the distribution of the benefits received
3 by SPS and are no higher than the per unit costs charged to other affiliates for the
4 same or similar types of services.

1 **IV. THE RANKING, ESTIMATION, AND MANAGEMENT OF**
2 **BUSINESS SYTEMS CAPITAL ADDITIONS**

3 **Q. Please describe Business Systems and the work Business Systems performs to**
4 **support SPS's operations.**

5 A. There are three key drivers to IT investments: evolving cyber security threats;
6 replacing aging technology; and increasing efficiency. Business Systems is in a
7 phase of increased investment in IT infrastructure and is making significant
8 capital additions to serve these three objectives. Business Systems has made
9 these investments over the past few years and expects that this phase will continue
10 for the next several years as necessary improvements are made to address cyber
11 security, replace aging technology, and increase efficiencies.

12 **Q. How does Business Systems determine when an existing application or**
13 **system needs to be replaced or upgraded?**

14 A. Business Systems works with each of the business areas and Operating
15 Companies to identify short and long-term technology needs. The needs typically
16 are greater than the organization's ability to fund them, so Business Systems
17 evaluates any proposed Business Systems investment and prioritizes the
18 organization's needs. Business Systems, however, strives to maximize
19 technology investments by maintaining existing systems until the risk and costs
20 associated with keeping these aging technologies in place outweigh the benefit.

21 **Q. Please describe the process for ranking and funding Business Systems capital**
22 **projects.**

23 A. A formal portfolio prioritization process is conducted on a regular basis to
24 determine which capital projects are included in the budget. The project
25 prioritization process is as follows:

- 1 1. Business Systems directors represent the different operational areas
2 throughout Xcel Energy, such as Corporate, Utility, and Financial
3 Operations. The director works with the operational areas to understand
4 the business strategy and what IT capabilities are required to support that
5 strategy. The director, in conjunction with operational area personnel,
6 develops an IT roadmap based on the business strategy. The IT roadmap
7 contains the current systems in use, required upgrades, and future system
8 solutions to meet the business strategy. The IT roadmap becomes the
9 source for project ideas that are used as input into the capital budget
10 process.
- 11 2. Project ideas are entered into a database and categorized by type. There
12 are five categories: (a) Aging Technology; (b) Enhance Capabilities; (c)
13 Cyber-Security; (d) PTT; and (e) Emergent Demand.
- 14 3. Projects are ranked across Xcel Energy based on risk and value. The
15 project ranking process includes, but is not limited to, a cost-benefit
16 analysis. During the prioritization process, as the CIO, I and my
17 management team (i.e., the relevant Business Systems director, with
18 support of operational area personnel) review the relative value, risk
19 factors, and delivery capacity associated with all of the project demands to
20 determine the optimal portfolio mix for current and future years. This
21 process helps Xcel Energy evaluate projects using a pre-defined set of
22 criteria and has helped SPS and Xcel Energy to be more objective when
23 determining the capital budget.

24 **Q. How do legal requirements affect the ranking and selection of capital**
25 **projects to be funded?**

26 A. Legal requirements are built into the categories discussed above and also affect
27 the ranking of capital projects. Legal requirements that affect the ranking include
28 environmental requirements, recent system stability, and future regulatory
29 demands. For example, NERC CIP Standards CIP-002 through CIP-014 require
30 that SPS and Xcel Energy comply with physical and cyber security controls
31 designed to protect critical infrastructure. When there are legal requirements that
32 affect capital projects, their ranking is prioritized in the capital budget. For
33 example, NERC Standard CIP-010-2 requires the management of transient cyber
34 assets that are brought into facilities that are critical to the operation of the bulk

1 electric system. This requirement increased the priority of the Transient Cyber
2 Asset Compliance project (discussed in Section V below).

3 **Q. How does SPS assure that Business Systems capital expenditures provide the**
4 **intended benefits?**

5 A. During the proposal process of each project, the key success metrics based on the
6 category of the project are identified. These success metrics are reviewed during
7 project execution and at the close of the project. The sponsor of the project is
8 responsible for measuring and tracking the applicable economic, operational,
9 staffing, regulatory compliance, and any other benefits derived from the project.
10 These formal reviews help the sponsor stay on track for delivery and attain the
11 project benefits.

12 **Q. Please generally describe how Business Systems develops cost estimates for**
13 **proposed capital additions.**

14 A. When a Business Systems project is in the initial stages of planning, we develop
15 cost and schedule estimates based on internal experience with similar
16 implementations. We then utilize a competitive bid process to ensure that Xcel
17 Energy receives quality service at a fair price, that business value is delivered
18 according to the agreed requirements, and that costs remain in line with the
19 approved budget.

20 **Q. Please explain how Business Systems capital costs are managed during a**
21 **specific project.**

22 A. After the estimates are developed, all projects follow a project flow process that
23 requires reviews and approvals at the budget, management, senior management,

1 and executive levels. After these approvals, projects are reviewed on a monthly
2 basis to compare the monthly budget to actual expenditures. Accordingly, on a
3 monthly basis, Business Systems evaluates deviations to determine whether costs
4 are appropriate. In addition, Business Systems develops action plans to mitigate
5 variations in actual to budgeted expenditures. These mitigation plans may either
6 reduce or delay other expenditures to support the overall authorized budget. If
7 authorized budget adjustments are required, they are identified and approved at an
8 appropriate level of management.

1 **V. BUSINESS SYSTEMS CAPITAL PROJECTS PLACED IN SERVICE**
2 **BETWEEN JULY 1, 2017 AND MARCH 31, 2019**

3 **Q. As part of this rate case, is SPS asking to include in its rate base Business**
4 **Systems-related capital additions closed to plant-in-service during the period**
5 **of July 1, 2017 through March 31, 2019?**

6 A. Yes. Attachment DCH-RR-2 sets forth the Business Systems-related capital
7 additions SPS is requesting to include in its rate base. All of these capital
8 additions were prudently incurred and are part of the large and growing IT
9 infrastructure necessary to support SPS's ability to provide electric service to its
10 customers.

11 **Q. What is the time period for these Business Systems capital additions?**

12 A. These projects are those Business Systems-related capital projects that closed to
13 plant-in-service during the 21-month period starting on July 1, 2017 and ending
14 on March 31, 2019. The starting date for this period (July 1, 2017) is the first
15 day after the end of the period for which capital additions were requested in
16 Docket No. 47527, and the ending date for this period (March 31, 2019) is the end
17 of the Test Year in this current case. All of these capital additions were prudently
18 incurred and support SPS's ability to provide electric service to its customers.

19 **Q. What is the dollar amount of the Business Systems-related capital additions**
20 **placed in service between July 1, 2017 and March 31, 2019 that SPS is**
21 **requesting in this docket?**

22 A. The total requested dollar amount of Business Systems-related capital additions
23 closed to plant-in-service during the period July 1, 2017 through March 31, 2019
24 is \$48,025,737 (total company). Attachment DCH-RR-2 provides details

1 regarding the costs of the Business Systems capital additions closed to plant-in-
2 service during this 21-month period. SPS witness Arthur Freitas allocates the
3 total company dollar amount among SPS's jurisdictions (Texas retail; New
4 Mexico retail; and wholesale).

5 **Q. Please briefly describe the Business Systems capital additions placed in**
6 **service between July 1, 2017 and March 31, 2019.**

7 A. The Business Systems capital additions placed in service between July 1, 2017
8 and March 31, 2019 consist of software, hardware, systems and related
9 technology infrastructure investments, and cyber security solutions that are
10 necessary to maintain system stability and adequate performance levels, support
11 changing business needs, or meet regulatory requirements. The major projects are
12 described in more detail later in my testimony.

13 **Q. Please describe the information in Attachment DCH-RR-2, which provides**
14 **the details about the dollar amounts closed to plant-in-service for these**
15 **Business Systems capital additions and the associated affiliate component.**

16 A. Attachment DCH-RR-2 provides the following information:

Column A —	WBS Level 4 Number	Provides the Work Breakdown Structure (“WBS”) Level 4 number for the project.
Column B —	WBS Level 4 Description	Provides a short title for the WBS Level 4 number for the project.
Column C —	Asset Class	Identifies the type of asset.
Column D —	Witness	Identifies the witness supporting the project.

Column E —	Project Category	Provides the project category for the project.
Column F —	WBS Level 2 Number	Provides the WBS Level 2 number for the project.
Column G —	WBS Level 2 Description	Provides a short title for the WBS Level 2 number for the project.
Column H —	In-Service Date	Date that the project was completed and added to plant-in-service.
Column I —	Additions to Plant in Service (July 2017 – Mar. 2019)	The total company dollar amount of the addition to plant-in-service for the project.
Column J —	XES Charges (Included in Column I)	The amount of charges from XES that are included in the total company dollar amount of addition to plant-in-service for the project in Column I.
Column K —	Other Affiliate Charges (Included in Column I)	The amount of charges from affiliates other than XES that are included in the total company dollar amount of addition to plant-in-service for the project in Column I.
Column L —	Total Affiliate Charges (Included in Column I)	Total of Columns J and K associated with new plant-in-service shown in Column I.
Column M —	Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)	The dollar amount (total company) of the addition to plant-in-service in Column I that is not an affiliate charge.

- 1 **Q. Attachment DCH-RR-2 includes capitalized affiliate costs. Are those affiliate**
2 **costs necessary to complete the projects listed in Attachment DCH-RR-2?**
- 3 A. Yes. Many employees in the Business Systems organization perform work that
4 causes their labor and expenses to be capitalized, rather than expensed. For

1 example, developers, analysts, and project managers who work on IT capital
2 projects to benefit SPS charge their time to specific capital projects, and these
3 costs are charged back to SPS as part of the capital project cost. In addition, the
4 capital projects include overhead charges that reflect labor and other costs as
5 discussed by Mr. Moeller. When those projects are complete, the costs, including
6 the labor charges, are recorded as new assets.

7 **Q. What portion of the total Business Systems capital costs included in**
8 **Attachment DCH-RR-2 are affiliate charges?**

9 A. The affiliate charges included in Attachment DCH-RR-2 are \$41,406,012, which
10 is approximately 67% of SPS's total Business Systems capital costs.

11 **Q. Are the costs of these capitalized affiliate charges reasonable?**

12 A. Yes. In Section III of this testimony, I demonstrate that the Updated Test Year
13 charges by XES employees in the Business Systems organization are reasonable
14 and necessary and Ms. Schmidt explains that charges for labor and goods from the
15 Operating Companies to SPS are reasonable and necessary. Those discussions
16 also apply to the \$41,406,012 of capitalized affiliate costs that are reflected in
17 Column L of Attachment DCH-RR-2, and that were incurred during the 21-month
18 period, July 1, 2017 through March 31, 2019. Thus, that discussion supports the
19 reasonableness and necessity of these capitalized Business Systems affiliate costs.

20 **Q. What is the difference between the affiliate charges you discussed in Section**
21 **III of your testimony and the affiliate charges you discuss regarding capital**
22 **additions?**

23 A. The affiliate charges I discussed earlier were those related to only O&M affiliate
24 expense during the Updated Test Year. In contrast, the affiliate charges that I

1 discuss in this section of my testimony refer to the capitalized affiliate charges
2 that were closed to plant-in-service during the period from July 1, 2017 through
3 March 31, 2019.

4 **Q. Please describe the Business Systems capital additions closed to plant-in-**
5 **service during the period July 1, 2017 through March 31, 2019, and listed on**
6 **Attachment DCH-RR-2 in more detail.**

7 A. All of the Business Systems-related capital additions listed in Attachment
8 DCH-RR-2 support the technology necessary for SPS to provide the technology
9 infrastructure and systems that enable the provision of efficient, effective, and
10 safe electric service to SPS's customers. The projects listed on Attachment
11 DCH-RR-2 include software implementations and upgrades; hardware upgrades
12 and replacements (computers, servers, radios, phones, routers, and other network
13 equipment); upgrades and replacements of the overall technology infrastructure
14 required to enable use of the hardware and software (e.g., voice and data
15 networks); and cyber security solutions required to meet regulatory requirements
16 and protect Xcel Energy's computing environment, including the data and
17 information contained within it.

18 As shown in Table DCH-RR-4 (on the next page), the capital additions for
19 this period fall within the following four categories: PTT, Aging Technology,
20 Enhance Capabilities, and Cyber Security. Although each project is assigned to
21 one category, its purpose may relate to one or more categories.

Table DCH-RR-4
Business Systems-Related Capital Additions (Total Company)

Project Category	Capital Additions for the Period July 1, 2017 through March 31, 2019
Productivity Through Technology (PTT)	\$27,560,297
Aging Technology	\$25,048,136
Enhance Capabilities	\$4,991,719
Cyber Security	\$4,365,387
TOTAL	\$61,965,538

Q. Please describe the types of projects included in the “PTT category.”

A. This category of projects relates to the capital investments made as part of the PTT effort, which is an initiative to improve business processes and systems throughout Xcel Energy by addressing needed technological changes. Components of the PTT effort include the replacement of the former GL system, which was a JD Edwards application, and replacement of the WAM systems. Rather than replacing each of these applications individually, they are being replaced with an ERP system from the vendor SAP. ERP is a suite of integrated applications used to collect, store, manage, and interpret data from many business activities and that is intended to be used across Xcel Energy. This corporate-wide approach is more efficient than implementing multiple systems.

The total investment in this category amounts to \$27,560,297 during the period. The projects in this category are:

- **Work and Asset Phase 1 SW SPS – \$23,396,239** – This project replaces the WAM systems, which were no longer vendor-supported and were at or near end-of-life. The WAM systems, which are used in various business areas, are the core technology for overseeing utility work planning and scheduling, designing jobs and collecting costs, outage management, vendor contract management, materials procurement and inventory

management, and asset maintenance and support. WAM was deployed in stages, with different live dates for various business units.

- **PTT Stabilize and Optimize – \$4,164,058** – The Stabilization and Optimization project is a continuing effort focused on improving end user experience, driving customer satisfaction, and improving efficiency by providing enhancements. Examples include further work execution process automation that will reduce non-value added work, improve user experience, further mobile adoption and increase data quality controls. In addition, the project implements additional scheduling process automation that will improve the customer and user experience, reduce process waste, improve emergency response and escalated operation capabilities. The project also includes improving the efficiency and accuracy in the work order-to-pay processes, including work planning and work management, in order to streamline supply chain integrations, work execution, and on-time end-to-end work order to pay processes.

Combined, the WAM and PTT Stabilize and Optimize projects account for 100% of the total capital additions in this category.

Q. Please describe the types of projects included in the “Aging Technology” category.

A. This category of investment contains the capital additions for repairing or replacing aging software, hardware, systems, and related technology infrastructure, which are required to ensure efficient and reliable business operations. The total investment in this category amounts to \$25,048,136 during the period. Major projects (i.e., projects in excess of \$300,000) included in this category are as follows:

- **Next Generation Desktop – \$3,401,180** – This project includes costs for purchasing licenses necessary to move desktop and mobile computing devices throughout Xcel Energy to the most current operating system, Windows 10, and to move from the Office 2010 suite of applications to Office 365. The legacy operating system is near the end of its useful life, and vendor support ends in January 2020. A current, supported operating system is essential for avoiding security vulnerabilities, and enables new business capabilities and efficiencies, such as mobile and tablet technologies across our business.

- 1 • **Personal Computer (“PC”) Device Refresh – \$2,903,092** – These
2 projects involve expenditures for the planned or scheduled replacement of
3 aging PCs, including laptops and desktops, when they reach the end of
4 their useful lives, and investment necessary to purchase PCs for new
5 personnel or as replacements for lost or damaged computers as the need
6 arises during the year.
- 7 • **Transmission & Distribution MPLS Network Unplanned – \$2,709,829**
8 – In addition to budgeting and planning for capital spending on known
9 projects, Xcel Energy also knows that needs will arise during the year that
10 will require investment even if the specific project is not able to be
11 identified at the start of the budget year. This project includes that type of
12 investment. Specifically, the investment was necessary for wide area
13 network (“WAN”) reliability and capacity improvements for transmission
14 and distribution substations, generation facilities, service centers, and
15 third-party sites. It includes replacement of frame relay technology,
16 unplanned circuit improvements, and security upgrades.
- 17 • **SPS Microwave Project – \$2,385,024** – This project involves costs for
18 the installation of a new microwave tower, communications hut and
19 equipment at the Roosevelt microwave site. It required migration off of
20 the old tower and shelter, which will be removed after migration has been
21 tested and is complete.
- 22 • **WAN SPS – \$1,933,331** – The WAN SPS project is necessary to
23 implement WAN reliability and capacity improvements for Distribution
24 and Transmission substations, Energy Supply sites, Service Centers and
25 third parties. This project addresses business needs related to increased
26 substation communications reliability; high-speed digital access for
27 operations, maintenance, and security; and the ability to analyze data to
28 improve reliability and operations.
- 29 • **Network Refresh – \$1,226,272** – These are annual projects that provide
30 for the planned, scheduled replacement of aging local area network and
31 WAN components such as routers and hubs as they reach the end of their
32 useful lives and are no longer supported by the vendor. Replacement of
33 these components is necessary to ensure continued efficiency and reliable
34 operations.
- 35 • **Oracle Software License – \$1,214,132** – Costs for this project were
36 incurred to upgrade the Oracle database versions in use across Xcel
37 Energy. Several versions that were in service were at the end of their
38 useful lives and were no longer supported by the vendor. Key systems
39 supported by Oracle include Business Objects, Enterprise Service Bus, the
40 Xcel Energy website, and generation management tools.
- 41 • **Demand Response System Replacement – \$1,041,852** – This project
42 includes costs for deploying a new demand response management system

1 to address existing compliance and financial risks and to position Xcel
2 Energy's gas and electric areas to expand demand response in the future
3 and to increase customer choice.

- 4 • **Network Management System ("NMS") Version Upgrade – \$759,942**
5 – This project contains costs necessary for upgrading the outage
6 management system, Oracle NMS. The system was nearing the end of its
7 useful life, and the upgrade was required to retain full vendor support and
8 to ensure operational reliability. The new version also aligns with Xcel
9 Energy's enterprise standards for key technology components (e.g.,
10 JAVA, WebLogic) and eliminated some interim work-arounds to maintain
11 critical business functionality.
- 12 • **Interval and Complex Billing Project – \$668,146** – The Interval and
13 Complex Billing Project is designed to create a new set of capabilities to
14 improve the billing accuracy and efficiency of our most complex rates and
15 support the billing. The project will help inform the customer of their
16 usage to drive increased customer satisfaction, and may decrease energy
17 consumption.
- 18 • **Telecom Expense Management – \$560,993** – This project includes costs
19 for preparing to change network services vendors. It includes auditing
20 telecom invoices and processing invoice payments, and managing the
21 provisioning and full installation of new network circuits, transferring
22 third-party treasury service to the new vendor, and migrating asset
23 management to the corporate IT Service Management processes and tools.
- 24 • **IrthNet Damage Prevention – \$506,452** – This project involves
25 replacing the aging IrthNet facilities location system (i.e., dial 811 locate
26 before digging) and Damage Prevention applications with a single
27 solution. IrthNet was at its end-of-life in 2017. The new system Xcel
28 Energy installed enables or enhances underground locating, safety, work
29 assignment, communications, and reporting for regulatory locating and
30 damage prevention programs.
- 31 • **Microsoft Core Server Licensing True-up – \$485,095** – This project
32 involves the purchase of additional Microsoft server operating system
33 licenses to cover necessary consumption in excess of purchased
34 entitlements.
- 35 • **Enhanced Customer Outage Experience – \$468,995** – This project
36 includes an assessment of the corporate website, xcelenergy.com, that will
37 identify risks and deficiencies and then deploy technology to address
38 them. This project will enhance the performance and reliability of
39 xcelenergy.com during critical outages or other events that cause high
40 demand. This is a multi-year project, with various components placed in
41 service as assets are deployed.

- 1 • **MicroFocus License True-up – \$450,595** – This project includes costs
2 for additional software license purchases to cover application use in excess
3 of the paid entitlements. The excess was due to additional device
4 endpoints requiring a license, and additional users of the application.
- 5 • **Facility IT Investments – \$445,784** – This project includes costs for new
6 or replaced local area network and WAN components that are necessary
7 due to changes in facility requirements, including new sites and the
8 remodeling or repurposing of existing facilities.
- 9 • **UAST1 – \$353,544** – This project involves the technical and data storage
10 portions of the Transmission unmanned aircraft system effort and involves
11 integrating data obtained by unmanned aircraft into existing modeling
12 tools and asset condition reports required for NERC compliance and
13 maintenance planning.
- 14 • **Land Mobile Radio Hardware – \$321,210** – This project includes costs
15 for expanded private radio coverage in SE New Mexico due to replacing
16 aging equipment at an existing site and additional equipment to establish
17 two new radio tower sites. The radio tower sites are necessary for
18 communication with field personnel.

19 Combined, these projects account for approximately 87% of the total capital
20 additions in this category. The remaining 13% of the projects are similar in
21 nature in that they repair or replace aging software, hardware, systems, and
22 related technology infrastructure, which is integral to SPS’s ability to ensure
23 efficient and reliable business operations.

24 **Q. Please describe the types of projects included in the “Enhance Capabilities”**
25 **category.**

26 A. This category of investment contains the capital additions for implementation of
27 new software, upgrades to existing software systems, and the necessary hardware
28 upgrades to support the software investments. These investments are needed to
29 enhance production and training environments to meet regulatory requirements,
30 efficiently manage assets, improve project management and workflow, enable
31 continued system stability, meet evolving legal compliance requirements,

maintain and improve business operations, and to protect SPS and Xcel Energy information. These investments impact many of the operational functions of Xcel Energy including power plants, transmission operations, facility management, IT operations management, construction project management, and customer care needs. The total investment in this category amounts to \$4,991,719 during the period. Major projects (i.e., projects in excess of \$100,000) included in this category are as follows:

- **Geospatial Integrations (PTT) – \$1,076,888** – The Geospatial Integrations project implemented Smallworld Business Integrator (SBI). SBI synchronizes Gas and Electric distribution designs that originate in Xcel Energy’s design tools with WAM. The integration will reduce data redundancy, increase data accuracy, and eliminate the need for a significant amount of duplicative manual data entry in separate tools.
- **Sharepoint Upgrade – \$966,253** – This project was necessary to upgrade SharePoint 2007 to the current version (SharePoint 2016 and SharePoint Online). SharePoint is a web application that enables employees to collaborate from across all business units, and to work more efficiently by letting users share documents and data while maintaining security and version control. SharePoint Online is hosted by Microsoft and is used for most internal collaboration and all collaboration with outside parties. SharePoint 2016 is located on premise and is used for custom applications that require integration with other internal systems, as well as for data related to CIP, which are a series of NERC compliance standards. The new versions provide a more powerful platform and enable new capabilities, such as enhanced sharing of information and improved information governance and security.
- **Wireless Project – \$865,865** – These projects involve the purchase of hardware necessary to provide wireless access across Xcel Energy. These projects will enable mobility for those with laptops or tablets, which is more flexible than wired networking.
- **2015 Real Property Asset Management (RPAM) Project – \$610,205** – This project contains costs for upgrading the software Xcel Energy utilizes to operate and maintain facilities. The project improved decision-making and property management processes, improved facility budget management, and provided improved analytics related to property management.

- 1
- 2
- 3 • **Distribution Records Mgmt (aka Fed Records Mgmt) – \$442,810 –**
- 4 The Distribution Records Management project involved installation of a
- 5 record management module and advanced workflow module in the
- 6 existing Documentum document management system. The project
- 7 enables automated import of records, deploys the Geographic Information
- 8 System (“GIS”) Workflow to manage GIS updates, and will better handle
- 9 the increased amount of content managed by the system.
- 10
- 11 • **IT Service Request Automation – \$246,023 –** This project enhanced the
- 12 XpressREQUEST portal, which is used by employees to request things
- 13 such as computers, software, databases, data access, privileged access, and
- 14 phones, among other items. The project integrated XpressREQUEST with
- 15 the SailPoint access management tool (discussed below under Cyber
- 16 Security), providing a single user interface to obtain services fulfilled by
- 17 both tools. The integration ensures that all requests receive appropriate
- 18 approvals from a compliance and cyber security perspective.
- 19
- 20 • **Network Inventory and Planning Solution – \$141,841 –** This project
- 21 created a central repository that can house the inventory of all network
- 22 assets. This inventory will include wireless networks, fiber, physical
- 23 locations, WAN circuits, network hardware components, etc. In addition,
- 24 the system provides geospatial visualization of the entire communications
- 25 network, and provides real-time network monitoring for enhanced network
- 26 reliability and security.
- 27
- 28 • **Digital Signage – \$123,232 –** Digital Signage supports the mission of
- 29 Corporate Communications to engage employees, create value, and
- 30 promote efficiency by streamlining the delivery of site specific and
- 31 company-wide information throughout various corporate offices and plant
- 32 locations.
- 33
- 34 • **Rational Tool Upgrade – \$123,015 –** This project upgraded the IBM
- 35 Rational tool, which facilitates software application development, testing,
- 36 and defect tracking. The tool is used by Business Systems and technology
- 37 vendors to deliver software solutions to Xcel Energy. The prior version
- 38 was unstable and not properly sized for current demand.

