

DOCKET NO. _____

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

**DIRECT TESTIMONY
of
BENNIE F. WEEKS**

on behalf of

SOUTHWESTERN PUBLIC SERVICE COMPANY

(Filename: WeeksRRDirect.doc)

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GLOSSARY OF ACRONYMS AND DEFINED TERMS

<u>Acronym/Defined Term</u>	<u>Meaning</u>
BEA	Borger Energy Associates, L.P.
Commission	Public Utility Commission of Texas
EOY	End-of-Year
DSI	Dry Sorbent Injection
FERC	Federal Energy Regulatory Commission
FOM	fixed O&M costs
Harrington	Harrington Generating Station
LCOE	levelized cost of energy
MW	megawatt
MWh or MWH	megawatt-hour
NAAQS	National Ambient Air Quality Standards
NCF	net capacity factor
NYMEX	New York Mercantile Exchange
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
PPA	purchased power agreement
PVRR	present value revenue requirement
RFP	Rate Filing Package
Sagamore	Sagamore Wind Project

<u>Acronym/Defined Term</u>	<u>Meaning</u>
SDA	Spray Dryer Absorber
SPP	Southwest Power Pool, Inc.
SPS	Southwestern Public Service Company, a New Mexico corporation
Test Year	October 1, 2019 through September 30, 2020
Tolk	Tolk Generating Station
Total Company or total company	Total SPS (before jurisdictional allocation)
T1	Tolk Unit 1
T2	Tolk Unit 2
Update Period	October 1, 2020 through December 31, 2020
Updated Test Year	January 1, 2020 through December 31, 2020
VOM	variable O&M
Xcel Energy	Xcel Energy Inc.
XES	Xcel Energy Services Inc.

LIST OF ATTACHMENTS

<u>Attachment</u>	<u>Description</u>
BFW-RR-1	List of Prior Testimonies (Filename: BFW-RR-1.xlsx)
BFW-RR-2	Organization Chart – Resource Planning (Non-native format)
BFW-RR-3	Harrington Generating Station Analysis
BFW-RR-4(CD)	Harrington Generating Station Strategist <i>Workpapers</i> – Financial Forecast Base Case (Provided on CD)
BFW-RR-5(CD)	Harrington Generating Station Strategist <i>Workpapers</i> – Financial Forecast High Case (Provided on CD)
BFW-RR-6(CD)	Harrington Generating Station Strategist <i>Workpapers</i> – Financial Forecast Low Case (Provided on CD)
BFW-RR-7(CD)	Harrington Generating Station Strategist <i>Workpapers</i> – Planning Forecast Base Case (Provided on CD)
BFW-RR-8(CD)	Harrington Generating Station Strategist <i>Workpapers</i> – Planning Forecast High Case (Provided on CD)
BFW-RR-9(CD)	Harrington Generating Station Strategist <i>Workpapers</i> – Planning Forecast Low Case (Provided on CD)
BFW-RR-10(CD)	Tolk Generating Station Analysis <i>Workpapers</i> (Provided on CD)
BFW-RR-11(CD)	Sagamore Wind Project Strategist <i>Workpapers</i> (Provided on CD)
BFW-RR-A (Updated Test Year)	Summary of XES Expenses to SPS by Affiliate Class and Billing Method (Filename: BFW-RR-ABCD.xlsx)

<u>Attachment</u>	<u>Description</u>
BFW-RR-B(CD) (Updated Test Year)	XES Expenses by Affiliate Class, Activity, Billing Method and FERC Account (Filename: BFW-RR-ABCD.xlsx)
BFW-RR-C (Updated Test Year)	Exclusions from XES Expenses to SPS by Affiliate Class and FERC Account (Filename: BFW-RR-ABCD.xlsx)
BFW-RR-D (Updated Test Year)	Pro Forma Adjustments to XES Expenses by Affiliate Class and FERC Account (Filename: BFW-RR-ABCD.xlsx)

**DIRECT TESTIMONY
OF
BENNIE F. WEEKS**

1 **I. WITNESS IDENTIFICATION AND QUALIFICATIONS**

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

3 A. My name is Bennie F. Weeks. My business address is 790 S. Buchanan Street,
4 Amarillo, Texas 79101.

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”), the service company
11 subsidiary of Xcel Energy. I was previously Manager of Resource Planning and
12 Bidding. Currently, I hold a rotational position in the Strategy and Planning
13 Department.

14 **Q. Please briefly outline your responsibilities.**

15 A. My duties include managing analysts and planners in the development of strategic
16 resource planning, including need assessment, planning, and financial analysis of
17 various resource and purchase/sales options. I am also responsible for managing
18 various state resource planning processes to ensure that regulatory requirements
19 are fulfilled.

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

21 A. I graduated from West Texas State University in May 1976, receiving a Bachelor
22 of Science degree with a double major in Mathematics and Physical Education.
23 Additionally, I have 23 continuing education units in the business field.

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

2 A. I began employment with SPS in September 1979 as a meter reader. I became an
3 Engineering Estimator in the Fuel Administration Department in 1981. As an
4 estimator, I prepared monthly fuel plans and the five-year fuel budget. In 1984, I
5 became Senior Production Costing Specialist in Fuel Acquisition and
6 Administration. In that position, I performed studies for fuel budgets, capital
7 projects, fuel contracts, alternative operating procedures, and other special
8 projects. I was responsible for a production costing model (PROMOD) and
9 coordinated and developed the short-term and long-term fuel and energy planning
10 and budgeting for the SPS generating system. In October 2000, I became a Case
11 Specialist in Regulatory Administration for SPS managing all aspects of
12 regulatory cases. I became the Manager of Resource Planning and Bidding in
13 October 2008, and I accepted my current position in October 2020.

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

16 A. Yes. I have attended many utility-related classes and seminars hosted by SPS and
17 utility consulting firms.

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

19 A. Yes. I have filed testimony and testified before the Public Utility Commission of
20 Texas (“Commission”) and the New Mexico Public Regulation Commission
21 regarding SPS’s resource planning and acquisition processes. I have also testified
22 before the Federal Energy Regulatory Commission (“FERC”) regarding
23 off-system sales. Attachment BFW-RR-1 contains a list of the regulatory
24 proceedings in which I have testified.

Table BFW-RR-1

Schedule H	12.6a, 12.6b(V)(CD), and 12.6c
Schedule I	2, 9, and 10(V)(CD)
Schedule O	1.5 and 1.6

1 **Q. Please describe the information in the RFP Schedules you sponsor or**
2 **co-sponsor.**

3 A. For the Test Year and three calendar years preceding the Test Year, the H-12.6
4 schedules provide monthly minimum and peak loads and both monthly and
5 annual load duration data.

6 On Schedule I-2, I sponsor the portion of the “Purchased Power”
7 discussion concerning Resource Planning’s role in selecting purchased power
8 resources. I sponsor the organization chart for the Resource Planning group
9 contained in Schedule I-9, and I co-sponsor the Xcel Energy Code of Conduct
10 provided in Schedule I-10(V).

11 For the Test Year, Update Period, and three calendar years preceding the
12 Test Year, Schedule O-1.5 provides monthly data on SPS’s net available capacity
13 (i.e., generation plus purchased power), peak demands, and reserves. Schedule
14 O-1.6 provides annual and monthly load factor data for the Test Year and Update
15 Period.

16 **Q. Please summarize the key points, recommendations, and conclusions in your**
17 **testimony.**

18 A. SPS’s resource planning process is reasonable and has resulted in the prudent
19 acquisition of resources to meet the needs of SPS’s customers, including PPAs.
20 These resources produce costs that are reasonable and necessary. I recommend

1 that the Commission approve the capacity-related costs incurred under SPS's
2 PPAs.

3 SPS's analysis regarding Harrington supports SPS's plan to cease coal
4 operations at the plant by EOY 2024 to comply with National Ambient Air
5 Quality Standards ("NAAQS") in accordance with an agreed order between the
6 Texas Commission on Environmental Quality and SPS. As explained by SPS
7 witness William A. Grant, SPS intends to convert the plant's fuel source to
8 natural gas at that time.

9 With respect to Tolk, SPS's current generation forecast supports SPS's
10 request to fully depreciate the plant by EOY 2032. As explained by SPS witness
11 Richard L. Belt, the plant's water supply is insufficient to allow for generation
12 operations of the plant after 2032 and as explained by Mr. Grant, the Tolk units
13 will continue to operate as synchronous condensers after the remaining assets are
14 retired.