39 Combined, these projects account for approximately 95% of the total capital
40 additions in this category. The remaining 5% of the projects are similar in nature
41 in that they enable new capabilities to meet current and future business and
42 regulatory requirements.

1 **Q. Please describe the types of projects included in the “Cyber Security”**
2 **category.**

3 **A.** This category of investment contains the capital additions for meeting regulatory
4 requirements and protecting SPS and Xcel Energy’s computing environment,
5 including the data and information contained within it. The total investment in
6 this category amounts to \$4,365,387 during the period. Major projects (i.e.,
7 projects in excess of \$200,000) included in this category are as follows:

- 8 • **Transient Cyber Asset Compliance – \$818,010** – This project was
9 necessary to achieve compliance with NERC CIP Standard CIP-010,
10 which sets requirements for managing the use of portable, unmanaged
11 (transient) computing devices in medium to high impact bulk electric
12 system facilities such as substations. The project contains costs for
13 hardware and software to control the use of transient cyber assets at these
14 facilities and to produce evidence of compliance.
- 15 • **Security Incident and Event Management (“SIEM”) – \$715,811** – This
16 project replaced Xcel Energy’s SIEM system, ArcSight. ArcSight resided
17 on hardware that was at end of life, and the software license required
18 renewal. This investment helps ensure that security-related events are
19 managed effectively and with appropriate confidentiality.
- 20 • **SailPoint Extension – \$484,812** – This project involves enhancements to
21 the SailPoint identity and access management tool, including bringing
22 more entitlements (software and access) into the system. The expansion
23 of SailPoint enhances Xcel Energy’s Identity and Access Management,
24 which supports compliance with Sarbanes-Oxley, Federal Energy
25 Regulatory Commission (“FERC”), and NERC reliability standards. This
26 project included an integration with the service request portal discussed in
27 the IT Service Request Automation project above.
- 28 • **Firewall Rule Management – \$345,214** – This project contains costs for
29 implementing the tools and processes to inventory and manage firewall
30 rules throughout Xcel Energy. Firewall rules are numerous and complex,
31 requiring methodical management to ensure security, enable appropriate
32 communication, and avoid rule conflicts.
- 33 • **Certificate and Key Management – \$336,074** – This project includes
34 costs for a software purchase and the implementation of a tool to manage
35 digital certificates and encryption keys. These enable the secure transfer of

1 data by positively identifying an entity and encrypting the data shared with
2 that entity.

- 3 • **Advanced Endpoint Protection – \$330,844** – This project involved the
4 purchase and deployment of Tanium, an endpoint security tool uniquely
5 designed to identify infected devices and malicious activity on the
6 network, enabling a rapid response. The tool compliments traditional anti-
7 virus tools by scanning for indicators of compromise on computers
8 (endpoints) that have been infected by malware that slipped through the
9 primary anti-virus defenses. The tool also has the ability to trace endpoint
10 activities in support of forensics investigations.
- 11 • **eGovernance, Risk Management and Compliance (“GRC”)**
12 **Enterprise Security – \$259,629** – This project improves security risk
13 management capabilities, including cyber risk management, enterprise
14 resiliency, and disaster recovery planning. It will facilitate business
15 continuity testing and exercises, control standard and control catalog
16 management, project assessment, and vendor assessment. This is being
17 built into the existing RSA Archer eGRC platform, and builds on the
18 functionality implemented in the previous phases for other business units.
- 19 • **Security Camera Upgrade – \$259,101** – This is part of a security camera
20 upgrade project, including the necessary software and cabling. The legacy
21 security camera system was reaching the end-of-life and did not provide
22 the required level of security observation. The new system allows security
23 personnel to work more efficiently.
- 24 • **Network Security and Protection – \$233,782** – The Network Security
25 and Protection project is designed to implement hardware that will
26 segment various areas of the Xcel Energy network in order to strengthen
27 security and create a defense-in-depth strategy to protect critical systems
28 and data.
- 29 • **Cyber Ark – \$217,277** – This project involves the implementation of a
30 password vaulting solution called Cyber Ark, which allows authorized
31 personnel to have privileged (administrator) access when required by
32 checking out temporary credentials rather than being granted privileged
33 access directly. The tool also secures the passwords of service accounts
34 (used by systems rather than people) that require privileged access.

35 Combined, these projects account for approximately 92% of the total capital
36 additions in this category. The remaining 8% of the projects are similar in nature
37 in that they meet regulatory requirements and protect SPS and Xcel Energy’s
38 computing environment.

1 **Q. Is a WBS Level 4 order closed as soon as the equipment subject to that work**
2 **order is placed in service?**

3 A. No. Frequently minor work continues after the equipment is placed in service and
4 the collection of costs related to the WBS Level 4 order can occur for several
5 months after the equipment is placed in service. Thus, it is common for costs to
6 be charged to a WBS Level 4 order after the equipment is placed in service. This
7 is why some of the in-service dates in Attachment DCH-RR-2 are earlier than
8 July 1, 2017. This occurred when costs or refunds were booked on or after July 1,
9 2017, but the equipment was placed in service before that date.

10 **Q. Are the Business Systems capital additions listed on Attachment DCH-RR-2,**
11 **that were closed to plant-in-service during the period July 1, 2017 through**
12 **March 31, 2019, including the capitalized affiliate charges, reasonable and**
13 **necessary?**

14 A. Yes. The projects listed on Attachment DCH-RR-2 are reasonable and necessary
15 to efficiently manage business operations, protect data and information, meet
16 evolving regulatory and legal requirements, keep current with technology,
17 maintain the stability and reliability of the existing IT systems and provide the
18 tools required to effectively and safely provide service to SPS's retail customers.
19 The process described above that is followed in evaluating, selecting, and
20 monitoring the execution and implementation of capital projects ensures that the
21 expenditures are reasonable and necessary and that the costs were prudently
22 incurred.

1 **VI. BUSINESS SYSTEMS CAPITAL PROJECTS PLACED IN SERVICE**
2 **BETWEEN APRIL 1, 2019 AND JUNE 30, 2019**
3

4 **Q. Is SPS asking to recover Business Systems-related capital costs for projects**
5 **placed in service between the end of the Test Year and June 30, 2019?**

6 A. Yes. SPS seeks to include in rate base the cost of capital additions placed in
7 service between the end of the Test Year (March 31, 2019) and June 30, 2019,
8 which as I stated earlier, is the Update Period. Attachment DCH-RR-3 provides
9 SPS's costs for these projects. As initially filed, the costs reflected in Attachment
10 DCH-RR-3 are estimated amounts. Mr. Moeller explains the basis for the
11 budgeted amounts. As discussed by Mr. Grant, SPS will file actual costs for the
12 Update Period, including an updated version of Attachment DCH-RR-3, no later
13 than the 45th day after the date of the initial filing of this rate case, as required by
14 16 TAC § 25.246.

15 **Q. What is the cost of Business Systems-related capital projects placed in service**
16 **between April 1, 2019 and June 30, 2019?**

17 A. The total costs are reflected on Attachment DCH-RR-3, including affiliate costs.
18 These amounts reflect total company costs. Mr. Freitas allocates the total
19 company dollar amount among SPS's three rate jurisdictions (Texas retail; New
20 Mexico retail; and wholesale) in the cost of service study he presents.

21 **Q. Are capitalized affiliate costs included in the total costs?**

22 A. Yes. The costs include capitalized affiliate costs similar to those included for
23 projects placed in service during the previous 21 months. As initially filed,
24 Attachment DCH-RR-3 contains only a total estimated amount of affiliate
25 charges, which are based on historical percentages for the different asset classes.

1 This is explained in more detail by Mr. Moeller. The updated version of
2 Attachment DCH-RR-3, will reflect actual affiliate charges for the Update Period.

3 **Q. Are those affiliate costs necessary to complete the Business Systems-related**
4 **capital projects?**

5 A. Yes. Affiliate costs were incurred for the same reasons they were incurred on the
6 projects placed in service between July 1, 2017 and March 31, 2019 as discussed
7 earlier in my testimony.

8 **Q. Are these capitalized affiliate charges reasonable?**

9 A. Yes. These costs satisfy the standards for inclusion of affiliate costs in rates for
10 the reasons presented in the my testimony above, as well as the testimony of Ms.
11 Schmidt, and Mr. Moeller regarding the reasonableness of affiliate charges.

12 **Q. Please describe the information in Attachment DCH-RR-3, which provides**
13 **the dollar amounts for projects placed in service during the Update Period?**

14 A. Attachment DCH-RR-3 provides the following information:

Column A —	Asset Class	Identifies the type of asset.
Column B —	Witness	Identifies the witness supporting the project.
Column C —	Project Category	Identifies the project category.
Column D —	Additions to Plant-in-Service (Apr. 2019 – Jun. 2019)	The total company dollar amount of the addition to plant-in-service.
Column E —	Total Affiliate Charges	Provides the total affiliate charges included in the charges in Column D.
Column F —	Project Description	Provides a description of the project and its major components.

1 **Q. Please describe the projects placed in service during the Update Period.**

2 A. The projects placed in service from April 1, 2019 through June 30, 2019 are
3 similar to the projects that were closed in the previous 21 months and that are
4 discussed in the previous section of my testimony. These projects fall into the
5 same four categories as the projects in the previous 21 months of PTT, Aging
6 Technology, Enhance Capabilities, and Cyber Security.

7 All of the projects placed in service from April 1, 2019 through June 1,
8 2019 support the technology necessary for SPS to provide the technology
9 infrastructure and systems that enable the provision of efficient, effective, and
10 safe electric service to SPS's customers. Descriptions of the specific projects
11 placed in service between April 1, 2019 and June 1, 2019, and the reasons the
12 specific projects are necessary, are provided on my Attachment DCH-RR-3.

13 **Q. Has SPS managed its Update Period Business Systems related capital**
14 **addition projects to ensure the final, actual costs are reasonable and**
15 **prudent?**

16 A. Yes. The same budgeting and project management process that I describe in
17 Section III of my testimony applies to the projects for the Update Period.

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

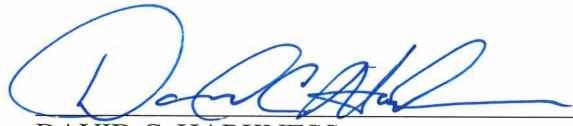
19 A. Yes.

AFFIDAVIT

STATE OF MINNESOTA)
)
COUNTY OF HENNEPIN)

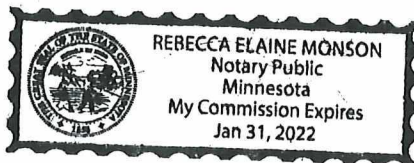
DAVID C. HARKNESS, first being sworn on his oath, states:

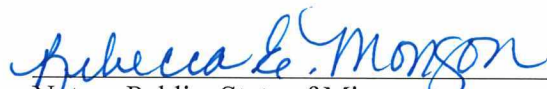
I am the witness identified in the preceding testimony. I have read the testimony and the accompanying attachment(s) and am familiar with the contents. Based upon my personal knowledge, the facts stated in the testimony are true. In addition, in my judgment and based upon my professional experience,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



DAVID C. HARKNESS

Subscribed and sworn to before me this 31st day of July, 2019 by DAVID C. HARKNESS.

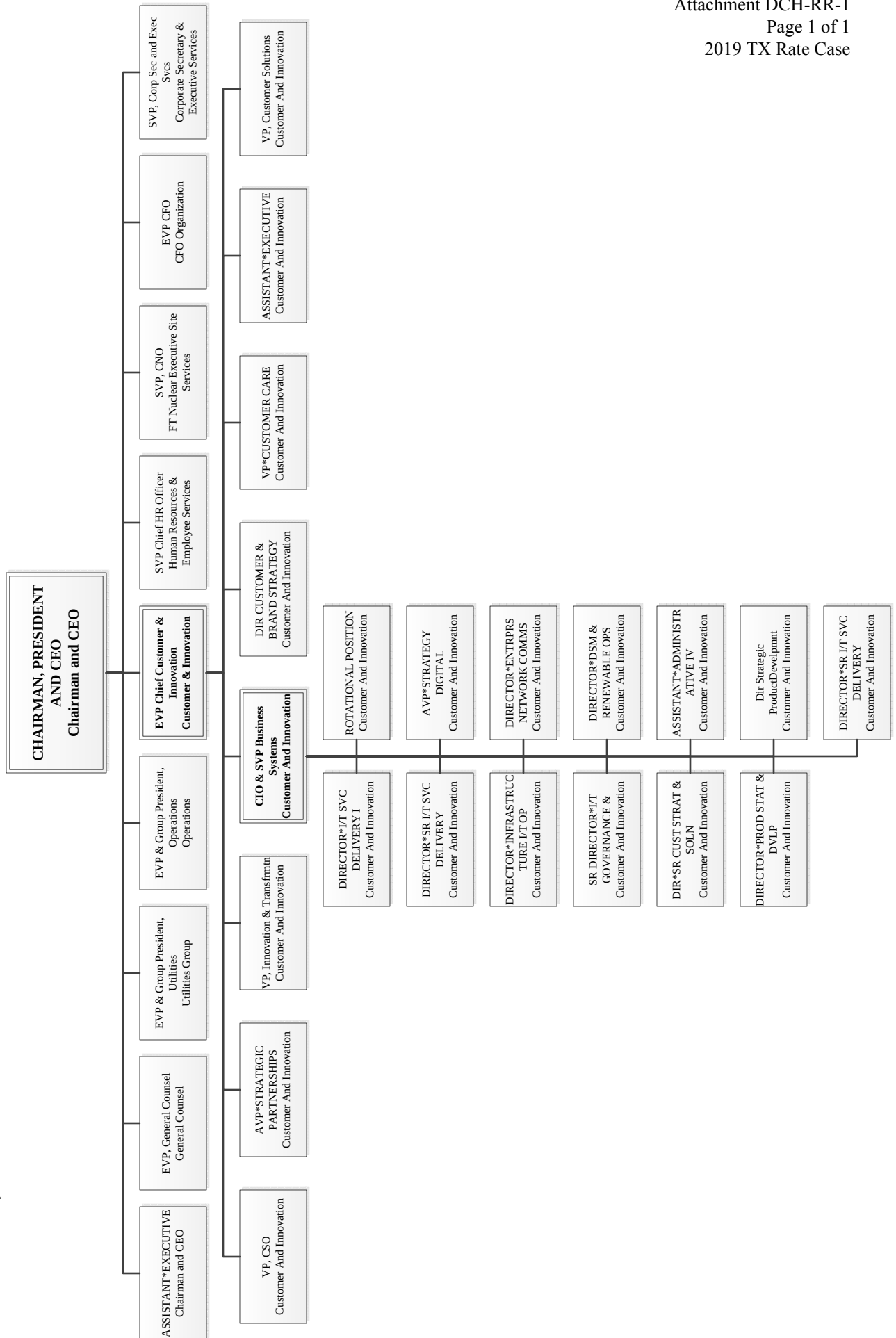




Notary Public, State of Minnesota

My Commission Expires: 1-31-2022

Southwestern Public Service Company
Organization Chart – Customer and Innovation
As of March 31, 2019



Southwestern Public Service Company
Electric General and Software Capital Additions
July 1, 2017 through March 31, 2019

Line No.	(A) WBS Level 4 Number	(B) WBS Level 4 Description	(C) Asset Class	(D) Witness	(E) Project Category
1	D.0001726.058.001.001	Work and Asset Ph 1 SW SPS	Electric General - Software	Harkness	PTT
2	D.0001726.058.001.005	WAM-Deploy6-Dist-Geo-SW-SPS	Electric General - Software	Harkness	PTT
3					
4	D.0001738.014.001.001	GeoSpatial Integration SW SPS-10653	Electric General - Software	Harkness	Enhance Capabilities
5					
6	D.0001738.020.001.002	GeoSpatial Trans SW SPS-10672	Electric General - Software	Harkness	Enhance Capabilities
7					
8	D.0001741.007.001.001	Data Quality Tool SW SPS	Electric General - Software	Harkness	Enhance Capabilities
9					
10	D.0001743.007.001.001	Upgrade IEE 5.3 to IEE 8.1 SW SPS	Electric General - Software	Harkness	Aging Technology
11					
12	D.0001744.014.001.002	Powerplan Upgrade (Ph 2) SPS Reg Mo	Electric General - Software	Harkness	Aging Technology
13					
14	D.0001744.019.001.001	IrthNet Damage Prevent SW SPS	Electric General - Software	Harkness	Aging Technology
15					
16	D.0001744.027.001.001	ITSM Ph 4 SW SPS	Electric General - Software	Harkness	Aging Technology
17					
18	D.0001744.035.001.001	Corporate Giving SW SPS	Electric General - Software	Harkness	Enhance Capabilities
19					
20	D.0001744.044.001.001	Teradata HW SW SPS	Electric General - Software	Harkness	Aging Technology
21					
22	D.0001747.008.001.001	Data Loss Ph2 SW SPS	Electric General - Software	Harkness	Cyber Security
23					
24	D.0001754.007.001.001	Identity & Access Mgmt QAS SW SPS	Electric General - Software	Harkness	Cyber Security
25					
26	D.0001755.007.001.001	Identity&Access Mgmt Sailpr SW SPS	Electric General - Software	Harkness	Cyber Security
27					
28	D.0001759.007.001.001	Fleet Focus SW SPS	Electric General - Software	Harkness	Aging Technology
29					
30	D.0001761.007.001.001	Database Security SW SPS	Electric General - Software	Harkness	Cyber Security
31					
32	D.0001763.014.001.002	ITSM Secure Ticket SW SPS-10676	Electric General - Software	Harkness	Enhance Capabilities
33					
34	D.0001767.007.001.001	Self Service and PAF SW SPS	Electric General - Software	Harkness	Aging Technology
35					

Southwestern Public Service Company

Electric General and Software Capital Additions
July 1, 2017 through March 31, 2019

(E)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Line WBS Level 2 Number No.	WBS Level 2 Description	In-Service Date	Additions to Plant-In-Service (July 1, 2017 - March 31, 2019)	XES Charges (Included in Column I)	Other Affiliate Charges (Included in Column I)	Total Affiliate Charges (Included in Column I)	Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)
1 D.0001726.058	Work and Asset Phase 1 SW SPS	201712	\$ 4,674,185.72	\$ 4,962,698.63	\$ 829.08	\$ 4,963,527.71	\$ (289,341.99)
2 D.0001726.058	Work and Asset Phase 1 SW SPS	201710	18,354,460.14	17,340,222.68	257.77	17,340,480.45	1,013,979.69
3 D.0001726.058 Total			23,028,645.86	22,302,921.31	1,086.85	22,304,008.16	724,637.70
4 D.0001738.014	GeoSpatial Integration SW SPS-10653	201711	512,801.53	44,003.15	-	44,003.15	468,798.38
5 D.0001738.014 Total			512,801.53	44,003.15	-	44,003.15	468,798.38
6 D.0001738.020	GeoSpatial Trans SW SPS-10672	201707	564,086.58	153,688.87	-	153,688.87	410,397.71
7 D.0001738.020 Total			564,086.58	153,688.87	-	153,688.87	410,397.71
8 D.0001741.007	Data Quality Tool SW SPS	201612	(1,623.33)	(1,623.33)	-	(1,623.33)	-
9 D.0001741.007 Total			(1,623.33)	(1,623.33)	-	(1,623.33)	-
10 D.0001743.007	Upgrade IEE 5.3 to IEE 8.1 SW	201611	(58.94)	(58.94)	-	(58.94)	-
11 D.0001743.007 Total			(58.94)	(58.94)	-	(58.94)	-
12 D.0001744.014	Powerplan Upgrade SW (Ph 2) SP	201703	172.06	172.06	-	172.06	-
13 D.0001744.014 Total			172.06	172.06	-	172.06	-
14 D.0001744.019	IrthNet Damage Prevent SW SPS	201811	506,452.28	292,737.02	-	292,737.02	213,715.26
15 D.0001744.019 Total			506,452.28	292,737.02	-	292,737.02	213,715.26
16 D.0001744.027	ITSM Ph4 SW SPS	201612	1,668.86	1,668.86	-	1,668.86	-
17 D.0001744.027 Total			1,668.86	1,668.86	-	1,668.86	-
18 D.0001744.035	Corporate Giving SW SPS	201708	79,319.41	17,040.93	-	17,040.93	62,278.48
19 D.0001744.035 Total			79,319.41	17,040.93	-	17,040.93	62,278.48
20 D.0001744.044	Teradata HW SW SPS	201705	573.33	573.33	-	573.33	-
21 D.0001744.044 Total			573.33	573.33	-	573.33	-
22 D.0001747.008	Data Loss Ph2 SW SPS	201805	21,882.13	-	-	-	21,882.13
23 D.0001747.008 Total			21,882.13	-	-	-	21,882.13
24 D.0001754.007	Identity & Access Mgmt QAS SW	201612	(1,319.61)	(1,319.61)	-	(1,319.61)	-
25 D.0001754.007 Total			(1,319.61)	(1,319.61)	-	(1,319.61)	-
26 D.0001755.007	Identity & Access Mgmt Sailpoi	201612	1,106.38	1,106.38	-	1,106.38	-
27 D.0001755.007 Total			1,106.38	1,106.38	-	1,106.38	-
28 D.0001759.007	Fleet Focus SW SPS	201611	(140.06)	(140.06)	-	(140.06)	-
29 D.0001759.007 Total			(140.06)	(140.06)	-	(140.06)	-
30 D.0001761.007	Database Security SW SPS	201612	232.84	232.84	-	232.84	-
31 D.0001761.007 Total			232.84	232.84	-	232.84	-
32 D.0001763.014	ITSM Secure Ticket SW SPS-10676	201711	95,041.88	94,040.70	-	94,040.70	1,001.18
33 D.0001763.014 Total			95,041.88	94,040.70	-	94,040.70	1,001.18
34 D.0001767.007	Self Service and PAF SW SPS	201612	(589.84)	(589.84)	-	(589.84)	-
35 D.0001767.007 Total			(589.84)	(589.84)	-	(589.84)	-

Southwestern Public Service Company

Electric General and Software Capital Additions
July 1, 2017 through March 31, 2019

(A)		(B)	(C)		(D)	(E)
Line No.	WBS Level 4 Number	WBS Level 4 Description	Asset Class	Witness	Project Category	
36	D.0001770.007.001.001	Electronic Data SW SPS	Electric General - Software	Harkness	Aging Technology	
37						
38	D.0001770.014.001.001	Secure File&Transfer Ph 2 SW SPS-10	Electric General - Software	Harkness	Aging Technology	
39						
40	D.0001770.020.001.001	Sec File Ph3 SW SPS-10716	Electric General - Software	Harkness	Aging Technology	
41						
42	D.0001771.007.001.001	Certificate Key Mgmt SW SPS	Electric General - Software	Harkness	Cyber Security	
43						
44	D.0001787.009.001.001	Customer Mgmt SPS	Electric General - Software	Harkness	PTT	
45						
46	D.0001792.008.001.002	BI Teradata New Ver-10674 SW SPS	Electric General - Software	Harkness	Aging Technology	
47						
48	D.0001792.141.001.001	10634-eGERC NERC SW SPS	Electric General - Software	Harkness	Enhance Capabilities	
49						
50	D.0001792.152.001.001	XE.COM Optimization Ph2 SW SPS-1066	Electric General - Software	Harkness	Aging Technology	
51						
52	D.0001796.025.001.001	Netwrk Tools Mgmt SW SPS-10700	Electric General - Software	Harkness	Enhance Capabilities	
53						
54	D.0001800.932.001.001	Automated Credit Mgmt SW SPS -10635	Electric General - Software	Harkness	Enhance Capabiltiy	
55						
56	D.0001804.151.001.001	Interval Complex Billing SW SP	Electric General - Software	Harkness	Aging Technology	
57						
58	D.0001804.306.001.001	Federated Records SW SPS-10640	Electric General - Software	Harkness	Enhance Capabilities	
59						
60	D.0001804.369.001.001	Integrated Talent Ph4 SWSPS-10637	Electric General - Software	Harkness	Enhance Capabilities	
61						
62	D.0001804.376.001.001	EGRC Security Ph2 SW SPS-10668	Electric General - Software	Harkness	Cyber Security	
63						
64	D.0001805.004.001.001	Next Gen MSFT LIC SW SPS-10692	Electric General - Software	Harkness	Aging Technology	
65						
66	D.0001815.043.001.001	Renewable Energy SW SPS-10649	Electric General - Software	Harkness	Enhance Capabilities	
67						
68	D.0001818.018.001.001	Security Incident SW SPS	Electric General - Software	Harkness	Cyber Security	
69						
70	D.0001818.077.001.001	Vulnerability NexPose SW SPS-10665	Electric General - Software	Harkness	Cyber Security	
71						