15 SPS's re-evaluation of the economic benefits of Sagamore confirms that
16 the facility is economic and will provide benefits to SPS and its customers in
17 accordance with the Settlement Agreement and Final Order in Docket No.
18 46936.²

19 With respect to SPS's capacity resources, I explain that SPS's generating
20 capacity and PPAs allow SPS to provide reliable service to its customers and

² *Application of Southwestern Public Service Company for Approvals of Transactions with ESI Energy, LLC and Invenergy Wind Development North America LLC, to Amend a Certificate of Convenience and Necessity for Wind Generation Projects and Associated Facilities in Hale County, Texas and Roosevelt County, New Mexico, and for Related Approvals, Docket No. 46936, Final Order (May 25, 2018).*

1 ensure that SPS is able to meet demand. I also discuss capacity associated with
2 SPS's solar PPAs.

3 Finally, the estimated Updated Test Year costs for the services of the
4 Resource Planning affiliate that I support are reasonable and necessary because
5 they support SPS's ability to provide electric service to its Texas retail customers.

6 More specifically:

- 7 • The costs are for services that are necessary to ensure that SPS is able to
8 obtain a cost-effective, highly reliable energy supply portfolio for SPS's
9 customers. SPS conducts electric resource planning by utilizing forecasts
10 of customer electric demand and energy and determining the appropriate
11 sources of electric supply that should be developed to meet customer
12 requirements in a cost-effective and reliable fashion. This process works
13 to ensure that SPS has an appropriate reserve margin to provide reliable
14 service.³ Based on the determinations for resource needs made in the
15 planning process, SPS evaluates its options for procuring resources and
16 procures resources to meet the forecasted needs of its customers.
- 17 • The costs are reasonable because they are shared with other affiliates,
18 consist primarily of reasonable personnel costs, and are subjected to
19 rigorous budgeting and cost control processes.
- 20 • SPS does not provide these services for itself, and the services do not
21 duplicate services provided by others.
- 22 • Each charge from SPS's affiliates for these services is no higher than the
23 charge by those affiliates to any other entity for the same or similar
24 service.

25 **Q. You mention that certain affiliate costs you present in your testimony are**
26 **estimates. Please explain why this is the case and what items are estimates.**

27 **A.** As explained by Mr. Grant, SPS is using an Updated Test Year in this case.
28 SPS's initial filing presents actual expenses for the Test Year and estimated
29 information for the Update Period. Accordingly, the first nine months of SPS's

³ SPS is required by the Southwest Power Pool, Inc. ("SPP") to have a planning reserve margin of no less than 12.0% of its peak demand forecast.

1 Updated Test Year consist of actual cost information and the last three months
2 include estimated cost information. For this reason, certain SPS witnesses refer to
3 the Updated Test Year in direct testimony as the “estimated Updated Test Year.”

4 Regarding the Resource Planning affiliate costs I support, as explained by
5 SPS witness Ross L. Baumgarten, actual figures for October and November 2020
6 have been provided and December 2020 figures have been estimated based on the
7 forecasted budget. However, these expenses have not gone through the full pro
8 forma adjustment review process.

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

11 A. Yes. SPS will file an update 45 days after the application has been filed. The
12 update will provide actual costs to replace the estimates provided in the
13 application for the Update Period. As part of that process, my Attachments BFW-
14 RR-A through D will be updated to replace any estimates of Resource Planning
15 affiliate O&M expenses incurred by SPS during the Updated Test Year with
16 actual expenses, which will be used to establish SPS’s base rates in this case.

17 SPS will also file an updated Schedule O-1.5 and an updated Schedule
18 O-1.6 in SPS’s 45-day case update filing to provide the information requested in
19 these schedules for the Updated Test Year.

20 **Q. Were Attachments BFW-RR-1 through BFW-RR-11 and BFW-RR-A**
21 **through BFW-RR-D prepared by you or under your direct supervision and**
22 **control?**

23 A. Yes, as to Attachments BFW-RR-1 through BFW-RR-11. Attachments
24 BFW-RR-A through BFW-RR-D were prepared by Mr. Baumgarten and his staff.

1 My staff and I have reviewed these attachments, and I believe them to be
2 accurate. Although the same information provided in Attachments BFW-RR-A
3 through BFW-RR-D is presented in Mr. Baumgarten's attachments RLB-RR-A
4 through RLB-RR-D, I have presented this information in the attachments to my
5 testimony for the convenience of those reviewing my testimony.

6 **Q. Were the portions of the RFP schedules you sponsor or co-sponsor prepared**
7 **by you or under your supervision and control?**

8 A. Yes, except for the Xcel Energy Code of Conduct provided in Schedule I-10(V).
9 I confirmed that the document provided is a true and correct copy of what it
10 purports to be.

11 **Q. Do you incorporate the portions of the RFP schedules that you sponsor or co-**
12 **sponsor into this testimony?**

13 A. Yes.

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A. In its simplest form, electric resource planning uses customer electric demand and energy forecasts to determine the appropriate sources of electric supply that should be developed to meet customer requirements in a cost-effective and reliable fashion. In conducting resource planning, SPS compares its existing firm generating resources, including owned generating capacity and firm purchased power, to its projected annual peak firm load obligation over the planning period. Required reserve margins are included to determine SPS's capacity position.

A. To provide reliable service, all electric utilities must have more capacity available than the projected peak load to allow for system contingencies, including generating unit or transmission outages and potential increases in actual load. The available capacity in excess of the projected peak load is referred to as the “reserve margin.” Reserve margin requirements are frequently specified by the group of interconnected utilities to which the utility belongs. SPS is a member of the Southwest Power Pool (“SPP”), which currently requires each member to have a planning reserve margin of at least 12% of its peak demand forecast, pursuant to SPP’s rules for net planning capability. Compliance with the SPP planning reserve margin is one of many considerations in the resource planning process and does not substitute for overall resource planning approaches that are necessary to ensure SPS customers’ needs will be met. Other considerations

1 include operational constraints, such as congestion management and transmission
2 stability, and ensuring there is ample energy available to serve the load.

3 **Q. What process does SPS use to assess its electric resource needs to serve**
4 **customer load?**

5 A. SPS's assessment of electric resource needs includes determining both the
6 magnitude of need as well as the type of resources needed (i.e., peaking,
7 intermediate, or baseload). Additionally, resource need assessment must,
8 depending on the jurisdiction, be conducted in accordance with regulatory
9 requirements specifying resource assessment processes and resource-specific
10 acquisitions (e.g., requirements for integrated resource planning and the amount
11 of renewable resources in a supply portfolio).

12 The type of resource that the SPS electric supply system needs is
13 determined through an evaluation of how different resource technologies integrate
14 with SPS's existing electric supply to serve the overall system capacity and
15 energy needs in a least-cost manner. Typical solutions for meeting resource needs
16 consist of the following: enhancing current resources, demand management,
17 building new resources, and conducting competitive bid solicitations for new
18 long-term or short-term energy and capacity. The ultimate decision is made based
19 on the economic value of the alternatives, the risks inherent in each alternative,
20 the ability to install the generation in a timely manner, and other factors affecting
21 project's value to SPS and its customers. SPS currently uses EnCompass⁴ in its
22 evaluation of the economic value of resource alternatives.

⁴ EnCompass is owned by Anchor Power. Xcel Energy has a licensing agreement with Anchor Power for use of the model.

1 **Q. SPS previously used Strategist for its resource planning. Why is SPS now**
2 **using EnCompass?**

3 A. Strategist is no longer a supported product by its vendor. Also, as the mix of
4 generating resources dynamically changes throughout the industry, with
5 increasing reliance on intermittent and storage resources, there is a need for more
6 detailed analyses regarding the impact of plans on operations.

7 **Q. Did SPS use Strategist for any analyses presented in this case?**

8 A. Yes. The Harrington and Sagamore analyses were conducted in Strategist prior to
9 SPS completing the transition to the EnCompass model.

10 **Q. What is EnCompass?**

11 A. EnCompass is a production costing model that uses an algorithm to determine the
12 least-cost resource for a utility system from a prescribed set of resource
13 technologies under given sets of constraints and assumptions. The EnCompass
14 model includes: (1) a modern “solve anything” algorithm; (2) hourly operation
15 detail (accurately captures ramp rates, start-up, etc.); and (3) enhanced storage
16 logic and ancillary services. The model is also able to perform utility capital
17 accounting (revenue requirements).

18 In addition to the usual input variables needed for a production costing
19 model, EnCompass incorporates a wide variety of resource expansion planning
20 parameters to develop a coordinated, integrated plan that best suits the utility
21 system being analyzed. For example, EnCompass incorporates resource expansion
22 planning parameters such as: alternative generation technologies available to
23 meet future needs; renewable energy resources; unit capacity sizes; heat rates;

1 load management; conservation programs; reliability limits; emissions trading;
2 and environmental compliance options.

3 **Q. Please describe the costs that SPS incorporates in the EnCompass model.**

4 A. The EnCompass model includes only a portion of the total electric system costs
5 SPS incurs to provide electric service to its customers. The following lists
6 summarize the costs that are typically included in the EnCompass model and
7 those that are excluded.

8 *Costs Included in EnCompass*

- 9 (1) Fuel costs for all electric power supply resources (owned and
10 purchased) and market energy costs (which are forecasted based on
11 gas prices);
- 12 (2) Purchased energy costs for all electric power supply resources;
- 13 (3) Capacity costs of purchased power;
- 14 (4) Variable operational and maintenance (“VOM”) costs of purchased
15 power;
- 16 (5) Capital costs for new electric generation facilities added to meet future
17 load;
- 18 (6) Energy costs for new wind and solar generation facilities added to
19 meet future energy needs;
- 20 (7) Electric transmission interconnection and network upgrade costs for
21 new generation;
- 22 (8) Fixed operation and maintenance (“FOM”) costs for existing and new
23 generation facilities;
- 24 (9) VOM costs for existing and new generation facilities; and
- 25 (10) Remaining book value of SPS-owned generating units.

26 *Costs Not Included in the EnCompass Base Model*

- 27 (1) Remaining book value of existing electric transmission or distribution
28 facilities;

- 1 (2) Capital costs for planned electric transmission upgrades or distribution
- 2 facilities;
- 3 (3) Emissions and emission costs for CO₂, SO₂, and NO_x;
- 4 (4) Capital costs for emission control systems; and
- 5 (5) Administrative and general costs.

6 **Q. What are some of the major assumptions that influence EnCompass's**
 7 **evaluation of the least-cost resource mix?**

8 A. (1) **Natural Gas Price Forecast** – The price of natural gas is a significant
 9 variable. SPS uses a combination of market prices and fundamental price
 10 forecasts, based on multiple highly respected, industry leading sources, to
 11 calculate monthly delivered gas prices. As the foundation of the gas price
 12 forecast, Henry Hub natural gas prices are developed using a blend of market
 13 information (New York Mercantile Exchange (“NYMEX”) futures prices) and
 14 long-term fundamentally-based forecasts from Wood Mackenzie, IHS Energy,
 15 and S&P Global. The forecast is fully market-based for the first few years, then
 16 transitions into blending the four sources to develop a composite forecast. The
 17 Henry Hub forecast is adjusted for regional basis differentials and specific
 18 delivery costs for each generating unit to develop final model inputs. The current
 19 weightings for each component at various time intervals of the forecast period are
 20 shown in Table BFW-RR-2 below:

21 **Table BFW-RR-2: Natural Gas Forecast Weightings**

Months	NYMEX	IHS Energy	S&P Global	Wood MacKenzie
Current Year + 2 Years	100.0%	0.0%	0.0%	0.0%
Thereafter	25.0%	25.0%	25.0%	25.0%

22 (2) **Coal Price Forecast** – Coal price forecasts are developed using two major
 23 inputs: (i) current coal contract volumes and prices combined with (ii) current
 24 estimates of required spot market coal volumes and prices. Typically, coal
 25 volumes and prices are under contract on a plant by plant basis for a one to five-
 26 year term with annual spot volumes filling the remainder of the estimated fuel
 27 requirements of the coal plant. The spot coal price forecasts are developed by
 28 averaging price forecasts provided by multiple industry-leading consulting firms,

as well as price indicators from recent request for proposal responses for coal supply.

(3) **Market Electricity Prices** – In addition to resources that exist within SPS's service territory, SPS has access to a regional market located outside its service territory. SPS is a member of the SPP, which operates as a consolidated balancing authority and dispatches all available generation resources within its boundaries. This consolidated dispatch allows SPS access to energy resources outside SPS's service territory for purchases, as well as the opportunity to sell from its generating sources to other market participants.

SPS uses a simple average of long-term on-peak and off-peak implied heat rate forecasts provided by Wood Mackenzie, S&P Global and IHS Markit for SPP South Hub. The implied heat rates, denominated in million British thermal units/megawatt-hour, are then multiplied by SPS's long-term natural gas price forecast to convert the implied heat rate values into energy prices. This process is repeated for all months, distinguishing between on and off-peak prices, through the end of the modeling period.

(4) **Demand and Energy Forecast** – Projections of future energy sales and coincident peak demand are fundamental inputs into SPS's resource need assessment. SPS forecasts retail energy sales and customers by rate class for each jurisdiction. Retail coincident peak demand is forecasted in the aggregate at the total SPS level. The wholesale energy sales and coincident peak demand forecasts are developed at the individual customer level of detail. SPS models its forecasts on a monthly basis and uses monthly historical data to develop the customer, energy sales, and coincident peak demand forecasts. Annual energy sales are an aggregation of the monthly energy sales estimates. Energy sales are forecasted at the delivery point and peak demand is forecasted at the generating source.

Q. Regarding Table BFW-RR-2 above, why does SPS rely entirely on NYMEX for near-term natural gas pricing data?

A. SPS relies on market prices in the near-term portion of the forecast to reflect current market conditions. The first three to five years of the natural gas market as reflected by NYMEX are relatively liquid and actively quoted in the marketplace. Thus, NYMEX accurately reflects the near-term market outlook for natural gas prices.

1 **Q. Is it a common practice for utilities to rely on NYMEX for near-term natural**
2 **gas pricing data?**

3 A. Yes. Based on my experience, it is common for utilities to rely on NYMEX for
4 near-term natural gas pricing data.

5 **Q. Please provide more detail regarding the fundamental long-term blended**
6 **natural gas pricing forecasts discussed above, which SPS utilizes in its**
7 **EnCompass analyses.**

8 A. Fundamental natural gas price forecasts, like those used in SPS's analyses,
9 consider changes in supply and demand conditions including: (1) specific long-
10 term trends, such as an increase in liquefied natural gas export terminals (which
11 could lead to higher natural gas prices in the future); or (2) the expectation that
12 the cost of scarce resources will increase as natural gas reserves decline and it
13 becomes more expensive to locate and extract the remaining natural gas from the
14 ground. For these reasons, absent robust (and heavily traded) market trade data, it
15 is reasonable to rely on fundamental natural gas price forecasts.

16 **Q. Is it common for utilities to rely on fundamental natural gas price forecasts?**

17 A. Yes. Based on my experience, it is common for utilities to rely on fundamental
18 natural gas price forecasts.

19 **Q. Why does SPS use a blend of the fundamental natural gas forecasts?**

20 A. SPS uses a blend of the fundamental natural gas forecasts to capture multiple
21 fundamental views in the forecasting process and to mitigate the impact of any
22 biases that may be imbedded in the respective forecasts. For example, if SPS
23 were to only rely on one forecast and there was a bias in the forecast, then the

1 intermediate and long-term natural gas pricing forecast would reflect 100% of that
2 particular bias. By using multiple forecasts, SPS is able to mitigate the impacts of
3 the bias in any one forecast.

1 **IV. SPS’S PURCHASED POWER AGREEMENTS**
2 **RESULTING IN CAPACITY COSTS**

3 **Q. Has SPS entered into any new PPAs during the Test Year or Update Period?**

4 A. No.

5 **Q. Did SPS incur capacity-related costs during the Test Year and Update Period**
6 **under any of its PPAs?**

7 A. Yes. SPS incurred capacity-related costs that are allocated in part to Texas retail
8 customers under three PPAs. Capacity-related costs were not incurred under the
9 wind and solar power PPAs.

10 **Q. How does SPS define “capacity-related costs” with respect to the PPAs that**
11 **you discuss in this section of your testimony?**

12 A. Capacity-related costs are the costs for actual capacity and other non-fuel costs,
13 such as variable O&M and start-up costs, that are incurred under certain PPAs.

14 **Q. Can you identify the three PPAs that incurred capacity costs?**

15 A. Yes. Attachment JCK-RR-1 to the Direct Testimony of Jeffrey C. Klein lists and
16 provides brief summaries for all three PPAs.