Southwestern Public Service Company

Electric General and Software Capital Additions
July 1, 2017 through March 31, 2019

(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	
Line No.	WBS Level 2 Number	WBS Level 2 Description	In-Service Date	Additions to Plant- In-Service (July 1, 2017 - March 31, 2019)	XES Charges (Included in Column I)	Other Affiliate Charges (Included in Column I)	Total Affiliate Charges (Included in Column I)	Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)
36	D.0001770.007	Electronic Data SW SPS	201703	855.51	1,662.45	-	1,662.45	(806.94)
37	D.0001770.007 Total			855.51	1,662.45	-	1,662.45	(806.94)
38	D.0001770.014	Secure File&Transfer Ph 2 SW SPS-10	201801	132,997.99	96,326.67	-	96,326.67	36,671.32
39	D.0001770.014 Total			132,997.99	96,326.67	-	96,326.67	36,671.32
40	D.0001770.020	Sec File Ph3 SW SPS-10716	201812	21,022.60	20,565.66	-	20,565.66	456.94
41	D.0001770.020 Total			21,022.60	20,565.66	-	20,565.66	456.94
42	D.0001771.007	Certificate Key Mgmt SW SPS	201812	336,073.80	300,827.66	-	300,827.66	35,246.14
43	D.0001771.007 Total			336,073.80	300,827.66	-	300,827.66	35,246.14
44	D.0001787.009	Customer Mgmt SPS	201812	2,932,094.45	2,904,503.45	-	2,904,503.45	27,591.00
45	D.0001787.009 Total			2,932,094.45	2,904,503.45	-	2,904,503.45	27,591.00
46	D.0001792.008	Data Warehouse Env Ref SW SPS	201805	21,105.28	20,823.41	-	20,823.41	281.87
47	D.0001792.008 Total			21,105.28	20,823.41	-	20,823.41	281.87
48	D.0001792.141	10634-eGERC NERC SW SPS	201703	1,080.35	1,080.35	-	1,080.35	-
49	D.0001792.141 Total			1,080.35	1,080.35	-	1,080.35	-
50	D.0001792.152	XE.COM Optimization Ph2 SW SPS-1066	201712	468,994.80	238,029.85	-	238,029.85	230,964.95
51	D.0001792.152 Total			468,994.80	238,029.85	-	238,029.85	230,964.95
52	D.0001796.025	Network Tools Mgmt SW SPS-10700	201812	141,841.42	140,472.99	-	140,472.99	1,368.43
53	D.0001796.025 Total			141,841.42	140,472.99	-	140,472.99	1,368.43
54	D.0001800.932	Automated Credit Mgmt SW SPS -10635	201706	141,448.38	1,624.17	-	1,624.17	139,824.21
55	D.0001800.932 Total			141,448.38	1,624.17	-	1,624.17	139,824.21
56	D.0001804.151	Interval Complex Billing SW SP	201812	668,146.04	379,692.30	-	379,692.30	288,453.74
57	D.0001804.151 Total			668,146.04	379,692.30	-	379,692.30	288,453.74
58	D.0001804.306	Federated Records SW SPS-10640	201711	442,810.14	89,919.58	-	89,919.58	352,890.56
59	D.0001804.306 Total			442,810.14	89,919.58	-	89,919.58	352,890.56
60	D.0001804.369	Integrated Talent Ph4 SWSPS-10637	201703	726.30	726.30	-	726.30	-
61	D.0001804.369 Total			726.30	726.30	-	726.30	-
62	D.0001804.376	EGRC Security Ph2 SW SPS-10668	201710	105,074.28	75,778.51	-	75,778.51	29,295.77
63	D.0001804.376 Total			105,074.28	75,778.51	-	75,778.51	29,295.77
64	D.0001805.004	Next Gen MSFT LIC SW SPS-10692	201807	3,401,179.88	3,401,179.88	-	3,401,179.88	-
65	D.0001805.004 Total			3,401,179.88	3,401,179.88	-	3,401,179.88	-
66	D.0001815.043	Renewable Energy SW SPS-10649	201611	(617.31)	(617.31)	-	(617.31)	-
67	D.0001815.043 Total			(617.31)	(617.31)	-	(617.31)	-
68	D.0001818.018	Security Incident SW SPS	201709	556,663.23	8,990.90	-	8,990.90	547,672.33
69	D.0001818.018 Total			556,663.23	8,990.90	-	8,990.90	547,672.33
70	D.0001818.077	Vulnerability NexPose SW SPS-10665	201704	16,812.24	16,812.24	-	16,812.24	-
71	D.0001818.077 Total			16,812.24	16,812.24	-	16,812.24	-

Southwestern Public Service Company

Electric General and Software Capital Additions
July 1, 2017 through March 31, 2019

(A)		(B)	(C)		(D)	(E)
Line No.	WBS Level 4 Number	WBS Level 4 Description	Asset Class	Witness	Project Category	
72	D.0001818.084.001.001	Vulnerability AppSpider SW SPS-1066	Electric General - Software	Harkness	Cyber Security	
73						
74	D.0001818.090.001.002	SIEM Extension SW SPS-10679	Electric General - Software	Harkness	Cyber Security	
75						
76	D.0001822.036.001.001	TD Ciena Network SW SPS-10642	Electric General - Software	Harkness	Aging Technology	
77						
78	D.0001825.098.001.001	Advanced Endpoint SW SPS-10685	Electric General - Software	Harkness	Cyber Security	
79						
80	D.0001826.064.001.001	Mobile Application Customer SW	Electric General - Software	Harkness	Aging Technology	
81						
82	D.0001826.101.001.001	Matter Management SW SPS	Electric General - Software	Harkness	Enhance Capability	
83						
84	D.0001826.161.001.001	Verint Suite SW SPS	Electric General - Software	Harkness	Aging Technology	
85						
86	D.0001826.191.001.001	Demand Response Mgmt SW SPS	Electric General - Software	Harkness	Aging Technology	
87						
88	D.0001826.241.001.001	SAP BI Suite SW SPS	Electric General - Software	Harkness	Enhance Capabilities	
89						
90	D.0001826.247.001.001	2015 RPAM Phase 3 Amort SW SPS	Electric General - Software	Harkness	Enhance Capabilities	
91						
92	D.0001826.366.001.001	Microsoft Core SW SPS-10678	Electric General - Software	Harkness	Aging Technology	
93						
94	D.0001826.381.001.001	Mobile App Ph2 SW SPS-10695	Electric General - Software	Harkness	Aging Technology	
95						
96	D.0001839.379.001.001	RedSky e911 SW SPS	Electric General - Software	Harkness	Aging Technology	
97						
98	D.0001839.613.001.001	CRS CM SW SPS-10644	Electric General - Software	Harkness	Aging Technology	
99						
100	D.0001839.642.001.001	Network Security Protect SW SPS-106	Electric General - Software	Harkness	Cyber Security	
101						
102	D.0001839.814.001.001	DMZ Symantec SW SPS-10663	Electric General - Software	Harkness	Aging Technology	
103						
104	D.0001839.821.001.001	DMZ Airwatch SW SPS-10664	Electric General - Software	Harkness	Aging Technology	
105						
106	D.0001839.851.001.001	RedSky Ph2 SW SPS Direct	Electric General - Software	Harkness	Aging Technology	
107						

Southwestern Public Service Company

Electric General and Software Capital Additions
July 1, 2017 through March 31, 2019

(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	
Line No.	WBS Level 2 Number	WBS Level 2 Description	In-Service Date	Additions to Plant- In-Service (July 1, 2017 - March 31, 2019)	XES Charges (Included in Column I)	Other Affiliate Charges (Included in Column I)	Total Affiliate Charges (Included in Column I)	Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)
72	D.0001818.084	Vulnerability AppSpider SW SPS-1066	201712	42,053.71	28,979.61	-	28,979.61	13,074.10
73	D.0001818.084 Total			42,053.71	28,979.61	-	28,979.61	13,074.10
74	D.0001818.090	SIEM Extension SW SPS-10679	201712	159,148.26	157,548.54	-	157,548.54	1,599.72
75	D.0001818.090 Total			159,148.26	157,548.54	-	157,548.54	1,599.72
76	D.0001822.036	TD Ciena Network SW SPS-10642	201703	3.23	3.23	-	3.23	(0.00)
77	D.0001822.036 Total			3.23	3.23	-	3.23	(0.00)
78	D.0001825.098	Advanced Endpoint SW SPS-10685	201806	330,843.88	321,058.84	-	321,058.84	9,785.04
79	D.0001825.098 Total			330,843.88	321,058.84	-	321,058.84	9,785.04
80	D.0001826.064	Mobile Application Customer SW	201712	198,628.18	39,600.77	-	39,600.77	159,027.41
81	D.0001826.064 Total			198,628.18	39,600.77	-	39,600.77	159,027.41
82	D.0001826.101	Matter Management SW SPS	201704	6,045.05	6,045.05	-	6,045.05	-
83	D.0001826.101 Total			6,045.05	6,045.05	-	6,045.05	-
84	D.0001826.161	Verint Workforce SW SPS	201805	259,315.47	98,415.11	-	98,415.11	160,900.36
85	D.0001826.161 Total			259,315.47	98,415.11	-	98,415.11	160,900.36
86	D.0001826.191	Demand Response Manage SW SPS	201809	1,041,851.94	307,176.65	-	307,176.65	734,675.29
87	D.0001826.191 Total			1,041,851.94	307,176.65	-	307,176.65	734,675.29
88	D.0001826.241	SAP BI Suite SW SPS	201612	(785.59)	(785.59)	-	(785.59)	-
89	D.0001826.241 Total			(785.59)	(785.59)	-	(785.59)	-
90	D.0001826.247	2015 RPAM Phase 3 Amort SW SPS	201810	610,204.62	423,597.21	-	423,597.21	186,607.41
91	D.0001826.247 Total			610,204.62	423,597.21	-	423,597.21	186,607.41
92	D.0001826.366	Microsoft Core SW SPS-10678	201709	243,226.84	242,232.02	-	242,232.02	994.82
93	D.0001826.366 Total			243,226.84	242,232.02	-	242,232.02	994.82
94	D.0001826.381	Mobile App Ph2 SW SPS-10695	201812	25,337.78	24,633.37	-	24,633.37	704.41
95	D.0001826.381 Total			25,337.78	24,633.37	-	24,633.37	704.41
96	D.0001839.379	RedSky e911 SW SPS	201809	221,183.78	97,542.68	-	97,542.68	123,641.10
97	D.0001839.379 Total			221,183.78	97,542.68	-	97,542.68	123,641.10
98	D.0001839.613	CRS CM SW SPS-10644	201712	83,307.47	59,690.29	-	59,690.29	23,617.18
99	D.0001839.613 Total			83,307.47	59,690.29	-	59,690.29	23,617.18
100	D.0001839.642	Network Security Protect SW SPS-106	201706	14,121.62	14,162.22	-	14,162.22	53.40
101	D.0001839.642 Total			14,215.62	14,162.22	-	14,162.22	53.40
102	D.0001839.814	DMZ Symantec SW SPS-10663	201706	86,390.36	548.66	-	548.66	85,841.70
103	D.0001839.814 Total			86,390.36	548.66	-	548.66	85,841.70
104	D.0001839.821	DMZ Airwatch SW SPS-10664	201710	100,619.77	19,345.31	-	19,345.31	81,274.46
105	D.0001839.821 Total			100,619.77	19,345.31	-	19,345.31	81,274.46
106	D.0001839.851	RedSky Ph2 SW SPS Direct	201812	74,306.87	-	-	-	74,306.87
107	D.0001839.851 Total			74,306.87	-	-	-	74,306.87

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(A)		(B)	(C)		(D)	(E)
Line No.	WBS Level 4 Number	WBS Level 4 Description	Asset Class	Witness	Project Category	
108	D.0002001.007.001.001	SailPoint Extension SW SPS-10667	Electric General - Software	Harkness	Cyber Security	
109						
110	D.0002001.014.001.001	Sailpoint Ph3 SW SPS-10717	Electric General - Software	Harkness	Cyber Security	
111						
112	D.0002002.007.001.001	NMS 1.12 Upgrade SW SPS-10669	Electric General - Software	Harkness	Aging Technology	
113						
114	D.0002003.004.001.002	Oracle 2017 SW SPS-10677	Electric General - Software	Harkness	Aging Technology	
115						
116	D.0002003.010.001.001	2018 Oracle SW SPS-10701	Electric General - Software	Harkness	Aging Technology	
117						
118	D.0002004.004.001.002	SAP Data Mart SW SPS-10675	Electric General - Software	Harkness	Aging Technology	
119						
120	D.0002007.004.001.002	Digital Signage SW SPS-10671	Electric General - Software	Harkness	Enhance Capabilities	
121						
122	D.0002020.014.001.001	SAP Cont Improve R18 SW SPS-10706	Electric General - Software	Harkness	PTT	
123						
124	D.0002034.004.001.001	CEC-TCPA Do Not Call SW SPS-10703	Electric General - Software	Harkness	Aging Technology	
125						
126	D.0002067.004.001.001	OSI Ent Agree SW SPS-10726	Electric General - Software	Harkness	Aging Technology	
127						
128	D.0002090.004.001.001	IT Service Request SW SPS-10699	Electric General - Software	Harkness	Enhance Capabilities	
129						
130	D.0002098.004.001.001	CyberArk PAM SW SPS-10694	Electric General - Software	Harkness	Cyber Security	
131						
132	D.0002099.007.001.001	Firewall Rule Mgmt SW SPS-10707	Electric General - Software	Harkness	Cyber Security	
133						
134	D.0002101.006.001.001	eGRC Ph3 SW SPS-10719	Electric General - Software	Harkness	Cyber Security	
135						
136	D.0001792.162.001.001	Informatica New Ver-10673 SW SPS	Electric General - Software	Harkness	Aging Technology	
137						
138	D.0002008.004.001.001	Ent DataBase Security Ph2 SW SPS-10	Electric General - Software	Harkness	Cyber Security	
139						
140	D.0001796.018.001.002	Netwrk Tools Telecom Exp SW TX -106	Electric General - Software	Harkness	Aging Technology	
141						
142	D.0002162.004.001.001	Microsoft Core Server SW SPS-10727	Electric General - Software	Harkness	Aging Technology	
143						

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(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Line No.	WBS Level 2 Description	In-Service Date	Additions to Plant- In-Service (July 1, 2017 - March 31, 2019)	XES Charges (Included in Column I)	Other Affiliate Charges (Included in Column I)	Total Affiliate Charges (Included in Column I)	Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)
108 D.0002001.007	SailPoint Extension SW SPS-10667	201712	273,205.24	120,534.03	-	120,534.03	152,671.21
109 D.0002001.007 Total			273,205.24	120,534.03	-	120,534.03	152,671.21
110 D.0002001.014	Sailpoint Ph3 SW SPS-10717	201812	211,606.72	206,674.12	-	206,674.12	4,932.60
111 D.0002001.014 Total			211,606.72	206,674.12	-	206,674.12	4,932.60
112 D.0002002.007	NMS 1.12 Upgrade SW SPS-10669	201811	759,941.84	689,141.11	-	689,141.11	70,800.73
113 D.0002002.007 Total			759,941.84	689,141.11	-	689,141.11	70,800.73
114 D.0002003.004	Oracle Version Upgrade SPSSW-BSPR10	201708	400,305.01	399,367.63	-	399,367.63	937.38
115 D.0002003.004 Total			400,305.01	399,367.63	-	399,367.63	937.38
116 D.0002003.010	2018 Oracle SW SPS-10701	201805	409,077.94	402,550.39	-	402,550.39	6,527.55
117 D.0002003.010 Total			409,077.94	402,550.39	-	402,550.39	6,527.55
118 D.0002004.004	SAP Data Mart SW SPS-10675	201712	101,346.15	100,181.87	-	100,181.87	1,164.28
119 D.0002004.004 Total			101,346.15	100,181.87	-	100,181.87	1,164.28
120 D.0002007.004	Digital Signage SW SPS-10671	201712	110,842.21	76,517.87	-	76,517.87	34,324.34
121 D.0002007.004 Total			110,842.21	76,517.87	-	76,517.87	34,324.34
122 D.0002020.014	SAP Cont Improve R18 SW SPS-10706	201806	265,484.78	262,718.05	-	262,718.05	2,766.73
123 D.0002020.014 Total			265,484.78	262,718.05	-	262,718.05	2,766.73
124 D.0002034.004	CEC-TCPA Do Not Call SW SPS-10703	201812	20,745.82	20,431.28	-	20,431.28	314.54
125 D.0002034.004 Total			20,745.82	20,431.28	-	20,431.28	314.54
126 D.0002067.004	OSI Ent Agree SW SPS-10736	201811	276,433.44	274,940.42	-	274,940.42	1,493.02
127 D.0002067.004 Total			276,433.44	274,940.42	-	274,940.42	1,493.02
128 D.0002090.004	IT Service Request SW SPS-10699	201812	246,023.33	240,470.09	-	240,470.09	5,553.24
129 D.0002090.004 Total			246,023.33	240,470.09	-	240,470.09	5,553.24
130 D.0002098.004	CyberArk PAM SW SPS-10694	201812	217,276.80	208,116.77	-	208,116.77	9,160.03
131 D.0002098.004 Total			217,276.80	208,116.77	-	208,116.77	9,160.03
132 D.0002099.007	Firewall Rule Mgmt SW SPS-10707	201812	345,213.87	335,916.62	-	335,916.62	9,297.25
133 D.0002099.007 Total			345,213.87	335,916.62	-	335,916.62	9,297.25
134 D.0002101.006	eGRC Ph3 SW SPS-10719	201812	71,327.94	69,967.33	-	69,967.33	1,360.61
135 D.0002101.006 Total			71,327.94	69,967.33	-	69,967.33	1,360.61
136 D.0001792.162	Informatica New Ver-10673 SW SPS	201711	59,746.16	59,363.60	-	59,363.60	382.56
137 D.0001792.162 Total			59,746.16	59,363.60	-	59,363.60	382.56
138 D.0002008.004	Ent DataBase Security Ph2 SW SPS-10	201812	147,636.99	142,891.63	-	142,891.63	4,745.36
139 D.0002008.004 Total			147,636.99	142,891.63	-	142,891.63	4,745.36
140 D.0001796.018	Network Tools Telecom Exp SW TX -106	201812	560,993.36	544,244.22	-	544,244.22	16,749.14
141 D.0001796.018 Total			560,993.36	544,244.22	-	544,244.22	16,749.14
142 D.0002162.004	Microsoft Core Server SW SPS-10727	201811	241,868.57	239,290.20	-	239,290.20	2,578.37
143 D.0002162.004 Total			241,868.57	239,290.20	-	239,290.20	2,578.37

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(A)		(B)	(C)		(D)	(E)
Line No.	WBS Level 4 Number	WBS Level 4 Description	Asset Class	Witness	Project Category	
144	D.0002090.013.001.001	Microfocus SW SPS-10721	Electric General - Software	Harkness	Aging Technology	
145						
146	D.0001748.007.001.001	Corp Email SW SPS	Electric General - Software	Harkness	Aging Technology	
147						
148	D.0001826.211.001.001	ITSA Pole Ph3 SW SPS	Electric General - Software	Harkness	Enhance Capabilities	
149						
150	D.0001804.351.001.001	SAP Fin Data Mart SW SPS-10658	Electric General - Software	Harkness	Enhance Capability	
151						
152	D.0001839.606.001.001	CRS IVR SW SPS-10643	Electric General - Software	Harkness	Aging Technology	
153						
154	D.0002066.004.001.001	Bus Obj Ref SW SPS-10698	Electric General - Software	Harkness	Aging Technology	
155						
156	D.0001839.186.001.001	Mobile Computing Infra SW SPS	Electric General - Software	Harkness	Enhance Capabilities	
157						
158	D.0001818.108.001.001	Emergency Mass SW SPS-10709	Electric General - Software	Harkness	Cyber Security	
159						
160	D.0001839.635.001.001	VMware Private Cloud SW SPS -10647	Electric General - Software	Harkness	Enhance Capabilities	
161						
162	D.0001804.365.001.001	eGRC Security SW SPS -10660	Electric General - Software	Harkness	Cyber Security	
163						
164	D.0001783.017.001.002	WebSense SW SPS-10670	Electric General - Software	Harkness	Cyber Security	
165						
166	D.0001826.233.001.001	Solar Energy Grid SW SPS	Electric General - Software	Harkness	Enhance Capabilities	
167						
168	D.0001839.391.001.001	Sharepoint 2013 Ph 2 SW SPS	Electric General - Software	Harkness	Enhance Capabilities	
169						
170	D.0001787.004.001.001	SAP Financial Mgmt SPS	Electric General - Software	Harkness	PTT	
171						
172	D.0002004.014.001.001	SAP Data Mart Ph2 SW SPS-10690	Electric General - Software	Harkness	Aging Technology	
173						
174	D.0001792.176.001.001	Rational SW SPS-10715	Electric General - Software	Harkness	Enhance Capabilities	
175						
176	D.0002003.014.001.001	2019 Oracle SW SPS-10748	Electric General - Software	Harkness	Aging Technology	
177						
178	D.0002097.007.001.001	UAST Ph1 SW SPS-10689	Electric General - Software	Harkness	Aging Technology	
179						

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(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Line WBS Level 2 Number No.	WBS Level 2 Description	In-Service Date	Additions to Plant-In-Service (July 1, 2017 - March 31, 2019)	XES Charges (Included in Column I)	Other Affiliate Charges (Included in Column I)	Total Affiliate Charges (Included in Column I)	Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)
144 D.0002090.013	Microfocus SW SPS-10721	201811	450,594.62	438,569.96	-	438,569.96	12,024.66
145 D.0002090.013 Total			450,594.62	438,569.96	-	438,569.96	12,024.66
146 D.0001748.007	Corp Email SW SPS	201612	206.01	2,129.20	-	2,129.20	(1,923.19)
147 D.0001748.007 Total			206.01	2,129.20	-	2,129.20	(1,923.19)
148 D.0001826.211	ITSA Pole Ph3 SW SPS	201612	(2,569.60)	(2,569.60)	-	(2,569.60)	-
149 D.0001826.211 Total			(2,569.60)	(2,569.60)	-	(2,569.60)	-
150 D.0001804.351	SAP Fin Data Mart SW SPS-10658	201706	(6,750.54)	(6,769.44)	-	(6,769.44)	18.90
151 D.0001804.351 Total			(6,750.54)	(6,769.44)	-	(6,769.44)	18.90
152 D.0001839.606	CRS IVR SW SPS-10643	201712	23,721.08	0.02	-	0.02	23,721.06
153 D.0001839.606 Total			23,721.08	0.02	-	0.02	23,721.06
154 D.0002066.004	Bus Obj Ref SW SPS-10698	201812	170,644.41	166,101.11	-	166,101.11	4,543.30
155 D.0002066.004 Total			170,644.41	166,101.11	-	166,101.11	4,543.30
156 D.0001839.186	Mobile Computing Infra SW SPS	201706	23,815.08	23,668.18	-	23,668.18	146.90
157 D.0001839.186 Total			23,815.08	23,668.18	-	23,668.18	146.90
158 D.0001818.108	Emergency Mass SW SPS-10709	201811	118,011.95	116,216.33	-	116,216.33	1,795.62
159 D.0001818.108 Total			118,011.95	116,216.33	-	116,216.33	1,795.62
160 D.0001839.635	VMware Private Cloud SW SPS -10647	201612	59,522.57	59,522.57	-	59,522.57	-
161 D.0001839.635 Total			59,522.57	59,522.57	-	59,522.57	-
162 D.0001804.365	eGRC Security SW SPS -10660	201801	83,226.55	53,237.67	-	53,237.67	29,988.88
163 D.0001804.365 Total			83,226.55	53,237.67	-	53,237.67	29,988.88
164 D.0001783.017	WebSense SW SPS-10670	201711	17,416.95	14,092.83	-	14,092.83	3,324.12
165 D.0001783.017 Total			17,416.95	14,092.83	-	14,092.83	3,324.12
166 D.0001826.233	Solar Energy Grid SW SPS	201706	933.33	927.44	-	927.44	5.89
167 D.0001826.233 Total			933.33	927.44	-	927.44	5.89
168 D.0001839.391	Sharepoint 2013 Ph2 SW SPS	201807	949,163.09	409,293.95	-	409,293.95	539,869.14
169 D.0001839.391 Total			949,163.09	409,293.95	-	409,293.95	539,869.14
170 D.0001787.004	SAP Financial Mgmt SPS	201902	966,478.70	32,268.58	-	32,268.58	934,210.12
171 D.0001787.004 Total			966,478.70	32,268.58	-	32,268.58	934,210.12
172 D.0002004.014	SAP Data Mart Ph2 SW SPS-10690	201903	195,304.84	11,922.26	-	11,922.26	183,382.58
173 D.0002004.014 Total			195,304.84	11,922.26	-	11,922.26	183,382.58
174 D.0001792.176	Rational SW SPS-10715	201903	123,014.89	15,792.79	-	15,792.79	107,222.10
175 D.0001792.176 Total			123,014.89	15,792.79	-	15,792.79	107,222.10
176 D.0002003.014	2019 Oracle SW SPS-10748	201903	404,749.09	402,485.45	-	402,485.45	2,263.64
177 D.0002003.014 Total			404,749.09	402,485.45	-	402,485.45	2,263.64
178 D.0002097.007	UAST Ph1 SW SPS-10689	201903	353,544.31	73,805.83	-	73,805.83	279,738.48
179 D.0002097.007 Total			353,544.31	73,805.83	-	73,805.83	279,738.48