17 **Q. Were the capacity-related costs incurred under the three contracts**
18 **summarized in Mr. Klein’s Attachment JCK-RR-1 reasonably incurred?**

19 A. Yes. The Borger Energy Associates, L.P. (“BEA”) PPA was approved by the
20 Commission in Docket No. 17525.⁵ Competitive capacity solicitations resulted in

⁵ *Application of Southwestern Public Service Company for Certification of Qualifying Facility Purchased Power Contract Pursuant under Section 2.209 of PURA 95, Docket No. 17525, Order (Oct. 30, 1997).*

1 the PPA with Lea Power Partners, LLC. SPS needed the capacity purchased
2 under these PPAs and this offer provided the best value.

3 Tokai Carbon CB Ltd. (formerly Sid Richardson Carbon, Ltd) is an SPS
4 industrial customer. The PPA with this customer provides a relatively small
5 amount of capacity (approximately 5 megawatts (“MW”)). Because this power
6 producer is located within the SPS service area, its power could be delivered into
7 the SPS transmission grid with no investment in new transmission facilities for
8 firm delivery of the energy. This PPA also offered attractive capacity pricing.

9 Mr. Klein addresses the management of SPS’s PPAs in more detail.

10 **Q. Have the capacity costs incurred under these three PPAs been included**
11 **previously in SPS’s rates?**

12 A. Yes. Capacity costs incurred under the BEA PPA have been included in SPS’s
13 rates for years. Fuel costs incurred under this PPA have been included in
14 calculating the fuel cost balances approved in multiple SPS fuel reconciliations.
15 Capacity-related costs under the other two PPAs have been included in SPS’s
16 rates either through settlement or a fully-litigated rate case. Additionally, the fuel
17 costs incurred under all three of these PPAs have been included in calculating the
18 fuel cost balances approved in SPS’s most recently completed fuel reconciliation
19 proceeding, Docket No. 48973.⁶ All of the PPAs under which capacity-related
20 costs were incurred in the Test Year and Update Period were reviewed, and their
21 capacity-related costs were approved by the Commission in SPS’s last litigated

⁶ *Application of Southwestern Public Service Company for Authority to Reconcile Fuel and Purchased Power Costs*, Docket No. 48973, Order (Dec. 18, 2019).

1 base rate case, Docket No. 43695,⁷ and were included in the costs approved in
2 SPS's most recent base rate cases, Docket Nos. 47527 and 49831.⁸

⁷ *Application of Southwestern Public Service Company for the Authority to Change Rates*, Docket No. 43695, Order on Rehearing (Feb. 23, 2016).

⁸ *Application of Southwestern Public Service Company for the Authority to Change Rates*, Docket No. 47527, Final Order (Dec. 10, 2018); *Application of Southwestern Public Service Company for Authority to Change Rates*, Docket No. 49831, Final Order (Aug. 27, 2020).

1 **V. ECONOMIC ANALYSIS OF THE HARRINGTON GENERATING UNITS**

2 **Q. What topics do you discuss in this section of your testimony?**

3 A. In this section of my testimony, I present the economic analysis that supports
4 SPS's request to cease coal operations at Harrington by EOY 2024 and also
5 supports SPS's plan to convert Harrington's fuel supply from coal to natural gas.
6 Mr. Grant describes the factors that led to the need for the analysis in his direct
7 testimony.

8 **Q. Please briefly describe Harrington.**

9 A. Harrington consists of three coal-powered steam turbine units located in Potter
10 County, Texas with a total net capacity of 1,050 megawatts ("MW"). Harrington
11 Unit 1 has a net capacity of 340 MW and a remaining service life of 2036;
12 Harrington Unit 2 has a net capacity of 355 MW and a remaining service life of
13 2038; and Harrington Unit 3 has a net capacity of 355 MW and a remaining
14 service life of 2040.

15 **Q. Please describe SPS's analysis regarding Harrington.**

16 A. First, SPS determined compliance solutions that included: (1) maintaining coal
17 operations by installing environmental controls to comply with NAAQS; or (2)
18 ceasing coal operations, by either converting the units to operate on natural gas or
19 by retiring the units. SPS also considered a combination of these solutions, for
20 example, installing environmental controls on two units and retiring the remaining
21 unit.

22 SPS also evaluated and continues to explore ways to maximize the use of
23 existing generator interconnection rights. For example, SPS is exploring the
24 opportunity of utilizing surplus interconnection availability to install up to 340
25 MW of solar at the Harrington location.

SPS conducted several different sensitivity analyses for each of the compliance solutions, including base, low and high gas prices, financial and planning load forecast, and base, low, and high environmental capital costs.

Q. What environmental controls would be necessary to maintain coal operations at Harrington?

A. SPS evaluated two different environmental control solutions: Dry Sorbent Injection (“DSI”) and Spray Dryer Absorber (“SDA”). The cost of installing DSI is estimated to be \$85M - \$90M per unit and the cost of installing SDA is estimated to be \$170M - \$185M per unit. To comply with NAAQS, environmental controls are required on all units that maintain coal operations.

Q. What did SPS conclude regarding its ability to maintain coal operations at Harrington?

A. Attachment BFW-RR-3 to my testimony shows the present value of revenue requirement (“PVRR”) results of all scenarios and sensitivities analyzed. The analysis clearly results in the conclusion that installing capital-intensive environmental controls on one or more units is among the least favorable alternatives. Without the installation of environmental controls, SPS has no feasible alternative other than to cease coal operations at Harrington.⁹

Q. What did SPS conclude is the most prudent course following the cessation of coal operations?

A. Converting the Harrington units to operate on natural gas is a low cost and low risk solution for NAAQS compliance. Once converted, the Harrington units will

⁹ Attachments BFW-RR-4(CD) through BFW-RR-9(CD) are the workpapers that relate to this analysis.

1 continue to provide low-cost capacity, dispatchable energy, and transmission
2 reliability benefits. The conversion to natural gas also provides additional
3 environmental benefits, such as a reduction in carbon dioxide emissions, when
4 compared to continued coal operations. SPS's analysis also demonstrates that the
5 acquisition of additional solar resources could provide additional economic
6 benefits in the future.

1 **VI. IMPACTS OF WATER LIMITATIONS AND RETIREMENT**
2 **OF THE TOLK GENERATING UNITS**

3 **Q. What topics do you discuss in this section of your testimony?**

4 A. In Docket No. 49831, SPS sought authorization to shorten the service lives of the
5 Tolk units to EOY 2032 for generation operations and provided detailed analyses
6 supporting the request. Ultimately, the Commission approved an Unopposed
7 Stipulation, which provided that Tolk’s depreciation rates would be calculated
8 based on a remaining useful life through December 31, 2037.¹⁰ In this section of
9 my testimony, I present an updated generation forecast that supports SPS’s
10 request to depreciate its two Tolk generating units by EOY 2032.

11 **Q. Please briefly describe Tolk.**

12 A. Tolk consists of two coal-powered steam turbine units located in Lamb County,
13 Texas, with a total net capacity of 1,082 MW. Tolk Unit 1 (“T1”) has a nominal
14 net capacity of 540 MW, and Tolk Unit 2 (“T2”) has a nominal net capacity of
15 542 MW. SPS witness Mr. Belt discusses Tolk and its water availability issues in
16 detail in his direct testimony. Mr. Belt also discusses the most recent water study
17 and impacts to the water supply for Tolk.

18 **Q. Please explain how SPS updated and evaluated the impact of water**
19 **availability for Tolk.**

20 A. Using the most up-to-date model data assumptions, Resource Planning ran two
21 operational scenarios under two load sensitivities in EnCompass to determine the
22 annual capacity factors for the Tolk units.

¹⁰ See *Application of Southwestern Public Service Company for Authority to Change Rates*, Docket No. 49831, Unanimous Stipulation at 5 (May 20, 2020); Final Order at ¶ 64 (Aug. 27, 2020).

1 The scenarios are:

- 2 • T1 and T2 economic dispatch in all months beginning 2022;
- 3 • T1 and T2 economic dispatch in the summer months (June-September)
- 4 and offline in off-peak months (October-May).

5 The load sensitivities are:

- 6 • financial forecast
- 7 • planning forecast

8 The resulting capacity factors from EnCompass were provided to Mr. Belt to

9 determine the economically recoverable groundwater depletion date range (“water

10 depletion window”), which he describes in his direct testimony.

11 **Q. What is the difference between the financial forecast and the planning**

12 **forecast?**

13 A. SPS prepares two demand and energy forecasts – the financial forecast and the

14 planning forecast. As the name suggests, the financial forecast is primarily used

15 for financial planning, while the planning forecast is predominantly used for

16 resource planning evaluations and includes additional oil and gas loads that our

17 customers project, but that our experience indicates may be less certain to

18 materialize. I describe the development of and basis for both forecasts in greater

19 detail later in my testimony.

20 **Q. What do the financial forecast and planning forecast case analyses show**

21 **regarding the retirement of the Tolk generating units?**

22 A. Using both the financial forecast and planning forecast, after implementing

23 seasonal operations beginning in 2021, the annual projected generation of the

1 Tolk units continues to support a 2032 retirement date. Without implementing
2 seasonal operations, the annual projected generation of the Tolk units supports a
3 2026 retirement date for Tolk. Mr. Belt describes in detail how the economically
4 recoverable groundwater depletion date range and retirement date are calculated
5 from the annual projected generation of the Tolk units.¹¹

¹¹ Attachment BFW-RR10(CD) includes the workpapers that relate to this analysis.

VII. ECONOMIC ANALYSIS REGARDING THE SAGAMORE WIND PROJECT

Q. What will you discuss in this section of your testimony?

A. I will discuss the economic analysis that SPS performed to determine whether it should proceed with the construction and operation of Sagamore.

Q. Did SPS continue to evaluate the economic benefits of Sagamore after the Commission approved the project in Docket No. 46936?

A. Yes.

Q. Why did SPS continue to evaluate the economic benefits of Sagamore after the project was approved?

A. In Docket No. 46936, the Commission approved an Unopposed Stipulation that authorized SPS to amend its Certificate of Convenience and Necessity to include the Hale and Sagamore Wind Facilities. In doing so, the Commission determined that SPS's proposal to construct and operate the facilities was prudent and would provide economic benefits to customers.¹² While construction of the Hale project was planned to begin very quickly following approval – and did so – Sagamore had a longer passage of time between approval and both the planned and then actual start of construction. Accordingly, SPS performed further analysis to ensure that construction and operation of Sagamore remained economic and prudent.

¹² *Application of Southwestern Public Service Company for Approvals of Transactions with ESI Energy, LLC and Invenergy Wind Development North America LLC, to Amend a Certificate of Convenience and Necessity for Wind Generation Projects and Associated Facilities in Hale County, Texas and Roosevelt County, New Mexico, and for Related Approvals*, Docket No. 46936, Final Order (May 25, 2018).

1 **Q. When did SPS perform its analysis regarding the economic benefits of**
2 **Sagamore to determine whether it would proceed with construction of the**
3 **project?**

4 A. As explained by Mr. Grant, SPS had to decide whether to proceed with the
5 construction of Sagamore by August 26, 2019. As a result, SPS updated its
6 analysis of the economic benefits of the project leading up to that date.

7 **Q. Please describe the analysis that SPS performed in determining whether to**
8 **proceed with the project.**

9 A. SPS updated the Strategist economic analysis to include the latest information
10 available. The updated inputs and assumptions included, but were not limited to:

- 11 • natural gas forecast (including a low gas price scenario);
- 12 • load forecast;
- 13 • corporate tax rate;
- 14 • optimized expansion plan;
- 15 • capacity factor; and
- 16 • construction estimate inclusive of anticipated network upgrades and
17 updated development costs.

18 **Q. What are the results of the updated analysis for Sagamore?**

19 A. SPS's initial updated analysis, completed in August 2019, showed net energy
20 savings to customers (net of the base rate impact of the project) ranging from
21 \$63M PVRR to \$223M PVRR. Once the modelling assumptions for that analysis
22 were finalized, the updated analysis showed net energy savings ranging from
23 \$64M PVRR to \$230M PVRR. The results of the updated analysis are shown in

Table BFW-RR-3. The Sagamore project provides significant energy savings to customers while meeting the settlement commitments and conditions of approval from the Commission including the cost cap, the net capacity factor (“NCF”) guarantee, and the 10-year net benefits guarantee.¹³

Table BFW-RR-3

	Base Gas		Low Gas	
	Base NCF	Lower NCF	Base NCF	Lower NCF
\$MM	910.4	910.4	910.4	910.4
NCF	53.8%	52.20%	53.80%	52.20%
LCOE ¹⁴	\$21.79	\$23.07	\$21.79	\$23.07
Levelized 30-yr Gas Price	\$2.87	\$2.87	\$2.28	\$2.28
30-yr PVRR Energy-Only Savings	\$230M	\$189M	\$101M	\$64M

Q. Does Sagamore provide other benefits that are not captured in the updated economic analysis?

A. Yes. Other benefits that Sagamore provides include:

- system carbon reductions;
- contribution to renewable energy credit requirements;
- inherent capacity value;
- a more reliable transmission system; and
- protection against increasing gas prices.

Q. Based on the analysis and benefits discussed above, did SPS decide to proceed with the construction of Sagamore?

A. Yes.

¹³ Attachment BFW-RR-11(CD) includes the workpapers that relate to this analysis.

¹⁴ LCOE – levelized cost of energy

1 **VIII. SPS'S GENERATING CAPACITY**

2 **Q. What will you discuss in this section of your testimony?**

3 A. I will discuss SPS's generating capacity in relation to demand and energy
4 forecasts.

5 **A. Demand Forecast**

6 **Q. Can you describe SPS's demand and energy forecasts?**

7 A. Yes. SPS has traditionally used a single demand and energy forecast for financial
8 planning and resource planning purposes. Although oil and gas development in
9 the Permian Basin continues to experience growth, the projected load growth is
10 not 100% certain to materialize due to volatility in the industry. The fluctuating
11 plans for capital expansion in the oil sector directly impact SPS's resource
12 planning. A conservative approach (to generation resource planning) is to design
13 a system capable of serving the most likely oil-related load growth, but no more
14 than the most likely load growth, which could result in SPS's inability to provide
15 service to some new loads (including non-oil loads). Another approach is to
16 design a generation resource plan capable of covering the most likely load growth
17 plus some level of load growth uncertainty.

18 The choice between a conservative and flexible approach to generation
19 resource planning depends upon many competing factors, including the risks
20 created due to the size of the potential variability in new load growth, the rate and
21 timing of this new load growth, and the cost of the ability to reliably serve this
22 additional new load growth variability.

23 Accordingly, SPS now prepares two demand and energy forecasts – the
24 financial forecast and the planning forecast. As the name suggests, the financial

1 forecast is primarily used for financial planning, while the planning forecast is
2 predominantly used for resource planning evaluations and includes the additional
3 oil and gas loads.

4 **Q. How is the planning forecast demand developed?**

5 A. SPS's Customer Relations group maintains close contact with SPS's large
6 industrial customers, including customers doing business in the Texas portion of
7 the Permian Basin. The industrial customers provide Customer Relations their
8 projected load additions for the next five to six years. These projected load
9 additions are not captured in the historical loads used to develop the financial
10 forecast. To account for the projected new load, SPS increases the financial
11 forecast by one standard deviation.