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Line No.	(A) WBS Level 4 Number	(B) WBS Level 4 Description	(C) Asset Class	(D) Witness	(E) Project Category
180	D.0002182.004.001.001	Sharepoint RFP SW SPS-10739	Electric General - Software	Harkness	Enhance Capabilities
181					
182			Total Electric General - SC		
183	D.0001703.009.001.001	Purch EMS DEMS Ph2 HW SPS	Electric General	Harkness	Aging Technology
184					
185	D.0001783.010.001.001	Purch LMR HW SPS	Electric General	Harkness	Aging Technology
186					
187	D.0001797.009.001.001	Purch Sub Frame Relay Cole OK SPS	Electric General	Harkness	Aging Technology
188					
189	D.0001797.010.001.001	Purch Sub Frame Relay Finney KS	Electric General	Harkness	Aging Technology
190					
191	D.0001800.939.001.001	Purch Verint Server HW SPS	Electric General	Harkness	Aging Technology
192					
193	D.0001804.017.001.002	Purch Network Wireless SPS	Electric General	Harkness	Enhance Capabilities
194	D.0001804.017.001.003	Purch Network Wireless SPS	Electric General	Harkness	Enhance Capabilities
195	D.0001804.017.001.004	Purch Net Wireless Jones SPS	Electric General	Harkness	Enhance Capabilities
196	D.0001804.017.001.001	Purch Network Wireless SPS	Electric General	Harkness	Enhance Capabilities
197					
198	D.0001804.022.001.001	Purch Corp Net Core HW SPS	Electric General	Harkness	Aging Technology
199					
200	D.0001804.126.001.010	Purch Security Camera Plant X SPS	Electric General	Harkness	Cyber Security
201	D.0001804.126.001.011	Purch Security Camera Levelland SP	Electric General	Harkness	Cyber Security
202	D.0001804.126.001.009	Purch Security Camera Jones SPS	Electric General	Harkness	Cyber Security
203					
204	D.0001804.324.001.001	Purch Wireless Roswell NM SPS	Electric General	Harkness	Enhance Capabilities
205					
206	D.0001804.325.001.001	Purch Wireless Hobbs NM SPS	Electric General	Harkness	Enhance Capabilities
207					
208	D.0001804.327.001.009	Purch Wireless Harrington SPS	Electric General	Harkness	Enhance Capabilities
209	D.0001804.327.001.010	Purch Wireless Hereford SC SPS	Electric General	Harkness	Enhance Capabilities
210	D.0001804.327.001.019	Purch Wireless Amarillo North East	Electric General	Harkness	Enhance Capabilities
211	D.0001804.327.001.011	Purch Wireless Levelland SC SPS	Electric General	Harkness	Enhance Capabilities
212	D.0001804.327.001.003	Purch Wireless Amarillo Tech SPS	Electric General	Harkness	Enhance Capabilities
213	D.0001804.327.001.015	Purch Wireless Perryton SC SPS	Electric General	Harkness	Enhance Capabilities
214	D.0001804.327.001.017	Purch Wireless Seminole SC SPS	Electric General	Harkness	Enhance Capabilities
215					

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(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Line WBS Level 2 Number No.	WBS Level 2 Description	In-Service Date	Additions to Plant-In-Service (July 1, 2017 - March 31, 2019)	XES Charges (Included in Column I)	Other Affiliate Charges (Included in Column I)	Total Affiliate Charges (Included in Column I)	Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)
180 D.0002182.004	Sharepoint RFP SW SPS-10739	201903	17,089.56	3,866.33	-	3,866.33	13,223.23
181 D.0002182.004 Total			17,089.56	3,866.33	-	3,866.33	13,223.23
182			46,359,651.04	38,650,525.39	1,086.85	38,651,612.24	7,708,038.80
183 D.0001703.009	Purch EMS DEMS Ph2 HW SPS	201510	(24,135.48)	-	-	-	(24,135.48)
184 D.0001703.009 Total			(24,135.48)	-	-	-	(24,135.48)
185 D.0001783.010	Purch LMR HW SPS	201705	355.57	-	-	-	355.57
186 D.0001783.010 Total			355.57	-	-	-	355.57
187 D.0001797.009	Purch Sub Frame Relay OK SPS	201610	3,394.53	-	-	-	3,394.53
188 D.0001797.009 Total			3,394.53	-	-	-	3,394.53
189 D.0001797.010	Purch Sub Frame Relay KS SPS	201610	(292.58)	-	-	-	(292.58)
190 D.0001797.010 Total			(292.58)	-	-	-	(292.58)
191 D.0001800.939	Purch Verint Server HW SPS	201809	17,847.54	17,839.28	-	17,839.28	8.26
192 D.0001800.939 Total			17,847.54	17,839.28	-	17,839.28	8.26
193 D.0001804.017	2013 Wireless HW SPS	201704	(17,070.77)	-	-	-	(17,070.77)
194 D.0001804.017	2013 Wireless HW SPS	201706	12,153.74	-	-	-	12,153.74
195 D.0001804.017	2013 Wireless HW SPS	201706	12,294.77	-	-	-	12,294.77
196 D.0001804.017	2013 Wireless HW SPS	201706	13,626.94	-	-	-	13,626.94
197 D.0001804.017 Total			21,004.68	-	-	-	21,004.68
198 D.0001804.022	Purch Corp Network Core HW SP	201512	11,405.23	-	-	-	11,405.23
199 D.0001804.022 Total			11,405.23	-	-	-	11,405.23
200 D.0001804.126	Purch Network Appl Camera Upgr SPS	201803	26,459.75	-	-	-	26,459.75
201 D.0001804.126	Purch Network Appl Camera Upgr SPS	201803	88,047.29	-	-	-	88,047.29
202 D.0001804.126	Purch Network Appl Camera Upgr SPS	201803	29,872.58	-	-	-	29,872.58
203 D.0001804.126 Total			144,379.62	-	-	-	144,379.62
204 D.0001804.324	Purch Wireless HW NM SPS	201704	19,959.57	-	-	-	19,959.57
205 D.0001804.324 Total			19,959.57	-	-	-	19,959.57
206 D.0001804.325	Purch Wireless Hobbs NM SPS	201712	105,659.00	-	-	-	105,659.00
207 D.0001804.325 Total			105,659.00	-	-	-	105,659.00
208 D.0001804.327	Purch Wireless HW SPS	201710	26,843.61	-	-	-	26,843.61
209 D.0001804.327	Purch Wireless HW SPS	201901	35,333.20	13,234.45	-	13,234.45	22,098.75
210 D.0001804.327	Purch Wireless HW SPS	201710	38,950.03	-	-	-	38,950.03
211 D.0001804.327	Purch Wireless HW SPS	201901	35,789.49	4,781.89	-	4,781.89	31,007.60
212 D.0001804.327	Purch Wireless HW SPS	201710	71,629.89	-	-	-	71,629.89
213 D.0001804.327	Purch Wireless HW SPS	201902	32,427.41	952.63	-	952.63	31,474.78
214 D.0001804.327	Purch Wireless HW SPS	201902	63,484.26	(1,697.76)	-	(1,697.76)	65,182.02
215 D.0001804.327 Total			304,457.89	17,271.21	-	17,271.21	287,186.68

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(A)	(B)	(C)	(D)	(E)
Line No.	WBS Level 4 Number	WBS Level 4 Description	Asset Class	Witness
216	D.0001804.396.001.002	Purch Wireless HW Maddox NM	Electric General	Harkness
217	D.0001804.396.001.004	Purch Wireless Carlsbad NM	Electric General	Harkness
218	D.0001804.396.001.003	Purch Wireless Clovis NM	Electric General	Harkness
219				
220	D.0001804.397.001.003	Purch Wireless HW Harrington TX	Electric General	Harkness
221	D.0001804.397.001.002	Purch Wireless HW Nichols TX	Electric General	Harkness
222	D.0001804.397.001.005	Purch Wireless HW Borger TX	Electric General	Harkness
223	D.0001804.397.001.006	Purch Wireless HW Canyon SC TX	Electric General	Harkness
224				
225	D.0001819.006.001.001	WAM Mobility HW-SPS	Electric General	Harkness
226				
227	D.0001821.208.001.002	Purch 2017 Planned PC SPS	Electric General	Harkness
228				
229	D.0001821.232.001.002	Purch 2017 UnPlanned PC SPS	Electric General	Harkness
230	D.0001821.232.001.003	Purch 2017 Printer SPS	Electric General	Harkness
231				
232	D.0001821.278.001.002	Purch Radio Trk E-267 ATC TX	Electric General	Harkness
233	D.0001821.278.001.004	Purch Master Radio Lubbock TX	Electric General	Harkness
234	D.0001821.278.001.009	Purch Radio TrkD2385 Lubbock TX	Electric General	Harkness
235	D.0001821.278.001.012	Purch Radio Master Lubbock Ops HW T	Electric General	Harkness
236	D.0001821.278.001.014	Purch Radio Trk N410 HW ATC SPS	Electric General	Harkness
237	D.0001821.278.001.015	Purch Radio Trk J4135 Plainview TX	Electric General	Harkness
238	D.0001821.278.001.017	Purch Radios Foreman Plainview TX	Electric General	Harkness
239	D.0001821.278.001.011	Purch Radio TrkD2307 Lubbock TX	Electric General	Harkness
240	D.0001821.278.001.007	Purch Radio TrkD231 Lubbock TX	Electric General	Harkness
241	D.0001821.278.001.008	Purch Radio TrkD2341 Lubbock TX	Electric General	Harkness
242	D.0001821.278.001.016	Purch Radio Trk J4137 Borger TX	Electric General	Harkness
243	D.0001821.278.001.010	Purch Radio TrkD2378 Lubbock TX	Electric General	Harkness
244	D.0001821.278.001.019	Purch Radio TrkF616 Amarillo TX	Electric General	Harkness
245	D.0001821.278.001.006	Purch Radio TrkD2367 Lubbock TX	Electric General	Harkness
246	D.0001821.278.001.003	Purch Radio Lashley TX	Electric General	Harkness
247	D.0001821.278.001.005	Purch Radio TrkD2368 Lubbock TX	Electric General	Harkness
248	D.0001821.278.001.013	Purch Radio Master Amarillo Ops HW	Electric General	Harkness
249	D.0001821.278.001.018	Purch Radio Desktop Console Canyon	Electric General	Harkness
250				
251	D.0001821.290.001.001	2018 Unplanned PC SPS	Electric General	Harkness

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(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Line No.	WBS Level 2 Description	In-Service Date	Additions to Plant- In-Service (July 1, 2017 - March 31, 2019)	XES Charges (Included in Column I)	Other Affiliate Charges (Included in Column I)	Total Affiliate Charges (Included in Column I)	Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)
216 D.0001804.396	Purch Wireless HW NM	201812	96,156.12	72,856.01	-	72,856.01	23,300.11
217 D.0001804.396	Purch Wireless HW NM	201903	43,969.19	1,958.19	-	1,958.19	42,011.00
218 D.0001804.396	Purch Wireless HW NM	201903	35,054.41	1,005.56	-	1,005.56	34,048.85
219 D.0001804.396 Total			175,179.72	75,819.76	-	75,819.76	99,359.96
220 D.0001804.397	Purch Wireless HW SPS	201811	73,866.79	55,209.52	-	55,209.52	18,657.27
221 D.0001804.397	Purch Wireless HW SPS	201812	100,530.14	73,752.90	-	73,752.90	26,777.24
222 D.0001804.397	Purch Wireless HW SPS	201902	32,999.20	952.63	-	952.63	32,046.57
223 D.0001804.397	Purch Wireless HW SPS	201903	32,208.45	2,169.88	-	2,169.88	30,038.57
224 D.0001804.397 Total			239,604.58	132,084.93	-	132,084.93	107,519.65
225 D.0001819.006	WAM Mobility HW-SPS	201710	367,593.39	-	187.45	187.45	367,405.94
226 D.0001819.006 Total			367,593.39	-	187.45	187.45	367,405.94
227 D.0001821.208	2017 Planned PC SPS	201708	730,583.58	-	-	-	730,583.58
228 D.0001821.208 Total			730,583.58	-	-	-	730,583.58
229 D.0001821.232	2017 Unplanned PC Refresh SPS	201708	279,176.71	-	-	-	279,176.71
230 D.0001821.232	2017 Unplanned PC Refresh SPS	201708	72,477.56	-	-	-	72,477.56
231 D.0001821.232 Total			351,654.27	-	-	-	351,654.27
232 D.0001821.278	2018 IT INFS Network Refresh S	201805	9,293.97	6,001.73	-	6,001.73	3,292.24
233 D.0001821.278	2018 IT INFS Network Refresh S	201811	49,867.25	2,834.44	-	2,834.44	47,032.81
234 D.0001821.278	2018 IT INFS Network Refresh S	201811	7,010.64	3,578.38	-	3,578.38	3,432.26
235 D.0001821.278	2018 IT INFS Network Refresh S	201811	43,543.69	2,977.77	-	2,977.77	40,565.92
236 D.0001821.278	2018 IT INFS Network Refresh S	201810	6,621.10	3,187.47	-	3,187.47	3,433.63
237 D.0001821.278	2018 IT INFS Network Refresh S	201811	6,572.81	3,145.54	-	3,145.54	3,427.27
238 D.0001821.278	2018 IT INFS Network Refresh S	201810	14,429.40	1,467.91	-	1,467.91	12,961.49
239 D.0001821.278	2018 IT INFS Network Refresh S	201809	7,610.73	4,178.03	-	4,178.03	3,432.70
240 D.0001821.278	2018 IT INFS Network Refresh S	201809	6,660.12	3,228.41	-	3,228.41	3,431.71
241 D.0001821.278	2018 IT INFS Network Refresh S	201809	6,653.31	3,221.41	-	3,221.41	3,431.90
242 D.0001821.278	2018 IT INFS Network Refresh S	201810	6,657.59	3,229.41	-	3,229.41	3,428.18
243 D.0001821.278	2018 IT INFS Network Refresh S	201809	6,010.96	2,579.31	-	2,579.31	3,431.65
244 D.0001821.278	2018 IT INFS Network Refresh S	201812	5,800.97	491.13	-	491.13	5,309.84
245 D.0001821.278	2018 IT INFS Network Refresh S	201811	6,618.02	3,186.45	-	3,186.45	3,431.57
246 D.0001821.278	2018 IT INFS Network Refresh S	201805	7,161.79	3,914.16	-	3,914.16	3,247.63
247 D.0001821.278	2018 IT INFS Network Refresh S	201809	6,657.99	3,226.38	-	3,226.38	3,431.61
248 D.0001821.278	2018 IT INFS Network Refresh S	201811	32,959.49	1,593.74	-	1,593.74	31,365.75
249 D.0001821.278	2018 IT INFS Network Refresh S	201902	26,933.31	2,348.65	-	2,348.65	24,584.66
250 D.0001821.278 Total			257,063.14	54,390.32	-	54,390.32	202,672.82
251 D.0001821.290	2018 Unplanned PC SPS	201804	1,045,628.52	1,031,610.50	-	1,031,610.50	14,018.02

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Line No.	(A) WBS Level 4 Number	(B) WBS Level 4 Description	(C) Asset Class	(D) Witness	(E) Project Category
252					
253	D.0001821.307.001.002	Purch EMS Industrial Def HW SPS	Electric General	Harkness	Aging Technology
254	D.0001821.307.001.003	Purch EMS Cisco Equip HW SPS	Electric General	Harkness	Aging Technology
255					
256	D.0001821.311.001.001	2018 Planned PC SPS	Electric General	Harkness	Aging Technology
257					
258	D.0001821.401.001.006	Purch W24 Coldwater MAS SPS	Electric General	Harkness	Aging Technology
259					
260	D.0001821.527.001.001	Purch 2017 Handheld SPS	Electric General	Harkness	Aging Technology
261	D.0001821.527.001.003	Purch Handheld FC300 Amarillo SPS	Electric General	Harkness	Aging Technology
262					
263	D.0001821.537.001.003	Purch Radio Trk2079 Roswell NM	Electric General	Harkness	Aging Technology
264	D.0001821.537.001.005	Purch Radio Doc Crew Carlsbad NM	Electric General	Harkness	Aging Technology
265	D.0001821.537.001.006	Purch Radio Trk4138 Carlsbad NM	Electric General	Harkness	Aging Technology
266	D.0001821.537.001.007	Purch Radio Trk41347 Clovis NM	Electric General	Harkness	Aging Technology
267	D.0001821.537.001.002	Purch Radio Master Roswell HW NM	Electric General	Harkness	Aging Technology
268	D.0001821.537.001.004	Purch Radio Trk N656 HW Carlsbad NM	Electric General	Harkness	Aging Technology
269					
270	D.0001821.538.001.002	Purch Mobile Handheld HW Amarillo S	Electric General	Harkness	Aging Technology
271					
272	D.0001822.001.001.001	Purch Corp Frame Relay HW SPS	Electric General	Harkness	Aging Technology
273					
274	D.0001822.008.001.001	Purch Sub Frame Relay China Draw NM	Electric General	Harkness	Aging Technology
275	D.0001822.008.001.004	Purch Ruggedcom Checkpoint SPS	Electric General	Harkness	Aging Technology
276	D.0001822.008.001.005	Purch Sub Frame Relay Roadrunner NM	Electric General	Harkness	Aging Technology
277	D.0001822.008.001.006	Purch Sub Frame Relay Eddy City SPS	Electric General	Harkness	Aging Technology
278	D.0001822.008.001.014	Purch Sub Frame Perimeter SPS	Electric General	Harkness	Aging Technology
279	D.0001822.008.001.007	Purch Sub Frame Relay Roosevelt SPS	Electric General	Harkness	Aging Technology
280	D.0001822.008.001.013	Purch Sub Frame Relay Hobbs SPS	Electric General	Harkness	Aging Technology
281					
282	D.0001822.010.001.002	Purch Sub Frame Relay Ochitree SPS	Electric General	Harkness	Aging Technology
283	D.0001822.010.001.004	Purch Sub Frame Relay Palmer SPS	Electric General	Harkness	Aging Technology
284	D.0001822.010.001.006	Purch Sub Frame Relay Booker SPS	Electric General	Harkness	Aging Technology
285	D.0001822.010.001.010	Purch Sub Frame Relay Yoakum #2 SPS	Electric General	Harkness	Aging Technology
286	D.0001822.010.001.014	Purch Sub Frame Tascoca SPS	Electric General	Harkness	Aging Technology
287	D.0001822.010.001.016	Purch Sub Frame Relay Howard SPS	Electric General	Harkness	Aging Technology

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(F) Line No.	(G) WBS Level 2 Description	(H) In-Service Date	(I) Additions to Plant- In-Service (July 1, 2017 - March 31, 2019)	(J) XES Charges (Included in Column I)	(K) Other Affiliate Charges (Included in Column I)	(L) Total Affiliate Charges (Included in Column I)	(M) Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)
252	D.0001821.290 Total		1,045,628.52	1,031,610.50	-	1,031,610.50	14,018.02
253	D.0001821.307	201811	205,002.56	199,531.81	-	199,531.81	5,470.75
254	D.0001821.307	201903	84,472.36	(68,440.00)	-	(68,440.00)	152,912.36
255	D.0001821.307 Total		289,474.92	131,091.81	-	131,091.81	158,383.11
256	D.0001821.311	201804	775,703.44	775,351.57	-	775,351.57	351.87
257	D.0001821.311 Total		775,703.44	775,351.57	-	775,351.57	351.87
258	D.0001821.401	201609	264.11	-	-	-	264.11
259	D.0001821.401 Total		264.11	-	-	-	264.11
260	D.0001821.527	201704	7,931.48	-	-	-	7,931.48
261	D.0001821.527	201801	11,728.77	-	-	-	11,728.77
262	D.0001821.527 Total		19,660.25	-	-	-	19,660.25
263	D.0001821.537	201809	13,403.04	3,145.53	-	3,145.53	10,257.51
264	D.0001821.537	201811	6,448.93	3,208.43	-	3,208.43	3,240.50
265	D.0001821.537	201811	6,558.03	3,124.57	-	3,124.57	3,433.46
266	D.0001821.537	201901	6,575.73	3,145.53	-	3,145.53	3,430.20
267	D.0001821.537	201812	25,923.71	2,444.94	-	2,444.94	23,478.77
268	D.0001821.537	201809	5,811.93	2,390.60	-	2,390.60	3,421.33
269	D.0001821.537 Total		64,721.37	17,459.60	-	17,459.60	47,261.77
270	D.0001821.538	201901	93,655.62	69,109.32	-	69,109.32	24,546.30
271	D.0001821.538 Total		93,655.62	69,109.32	-	69,109.32	24,546.30
272	D.0001822.001	201612	24.66	-	-	-	24.66
273	D.0001822.001 Total		24.66	-	-	-	24.66
274	D.0001822.008	201611	1,872.19	-	-	-	1,872.19
275	D.0001822.008	201612	1,533.13	-	-	-	1,533.13
276	D.0001822.008	201612	565.46	-	-	-	565.46
277	D.0001822.008	201610	981.62	-	-	-	981.62
278	D.0001822.008	201703	22,943.59	-	-	-	22,943.59
279	D.0001822.008	201612	974.55	-	-	-	974.55
280	D.0001822.008	201611	(74.03)	-	-	-	(74.03)
281	D.0001822.008 Total		28,796.51	-	-	-	28,796.51
282	D.0001822.010	201712	4,960.31	-	-	-	4,960.31
283	D.0001822.010	201802	14,186.26	-	-	-	14,186.26
284	D.0001822.010	201802	12,454.05	-	-	-	12,454.05
285	D.0001822.010	201712	8,844.22	-	-	-	8,844.22
286	D.0001822.010	201802	21,018.98	-	-	-	21,018.98
287	D.0001822.010	201802	19,486.76	-	-	-	19,486.76