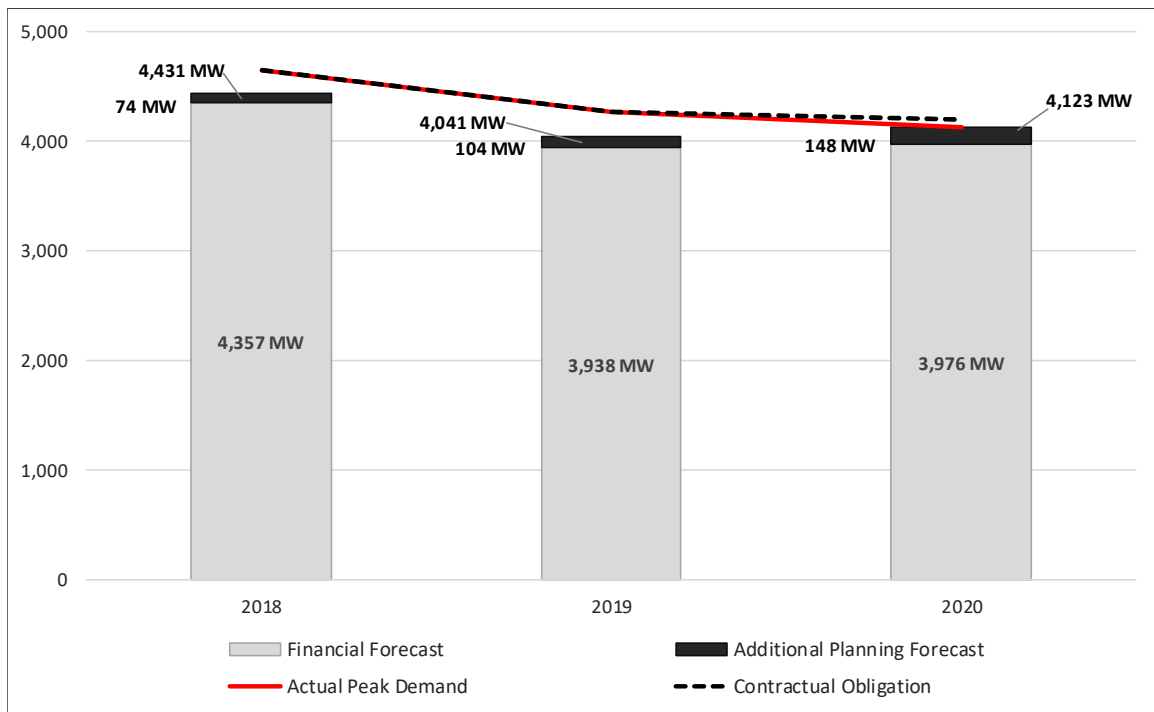
12 SPS uses a Monte Carlo simulation that ascribes probabilistic
13 characteristics to selected inputs and the output of a model. In these models,
14 probability distributions are defined for exogenous variables with inherent
15 uncertainty associated with their forecast values. Probability distributions are a
16 realistic way of describing uncertainty in variables. SPS uses a probability
17 distribution equal to one standard deviation increase from the mean forecast. It is
18 common to use one standard deviation as a sensitivity measure.

19 **Q. Would you recommend using the financial or planning forecast when**
20 **evaluating SPS's capacity position?**

21 A. The planning forecast would represent a more accurate projection of SPS's
22 capacity position if oil and gas load continues to increase. Although of course
23 one cannot be certain that this growth will materialize, as I demonstrate below in

Figure BFW-RR-1, SPS's actual loads have consistently exceeded the financial and planning demand forecast. The dotted line in 2020 represents the amount of contractual load obligation that did not materialize on the annual demand peak. I describe the impact of the contractual load obligation later in my testimony.

Figure BFW-RR-1: Financial / Planning Forecast vs Actual Peak Demand



Q. Do other factors impact SPS's long-term resource planning?

A. Yes. First, the long-term planning forecast is weather normalized. In other words, for historical years, the weather normalization process involves subtracting weather-impacted energy sales or peak demand from actual sales or peak demand before projecting the future demand and energy. It is reasonable to assume that actual peak demand could be higher due to weather.

Second, the long-term planning forecast typically includes wholesale contractual obligations that SPS is required to serve, including the obligation to

1 provide planning reserves. Typically, the contractual obligation allows the
2 off-taker to take or decline the energy in any given hour. SPS, as the supplier,
3 must plan to provide generation service in all hours. As shown in Figure
4 BFW-RR-1, SPS planned to serve 172 MW in the months of June 2020 and July
5 2020. However, in real-time, the off-taker did not take the energy. If the off-
6 taker had taken the full amount of energy, the Peak Demand for June and July
7 would have been higher and would have resulted in a lower reserve margin.

8 **B. Net Planning Capability**

9 **Q. Does SPS include the net planning capability from renewable energy**
10 **resources in its long-term capacity planning?**

11 A. Yes. For long-term capacity planning purposes, the net planning capability of
12 renewable energy should be included. The SPP Planning Criteria afford the Load
13 Responsible Entity the option to include renewable net planning capability as part
14 of its resource adequacy. Historically, SPS has acquired its renewable resources
15 as economic energy for its customers but has taken the opportunity to include a
16 net planning capability in its total available capacity. Including the renewable net
17 planning capability (at no cost) allows SPS to defer high-cost plant additions in
18 the future, reducing higher cost rate impacts to customers.

19 **Q. Currently, do SPS's customers benefit from capacity attributed to SPS's**
20 **renewable PPAs, even though those resources do not provide reliable**
21 **capacity and supply that can be called upon as needed?**

22 A. Yes. A substantial portion of SPS's resources (particularly the renewable
23 resources) have been added for their energy contributions, but SPS has also taken

1 measures to provide customers with economic benefits through accrediting the
2 resources with capacity. For example, SPS has renewable PPAs that total 1,641
3 MW for the SPS total system. SPS pays for the energy produced by those
4 facilities and under SPP's current net planning capability criteria, they provide the
5 equivalent of 478 MW of capacity value. SPS (and, in turn, its customers) receive
6 the value of that capacity. Nevertheless, it is important to recognize that while
7 SPS has secured these economic benefits for customers, SPS cannot prudently
8 assume those resources will be available whenever needed to reliably supply
9 customers.

10 Although SPS has renewable PPAs that total 1,641 MW for the SPS total
11 system, pursuant to the Final Order in Docket No. 48973 and as discussed by Mr.
12 Grant, SPS no longer includes the net planning capability of the Roswell Solar,
13 Chaves County Solar, or Long Road Solar (formerly Sun Edison) PPAs when
14 determining capacity needs for Texas customers. In total, the Roswell and Chaves
15 County Solar PPAs provide 140 MW of solar capacity, which results in a 109
16 MW net planning capability contribution to SPS's system capacity. The Texas
17 allocation of renewable capacity attributed to the Roswell and Chaves County
18 PPAs would be approximately 65 MW.

19 Additionally, SPS's five Long Road Solar PPAs provide a total of 50 MW
20 of solar capacity to the SPS system and result in a 32 MW capacity contribution.
21 If SPS included a portion of the net planning capability from the Long Road Solar
22 facilities in Texas, approximately 19 MW would be attributed to Texas.

Figure BFW-RR-2 shows the impact to SPS's total system capacity position when solar net planning capability is excluded.

Figure BFW-RR-2

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Demand + 12% Reserve Margin	4,657	4,668	4,778	4,871	4,942	4,900	4,978	5,059	5,111	5,194
SPS Generating Capacity	4,333	4,333	4,070	3,959	3,959	3,714	3,714	3,523	3,411	3,411
Thermal Purchases	803	798	798	574	574	574	574	574	574	574
Renewable Purchases	413	413	659	659	646	637	614	559	559	559
Total Capacity	5,548	5,543	5,526	5,191	5,178	4,924	4,901	4,655	4,543	4,543
Renewable Purchases /excl. Solar	336	336	582	582	569	560	537	482	482	482
Total Capacity /excl. Solar	5,472	5,467	5,450	5,115	5,102	4,848	4,825	4,579	4,467	4,467
Capacity Postion	892	875	749	320	236	25	(77)	(403)	(568)	(650)
Capacity Postion /excl. Solar	815	799	672	244	160	(52)	(153)	(480)	(644)	(727)

Q. Is the SPP 12% planning reserve margin requirement a reasonable standard to use in determining whether SPS's system has capacity in excess of the generation needed to appropriately and cost-effectively serve its customers?

A. No, it is not. Relying on the SPP 12% planning reserve margin requirement is misleading because it ignores that it is often prudent and appropriate to add or retain resources because they benefit SPS's system and provide energy value to customers as shown in Figure BFW-RR-2. For example, many of SPS's older natural gas units benefit customers by providing necessary transmission stability on SPS's system. In addition, these older units provide energy savings when natural gas prices are low. And, although SPS's renewable PPAs also provide capacity, the carbon-free attributes of these renewable resources benefit SPS and its customers.

Particularly in a time of expansion of renewable resources, the capacity attributed to SPS's system resources may appear high. In fact, however, SPS's

1 renewable resources provide low-cost energy to serve customers - but also need
2 sufficient back-up firm supply in times of low renewable production. Moreover,
3 the 12% planning reserve margin is a floor, not a ceiling or even a target. If SPS
4 made planning decisions around hitting that specific reserve margin, that would
5 distort its generation mix and the timing of supply additions, and the resulting
6 planning approach would neither benefit customers nor reliably serve them.