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Line No.	(A) WBS Level 4 Number	(B) WBS Level 4 Description	(C) Asset Class	(D) Witness	(E) Project Category
288	D.0001822.010.001.018	Purch Toik Sub Frame Relay SPS	Electric General	Harkness	Aging Technology
289	D.0001822.010.001.024	Purch Sub Frame Relay Hichland SPS	Electric General	Harkness	Aging Technology
290	D.0001822.010.001.026	Purch Tuco Sub Frame Relay SPS	Electric General	Harkness	Aging Technology
291	D.0001822.010.001.028	Purch Sub Frame Relay Yoakum SPS	Electric General	Harkness	Aging Technology
292	D.0001822.010.001.030	Purch Sub Frame Relay Spearman SPS	Electric General	Harkness	Aging Technology
293	D.0001822.010.001.034	Purch Sub Frame Relay Hillmar SPS	Electric General	Harkness	Aging Technology
294	D.0001822.010.001.040	Purch Sub Frame Relay Lamar SPS	Electric General	Harkness	Aging Technology
295	D.0001822.010.001.042	Purch Plant X Sub Frame Rela SPS	Electric General	Harkness	Aging Technology
296	D.0001822.010.001.046	Purch Jones Sub Frame Relay SPS	Electric General	Harkness	Aging Technology
297	D.0001822.010.001.048	Purch Harrington Sub Frame SPS	Electric General	Harkness	Aging Technology
298	D.0001822.010.001.052	Purch Sub Frame Relay Wade SPS	Electric General	Harkness	Aging Technology
299	D.0001822.010.001.056	Purch Sub Frame Relay Vega; SPS	Electric General	Harkness	Aging Technology
300	D.0001822.010.001.062	Purch Sub Frame Relay Wildorado SPS	Electric General	Harkness	Aging Technology
301	D.0001822.010.001.064	Purch Sub Frame Relay Lubbock SPS	Electric General	Harkness	Aging Technology
302	D.0001822.010.001.069	Purch Sub Frame Novus Wind SPS	Electric General	Harkness	Aging Technology
303	D.0001822.010.001.070	Purch Sub Frame Relay Hichland SPS	Electric General	Harkness	Aging Technology
304	D.0001822.010.001.072	Purch Sub Frame Randall City SPS	Electric General	Harkness	Aging Technology
305	D.0001822.010.001.076	Purch Potter City Sub Frame SPS	Electric General	Harkness	Aging Technology
306	D.0001822.010.001.077	Purch Sub Frame Hichland SPS	Electric General	Harkness	Aging Technology
307	D.0001822.010.001.078	Purch Sub Frame Relay Cirrus SPS	Electric General	Harkness	Aging Technology
308	D.0001822.010.001.079	Purch Sub Frame Lubbock SPS	Electric General	Harkness	Aging Technology
309	D.0001822.010.001.080	Purch Sub Frame Relay BRU SPS	Electric General	Harkness	Aging Technology
310	D.0001822.010.001.081	Purch Sub Frame Relay Cirrus SPS	Electric General	Harkness	Aging Technology
311	D.0001822.010.001.082	Purch Sub Frame Lubbock SPS	Electric General	Harkness	Aging Technology
312	D.0001822.010.001.083	Purch Sub Frame Relay Valero SPS	Electric General	Harkness	Aging Technology
313	D.0001822.010.001.084	Purch Sub Frame Channing SPS	Electric General	Harkness	Aging Technology
314	D.0001822.010.001.086	Purch Sub Frame JD Wind 6 SPS	Electric General	Harkness	Aging Technology
315	D.0001822.010.001.087	Purch Sub Frame WT Wind SPS	Electric General	Harkness	Aging Technology
316	D.0001822.010.001.089	Purch Sub Frame Randall City SPS	Electric General	Harkness	Aging Technology
317	D.0001822.010.001.091	Purch Sub Frame Plainview SPS	Electric General	Harkness	Aging Technology
318	D.0001822.010.001.092	Purch Sub Frame Cox Interchg SPS	Electric General	Harkness	Aging Technology
319	D.0001822.010.001.093	Purch Sub Frame Wildorado SPS	Electric General	Harkness	Aging Technology
320	D.0001822.010.001.094	Purch Sub Frame Wheeler City SPS	Electric General	Harkness	Aging Technology
321	D.0001822.010.001.095	Purch Sub Frame Lipscomb SPS	Electric General	Harkness	Aging Technology
322	D.0001822.010.001.096	Purch Sub Frame Hereford SPS	Electric General	Harkness	Aging Technology
323	D.0001822.010.001.098	Purch Sub Frame Johnson SPS	Electric General	Harkness	Aging Technology

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(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Line No.	WBS Level 2 Description	In-Service Date	Additions to Plant- In-Service (July 1, 2017 - March 31, 2019)	XES Charges (Included in Column I)	Other Affiliate Charges (Included in Column I)	Total Affiliate Charges (Included in Column I)	Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)
288	D.0001822.010	201612	2,494.32	-	-	-	2,494.32
289	D.0001822.010	201802	17,453.47	-	-	-	17,453.47
290	D.0001822.010	201612	(4,213.84)	-	-	-	(4,213.84)
291	D.0001822.010	201712	9,738.55	-	-	-	9,738.55
292	D.0001822.010	201802	12,616.58	-	-	-	12,616.58
293	D.0001822.010	201802	151,308.39	-	-	-	151,308.39
294	D.0001822.010	201709	50,579.88	-	-	-	50,579.88
295	D.0001822.010	201612	1,052.44	-	-	-	1,052.44
296	D.0001822.010	201612	141.30	-	-	-	141.30
297	D.0001822.010	201612	141.03	-	-	-	141.03
298	D.0001822.010	201612	424.08	-	-	-	424.08
299	D.0001822.010	201802	22,504.78	-	-	-	22,504.78
300	D.0001822.010	201802	11,675.67	-	-	-	11,675.67
301	D.0001822.010	201802	4,667.33	-	-	-	4,667.33
302	D.0001822.010	201802	11,496.83	-	-	-	11,496.83
303	D.0001822.010	201802	23,337.21	-	-	-	23,337.21
304	D.0001822.010	201802	10,644.05	-	-	-	10,644.05
305	D.0001822.010	201612	3,107.30	-	-	-	3,107.30
306	D.0001822.010	201612	2,412.54	-	-	-	2,412.54
307	D.0001822.010	201802	18,019.64	-	-	-	18,019.64
308	D.0001822.010	201611	1,797.68	-	-	-	1,797.68
309	D.0001822.010	201610	664.52	-	-	-	664.52
310	D.0001822.010	201610	664.52	-	-	-	664.52
311	D.0001822.010	201611	187.67	-	-	-	187.67
312	D.0001822.010	201703	866.23	-	-	-	866.23
313	D.0001822.010	201611	1,682.24	-	-	-	1,682.24
314	D.0001822.010	201611	812.39	-	-	-	812.39
315	D.0001822.010	201703	22,960.05	-	-	-	22,960.05
316	D.0001822.010	201703	1,608.39	-	-	-	1,608.39
317	D.0001822.010	201703	1,924.29	-	-	-	1,924.29
318	D.0001822.010	201610	2,944.14	-	-	-	2,944.14
319	D.0001822.010	201703	1,926.26	-	-	-	1,926.26
320	D.0001822.010	201703	2,039.56	-	-	-	2,039.56
321	D.0001822.010	201610	1,019.79	-	-	-	1,019.79
322	D.0001822.010	201610	1,974.71	-	-	-	1,974.71
323	D.0001822.010	201610	906.47	-	-	-	906.47

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Line No.	(A) WBS Level 4 Number	(B) WBS Level 4 Description	(C) Asset Class	(D) Witness	(E) Project Category
324	D.0001822.010.001.105	Purch Sub Frame Relay Dalhart SPS	Electric General	Harkness	Aging Technology
325	D.0001822.010.001.106	Purch Sub Frame Relay Friona SPS	Electric General	Harkness	Aging Technology
326	D.0001822.010.001.107	Purch Sub Frame Relay Howard SPS	Electric General	Harkness	Aging Technology
327	D.0001822.010.001.108	Purch Sub Frame Ochilree SPS	Electric General	Harkness	Aging Technology
328	D.0001822.010.001.109	Purch Sub Frame Spearman SPS	Electric General	Harkness	Aging Technology
329	D.0001822.010.001.110	Purch Sub Frame JD Wind 3 SPS	Electric General	Harkness	Aging Technology
330	D.0001822.010.001.111	Purch Sub Frame Lockney SPS	Electric General	Harkness	Aging Technology
331	D.0001822.010.001.112	Purch Sub Frame Yoakum #2 SPS	Electric General	Harkness	Aging Technology
332	D.0001822.010.001.044	Purch Sub Frame Relay Wheeler SPS	Electric General	Harkness	Aging Technology
333	D.0001822.010.001.008	Purch Sub Frame Relay JD Wind 6 SPS	Electric General	Harkness	Aging Technology
334	D.0001822.010.001.073	Purch Sub Frame Yoakum SPS	Electric General	Harkness	Aging Technology
335	D.0001822.010.001.068	Purch Sub Frame Relay Sunray SPS	Electric General	Harkness	Aging Technology
336	D.0001822.010.001.020	Purch Sub Frame Relay Valero SPS	Electric General	Harkness	Aging Technology
337	D.0001822.010.001.104	Purch Sub Frame Spearman SPS	Electric General	Harkness	Aging Technology
338	D.0001822.010.001.085	Purch Sub Frame Russell Oil SPS	Electric General	Harkness	Aging Technology
339	D.0001822.010.001.090	Purch Sub Frame Relay Canyon SPS	Electric General	Harkness	Aging Technology
340	D.0001822.010.001.038	Purch Sub Frame Relay JS Wind 3 SPS	Electric General	Harkness	Aging Technology
341	D.0001822.010.001.036	Purch Sub Frame Relay Lockney SPS	Electric General	Harkness	Aging Technology
342	D.0001822.010.001.022	Purch Sub Frame Relay Pearl SPS	Electric General	Harkness	Aging Technology
343	D.0001822.010.001.050	Purch Sub Frame Cox Interchg SPS	Electric General	Harkness	Aging Technology
344					
345	D.0001822.057.001.004	Purch Sub Frame Blanco Sub SPS	Electric General	Harkness	Aging Technology
346	D.0001822.057.001.005	Purch Sub Frame Coulter Sub SPS	Electric General	Harkness	Aging Technology
347	D.0001822.057.001.006	Purch Sub Frame Coburn Creek Sub SP	Electric General	Harkness	Aging Technology
348	D.0001822.057.001.007	Purch Sub Frame Deaf Smith Sub SPS	Electric General	Harkness	Aging Technology
349	D.0001822.057.001.009	Purch Sub Frame Hereford NE Sub SPS	Electric General	Harkness	Aging Technology
350	D.0001822.057.001.010	Purch Sub Frame Hutchinson Sub SPS	Electric General	Harkness	Aging Technology
351	D.0001822.057.001.011	Purch Sub Frame Kiser Interchange S	Electric General	Harkness	Aging Technology
352	D.0001822.057.001.012	Purch Sub Frame LaPlata Sub SPS	Electric General	Harkness	Aging Technology
353	D.0001822.057.001.013	Purch Sub Frame Plainview Sub SPS	Electric General	Harkness	Aging Technology
354	D.0001822.057.001.014	Purch Sub Frame Pringle Sub SPS	Electric General	Harkness	Aging Technology
355	D.0001822.057.001.015	Purch Sub Frame Riverview Sub SPS	Electric General	Harkness	Aging Technology
356	D.0001822.057.001.016	Purch Sub Frame Puckett West Sub SP	Electric General	Harkness	Aging Technology
357	D.0001822.057.001.017	Purch Sub Frame Sunset Sub SPS	Electric General	Harkness	Aging Technology
358	D.0001822.057.001.018	Purch Sub Frame Muleshoe West Sub S	Electric General	Harkness	Aging Technology
359	D.0001822.057.001.023	Purch NSTD Sub BAU Antelope TX	Electric General	Harkness	Aging Technology

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(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Line No.	WBS Level 2 Description	In-Service Date	Additions to Plant- In-Service (July 1, 2017 - March 31, 2019)	XES Charges (Included in Column I)	Other Affiliate Charges (Included in Column I)	Total Affiliate Charges (Included in Column I)	Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)
324	D.0001822.010	201705	2,135.07	-	-	-	2,135.07
325	Purch Sub Frame Relay Equip SP	201610	563.68	-	-	-	563.68
326	Purch Sub Frame Relay Equip SP	201703	(985.99)	-	-	-	(985.99)
327	Purch Sub Frame Relay Equip SP	201611	2,039.76	-	-	-	2,039.76
328	Purch Sub Frame Relay Equip SP	201703	(985.99)	-	-	-	(985.99)
329	Purch Sub Frame Relay Equip SP	201703	(876.44)	-	-	-	(876.44)
330	Purch Sub Frame Relay Equip SP	201610	906.25	-	-	-	906.25
331	Purch Sub Frame Relay Equip SP	201612	2,039.56	-	-	-	2,039.56
332	Purch Sub Frame Relay Equip SP	201802	46,164.68	-	-	-	46,164.68
333	Purch Sub Frame Relay Equip SP	201802	45,077.88	-	-	-	45,077.88
334	Purch Sub Frame Relay Equip SP	201612	678.16	-	-	-	678.16
335	Purch Sub Frame Relay Equip SP	201802	12,525.67	-	-	-	12,525.67
336	Purch Sub Frame Relay Equip SP	201802	15,917.55	-	-	-	15,917.55
337	Purch Sub Frame Relay Equip SP	201703	226.71	-	-	-	226.71
338	Purch Sub Frame Relay Equip SP	201703	590.83	-	-	-	590.83
339	Purch Sub Frame Relay Equip SP	201610	1,131.12	-	-	-	1,131.12
340	Purch Sub Frame Relay Equip SP	201802	48,838.20	-	-	-	48,838.20
341	Purch Sub Frame Relay Equip SP	201802	168,831.36	-	-	-	168,831.36
342	Purch Sub Frame Relay Equip SP	201802	30,447.36	-	-	-	30,447.36
343	Purch Sub Frame Relay Equip SP	201703	(26,490.33)	-	-	-	(26,490.33)
344	D.0001822.010 Total		823,306.13	-	-	-	823,306.13
345	Purch Sub Frame BAU Sites TX SPS	201708	25,752.28	-	-	-	25,752.28
346	Purch Sub Frame BAU Sites TX SPS	201703	3,914.74	-	-	-	3,914.74
347	Purch Sub Frame BAU Sites TX SPS	201703	2,216.67	-	-	-	2,216.67
348	Purch Sub Frame BAU Sites TX SPS	201703	865.54	-	-	-	865.54
349	Purch Sub Frame BAU Sites TX SPS	201703	2,921.62	-	-	-	2,921.62
350	Purch Sub Frame BAU Sites TX SPS	201703	853.50	-	-	-	853.50
351	Purch Sub Frame BAU Sites TX SPS	201703	5,525.76	-	-	-	5,525.76
352	Purch Sub Frame BAU Sites TX SPS	201708	28,970.86	-	-	-	28,970.86
353	Purch Sub Frame BAU Sites TX SPS	201703	1,832.23	-	-	-	1,832.23
354	Purch Sub Frame BAU Sites TX SPS	201711	54,459.91	-	-	-	54,459.91
355	Purch Sub Frame BAU Sites TX SPS	201705	12,846.09	-	-	-	12,846.09
356	Purch Sub Frame BAU Sites TX SPS	201705	12,703.46	-	-	-	12,703.46
357	Purch Sub Frame BAU Sites TX SPS	201708	38,742.63	-	-	-	38,742.63
358	Purch Sub Frame BAU Sites TX SPS	201706	5,308.45	-	-	-	5,308.45
359	Purch Sub Frame BAU Sites TX SPS	201712	13,852.93	-	-	-	13,852.93

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Line No.	(A) WBS Level 4 Number	(B) WBS Level 4 Description	(C) Asset Class	(D) Witness	(E) Project Category
360	D.0001822.057.001.025	Purch NSTD Sub BAU Concho Valley T	Electric General	Harkness	Aging Technology
361	D.0001822.057.001.026	Purch NSTD Sub BAU Castro SPS	Electric General	Harkness	Aging Technology
362	D.0001822.057.001.027	Purch NSTD Sub BAU Newhart SPS	Electric General	Harkness	Aging Technology
363	D.0001822.057.001.028	Purch NSTD Sub BAU Moore SPS	Electric General	Harkness	Aging Technology
364	D.0001822.057.001.029	Purch Sub Frame Andrew Sub SPS	Electric General	Harkness	Aging Technology
365	D.0001822.057.001.030	Purch Sub Frame Y99 TX	Electric General	Harkness	Aging Technology
366	D.0001822.057.001.031	Purch Sub Frame Y-13 TX	Electric General	Harkness	Aging Technology
367	D.0001822.057.001.032	Purch Sub Frame Pringle TX	Electric General	Harkness	Aging Technology
368	D.0001822.057.001.035	Purch Sub Frame Fry Pan 2 TX	Electric General	Harkness	Aging Technology
369	D.0001822.057.001.036	Purch Sub Frame Hagerman TX	Electric General	Harkness	Aging Technology
370	D.0001822.057.001.037	Purch Sub Frame Cottonwood TX	Electric General	Harkness	Aging Technology
371	D.0001822.057.001.039	Purch Sub Frame Magic City TX	Electric General	Harkness	Aging Technology
372	D.0001822.057.001.043	Purch Sub Frame Acco TX	Electric General	Harkness	Aging Technology
373	D.0001822.057.001.044	Purch Sub Frame Allen TX	Electric General	Harkness	Aging Technology
374	D.0001822.057.001.046	Purch Sub Frame Carlyse TX	Electric General	Harkness	Aging Technology
375	D.0001822.057.001.049	Purch Sub Frame Indiana TX	Electric General	Harkness	Aging Technology
376	D.0001822.057.001.050	Purch Sub Frame Ivory TX	Electric General	Harkness	Aging Technology
377	D.0001822.057.001.051	Purch Sub Frame Murphy TX	Electric General	Harkness	Aging Technology
378	D.0001822.057.001.052	Purch Sub Frame Planters TX	Electric General	Harkness	Aging Technology
379	D.0001822.057.001.053	Purch Sub Frame Stanton TX	Electric General	Harkness	Aging Technology
380	D.0001822.057.001.055	Purch Sub Frame Tulia TX	Electric General	Harkness	Aging Technology
381	D.0001822.057.001.057	Purch Sub Frame Wolfthorpe TX	Electric General	Harkness	Aging Technology
382	D.0001822.057.001.058	Purch Sub Frame Carlisle	Electric General	Harkness	Aging Technology
383	D.0001822.057.001.059	Purch Sub Frame Diamond Back TX	Electric General	Harkness	Aging Technology
384	D.0001822.057.001.060	Purch Sub Frame Graham TX	Electric General	Harkness	Aging Technology
385	D.0001822.057.001.042	Purch Sub Frame Brownfield TX	Electric General	Harkness	Aging Technology
386	D.0001822.057.001.038	Purch Sub Frame Waterfield TX	Electric General	Harkness	Aging Technology
387	D.0001822.057.001.033	Purch Sub Frame Pringle Oil TX	Electric General	Harkness	Aging Technology
388	D.0001822.057.001.048	Purch Sub Frame Dowd TX	Electric General	Harkness	Aging Technology
389	D.0001822.057.001.040	Purch Sub Frame Kellerville TX	Electric General	Harkness	Aging Technology
390	D.0001822.057.001.003	Purch Sub Frame Baily County Sub SP	Electric General	Harkness	Aging Technology
391	D.0001822.057.001.020	Purch Sub Frame Pleasant Hill Sub S	Electric General	Harkness	Aging Technology
392	D.0001822.057.001.022	Purch Sub Frame Dawn Sub SPS	Electric General	Harkness	Aging Technology
393	D.0001822.057.001.024	Purch NSTD Sub BAU Golden Spread TX	Electric General	Harkness	Aging Technology
394	D.0001822.057.001.021	Purch Sub Frame PCA Sub SPS	Electric General	Harkness	Aging Technology
395	D.0001822.057.001.056	Purch Sub Frame Sundown TX	Electric General	Harkness	Aging Technology

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(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Line No.	WBS Level 2 Description	In-Service Date	Additions to Plant- In-Service (July 1, 2017 - March 31, 2019)	XES Charges (Included in Column I)	Other Affiliate Charges (Included in Column I)	Total Affiliate Charges (Included in Column I)	Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)
360	D.0001822.057	201712	6,678.66	-	-	-	6,678.66
361	D.0001822.057	201703	24,929.70	-	-	-	24,929.70
362	D.0001822.057	201708	64,517.56	-	-	-	64,517.56
363	D.0001822.057	201703	1,354.55	-	-	-	1,354.55
364	D.0001822.057	201802	56,406.50	-	-	-	56,406.50
365	D.0001822.057	201709	106,080.53	-	-	-	106,080.53
366	D.0001822.057	201709	85,828.34	-	-	-	85,828.34
367	D.0001822.057	201802	50,809.08	-	-	-	50,809.08
368	D.0001822.057	201802	50,462.93	-	-	-	50,462.93
369	D.0001822.057	201802	49,715.91	-	-	-	49,715.91
370	D.0001822.057	201802	48,323.42	-	-	-	48,323.42
371	D.0001822.057	201802	44,689.35	-	-	-	44,689.35
372	D.0001822.057	201802	9,457.50	-	-	-	9,457.50
373	D.0001822.057	201802	11,769.77	-	-	-	11,769.77
374	D.0001822.057	201802	8,004.86	-	-	-	8,004.86
375	D.0001822.057	201802	6,146.72	-	-	-	6,146.72
376	D.0001822.057	201802	9,540.78	-	-	-	9,540.78
377	D.0001822.057	201802	9,893.20	-	-	-	9,893.20
378	D.0001822.057	201802	7,856.59	-	-	-	7,856.59
379	D.0001822.057	201802	10,689.80	-	-	-	10,689.80
380	D.0001822.057	201802	10,209.05	-	-	-	10,209.05
381	D.0001822.057	201708	91,111.73	-	-	-	91,111.73
382	D.0001822.057	201707	46,073.53	-	-	-	46,073.53
383	D.0001822.057	201712	32,091.31	-	-	-	32,091.31
384	D.0001822.057	201706	7,523.90	-	-	-	7,523.90
385	D.0001822.057	201802	10,097.08	-	-	-	10,097.08
386	D.0001822.057	201802	48,560.99	-	-	-	48,560.99
387	D.0001822.057	201708	77,812.41	-	-	-	77,812.41
388	D.0001822.057	201802	10,302.77	-	-	-	10,302.77
389	D.0001822.057	201802	10,458.85	-	-	-	10,458.85
390	D.0001822.057	201708	28,177.82	-	-	-	28,177.82
391	D.0001822.057	201706	5,473.92	-	-	-	5,473.92
392	D.0001822.057	201703	2,407.93	-	-	-	2,407.93
393	D.0001822.057	201703	3,179.48	-	-	-	3,179.48
394	D.0001822.057	201703	179.87	-	-	-	179.87
395	D.0001822.057	201703	5,616.25	-	-	-	5,616.25

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Line No.	(A) WBS Level 4 Number	(B) WBS Level 4 Description	(C) Asset Class	(D) Witness	(E) Project Category
396	D.0001822.057.001.034	Purch Sub Frame Fry Pan I TX	Electric General	Harkness	Aging Technology
397	D.0001822.057.001.066	Purch Sub Frame Buffalo TX	Electric General	Harkness	Aging Technology
398	D.0001822.057.001.045	Purch Sub Frame Batten TX	Electric General	Harkness	Aging Technology
399	D.0001822.057.001.054	Purch Sub Frame Floyd TX	Electric General	Harkness	Aging Technology
400	D.0001822.057.001.047	Purch Sub Frame Clutter TX	Electric General	Harkness	Aging Technology
401	D.0001822.057.001.002	Purch Sub Frame Andrew Sub SPS	Electric General	Harkness	Aging Technology
402	D.0001822.057.001.065	Purch Sub Frame Sulpher TX	Electric General	Harkness	Aging Technology
403	D.0001822.057.001.041	Purch Sub Frame 2nd & Tyler TX	Electric General	Harkness	Aging Technology
404					
405	D.0001822.058.001.002	Purch Sub Frame Portales NM SPS	Electric General	Harkness	Aging Technology
406	D.0001822.058.001.003	Purch Sub Frame Cardinal Sub NM SP	Electric General	Harkness	Aging Technology
407	D.0001822.058.001.004	Purch Sub Frame Chavez NM SPS	Electric General	Harkness	Aging Technology
408	D.0001822.058.001.005	Purch Sub Frame Norton Sub NM SPS	Electric General	Harkness	Aging Technology
409	D.0001822.058.001.006	Purch Sub FramePCA NM SPS	Electric General	Harkness	Aging Technology
410	D.0001822.058.001.007	Purch Sub Frame Quahada Sub NM SPS	Electric General	Harkness	Aging Technology
411	D.0001822.058.001.008	Purch Sub Frame Sagebrush NM SPS	Electric General	Harkness	Aging Technology
412	D.0001822.058.001.012	Purch Sub Frame White City NM	Electric General	Harkness	Aging Technology
413	D.0001822.058.001.014	Purch Sub Frame Captain NM	Electric General	Harkness	Aging Technology
414	D.0001822.058.001.016	Purch Sub Frame Ochoa NM	Electric General	Harkness	Aging Technology
415	D.0001822.058.001.017	Purch Sub Frame Price NM	Electric General	Harkness	Aging Technology
416	D.0001822.058.001.018	Purch Sub Frame Roswell NM	Electric General	Harkness	Aging Technology
417	D.0001822.058.001.019	Purch Sub Frame Custer Mtn NM	Electric General	Harkness	Aging Technology
418	D.0001822.058.001.020	Purch Sub Frame Portales South NM	Electric General	Harkness	Aging Technology
419	D.0001822.058.001.022	Purch Sub Frame Kilgore NM	Electric General	Harkness	Aging Technology
420	D.0001822.058.001.024	Purch Sub Frame Ponderosa NM	Electric General	Harkness	Aging Technology
421	D.0001822.058.001.011	Purch Sub Frame EagleCreek NM	Electric General	Harkness	Aging Technology
422	D.0001822.058.001.025	Purch Sub Frame Pleasant Hill NM	Electric General	Harkness	Aging Technology
423	D.0001822.058.001.009	Purch Sub Frame Bensing Sub NM SPS	Electric General	Harkness	Aging Technology
424	D.0001822.058.001.023	Purch Sub Frame Hobbs NM	Electric General	Harkness	Aging Technology
425					
426	D.0001822.063.001.001	Purch Sub Frame Hardesty OK	Electric General	Harkness	Aging Technology
427					
428	D.0001828.004.001.001	Purch NS T&D Network Equip SPS	Electric General	Harkness	Aging Technology
429					
430	D.0001839.055.001.009	Purch AMA J 4017 Radios SPS	Electric General	Harkness	Aging Technology
431	D.0001839.055.001.010	Purch AMA Southwest D657Radio SPS	Electric General	Harkness	Aging Technology

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(F) Line No.	(G) WBS Level 2 Description	(H) In-Service Date	(I) Additions to Plant- In-Service (July 1, 2017 - March 31, 2019)	(J) XES Charges (Included in Column I)	(K) Other Affiliate Charges (Included in Column I)	(L) Total Affiliate Charges (Included in Column I)	(M) Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column I)
396	D.0001822.057 Purch Sub Frame BAU Sites TX SPS	201802	49,590.39	-	-	-	49,590.39
397	D.0001822.057 Purch Sub Frame BAU Sites TX SPS	201708	26,142.21	-	-	-	26,142.21
398	D.0001822.057 Purch Sub Frame BAU Sites TX SPS	201802	8,492.37	-	-	-	8,492.37
399	D.0001822.057 Purch Sub Frame BAU Sites TX SPS	201802	9,268.89	-	-	-	9,268.89
400	D.0001822.057 Purch Sub Frame BAU Sites TX SPS	201802	8,070.25	-	-	-	8,070.25
401	D.0001822.057 Purch Sub Frame BAU Sites TX SPS	201806	(0.40)	-	-	-	(0.40)
402	D.0001822.057 Purch Sub Frame BAU Sites TX SPS	201802	39,300.12	-	-	-	39,300.12
403	D.0001822.057 Purch Sub Frame BAU Sites TX SPS	201802	13,199.65	-	-	-	13,199.65
404	D.0001822.057 Total		1,417,262.79	-	-	-	1,417,262.79
405	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201703	1,308.92	-	-	-	1,308.92
406	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201708	77,585.66	-	-	-	77,585.66
407	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201712	66,132.57	-	-	-	66,132.57
408	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201705	13,942.49	-	-	-	13,942.49
409	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201703	141.56	-	-	-	141.56
410	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201703	29,715.34	-	-	-	29,715.34
411	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201703	585.44	-	-	-	585.44
412	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201802	7,290.76	-	-	-	7,290.76
413	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201708	37,932.71	-	-	-	37,932.71
414	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201712	98,219.68	-	-	-	98,219.68
415	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201708	37,597.48	-	-	-	37,597.48
416	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201708	53,805.64	-	-	-	53,805.64
417	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201708	36,446.04	-	-	-	36,446.04
418	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201708	18,186.40	-	-	-	18,186.40
419	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201712	32,330.97	-	-	-	32,330.97
420	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201706	8,807.67	-	-	-	8,807.67
421	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201703	1,814.91	-	-	-	1,814.91
422	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201802	13,035.94	-	-	-	13,035.94
423	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201703	1,528.68	-	-	-	1,528.68
424	D.0001822.058 Purch Sub Frame BAU Sites NM SPS	201712	60,670.98	-	-	-	60,670.98
425	D.0001822.058 Total		597,079.84	-	-	-	597,079.84
426	D.0001822.063 Purch Sub Frame Hardesty OK	201708	33,796.12	-	-	-	33,796.12
427	D.0001822.063 Total		1,363.09	-	-	-	1,363.09
428	D.0001828.004 Purch NS T&D Network Equip SPS	201612	1,363.09	-	-	-	1,363.09
429	D.0001828.004 Total		51.31	-	-	-	51.31
430	D.0001839.055 2016 IT INFS Network Refresh S	201608	51.30	-	-	-	51.30
431	D.0001839.055 2016 IT INFS Network Refresh S	201611		-	-	-	

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(A)	(B)	(C)	(D)	(E)
Line No.	WBS Level 4 Number	WBS Level 4 Description	Asset Class	Project Category
432	D.0001839.055.001.012	Purch Borger D2324 Radio SPS	Electric General	Aging Technology
433	D.0001839.055.001.014	Purch Southwest E260 Radio SPS	Electric General	Aging Technology
434	D.0001839.055.001.015	Purch Dumas K729 Radio SPS	Electric General	Aging Technology
435	D.0001839.055.001.016	Purch Borger D2082 Radio SPS	Electric General	Aging Technology
436	D.0001839.055.001.017	Purch Dumas C421 RadioBorger D2082	Electric General	Aging Technology
437	D.0001839.055.001.013	Purch AMA Meter Read D2333 Radio SP	Electric General	Aging Technology
438	D.0001839.055.001.007	Purch Meter Read D2257 Radios Amar	Electric General	Aging Technology
439	D.0001839.055.001.008	Purch Lubbock D22858 Radio SPS	Electric General	Aging Technology
440				
441	D.0001839.063.001.014	Purch China Draw OPX-WAN SPS	Electric General	Aging Technology
442	D.0001839.063.001.015	Purch Rolling Hills Substation SPS	Electric General	Aging Technology
443				
444	D.0001839.148.001.002	Purch Storage 2650 HW Amarillo TX	Electric General	Aging Technology
445				
446	D.0001839.370.001.002	Purch SPS Dispatch Net Equip	Electric General	Aging Technology
447				
448	D.0001839.375.001.004	Purch VOIP Phone Levelland TX	Electric General	Aging Technology
449	D.0001839.375.001.003	Purch VOIP HW SPS	Electric General	Aging Technology
450				
451	D.0001839.406.001.001	Purch Towers of Wheels SPS	Electric General	Aging Technology
452	D.0001839.406.001.002	Purch Crossroads MW Radios SPS	Electric General	Aging Technology
453				
454	D.0001839.621.001.001	Purch Avaya Server HW SPS	Electric General	Aging Technology
455				
456	D.0001839.655.001.001	Purch NS T&D WAM SPS	Electric General	Aging Technology
457				
458	D.0001839.663.001.001	Purch Amarillo HQ Net Equip SPS	Electric General	Aging Technology
459				
460	D.0001839.675.001.001	Purch Roosevelt MW NM SPS	Electric General	Aging Technology
461				
462	D.0001839.679.001.001	Purch Net Core Rte Amarillo SPS	Electric General	Aging Technology
463				
464	D.0001839.830.002.001	Purch Net Sec HW Cunningham NM	Electric General	Cyber Security
465	D.0001839.830.002.002	Purch Net Sec HW Maddox Hobbs NM	Electric General	Cyber Security
466				
467	D.0001839.832.001.001	Purch Net Sec HW Jones Plant SPS	Electric General	Cyber Security

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(F) Line No.	(G) WBS Level 2 Description	(H) In-Service Date	(I) Additions to Plant- In-Service (July 1, 2017 - March 31, 2019)	(J) XES Charges (Included in Column I)	(K) Other Affiliate Charges (Included in Column I)	(L) Total Affiliate Charges (Included in Column I)	(M) Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column I)
432	D.0001839.055	201608	299.29	-	-	-	299.29
433	D.0001839.055	201609	51.31	-	-	-	51.31
434	D.0001839.055	201609	51.31	-	-	-	51.31
435	D.0001839.055	201611	51.31	-	-	-	51.31
436	D.0001839.055	201609	(1,140.30)	-	-	-	(1,140.30)
437	D.0001839.055	201608	299.29	-	-	-	299.29
438	D.0001839.055	201608	299.29	-	-	-	299.29
439	D.0001839.055	201608	319.96	-	-	-	319.96
440	D.0001839.055 Total		334.07	-	-	-	334.07
441	D.0001839.063	201609	(747.15)	-	-	-	(747.15)
442	D.0001839.063	201612	0.45	-	-	-	0.45
443	D.0001839.063 Total		(746.70)	-	-	-	(746.70)
444	D.0001839.148	201807	207,750.71	50,557.78	-	50,557.78	157,192.93
445	D.0001839.148 Total		207,750.71	50,557.78	-	50,557.78	157,192.93
446	D.0001839.370	201706	63,100.13	27,369.54	673.59	28,043.13	35,057.00
447	D.0001839.370 Total		63,100.13	27,369.54	673.59	28,043.13	35,057.00
448	D.0001839.375	201706	(0.02)	-	-	-	(0.02)
449	D.0001839.375	201705	10,930.00	5,072.68	-	5,072.68	5,857.32
450	D.0001839.375 Total		10,929.98	5,072.68	-	5,072.68	5,857.30
451	D.0001839.406	201509	34,562.73	-	-	-	34,562.73
452	D.0001839.406	201512	5,294.57	-	-	-	5,294.57
453	D.0001839.406 Total		39,857.30	-	-	-	39,857.30
454	D.0001839.621	201805	32,450.90	-	-	-	32,450.90
455	D.0001839.621 Total		32,450.90	-	-	-	32,450.90
456	D.0001839.655	201709	101,831.73	-	-	-	101,831.73
457	D.0001839.655 Total		101,831.73	-	-	-	101,831.73
458	D.0001839.663	201706	190,598.28	-	-	-	190,598.28
459	D.0001839.663 Total		190,598.28	-	-	-	190,598.28
460	D.0001839.675	201706	21,418.79	-	-	-	21,418.79
461	D.0001839.675 Total		21,418.79	-	-	-	21,418.79
462	D.0001839.679	201706	34,157.03	-	-	-	34,157.03
463	D.0001839.679 Total		34,157.03	-	-	-	34,157.03
464	D.0001839.830	201711	55,587.71	-	-	-	55,587.71
465	D.0001839.830	201711	75,413.61	-	-	-	75,413.61
466	D.0001839.830 Total		131,001.32	-	-	-	131,001.32
467	D.0001839.832	201712	46,467.01	-	-	-	46,467.01

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Line No.	(A) WBS Level 4 Number	(B) WBS Level 4 Description	(C) Asset Class	(D) Witness	(E) Project Category
468	D.0001839.832.001.002	Purch Net Sec HW Nichols SPS	Electric General	Harkness	Cyber Security
469	D.0001839.832.001.003	Purch Net Sec HW Tolk SPS	Electric General	Harkness	Cyber Security
470					
471	D.0001840.004.001.001	Purch Net Radio Trk J4121 Lubbock TX	Electric General	Harkness	Aging Technology
472	D.0001840.004.001.002	Purch Net Router Amarillo TX	Electric General	Harkness	Aging Technology
473	D.0001840.004.001.003	Purch Radios Amarillo SPS	Electric General	Harkness	Aging Technology
474	D.0001840.004.001.004	Purch Radio A Lopez Seminole SPS	Electric General	Harkness	Aging Technology
475	D.0001840.004.001.005	Purch Paging System Nichols SPS	Electric General	Harkness	Aging Technology
476	D.0001840.004.001.006	Purch Amarillo Tech HW SPS	Electric General	Harkness	Aging Technology
477	D.0001840.004.001.007	Purch Radios Central Loop Amarillo	Electric General	Harkness	Aging Technology
478	D.0001840.004.001.008	Purch Radios Amarillo HQ TX	Electric General	Harkness	Aging Technology
479	D.0001840.004.001.009	PURCH NET EQUIP TOLK SPS	Electric General	Harkness	Aging Technology
480	D.0001840.004.001.010	Purch Net Ref AMA Meter Radios SPS	Electric General	Harkness	Aging Technology
481	D.0001840.004.001.012	Purch Net Ref Harrington SPS	Electric General	Harkness	Aging Technology
482	D.0001840.004.001.013	Purch Net Ref Trans Net Radio AOC S	Electric General	Harkness	Aging Technology
483	D.0001840.004.001.014	Purch Net Ref Fleet Amarillo SPS	Electric General	Harkness	Aging Technology
484	D.0001840.004.001.015	Purch Net Ref Radios Trk R9-31 SPS	Electric General	Harkness	Aging Technology
485	D.0001840.004.001.016	Purch Net Radio T Helton Amarillo S	Electric General	Harkness	Aging Technology
486					
487	D.0001840.018.001.001	Purch EMS Subnet Server SPS	Electric General	Harkness	Aging Technology
488					
489	D.0001840.019.001.001	Purch Radio Casey Huber Roswell NM	Electric General	Harkness	Aging Technology
490					
491	D.0001840.030.001.001	Purch Net Ref Kress El Comm SPS	Electric General	Harkness	Aging Technology
492					
493	D.0001840.039.001.002	Purch 2017 MDT Planned SPS	Electric General	Harkness	Aging Technology
494	D.0001840.039.001.001	Purch 2017 MDT Refresh SPS	Electric General	Harkness	Aging Technology
495					
496	D.0001840.114.001.002	Purch Sec Camera Canyon TX	Electric General	Harkness	Cyber Security
497					
498	D.0002000.008.001.002	Purch CIP Appl SPS	Electric General	Harkness	Cyber Security
499					
500	D.0002007.008.001.002	Purch Dig Signage 4701 Amarillo HW	Electric General	Harkness	Enhance Capabilities
501	D.0002007.008.001.003	Purch Dig Signage 4703 Amarillo HW	Electric General	Harkness	Enhance Capabilities
502	D.0002007.008.001.005	Purch Dig Signage Lubbock HW TX	Electric General	Harkness	Enhance Capabilities
503	D.0002007.008.001.004	Purch Dig Signage 790 Buc HW TX	Electric General	Harkness	Enhance Capabilities

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(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Line WBS Level 2 Number No.	WBS Level 2 Description	In-Service Date	Additions to Plant-In-Service (July 1, 2017 - March 31, 2019)	XES Charges (Included in Column I)	Other Affiliate Charges (Included in Column I)	Total Affiliate Charges (Included in Column I)	Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)
468 D.0001839.832	Purch Net Sec HW SPS	201711	38,559.21	-	-	-	38,559.21
469 D.0001839.832	Purch Net Sec HW SPS	201801	3,538.67	-	-	-	3,538.67
470 D.0001839.832 Total			88,564.89	-	-	-	88,564.89
471 D.0001840.004	2017 Network Refresh SPS	201710	11,397.07	11,397.07	288.41	11,685.48	79,008.92
472 D.0001840.004	2017 Network Refresh SPS	201709	48,226.65	1,740.52	-	1,740.52	46,486.13
473 D.0001840.004	2017 Network Refresh SPS	201711	11,523.85	1,755.64	-	1,755.64	9,768.21
474 D.0001840.004	2017 Network Refresh SPS	201710	7,049.22	3,795.59	-	3,795.59	3,253.63
475 D.0001840.004	2017 Network Refresh SPS	201807	24,950.06	10,604.07	-	10,604.07	14,345.99
476 D.0001840.004	2017 Network Refresh SPS	201710	10,182.40	3,669.78	-	3,669.78	6,512.62
477 D.0001840.004	2017 Network Refresh SPS	201802	501,811.98	7,285.43	-	7,285.43	494,526.55
478 D.0001840.004	2017 Network Refresh SPS	201712	16,247.94	2,758.56	-	2,758.56	13,489.38
479 D.0001840.004	2017 Network Refresh SPS	201712	9,365.57	4,021.54	-	4,021.54	5,344.03
480 D.0001840.004	2017 Network Refresh SPS	201801	9,566.78	6,271.49	-	6,271.49	3,295.29
481 D.0001840.004	2017 Network Refresh SPS	201807	131,615.40	10,950.67	-	10,950.67	120,664.73
482 D.0001840.004	2017 Network Refresh SPS	201712	4,747.19	2,013.14	-	2,013.14	2,734.05
483 D.0001840.004	2017 Network Refresh SPS	201801	7,432.20	929.20	-	929.20	6,503.00
484 D.0001840.004	2017 Network Refresh SPS	201801	7,473.27	3,229.40	-	3,229.40	4,243.87
485 D.0001840.004	2017 Network Refresh SPS	201801	5,265.67	2,122.25	-	2,122.25	3,143.42
486 D.0001840.004 Total			886,152.58	72,544.35	288.41	72,832.76	813,319.82
487 D.0001840.018	2017 EMS Refresh Comm Equip SPS	201712	55,568.80	-	-	-	55,568.80
488 D.0001840.018 Total			55,568.80	-	-	-	55,568.80
489 D.0001840.019	2017 Network Ref NM	201705	1,287.39	3,138.15	-	3,138.15	(1,850.76)
490 D.0001840.019 Total			1,287.39	3,138.15	-	3,138.15	(1,850.76)
491 D.0001840.030	Purch 2017 Net Ref EL Comm SPS	201710	17,195.93	8,294.09	48.15	8,342.24	8,853.69
492 D.0001840.030 Total			17,195.93	8,294.09	48.15	8,342.24	8,853.69
493 D.0001840.039	Purch 2017 MDT Refresh SPS	201712	104,379.21	-	-	-	104,379.21
494 D.0001840.039	Purch 2017 MDT Refresh SPS	201801	27,912.59	-	-	-	27,912.59
495 D.0001840.039 Total			132,291.80	-	-	-	132,291.80
496 D.0001840.114	Purch Sec Camera HW TX	201812	114,720.94	-	-	-	114,720.94
497 D.0001840.114 Total			114,720.94	-	-	-	114,720.94
498 D.0002000.008	Purch CIP Appl SPS	201807	819,010.19	-	-	-	819,010.19
499 D.0002000.008 Total			819,010.19	-	-	-	819,010.19
500 D.0002007.008	Purch Digital Signage HW SPS	201806	1,933.62	-	-	-	1,933.62
501 D.0002007.008	Purch Digital Signage HW SPS	201806	916.58	-	-	-	916.58
502 D.0002007.008	Purch Digital Signage HW SPS	201806	3,173.98	-	-	-	3,173.98
503 D.0002007.008	Purch Digital Signage HW SPS	201806	4,343.87	-	-	-	4,343.87

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Line No.	(A) WBS Level 4 Number	(B) WBS Level 4 Description	(C) Asset Class	(D) Witness	(E) Project Category
504	D.0002007.008.001.006	Purch Dig Signage Earth HW TX	Electric General	Harkness	Enhance Capabilities
505					
506	D.0002016.004.001.003	Purch MPLS Unpl Amarillo So Securit	Electric General	Harkness	Aging Technology
507	D.0002016.004.001.004	Purch MPLS Unpl Buffalo TX	Electric General	Harkness	Aging Technology
508	D.0002016.004.001.005	Purch MPLS Unpl Canyon West TX	Electric General	Harkness	Aging Technology
509	D.0002016.004.001.007	Purch MPLS Unpl Harrington TX	Electric General	Harkness	Aging Technology
510	D.0002016.004.001.012	Purch MPLS Unpl Randall TX	Electric General	Harkness	Aging Technology
511	D.0002016.004.001.013	Purch MPLS Unpl Rolling Hills TX	Electric General	Harkness	Aging Technology
512	D.0002016.004.001.015	Purch MPLS Unpl Shell TX	Electric General	Harkness	Aging Technology
513	D.0002016.004.001.016	Purch MPLS Unpl Slaton Sub TX	Electric General	Harkness	Aging Technology
514	D.0002016.004.001.018	Purch MPLS Unpl Yoakum TX	Electric General	Harkness	Aging Technology
515	D.0002016.004.001.019	Purch MPLS Unpl Rolling Hills TX	Electric General	Harkness	Aging Technology
516	D.0002016.004.001.006	Purch MPLS Unpl Grassland TX	Electric General	Harkness	Aging Technology
517	D.0002016.004.001.010	Purch MPLS Unpl Nichols TX	Electric General	Harkness	Aging Technology
518	D.0002016.004.001.017	Purch MPLS Unpl Slaton Z60 TX	Electric General	Harkness	Aging Technology
519	D.0002016.004.001.002	Purch MPLS Unpl Amarillo North TX	Electric General	Harkness	Aging Technology
520	D.0002016.004.001.008	Purch MPLS Unpl Hitchland TX	Electric General	Harkness	Aging Technology
521					
522	D.0002016.017.001.002	Purch MPLS Unpl China DrawNM	Electric General	Harkness	Aging Technology
523	D.0002016.017.001.003	Purch MPLS Unpl Curry Cty NM	Electric General	Harkness	Aging Technology
524	D.0002016.017.001.008	Purch MPLS Unpl Lea Cty NM	Electric General	Harkness	Aging Technology
525	D.0002016.017.001.009	Purch MPLS Unpl Livingston NM	Electric General	Harkness	Aging Technology
526	D.0002016.017.001.015	Purch MPLS Unpl Wood Draw NM	Electric General	Harkness	Aging Technology
527	D.0002016.017.001.005	Purch MPLS Unpl Greyhound NM	Electric General	Harkness	Aging Technology
528	D.0002016.017.001.014	Purch MPLS Unpl Whitton NM	Electric General	Harkness	Aging Technology
529	D.0002016.017.001.007	Purch MPLS Unpl Kiowa NM	Electric General	Harkness	Aging Technology
530	D.0002016.017.001.013	Purch MPLS Unpl Roswell City NM	Electric General	Harkness	Aging Technology
531					
532	D.0002021.004.001.002	Purch FITI Canyon SC HW SPS	Electric General	Harkness	Aging Technology
533					
534	D.0001821.185.001.003	2016 Printer Refresh SPS	Electric General	Harkness	Aging Technology
535					
536	D.0001703.006.001.001	Dynamic EMS Environment Phase 2 SPS	Electric General	Harkness	Aging Technology
537					
538	D.0001783.021.001.001	Purch LMR Radio HW Andrew TX	Electric General	Harkness	Aging Technology
539					