7 **Q. Does SPS's long-term resource planning, including its capacity resources,**
8 **allow SPS to address contingencies and ensure that SPS is able to provide**
9 **safe and reliable service to its customers?**

10 **A. Yes.**

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A. A portion of SPS's costs reflects charges for services provided by a supplying affiliate, specifically XES or one of the Operating Companies¹⁵. These charges have been grouped into various affiliate classes, or aggregations of charges, based upon the business area, organization, or department that provided the service or, in a few instances, the accounts that captured certain costs. In his direct testimony, Mr. Baumgarten provides a detailed explanation of how the affiliate classes were developed and are organized for this case.

A. I sponsor the Resource Planning class of affiliate services.

Q. Where does the Resource Planning affiliate class fit into the overall affiliate structure?

A. Attachment RLB-RR-6 to Mr. Baumgarten's direct testimony provides a list and a pictorial display of all affiliate classes, dollar amounts for those classes, and sponsoring witness for each class. As shown on that attachment, the Resource Planning affiliate class was part of the Group Presidents business area during the

¹⁵ Northern States Power Company, a Minnesota corporation; Northern States Power Company, a Wisconsin corporation; Public Service Company of Colorado, a Colorado corporation; and SPS.

1 Updated Test Year. Attachment BFW-RR-2 to my testimony is an organization
2 chart showing the Resource Planning organization.

3 **Q. What services are grouped into the Resource Planning affiliate class?**

4 A. The services that are grouped into the Resource Planning affiliate class are
5 assessing customer load forecast information, assessing and evaluating the
6 quantity and type of resources needed, preparing bid solicitations and self-build
7 analyses, preparing bid evaluations, and developing and implementing Xcel
8 Energy's overall resource plans.

9 **Q. What is the dollar amount of the Updated Test Year XES charges that SPS**
10 **requests, on a Total Company basis, for the Resource Planning affiliate**
11 **class?**

12 A. The following table summarizes the dollar amount of the estimated Updated Test
13 Year XES charges for the Resource Planning affiliate class. I will update the
14 table below as part of SPS's 45-day case update filing to reflect the actual
15 Updated Test Year costs for the Resource Planning affiliate class.

16 **Table BFW-RR-4¹⁶**

		Requested Amount of XES Class Expenses Billed to SPS (Total Company)		
Class of Services	Total XES Class Expenses	Requested Amount	% Direct Billed	% Allocated
Resource Planning	\$3,770,256	\$782,678	59.58%	40.42%

¹⁶ **Total XES Class Expenses** is the 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 BFW-RR-A. **Requested Amount** is SPS's requested amount after exclusions and pro forma adjustments. **% Direct Billed** is the percentage of SPS's requested XES expenses for the class that were billed 100% to SPS. **% Allocated** is the percentage of SPS's requested XES expenses for the class that were allocated to SPS.

1 **Q. Please describe the attachments that support the information provided on**
2 **Table BFW-RR-4.**

3 **A.** Four attachments to my testimony present information about the requested SPS
4 affiliate expenses for the Resource Planning affiliate class.

5 **Attachment BFW-RR-A:** Provides a summary of the affiliate expenses
6 for this class during the Updated Test Year. The portion of the summary specific
7 to billings to SPS starts with the total of the XES expenses to SPS for the services
8 provided by this affiliate class and ends with the requested dollar amount of XES
9 expenses to SPS (total company) for this affiliate class after exclusions and pro
10 forma adjustments. The columns on this attachment provide the following
11 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 his direct testimony, Mr. Baumgarten 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 Billing 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.

1 In his direct testimony, Mr. Baumgarten provides a consolidated summary
2 of affiliate expenses billed to SPS for all classes during the Test Year and the
3 Updated Test Year.

4 **Attachment BFW-RR-B(CD):** Provides the detail of the XES expenses
5 for the Resource Planning affiliate class that are summarized on Attachment
6 BFW-RR-A. The detail shows the XES expenses billed to SPS for the Resource
7 Planning affiliate class, itemized by the amount, with each expense listed by

1 individual activity and billing method (cost center). When summed, these
 2 amounts tie to the amounts shown on Attachment BFW-RR-A, and the detail
 3 regarding the expenses is organized to support the attachment. Specifically, the
 4 columns on this attachment provide the following information.

Column A —	Line No.	Lists the Attachment line numbers.
Column B —	Legal Entity Receiving XES Expense	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 his direct testimony, Mr. Baumgarten 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 —	Total 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 BFW-RR-A.

Column K —	Exclusions	Shows the total dollars to be 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 BFW-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 BFW-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 BFW-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 BFW-RR-A.

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

3 **Attachment BFW-RR-C:** Both Attachments BFW-RR-A and BFW-RR-
4 B(CD) show exclusions to the XES expenses billed to SPS for the Resource
5 Planning affiliate class (Attachment BFW-RR-A, Column H; Attachment BFW-
6 RR-B(CD), Column K). Attachment BFW-RR-C provides detail about those

1 exclusions listed on Attachments BFW-RR-A and BFW-RR-B(CD). The
2 columns on Attachment BFW-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.

3 In his direct testimony, Mr. Baumgarten describes the calculations
4 underlying the exclusions.

5 **Attachment BFW-RR-D:** Both Attachments BFW-RR-A and BFW-RR-
6 B(CD) show pro forma adjustments to SPS's per book expenses for the Resource
7 Planning affiliate class (Attachment BFW-RR-A, Column J; Attachment BFW-
8 RR-B(CD), Column M). Attachment BFW-RR-D provides information about the
9 pro forma adjustments shown on Attachments BFW-RR-A and BFW-RR-B(CD).
10 The columns on Attachment BFW-RR-D 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 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.

1 **Q. Does XES bill expenses for the Resource Planning affiliate class to SPS in the**
2 **same manner as it bills other affiliates for those expenses?**

3 A. Yes. As discussed by Mr. Baumgarten, XES uses the same method for billing and
4 allocating costs to SPS that it uses for billing and allocating costs to other
5 affiliates.

6 **Q. Are there any exclusions to the XES billings to SPS for the Resource**
7 **Planning affiliate class?**

8 A. Yes. As I mentioned earlier, exclusions reflect expenses not requested, such as
9 expenses not allowed or other below-the-line items. Exclusions are shown on
10 Attachment BFW-RR-A, Column H, and on Attachment BFW-RR-B(CD),
11 Column K. The details for the exclusions are provided in Attachment
12 BFW-RR-C. Mr. Baumgarten describes how the exclusions were calculated. In
13 SPS's 45-day case update, I will present an updated Attachment BFW-RR-C that
14 will provide actual exclusions to replace any estimated exclusions included in my
15 original attachment.

16 **Q. Are there any pro forma adjustments to SPS's per book expenses for the**
17 **Resource Planning affiliate class?**

18 A. Yes. As I mentioned earlier, pro forma adjustments are revisions to Updated Test
19 Year expenses for known and measurable changes. Pro forma adjustments are
20 shown on Attachment BFW-RR-A, Column J, and on Attachment

1 BFW-RR-B(CD), Column M. The details for the pro forma adjustments,
2 including the witness or witnesses who sponsor each pro forma adjustment, are
3 provided in Attachment BFW-RR-D. Given the time of SPS's initial filing, only
4 the first nine months of the Updated Test Year have completed the full pro forma
5 adjustment review process. In SPS's 45-day case update, I will present an
6 updated Attachment BFW-RR-D that will complete the full pro forma adjustment
7 review process for the last three months of the Updated Test Year.

8 **Q. Attachment BFW-RR-D shows that you sponsor pro forma adjustments for**
9 **expenses for the Resource Planning affiliate class during the first nine**
10 **months of the Updated Test Year that result in a net decrease for the**
11 **Resource Planning affiliate class of \$(169.68). Please explain the adjustments.**

12 A. The adjustments are net decreases relating to employee expenses.

13 **B. The Resource Planning Class of Services are Necessary Services**

14 **Q. Are the services that are grouped in the Resource Planning affiliate class**
15 **necessary for SPS's operations?**

16 A. Yes. The services grouped in the Resource Planning affiliate class are necessary
17 to ensure that SPS is able to obtain a cost effective, highly reliable energy supply
18 portfolio for SPS's customers. They are functions required by all utilities and
19 without which SPS would not be able to provide electric service to its customers.