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(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Line No.	WBS Level 2 Description	In-Service Date	Additions to Plant- In-Service (July 1, 2017 - March 31, 2019)	XES Charges (Included in Column I)	Other Affiliate Charges (Included in Column I)	Total Affiliate Charges (Included in Column I)	Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)
504 D.0002007.008	Purch Digital Signage HW SPS	201807	2,021.86	-	-	-	2,021.86
505 D.0002007.008 Total			12,389.91	-	-	-	12,389.91
506 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201803	96,389.95	2,349.69	-	2,349.69	94,040.26
507 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201803	46,413.19	472.40	-	472.40	45,940.79
508 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201803	50,469.82	100.50	-	100.50	50,369.32
509 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201803	36,401.36	138.04	-	138.04	36,263.32
510 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201803	44,843.55	1,637.38	-	1,637.38	43,206.17
511 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201804	44,340.34	1,596.60	-	1,596.60	42,743.74
512 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201804	60,098.05	-	-	-	60,098.05
513 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201803	43,860.59	1,118.58	-	1,118.58	42,742.01
514 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201803	29,855.49	1,922.08	-	1,922.08	27,933.41
515 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201804	24,076.46	14,966.79	-	14,966.79	9,109.67
516 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201803	23,473.07	100.50	-	100.50	23,372.57
517 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201803	51,060.99	5,157.51	-	5,157.51	45,903.48
518 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201803	62,344.91	892.34	-	892.34	61,452.57
519 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201803	51,163.50	1,658.08	-	1,658.08	49,505.42
520 D.0002016.004	Purch T&D MPLS - Unplanned (2017) S	201901	51,468.45	100.50	-	100.50	51,367.95
521 D.0002016.004 Total			716,259.72	32,210.99	-	32,210.99	684,048.73
522 D.0002016.017	Purch T&D MPLS - Unplanned (2017) N	201803	87,290.80	12,501.18	-	12,501.18	74,789.62
523 D.0002016.017	Purch T&D MPLS - Unplanned (2017) N	201812	51,854.02	28,339.12	-	28,339.12	23,514.90
524 D.0002016.017	Purch T&D MPLS - Unplanned (2017) N	201809	55,581.91	4,470.58	-	4,470.58	51,111.33
525 D.0002016.017	Purch T&D MPLS - Unplanned (2017) N	201804	56,743.26	-	-	-	56,743.26
526 D.0002016.017	Purch T&D MPLS - Unplanned (2017) N	201812	72,868.35	-	-	-	72,868.35
527 D.0002016.017	Purch T&D MPLS - Unplanned (2017) N	201803	59,357.87	202.24	-	202.24	59,155.63
528 D.0002016.017	Purch T&D MPLS - Unplanned (2017) N	201812	61,880.53	3,273.71	-	3,273.71	58,606.82
529 D.0002016.017	Purch T&D MPLS - Unplanned (2017) N	201811	64,715.49	12,474.45	-	12,474.45	52,241.04
530 D.0002016.017	Purch T&D MPLS - Unplanned (2017) N	201903	48,331.72	17,795.20	-	17,795.20	30,536.52
531 D.0002016.017 Total			558,623.95	79,056.48	-	79,056.48	479,567.47
532 D.0002021.004	Purch Facility IT Investments HW SP	201901	445,783.89	62,496.02	-	62,496.02	383,287.87
533 D.0002021.004 Total			445,783.89	62,496.02	-	62,496.02	383,287.87
534 D.0001821.185	2016 Unplanned PC Refresh SPS	201606	(478.29)	-	-	-	(478.29)
535 D.0001821.185 Total			(478.29)	-	-	-	(478.29)
536 D.0001703.006	Dynamic EMS Environment Phase	201510	2,712.05	192.40	-	192.40	2,519.65
537 D.0001703.006 Total			2,712.05	192.40	-	192.40	2,519.65
538 D.0001783.021	Purch LMR Radio HW TX	201804	321,209.88	65,533.28	-	65,533.28	255,676.60
539 D.0001783.021 Total			321,209.88	65,533.28	-	65,533.28	255,676.60

Southwestern Public Service Company

Electric General and Software Capital Additions
July 1, 2017 through March 31, 2019

Line No.	(A) WBS Level 4 Number	(B) WBS Level 4 Description	(C) Asset Class	(D) Witness	(E) Project Category
540	D.0001839.827.001.002	Purch Eddy County MW Equip NM	Electric General	Harkness	Aging Technology
541					
542	D.0002014.001.001.014	Purch WAN HW Seminole TX	Electric General	Harkness	Aging Technology
543	D.0002014.001.001.005	Purch WAN HW Hillside TX	Electric General	Harkness	Aging Technology
544					
545	D.0002016.018.001.001	Purch MPLS Unpl Optima OK	Electric General	Harkness	Aging Technology
546					
547	D.0002014.002.001.003	Purch WAN HW Roswell NM	Electric General	Harkness	Aging Technology
548					
549					
550					
			Total Electric General		
			Grand Total		

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Electric General and Software Capital Additions
July 1, 2017 through March 31, 2019

(F) Line No.	(G) WBS Level 2 Description	(H) In-Service Date	(I) Additions to Plant- In-Service (July 1, 2017 - March 31, 2019)	(J) XES Charges (Included in Column I)	(K) Other Affiliate Charges (Included in Column I)	(L) Total Affiliate Charges (Included in Column I)	(M) Total Native Charges (Columns I less L) Within the Total Additions to Plant-in-Service Shown in Column (I)
540	D.0001839.827	201809	2,323,748.16	-	-	-	2,323,748.16
541	D.0001839.827 Total		2,323,748.16	-	-	-	2,323,748.16
542	D.0002014.001	201903	64,911.08	2,886.08	-	2,886.08	62,025.00
543	D.0002014.001	201903	132,862.43	-	-	-	132,862.43
544	D.0002014.001 Total		197,773.51	2,886.08	-	2,886.08	194,887.43
545	D.0002016.018	201903	17,682.56	1,528.47	-	1,528.47	16,154.09
546	D.0002016.018 Total		17,682.56	1,528.47	-	1,528.47	16,154.09
547	D.0002014.002	201903	146,254.08	20,293.30	-	20,293.30	125,960.78
548	D.0002014.002 Total		146,254.08	20,293.30	-	20,293.30	125,960.78
549			\$ 15,605,887.10	\$ 2,753,201.91	\$ 1,197.60	\$ 2,754,399.51	\$ 12,851,487.59
550			\$ 61,965,538.14	\$ 41,403,727.30	\$ 2,284.45	\$ 41,406,011.75	\$ 20,559,526.39

Southwestern Public Service Company
Electric General and Software Capital Additions
April 1, 2019 through June 30, 2019

(A) Line No.	(B) Asset Class	(C) Witness	(D) Project Category	(E) Additions to Plant-in-Service (Apr. 2019 - Jun. 2019)	(F) Total Affiliate Charges (Included in Column D)	(G) Project Description
April-June 2019 Budget Amounts						
1	Electric General Plant	Harkness	Aging Technology	\$ 192.40		The Dynamic Energy Management System project replaced the legacy Energy Management System ("EMS"). The DEMS system operates, monitors, and controls SPS and Xcel Energy's electric transmission and distribution facilities. The legacy EMS was outdated and not compliant with new NERC CIP Cyber Security requirements.
2	Electric General Plant	Harkness	Aging Technology	2,070,330.68		This project includes costs for expanded private radio coverage in SE New Mexico due to replacing aging equipment at an existing site and additional equipment to establish two new radio tower sites. The radio tower sites are necessary for communication with field personnel.
3	Electric General Plant	Harkness	Enhance Capabilities	459,721.75		This project is necessary to implement new network infrastructure to support SPS wind farms. The project includes installing local and wide-area connections to the construction trailers, the facility buildings, and the collector substations at the wind farm sites.
4	Electric General Plant	Harkness	Enhance Capabilities	41,508.11		These projects involve the purchase of hardware necessary to provide wireless access across Xcel Energy. These projects will enable mobility for those with laptops or tablets, which is more flexible than wired networking.
5	Electric General Plant	Harkness	Cyber Security	912.65		This is part of a security camera upgrade project, including the necessary software and cabling. The legacy security camera system was reaching the end-of-life and did not provide the required level of security observation. These projects involve the purchase of hardware necessary to provide wireless access across Xcel Energy. These projects will enable mobility for those with laptops or tablets, which is more flexible than wired networking.
6	Electric General Plant	Harkness	Enhance Capabilities	421.14		These projects involve the purchase of hardware necessary to provide wireless access across Xcel Energy. These projects will enable mobility for those with laptops or tablets, which is more flexible than wired networking.
7	Electric General Plant	Harkness	Enhance Capabilities	0.83		These projects involve the purchase of hardware necessary to provide wireless access across Xcel Energy. These projects will enable mobility for those with laptops or tablets, which is more flexible than wired networking.

Southwestern Public Service Company
Electric General and Software Capital Additions
April 1, 2019 through June 30, 2019

(A)	(B)	(C)	(D)	(E)	(F)	
Line No.	Asset Class	Witness	Project Category	Additions to Plant-in-Service (Apr. 2019 - Jun. 2019)	Total Affiliate Charges (Included in Column D)	Project Description
8	Electric General Plant	Harkness	Enhance Capabilities	191,180.42		These projects involve the purchase of hardware necessary to provide wireless access across Xcel Energy. These projects will enable mobility for those with laptops or tablets, which is more flexible than wired networking.
9	Electric General Plant	Harkness	Aging Technology	13,864.57		This project is the planned or scheduled replacement of aging personal computers ("PCs"), including laptops and desktops, when they reach the end of their useful lives.
10	Electric General Plant	Harkness	Aging Technology	(3,803.92)		These projects are for the purchase of personal computers ("PCs"), including laptops and desktops, for new personnel, or as replacements for lost or damaged computers as the need arises during the year.
11	Electric General Plant	Harkness	Aging Technology	20.00		Annual Server Refresh project replaces of aging servers prior to failure to support business growth and maintain reliability.
						These are annual projects that provide for the planned, scheduled replacement of aging local area network and wide area network components such as routers and hubs as they reach the end of their useful lives and are no longer supported by the vendor. Replacement of these components is necessary to ensure continued efficiency and reliable operations.
12	Electric General Plant	Harkness	Aging Technology	139,788.29		This project is the planned or scheduled replacement of aging personal computers ("PCs"), including laptops and desktops, when they reach the end of their useful lives.
13	Electric General Plant	Harkness	Aging Technology	75,784.44		
14	Electric General Plant	Harkness	Aging Technology	26.39		This project replaced aging mobile data collectors used for meter reading.
15	Electric General Plant	Harkness	Aging Technology	23,079.11		The WAN SPS project is necessary to implement WAN reliability and capacity improvements for Distribution and Transmission substations, Energy Supply sites, Service Centers and third parties.
16	Electric General Plant	Harkness	Aging Technology	28,870.67		The WAN SPS project is necessary to implement WAN reliability and capacity improvements for Distribution and Transmission substations, Energy Supply sites, Service Centers and third parties.
17	Electric General Plant	Harkness	Aging Technology	61,398.79		The WAN SPS project is necessary to implement WAN reliability and capacity improvements for Distribution and Transmission substations, Energy Supply sites, Service Centers and third parties.

Southwestern Public Service Company
Electric General and Software Capital Additions
April 1, 2019 through June 30, 2019

(A) Line No.	(B) Asset Class	(C) Witness	(D) Project Category	(E) Additions to Plant-in-Service (Apr. 2019 - Jun. 2019)	(F) Total Affiliate Charges (Included in Column D)	(G) Project Description
18	Electric General Plant	Harkness	Aging Technology	154,194.01		The WAN SPS project is necessary to implement WAN reliability and capacity improvements for Distribution and Transmission substations, Energy Supply sites, Service Centers and third parties. These are annual projects that provide for the planned, scheduled replacement of aging local area network and wide area network components such as routers and hubs as they reach the end of their useful lives and are no longer supported by the vendor. Replacement of these components is necessary to ensure continued efficiency and reliable operations.
19	Electric General Plant	Harkness	Aging Technology	0.32		Annual Server Refresh project replaces of aging servers prior to failure to support business growth and maintain reliability.
20	Electric General Plant	Harkness	Aging Technology	20.00		Annual Server Refresh project replaces of aging servers prior to failure to support business growth and maintain reliability.
21	Electric General Plant	Harkness	Aging Technology	2,568.69		This annual project contains costs for the replacement of data storage hardware that is no longer cost-effective to support or that presents a significant risk to operations due to aging components or lack of vendor support.
22	Electric General Plant	Harkness	Aging Technology	5,085.94		The voice over internet protocol ("VOIP") projects replace aging and unsupported phone systems at several facilities. The existing systems have become unreliable and/or of insufficient capacity to properly accommodate the growth in staff at these facilities.
23	Electric General Plant	Harkness	Aging Technology	8,712.05		Amarillo Headquarters moved to a new building at 790 Buckhammon Street. This project establishes the network infrastructure for the new building.
24	Electric General Plant	Harkness	Aging Technology	10,361.84		The WAN SPS project is necessary to implement WAN reliability and capacity improvements for Distribution and Transmission substations, Energy Supply sites, Service Centers and third parties.
25	Electric General Plant	Harkness	Enhance Capabilities	(0.01)		These are annual projects that provide for the planned, scheduled replacement of aging local area network and wide area network components as they reach end of life.
26	Electric General Plant	Harkness	Aging Technology	(131.96)		The project will replace aging server infrastructure and install new version of Configuration Manager. This system deploys software, Operating Systems, and security patches to workstations and servers within the Xcel Energy network.
27	Electric General Plant	Harkness	Aging Technology	82,973.35		

Southwestern Public Service Company
Electric General and Software Capital Additions
April 1, 2019 through June 30, 2019

(A) Line No.	(B) Asset Class	(C) Witness	(D) Project Category	(E) Additions to Plant-in-Service (Apr. 2019 - Jun. 2019)	(F) Total Affiliate Charges (Included in Column D)	(G) Project Description
28	Electric General Plant	Harkness	Cyber Security	391,820.82		This is part of a security camera upgrade project, including the necessary software and cabling. The legacy security camera system was reaching the end-of-life and did not provide the required level of security observation. The new system allows security personnel to work more efficiently.
29	Electric General Plant	Harkness	Cyber Security	163,540.18		This is part of a security camera upgrade project, including the necessary software and cabling. The legacy security camera system was reaching the end-of-life and did not provide the required level of security observation. The new system allows security personnel to work more efficiently. The WAN SPS project is necessary to implement WAN reliability and capacity improvements for Distribution and Transmission substations, Energy Supply sites, Service Centers and third parties. This project addresses business needs related to increased substation communications reliability; high-speed digital access for operations, maintenance, and security; and the ability to analyze data to improve reliability and operations.
30	Electric General Plant	Harkness	Aging Technology	521,136.42		Implementation of reliable satellite connections in all Xcel Energy regions. Satellite connections that have already been deployed lack dynamic addressing which inhibits automated emergency cutover and do not meet performance requirements.
31	Electric General Plant	Harkness	Aging Technology	397,971.11		In addition to budgeting and planning for capital spending on known projects, Xcel Energy also knows needs will arise during the year that will require investment even if the specific project is not able to be identified at the start of the budget year. This project includes that type of investment. Specifically, the investment was necessary for wide area network ("WAN") reliability and capacity improvements for transmission and distribution substations, generation facilities, service centers, and third-party sites. It includes replacement of frame relay technology, unplanned circuit improvements, and security upgrades.
32	Electric General Plant	Harkness	Aging Technology	1,853,677.78		

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Electric General and Software Capital Additions
April 1, 2019 through June 30, 2019

(A)	(B)	(C)	(D)	(E)	(F)
Line No.	Asset Class	Witness	Project Category	Additions to Plant-in-Service (Apr. 2019 - Jun. 2019)	Total Affiliate Charges (Included in Column D)
					Project Description

33	Electric General Plant	Harkness	Aging Technology	108,180.87	In addition to budgeting and planning for capital spending on known projects, Xcel Energy also knows needs will arise during the year that will require investment even if the specific project is not able to be identified at the start of the budget year. This project includes that type of investment. Specifically, the investment was necessary for wide area network ("WAN") reliability and capacity improvements for transmission and distribution substations, generation facilities, service centers, and third-party sites. It includes replacement of frame relay technology, unplanned circuit improvements, and security upgrades.
34	Electric General Plant	Harkness	Emergent Demand	191,428.50	This project in the Emergent Demand category is a capital investment account created to ensure that Business Systems is able to meet unanticipated aging technology, cyber security threats, and efficiency needs that inevitably emerge each year. The Emergent Demand account allows Business Systems to address these types of issues without unnecessarily delaying or cancelling previously-planned projects or otherwise absorbing unplanned work and costs.
35	Electric General Plant	Harkness	Emergent Demand	80,877.13	This project in the Emergent Demand category is a capital investment account created to ensure that Business Systems is able to meet unanticipated aging technology, cyber security threats, and efficiency needs that inevitably emerge each year. The Emergent Demand account allows Business Systems to address these types of issues without unnecessarily delaying or cancelling previously-planned projects or otherwise absorbing unplanned work and costs.
36	Electric General Plant	Harkness	Aging Technology	81,911.75	This project involves the technical and data storage portions of the Transmission unmanned aircraft system effort and involves integrating data obtained by unmanned aircraft into existing modeling tools and asset condition reports required for NERC compliance and maintenance planning.
37	Electric General Plant	Harkness	Aging Technology	21,235.00	This annual project includes costs for replacing end-of-life servers, routers, switches, and other hardware that supports electric and gas system operations, including generation, dispatch, transmission, and distribution.
38	Electric General Plant	Harkness	Aging Technology	8,740.58	Planned PC Refresh is the replacement of aging laptops, desktops, and printers when they reach end-of-life.

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Electric General and Software Capital Additions
April 1, 2019 through June 30, 2019

(A) Line No.	(B) Asset Class	(C) Witness	(D) Project Category	(E) Additions to Plant-in-Service (Apr. 2019 - Jun. 2019)	(F) Total Affiliate Charges (Included in Column D)	(G) Project Description
39	Electric General Plant	Harkness	Aging Technology	6,284.73		Planned PC Refresh is the replacement of aging laptops, desktops, and printers when they reach end-of-life.
40	Electric General Plant	Harkness	Aging Technology	51,104.40		Annual Server Refresh project replaces of aging servers prior to failure to support business growth and maintain reliability.
41	Electric General Plant	Harkness	Aging Technology	9,781.23		This annual project contains costs for the replacement of data storage hardware that is no longer cost-effective to support or that presents a significant risk to operations due to aging components or lack of vendor support.
42	Total Electric General Plant			\$ 7,254,771.05	\$ 339,054.64	
43						
44						
45	Electric General - Software	Harkness	Enhance Capabilities	\$ 162.37		Implement a tool that will allow consolidation of multiple existing tools for the management of corporate giving into a single solution. This will provide new data analysis opportunities, and enhance employee and customer engagement. Programs included are grant management, matching gifts, United Way campaign, Dollars for Doers, and Sponsorships.
46	Electric General - Software	Harkness	Aging Technology	1,923.19		This cost is for the purchase of the software necessary to upgrade the corporate email system from Microsoft Exchange 2007 to 2013. Exchange 2007 is near end-of-life and requires extended support.
47	Electric General - Software	Harkness	Aging Technology	806.94		Technology and process to centralize and manage File Transfer Protocol and data transmissions allowing for more complete lockdown of the use of USB storage devices.
48	Electric General - Software	Harkness	Aging Technology	33,664.10		Technology and process to centralize and manage File Transfer Protocol and data transmissions allowing for more complete lockdown of the use of USB storage devices.
49	Electric General - Software	Harkness	Cyber Security	13,531.35		This project includes costs for a software purchase and the implementation of a tool to manage digital certificates and encryption keys. These enable the secure transfer of data by positively identifying an entity and encrypting the data shared with that entity.

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April 1, 2019 through June 30, 2019

(A) Line No.	(B) Asset Class	(C) Witness	(D) Project Category	(E) Additions to Plant-in-Service (Apr. 2019 - Jun. 2019)	(F) Total Affiliate Charges (Included in Column D)	(G) Project Description
50	Electric General - Software	Harkness	Aging Technology	30,677.81		This cost is for the purchase of the software necessary to upgrade the corporate email system from Microsoft Exchange 2007 to 2013. Exchange 2007 is near end-of-life and requires extended support. This project creates a central repository that can house the inventory of all network assets. This inventory will include wireless networks, fiber, physical locations, WAN circuits, network hardware components, etc. In addition, the system provides geospatial visualization of the entire communications network, and provides real-time network monitoring for enhanced network reliability and security.
51	Electric General - Software	Harkness	Enhance Capabilities	715,629.30		This project creates a central repository that can house the inventory of all network assets. This inventory will include wireless networks, fiber, physical locations, WAN circuits, network hardware components, etc. In addition, the system provides geospatial visualization of the entire communications network, and provides real-time network monitoring for enhanced network reliability and security.
52	Electric General - Software	Harkness	Aging Technology	19,945.68		This project is necessary to update critical cyber security technology including perimeter security, internal infrastructure security, application security, and vulnerability management to protect sensitive customer and business information. This project will ensure that Xcel Energy meets applicable legal and regulatory obligations and risk management objectives.
53	Electric General - Software	Harkness	Cyber Security	97,210.00		This project replaced Xcel Energy's security incident & event Management ("SIEM") system, ArcSight. ArcSight resided on hardware that was at end of life, and the software license required renewal. This investment helps ensure that security-related events are managed effectively and with appropriate confidentiality.
54	Electric General - Software	Harkness	Cyber Security	(513.06)		This project involved the building of a mobile computing framework and supporting infrastructure to empower business users, including field personnel, by extending and delivering corporate application and data access to mobile devices.
55	Electric General - Software	Harkness	Enhance Capabilities	2,980.01		The project replaced aging server infrastructure and install new version of Microsoft Configuration Manager. This application deploys software, operating systems, and security patches to workstations and servers within the Xcel Energy network.
56	Electric General - Software	Harkness	Aging Technology	(0.04)		

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April 1, 2019 through June 30, 2019

(A) Line No.	(B) Asset Class	(C) Witness	(D) Project Category	(E) Additions to Plant-in-Service (Apr. 2019 - Jun. 2019)	(F) Total Affiliate Charges (Included in Column D)	(G) Project Description
57	Electric General - Software	Harkness	Aging Technology	210,776.93		This project involves the replacement of the Microsoft Active Directory infrastructure at 28 sites across Xcel Energy, as well as an upgrade of the Active Directory software to the most recent version. Active Directory authenticates and authorizes users and computers in a Microsoft Windows domain.
58	Electric General - Software	Harkness	Aging Technology	5.90		WebSphere is a core component of multiple critical systems, including the enterprise service bus which enables the integration between multiple applications. This project will maintain compliance with Websphere software licensing terms.
59	Electric General - Software	Harkness	PTT	138,806.63		This tool adds automation to the movement of new supporting hardware). This tool progresses through the various test environments and then into production. This eliminates time-consuming manual migration of changes between environments, and eliminates most opportunities to introduce human error into the process.
60	Electric General - Software	Harkness	Aging Technology	201,452.31		This project contains costs necessary for upgrading the outage management system, Oracle Network Management System ("NMS"). The system was nearing the end of its useful life, and the upgrade was required to retain full vendor support and to ensure operational reliability.
61	Electric General - Software	Harkness	Aging Technology	628,387.00		This project is necessary to upgrade CommodityXL (CXL) to keep the application in line with the latest technology architecture standards and new functionality enhancements made by the vendor. This includes migrating away from Oracle 11G that is no longer supported.
62	Electric General - Software	Harkness	Aging Technology	115,905.33		This is a project to assess and build NERC compliance-related business functions in the Archer application, Xcel Energy's governance, risk management and compliance ("GRC") tool. This project will streamline several business functions including audit preparation, internal controls, standards development & implementation, and issue evaluation & remediation.
63	Electric General - Software	Harkness	Aging Technology	237,615.05		This project involves negotiation and renewal of the license agreement for the Open Source International Plant Information ("PI") system. PI is used to monitor generation plants in real time. The existing licensing agreement expired in 2018.

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Electric General and Software Capital Additions
April 1, 2019 through June 30, 2019

(A)	(B)	(C)	(D)	(E)	(F)
Line No.	Asset Class	Witness	Project Category	Additions to Plant-in-Service (Apr. 2019 - Jun. 2019)	Total Affiliate Charges (Included in Column D)
64	Electric General - Software	Harkness	Enhance Capabilities	3,605.16	The Project implements mobile technology for Property Services maintenance and operations creating process improvements and efficiencies as tickets can be created, updated, worked and closed in the field. Better analytics as a result of more timely, consistent and accurate data is logged.
65	Electric General - Software	Harkness	Enhance Capabilities	266,589.26	This project leverages automation technologies, such as robotic process automation, smart workflows, and natural language processing to streamline workloads. For example, the tool can be used to automate what had been a time-consuming, manually created report, reducing errors and freeing personnel to focus on higher value work.
66	Electric General - Software	Harkness	Aging Technology	30,284.28	The project updates Utilities International's Regulatory Information System, including upgrading to the current version of the tool, and upgrading server hardware supporting it. In addition to preserving operational stability, the update will remediate known security vulnerabilities related to the Java platform.
67	Electric General - Software	Harkness	Aging Technology	113.16	This project involves the technical and data storage portions of the Transmission unmanned aircraft system effort and involves integrating data obtained by unmanned aircraft into existing modeling tools and asset condition reports required for NERC compliance and maintenance planning.
68	Electric General - Software	Harkness	Enhance Capabilities	123,561.73	This project is for creating and enabling the basic private cloud services, including virtualization and automation of disaster recovery, network and server creation within contained environments, basic auditing and reporting services, and enabling future public cloud usage.
69	Electric General - Software	Harkness	Enhance Capabilities	47,489.73	This project is for creating and enabling the basic private cloud services, including virtualization and automation of disaster recovery, network and server creation within contained environments, basic auditing and reporting services, and enabling future public cloud usage.
70	Electric General - Software	Harkness	Aging Technology	139,000.00	The project creates the ability to automate certain tasks performed by Xcel Energy's application development and IT operations teams. This will streamline the provisioning of environments, deployment of applications, and the maintenance of the Unix server infrastructure.

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Electric General and Software Capital Additions
April 1, 2019 through June 30, 2019

(A) Line No.	(B) Asset Class	(C) Witness	(D) Project Category	(E) Additions to Plant-in-Service (Apr. 2019 - Jun. 2019)	(F) Total Affiliate Charges (Included in Column D)	(G) Project Description
71	Electric General - Software	Harkness	Aging Technology	72,000.00		The project is for licensing to support infrastructure and operations. The project will update devices to run on current and proper versions of licensed software, including patches and functional improvements. The project updates the SumTotal expense reporting application to the current version. The tool is necessary to manage employee expenses effectively. The existing version is at end of life. The project is to upgrade the Landworks Property Management System used by Siting and Land Rights personnel to manage land assets and rights of way.
72	Electric General - Software	Harkness	Aging Technology	31,483.14		
73	Electric General - Software	Harkness	Enhance Capabilities	42,815.70		
74	Electric General - Software	Harkness	Enhance Capabilities	16,759.61		
75	Electric General - Software	Harkness	Aging Technology	(0.02)		This project was necessary to upgrade SharePoint 2007 to the current version (SharePoint 2016 and SharePoint Online). SharePoint is a web application that enables employees to collaborate from across all business units, and to work more efficiently by letting users share documents and data while maintaining security and version control. This project provides a single enterprise project management solution (EPM) to replace multiple stand-alone, incompatible project management tools. Some of these tools do not reside on production servers, or are otherwise not supported by IT.
76	Total Electric General - Software			\$ 3,222,668.55	\$ 2,684,756.37	
77						
78	Grand Total			\$ 10,477,439.60	\$ 3,023,811.01	

**Summary of XES Expenses to SPS by Affiliate Class and Billing Method
For Twelve Months ended June 30, 2019
Harkness**

(A) Line No.	(B) Affiliate Class	(C) Billing Method (Cost Center)	(D) Allocation Method	(E) Total XES Billings for Class to all Legal Entities (FERC Acct. 400-935)	(F) XES Billings for Class to all Legal Entities Except for SPS (FERC Acct. 400-935)	(G) XES Billings for Class to SPS (Total Company) (FERC Acct. 400-935)	(H) Exclusions	(I) Per Book	(J) Pro Formas	(K) Requested Amount (Total Company)	(L) % of Class Charges
1	Business Systems	200063 - Executive - Corporate Governance	Assets/Revenue/No. of employees	\$ 186,544.88	\$ 164,100.08	\$ 24,444.80	\$ -	\$ 24,444.80	\$ 718.77	\$ 25,163.57	0.07%
2	Business Systems	200065 - Investor Relations - Corporate Governance	Assets/Revenue/No. of employees	77.96	67.91	10.05	-	10.05	(10.05)	-	0.00%
3	Business Systems	200066 - Accounting & Reporting - Corporate Governance	Assets/Revenue/No. of employees	2,595.72	2,261.37	334.35	-	334.35	-	334.35	0.00%
4	Business Systems	200067 - Audit Services - Corporate Governance	Assets/Revenue/No. of employees	1,344.26	1,171.15	173.11	-	173.11	-	173.11	0.00%
5	Business Systems	200068 - Finance & Treasury - Corporate Governance	Assets/Revenue/No. of employees	916.38	798.37	118.01	-	118.01	-	118.01	0.00%
6	Business Systems	200069 - Risk Management - Corporate Governance	Assets/Revenue/No. of employees	311.84	271.67	40.17	-	40.17	(40.17)	-	0.00%
7	Business Systems	200070 - Corporate Strategy & Bus Dev - Corporate Governance	Assets/Revenue/No. of employees	233.88	203.76	30.12	-	30.12	(30.12)	-	0.00%
8	Business Systems	200071 - Legal - Corporate Governance	Assets/Revenue/No. of employees	1,779.79	1,550.32	229.47	-	229.47	-	229.47	0.00%
9	Business Systems	200072 - Communications - Corporate Governance	Assets/Revenue/No. of employees	8,148.16	7,097.21	1,050.95	-	1,050.95	-	1,050.95	0.00%
10	Business Systems	200074 - Corporate Systems - Corporate Governance	Assets/Revenue/No. of employees	665,648.01	579,910.12	85,737.89	-	85,737.89	(78.37)	85,659.52	0.24%
11	Business Systems	200076 - Xcel Foundation	Assets/Revenue/No. of employees	482.74	420.44	62.30	-	62.30	(62.30)	-	0.00%
12	Business Systems	200077 - Branding	Assets/Revenue/No. of employees	155.92	135.80	20.12	-	20.12	(20.12)	-	0.00%
13	Business Systems	200078 - Governmental Affairs	Assets/Revenue/No. of employees	77.87	67.82	10.05	-	10.05	(10.05)	-	0.00%
14	Business Systems	200079 - Federal Lobbying	Assets/Revenue/No. of employees	(74,393.43)	(67,915.35)	(6,478.08)	34,734.26	28,256.18	-	28,256.18	0.08%
15	Business Systems	200081 - Accounting, Reporting, & Taxes	Assets/Revenue/No. of employees	86,943.90	74,349.50	12,594.40	-	12,594.40	-	12,594.40	0.04%
16	Business Systems	200083 - Finance & Treasury	Assets/Revenue/No. of employees	77.96	66.71	11.25	-	11.25	(11.25)	-	0.00%
17	Business Systems	200084 - Risk Management	Assets/Revenue/No. of employees	77.96	66.70	11.26	-	11.26	(11.26)	-	0.00%
18	Business Systems	200086 - Legal	Assets/Revenue/No. of employees	12,904.79	11,034.38	1,870.41	-	1,870.41	-	1,870.41	0.01%

**Summary of XES Expenses to SPS by Affiliate Class and Billing Method
For Twelve Months ended June 30, 2019
Harkness**

(A) Line No.	(B) Affiliate Class	(C) Billing Method (Cost Center)	(D) Allocation Method	(E) Total XES Billings for Class to all Legal Entities (FERC Acct. 400-935)	(F) XES Billings for Class to all Legal Entities Except for SPS (FERC Acct. 400-935)	(G) XES Billings for Class to SPS (Total Company) (FERC Acct. 400-935)	(H) Exclusions	(I) Per Book	(J) Pro Formas	(K) Requested Amount (Total Company)	(L) % of Class Charges
19	Business Systems	200087 - Accounting - Operating Companies	Assets/Revenue/No. of employees	6,259.22	5,345.60	913.62	-	913.62	18.57	932.19	0.00%
20	Business Systems	200088 - Acctg. Rptg. Tax - OpCos Elec	Assets/Revenue/No. of employees	194.90	166.76	28.14	-	28.14	(28.14)	-	0.00%
21	Business Systems	200092 - Corp Strategy & Bus Dev - OpCo	Assets/Revenue/No. of employees	4,249.64	3,635.92	613.72	-	613.72	-	613.72	0.00%
22	Business Systems	200094 - Supply Chain	Assets/Revenue/No. of employees	77.96	66.70	11.26	-	11.26	(11.26)	-	0.00%
23	Business Systems	200096 - Energy Markets - Business Services	Assets/Revenue/No. of employees	5,718,712.58	4,890,579.44	828,133.14	(46.08)	828,087.06	(1,906.52)	826,180.54	2.36%
24	Business Systems	200097 - CBS/ALS/CFM	Assets/Revenue/No. of employees	662,287.40	566,276.52	96,010.88	-	96,010.88	-	96,010.88	0.27%
25	Business Systems	200110 - Passport - Accounts Payable	Accounts Payable	44,819.87	39,106.29	5,713.58	-	5,713.58	-	5,713.58	0.02%
26	Business Systems	200111 - EAI (Entrpris Applic Integrat)	Avg of Select Set Softr Allctrs	77,602,504.60	69,079,505.22	8,522,999.38	-	8,522,999.38	0.15	8,522,999.53	24.34%
27	Business Systems	200112 - Mainframe Charges From IBM	Avg of Select Set Softr Allctrs	8,759,864.18	8,142,125.12	617,739.06	-	617,739.06	(0.06)	617,739.00	1.76%
28	Business Systems	200115 - Miscellaneous Applications	Average of All Software Percent	21,901,372.45	19,395,090.83	2,506,281.62	(1.63)	2,506,279.99	(721.36)	2,505,558.63	7.15%
29	Business Systems	200119 - Distribution Electric FERC 580 (E&S)	Electric Distribution Plant	21,318.85	18,795.11	2,523.74	-	2,523.74	-	2,523.74	0.01%
30	Business Systems	200119 - GIS (Geographic Information System)	Elec Dist Plant Gas Dist Plant	1,931,618.43	1,803,527.47	128,090.96	-	128,090.96	-	128,090.96	0.37%
31	Business Systems	200122 - Transmission Electric FERC 560 (E&S)	Electric Transmission Plant	2,252.97	1,590.54	662.43	-	662.43	4.18	666.61	0.00%
32	Business Systems	200123 - Transm Elec FERC 561.5	Electric Transmission Plant	12,038.98	8,430.52	3,608.46	-	3,608.46	-	3,608.46	0.01%
33	Business Systems	200124 - EMS- Transmission (Energy Mgmt System-SCADA)	Electric Transmission Plant	2,726,065.03	1,918,817.18	807,247.85	-	807,247.85	(6,201.86)	801,045.99	2.29%
34	Business Systems	200125 - Transm Elec 560 NSPM & NSPW	Electric Transmission Plant	77.96	77.96	-	-	-	-	-	0.00%
35	Business Systems	200126 - Customer & Field Operations Constr, Oper & Maint	ElcTm ElcDst GasTm GasDst Plnt	2,974.60	2,489.68	484.92	-	484.92	0.82	485.74	0.00%
36	Business Systems	200127 - Distribution Gas FERC 870 (E&S)	Gas Distribution Plant	714.69	714.69	-	-	-	-	-	0.00%
37	Business Systems	200128 - Distribution Gas FERC 880 (MISC)	Gas Distribution Plant	138,524.78	138,524.78	-	-	-	-	-	0.00%
38	Business Systems	200131 - Gas SCADA (Supervisory Control and Data Acquisition)	Gas Trans Plant Gas Dist Plant	800,311.72	800,311.72	-	-	-	-	-	0.00%

**Summary of XES Expenses to SPS by Affiliate Class and Billing Method
For Twelve Months ended June 30, 2019
Harkness**

(A) Line No.	(B) Affiliate Class	(C) Billing Method (Cost Center)	(D) Allocation Method	(E) Total XES Billings for Class to all Legal Entities (FERC Acct. 400-935)	(F) XES Billings for Class to all Legal Entities Except for SPS (FERC Acct. 400-935)	(G) XES Billings for Class to SPS (Total Company) (FERC Acct. 400-935)	(H) Exclusions	(I) Per Book	(J) Pro Formas	(K) Requested Amount (Total Company)	(L) % of Class Charges
39	Business Systems	200132 - Payment and Reporting	Invoice Transactions	220.69	199.13	21.56	-	21.56	(21.56)	-	0.00%
40	Business Systems	200135 - Energy Supply Business Resources	MWH Generation	4,255.66	3,321.09	934.57	-	934.57	-	934.57	0.00%
41	Business Systems	200136 - Energy Markets - Fuel	MWH Generation	5,554.34	4,335.09	1,219.25	-	1,219.25	-	1,219.25	0.00%
42	Business Systems	200138 - ES Operations Management OPCo's	MWH Generation	25,535.37	19,821.24	5,714.13	-	5,714.13	171.42	5,885.55	0.02%
43	Business Systems	200146 - Energy Markets - Regulated Trading (Gen Book)	MWH Hours Sold	67,048.71	50,026.81	17,021.90	-	17,021.90	(4.56)	17,017.34	0.05%
44	Business Systems	200147 - Business Objects	Number of Business Objects Users	1,434,149.98	1,290,667.42	143,482.56	-	143,482.56	(339.73)	143,142.83	0.41%
45	Business Systems	200148 - Business Systems	Number of Computers	78,816,170.93	67,939,732.21	10,876,438.72	(3,734.26)	10,872,704.46	(45,448.94)	10,827,255.52	30.92%
46	Business Systems	200149 - CES (Customer & Enterprise Solutions)	Number of Computers Customers Empl	2,171,787.73	1,917,185.29	254,602.44	-	254,602.44	-	254,602.44	0.73%
47	Business Systems	200150 - IVR (Interactive Voice Response)	Number of Contacts	936,928.66	792,131.37	144,797.29	-	144,797.29	0.03	144,797.32	0.41%
48	Business Systems	200151 - Customer Billing FERC 903	Number of Customer Bills	2,455.20	2,244.39	210.81	-	210.81	-	210.81	0.00%
49	Business Systems	200152 - Customer Care 902	Number of Customers	584.70	543.88	40.82	-	40.82	(40.82)	-	0.00%
50	Business Systems	200153 - Customer Safety Advertising/Information Costs	Number of Customers	3,285.87	3,057.48	228.39	-	228.39	-	228.39	0.00%
51	Business Systems	200154 - Customer Service IT - FERC 903	Number of Customers	348,250.12	323,975.67	24,274.45	-	24,274.45	8.56	24,283.01	0.07%
52	Business Systems	200155 - Customer Care 903	Number of Customers	30,012.93	27,915.43	2,097.50	-	2,097.50	-	2,097.50	0.01%
53	Business Systems	200156 - Customer Care 901	Number of Customers	38.98	36.25	2.73	-	2.73	(2.73)	-	0.00%
54	Business Systems	200157 - Customer Service IT - FERC 903 South	Number of Customers	7,324.10	6,440.29	883.81	-	883.81	-	883.81	0.00%
55	Business Systems	200158 - Customer Care South 903	Number of Customers	272.86	239.91	32.95	-	32.95	(32.95)	-	0.00%
56	Business Systems	200159 - Customer Service IT FERC 903 - North	Number of Customers	31.78	31.78	-	-	-	-	-	0.00%
57	Business Systems	200160 - Customer Care North 903	Number of Customers	1,265.25	1,265.25	-	-	-	-	-	0.00%

**Summary of XES Expenses to SPS by Affiliate Class and Billing Method
For Twelve Months ended June 30, 2019
Harkness**

(A) Line No.	(B) Affiliate Class	(C) Billing Method (Cost Center)	(D) Allocation Method	(E) Total XES Billings for Class to all Legal Entities (FERC Acct. 400-935)	(F) XES Billings for Class to all Legal Entities Except for SPS (FERC Acct. 400-935)	(G) XES Billings for Class to SPS (Total Company) (FERC Acct. 400-935)	(H) Exclusions	(I) Per Book	(J) Pro Formas	(K) Requested Amount (Total Company)	(L) % of Class Charges
58	Business Systems	200162 - CL/QM (Call Logging and Quality Management)	Number of Cust Number of Contacts	254,580.51	225,965.56	28,614.95	-	28,614.95	-	28,614.95	0.08%
59	Business Systems	200163 - Employee Communications	Number of Employees	194.90	166.86	28.04	-	28.04	(28.04)	-	0.00%
60	Business Systems	200164 - Payroll	Number of Employees	1.47	1.26	0.21	-	0.21	(0.21)	-	0.00%
61	Business Systems	200165 - PeopleSoft	Number of Employees	1,248,325.44	1,069,038.18	179,287.26	-	179,287.26	(23.42)	179,263.84	0.51%
62	Business Systems	200166 - Human Resources (Diversity/Safety/Emp Relations)	Number of Employees	1,320,937.60	1,130,890.77	190,046.83	-	190,046.83	(17.38)	190,029.45	0.54%
63	Business Systems	200167 - e-Business	Number of Employees	317,734.62	271,995.49	45,739.13	-	45,739.13	-	45,739.13	0.13%
64	Business Systems	200168 - GMS (Gas Management System)	Number of Gas Customers	507,544.79	507,544.79	-	-	-	-	-	0.00%
65	Business Systems	200169 - Maximo	Number of Maximo Users	815,537.47	630,315.57	185,221.90	(171.13)	185,050.77	(37.73)	185,013.04	0.53%
66	Business Systems	200170 - MDMS (Monitoring Device Management System)	Number of Meters	1,799,939.21	1,677,814.13	122,125.08	-	122,125.08	-	122,125.08	0.35%
67	Business Systems	200171 - CRS (Customer Resource System)	Number of Mtrs Number of Contacts	5,786,733.42	5,143,629.98	643,103.44	-	643,103.44	(1,618.06)	641,485.38	1.83%
68	Business Systems	200172 - Network	Phones Radios Computers	18,471,888.19	16,073,827.04	2,398,061.15	(30.82)	2,398,030.33	(3,063.62)	2,394,966.71	6.84%
69	Business Systems	200176 - Marketing & Sales	Revenue	35,076.27	29,606.04	5,470.23	-	5,470.23	(1.94)	5,468.29	0.02%
70	Business Systems	200177 - Rates Electric	Revenue	116.94	99.23	17.71	-	17.71	(17.71)	-	0.00%
71	Business Systems	200178 - Rates & Regulation	Revenue	977.15	791.50	185.65	-	185.65	0.00	185.65	0.00%
72	Business Systems	200179 - Passport - All Modules	Total AP Inv Work Mgmt Prch Trns	101,579.46	87,877.83	13,701.63	-	13,701.63	-	13,701.63	0.04%
73	Business Systems	200180 - EMS-Shared (Energy Mgmt System-SCADA)	Elec Prod Elec Trns Elec Dst Plnt	4,098,538.10	3,361,261.07	737,277.03	(179.82)	737,097.21	(4,127.79)	732,969.42	2.09%
74	Business Systems	200184 - PowerPlant	Total Plant	695,825.58	597,518.36	98,307.22	-	98,307.22	(3.65)	98,303.57	0.28%
75	Business Systems	200185 - Passport - Work Management	Work Management Transactions	(371.00)	(304.46)	(66.54)	-	(66.54)	66.54	-	0.00%
76	Business Systems	Direct	Direct	40,471,818.15	35,164,139.41	5,307,678.74	(13.04)	5,307,665.70	(17,036.01)	5,290,629.69	15.11%

Summary of XES Expenses to SPS by Affiliate Class and Billing Method
For Twelve Months ended June 30, 2019
Harkness

(A) Line No.	(B) Affiliate Class	(C) Billing Method (Cost Center)	(D) Allocation Method	(E) Total XES Billings for Class to all Legal Entities (FERC Acct. 400-935)	(F) XES Billings for Class to all Legal Entities Except for SPS (FERC Acct. 400-935)	(G) XES Billings for Class to SPS (Total Company) (FERC Acct. 400-935)	(H) Exclusions	(I) Per Book	(J) Pro Formas	(K) Requested Amount (Total Company)	(L) % of Class Charges
77	Business Systems	Total		\$ 281,014,321.53	\$ 245,946,184.60	\$ 35,068,136.93	\$ 30,557.48	\$ 35,098,694.41	\$ (80,020.70)	\$ 35,018,673.71	100.00%
78	Total - Witness David Harkness			\$ 281,014,321.53	\$ 245,946,184.60	\$ 35,068,136.93	\$ 30,557.48	\$ 35,098,694.41	\$ (80,020.70)	\$ 35,018,673.71	
	Amounts may not add or tie to other schedules due to rounding.										

Southwestern Public Service Company

XES Expenses by Affiliate Class, Activity, Billing Method and FERC Account

David C. Harkness

2019 TX Rate Case

**APPLICATION OF
SOUTHWESTERN PUBLIC SERVICE COMPANY
FOR AUTHORITY TO CHANGE RATES**

DCH-RR-B(CD)

**Exclusions from XES Expenses to SPS by Affiliate Class and FERC Account
For Twelve Months ended June 30, 2019
Harkness**

(A) Line No.	(B) Affiliate Class	(C) FERC Account	(D) Explanation for Exclusions	(E) Exclusions (Total Company)
1	Business Systems	417.1 - Expenses of nonutility operations	Below the line	\$ (89,19)
2	Business Systems	426.1 - Donations	Below the line	(1,531.92)
3	Business Systems	426.4 - Life Insurance	Below the line	34,701.81
4	Business Systems	426.5 - Other Deductions	Below the line	(2,523.22)
5	Business Systems Total			\$ 30,557.48
6		Total - Witness David Harkness		\$ 30,557.48
	Amounts may not add or tie to other schedules due to rounding.			

**Pro Forma Adjustments to XES Expenses by Affiliate Class and FERC Account
For Twelve Months ended June 30, 2019
Harkness**

(A) Line No.	(B) Affiliate Class	(C) FERC Account	(D) Explanation for Pro Formas	(E) Sponsor	(F) Pro Formas (Total Company)
1	Business Systems	500 - Operation supervision and engineering	3% Wage Adjustment	Arthur Freitas/Michael Knoll	\$ 133.88
2	Business Systems	506 - Miscellaneous steam power expenses	116.5% Incentive	Arthur Freitas/Michael Knoll	(112.88)
3	Business Systems	506 - Miscellaneous steam power expenses	3% Wage Adjustment	Arthur Freitas/Michael Knoll	225.55
4	Business Systems	546 - Operation supervision and engineering	3% Wage Adjustment	Arthur Freitas/Michael Knoll	37.54
5	Business Systems	549 - Miscellaneous other power generation expenses	3% Wage Adjustment	Arthur Freitas/Michael Knoll	27.67
6	Business Systems	556 - System control and load dispatching	116.5% Incentive	Arthur Freitas/Michael Knoll	(80.76)
7	Business Systems	556 - System control and load dispatching	3% Wage Adjustment	Arthur Freitas/Michael Knoll	129.64
8	Business Systems	560 - Operation supervision and engineering	116.5% Incentive	Arthur Freitas/Michael Knoll	(17,047.47)
9	Business Systems	560 - Operation supervision and engineering	3% Wage Adjustment	Arthur Freitas/Michael Knoll	21,163.33
10	Business Systems	561.2 - Load dispatch-Monitor and operate transmiss system	116.5% Incentive	Arthur Freitas/Michael Knoll	(9,303.28)
11	Business Systems	561.2 - Load dispatch-Monitor and operate transmiss system	3% Wage Adjustment	Arthur Freitas/Michael Knoll	10,011.06
12	Business Systems	580 - Operation supervision and engineering	116.5% Incentive	Arthur Freitas/Michael Knoll	(1.92)
13	Business Systems	581 - Load dispatching	116.5% Incentive	Arthur Freitas/Michael Knoll	(1,164.02)
14	Business Systems	581 - Load dispatching	3% Wage Adjustment	Arthur Freitas/Michael Knoll	2,206.63
15	Business Systems	588 - Miscellaneous distribution expenses	116.5% Incentive	Arthur Freitas/Michael Knoll	(16.83)
16	Business Systems	588 - Miscellaneous distribution expenses	3% Wage Adjustment	Arthur Freitas/Michael Knoll	19.12
17	Business Systems	901 - Supervision	Business Area Adjustment	David Harkness	(2.73)
18	Business Systems	902 - Meter reading expenses	116.5% Incentive	Arthur Freitas/Michael Knoll	(18.09)
19	Business Systems	902 - Meter reading expenses	3% Wage Adjustment	Arthur Freitas/Michael Knoll	17.07
20	Business Systems	902 - Meter reading expenses	Business Area Adjustment	David Harkness	(40.82)

**Pro Forma Adjustments to XES Expenses by Affiliate Class and FERC Account
For Twelve Months ended June 30, 2019
Harkness**

(A) Line No.	(B) Affiliate Class	(C) FERC Account	(D) Explanation for Pro Formas	(E) Sponsor	(F) Pro Formas (Total Company)
21	Business Systems	903 - Customer records and collection expenses	116.5% Incentive	Arthur Freitas/Michael Knoll	(2,185.67)
22	Business Systems	903 - Customer records and collection expenses	3% Wage Adjustment	Arthur Freitas/Michael Knoll	3,077.09
23	Business Systems	903 - Customer records and collection expenses	Business Area Adjustment	David Harkness	(32.95)
24	Business Systems	908 - Customer assistance expenses	Wholesale	Arthur Freitas	(329.49)
25	Business Systems	920 - Administrative and general salaries	116.5% Incentive	Arthur Freitas/Michael Knoll	(60,618.04)
26	Business Systems	920 - Administrative and general salaries	3% Wage Adjustment	Arthur Freitas/Michael Knoll	79,770.22
27	Business Systems	921 - Office supplies and expenses	Business Area Adjustment	David Harkness	(383.76)
28	Business Systems	921 - Office supplies and expenses	Foundation	William Grant	(62.30)
29	Business Systems	926 - Employee pensions and benefits	Pension & Benefits Adjustment	William Grant	(105,438.51)
30	Business Systems Total				\$ (80,020.70)
31	Total Witness - David Harkness				\$ (80,020.70)
	Amounts may not add or tie to other schedules due to rounding				