20 **Q. What are the specific services that the Resource Planning affiliate class**
21 **provides to SPS?**

22 A. The specific services that the Resource Planning affiliate class provides to SPS
23 are:

- 1 • aligning and analyzing customer load forecasts with available resources to
2 determine resource needs, and then evaluating alternative capacity and
3 energy resources that could be used to meet the forecasted resource needs;
- 4 • evaluating how different resource technologies integrate with SPS's
5 existing system to serve the overall system capacity and energy needs in a
6 cost effective and reliable manner, including the use of computer
7 simulation tools (such as EnCompass and PLEXOS) that seek a least-cost
8 solution that is consistent with resource availability, predicted market
9 conditions and fuel costs, power supply reliability, system reliability, and
10 electric system constraints;
- 11 • developing and implementing comprehensive integrated electric resource
12 plans that ensure adequate generation sources are developed or acquired
13 on a timely basis;
- 14 • preparing requests for proposals, conducting competitive resource
15 solicitations, selecting criteria for use in the bid evaluation phase,
16 evaluating the bids to identify the most cost-effective resource to meet the
17 need in a timely manner, and clarifying bid details; and
- 18 • developing generation plans that align with long-term transmission plans
19 to deliver energy and capacity from owned and contracted generation to
20 system loads.

21 **Q. Are any of the Resource Planning class of services that are provided to SPS**
22 **duplicated elsewhere in XES or in any other Xcel Energy subsidiary such as**
23 **SPS itself?**

24 A. No. Within XES, none of the services grouped in the Resource Planning affiliate
25 class are duplicated elsewhere. No other Xcel Energy subsidiary performs these
26 services for the Operating Companies. In addition, SPS does not perform these
27 services for itself.

28 **Q. Do SPS's Texas retail customers benefit from the services that are part of the**
29 **Resource Planning class of services?**

30 A. Yes. The services of the Resource Planning affiliate class benefit SPS's
31 customers in many ways. For example:

- 1 • aligning and analyzing customer load forecasts with existing generation
2 resources identifies the need for additional generation resources in a
3 timely manner;
- 4 • analyzing future resource needs to determine the most appropriate
5 combination of resources needed (i.e., peaking vs. intermediate vs. base
6 load) allows for the development of a least-cost generation portfolio mix;
7 and
- 8 • development of a comprehensive integrated resource plan ensures SPS
9 customers will have access to a highly reliable, well diversified, and
10 cost-effective source of energy supplies on an ongoing basis.

11 **C. The Resource Planning Affiliate Class of Services are Provided at**
12 **a Reasonable Cost**

13 **Q. Are the costs of the Resource Planning affiliate class of services reasonable?**

14 A. Yes. The costs of the Resource Planning affiliate class of services are reasonable.
15 By maintaining a centralized corporate service staff, Xcel Energy is able to take
16 advantage of economies of scale while also focusing on specific SPS regulatory
17 and resource planning requirements. As a centralized staff, the Resource
18 Planning organization is able to take a broader view of developing trends across
19 multiple states and to gain a greater understanding of market information over a
20 much larger geographic footprint. Seeing pricing trends for various technologies
21 in different states and under multiple acquisition processes has allowed Resource
22 Planning to modify its resource plans and capitalize on changing market
23 conditions to the benefit of SPS customers.

24 ***1. Additional Evidence***

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

27 A. Yes. Of the estimated Updated Test Year costs for the Resource Planning affiliate
28 class, 86.84% are compensation and benefits costs for personnel performing

1 resource planning work. SPS witnesses Michael P. Deselich and Richard R.
2 Schrubbe establish that the level of Xcel Energy's compensation and benefits is
3 reasonable and necessary.

4 *2. Budget Planning*

5 **Q. Is a budget planning process applicable to the Resource Planning class of**
6 **affiliate costs?**

7 A. Yes. Annual O&M budgets are created for the Utilities business area, which
8 includes the Resource Planning class of affiliate costs, using guidelines developed
9 at the corporate level. The Resource Planning organization carefully reviews
10 historical spend information, identifies changes that will be coming in the future,
11 and analyzes the costs associated with those changes prior to submitting a
12 proposed budget. The budgeting process is discussed in more detail by SPS
13 witness Ross L. Baumgarten.

14 **Q. During the fiscal year, does the Resource Planning organization monitor its**
15 **actual expenditures versus its budget?**

16 A. Yes. Actual versus expected expenditures are monitored on a monthly basis.
17 Deviations are evaluated each month to ensure that costs are appropriate. In
18 addition, action plans are developed to mitigate variations in actual to budgeted
19 expenditures. These mitigation plans may either reduce or delay other
20 expenditures so that overall spending complies with the authorized budget.

21 **Q. Is the Vice President, Strategic Resource & Business Planning held**
22 **accountable for deviations from the budget?**

23 A. Yes. A budgetary goal is incorporated into the Vice President's performance
24 evaluations. Performance is measured on a monthly basis to ensure adherence to

the goals and provide for action plan development to address variances. All Resource Planning employees are required to manage their expenses to support the budgetary goals established by their manager. Failure to meet these performance targets may affect their performance evaluation and overall compensation.

3. Cost Trends

Q. Please state the dollar amounts of the actual per book charges from XES to SPS for the Resource Planning class of services for the three fiscal years preceding the end of the Updated Test Year and the estimated per book charges for the estimated Updated Test Year.

A. The following table shows, for the fiscal years 2017, 2018, and 2019 (calendar years), the actual per book and, for the Updated Test Year, the estimated per book affiliate charges (Column I on Attachment BFW-RR-A) from XES to SPS for the services grouped in the Resource Planning affiliate class:

Table BFW-RR-5

	(Per Book) Charges Over Time			
Class of Services	2017	2018	2019	Updated Test Year (Estimated)
Resource Planning	\$704,001	\$617,288	\$703,682	\$763,250

Q. What are the reasons for this trend?

A. Overall, the cost trend has remained relatively stable between 2017 and the Updated Test Year.

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Page 55

1 **D. The Costs for the Resource Planning Class of Services are Priced**
2 **in a Fair Manner**

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

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

14 **Q. How are the costs of the Resource Planning affiliate class billed to SPS?**

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

20 In SPS's 45-day case update, I will present updated Attachments
21 BFW-RR-A and BFW-RR-B(CD) so that the entries for the last three months of
22 the Updated Test Year provide actual data and conform to the information
23 provided for the first nine months. If the predominant billing methods and
24 associated allocation methods for the Resource Planning affiliate O&M expenses

1 on my updated Attachments BFW-RR-A and BFW-RR-B(CD) differ from those
2 discussed below, I will explain those differences in supplemental testimony in
3 SPS's 45-day case update filing

4 **Q. What are the predominant allocation methods used for billing the costs that**
5 **SPS seeks to recover for the Resource Planning affiliate class of services?**

6 A. All of the requested XES charges to SPS for this class were charged using one of
7 the following allocation methods:

- 8 • Direct Allocation: 59.58% of XES charges to SPS were \$466,299;
- 9 • Megawatt-hour ("MWH") Generation: 27.63% of XES charges to SPS
10 were \$216,279; and
- 11 • Assets, Revenue, and Number of Employees: 12.79% of XES charges
12 to SPS were \$100,100.

13 **Q. Why is it appropriate to allocate costs based upon the "MWH Generation"**
14 **method for the costs captured in the cost centers that use that allocation**
15 **method?**

16 A. Cost Centers 200135 and 200136, which use the "MWH Generation" method as
17 the allocator, capture the costs associated with providing services necessary to
18 supply the Operating Companies' electric systems with reliable energy and fuel
19 supplies. For example, the costs related to the Vice President's oversight of
20 resource planning activities are included in the cost center. Thus, this cost center
21 allocates costs among the Operating Companies based upon their proportionate
22 share of MWh of generation (i.e., the MWh of generation of a particular
23 Operating Company as a percentage of the total MWh of generation of all of the
24 Operating Companies). This allocation reflects cost causation and the distribution
25 of the benefits of the services received. For the cost centers that assign costs

1 based upon this allocation method, the per unit amounts charged by XES to SPS
2 as a result of the application of this allocation method are no higher than the per
3 unit amounts billed by XES to other affiliates for the same or similar services and
4 represent the actual costs of the services.

5 **Q. Why is it appropriate to allocate costs based upon the “Assets, Revenue, and**
6 **Number of Employees” method for the costs captured in the cost centers that**
7 **use that allocation method?**

8 A. The three factor allocation method using assets, revenue, and employees produces
9 an allocation of costs that recognizes the complexity, risk, and overall business
10 activity levels that drives the costs included in the cost centers and measures the
11 benefits received from those activities. For the cost centers billed using this
12 allocator, there is no one specific cost driver for the support tasks and services
13 provided, and the services benefit multiple Xcel Energy affiliates. For example,
14 the costs associated with corporate governance are collected in Cost Center
15 200070, which uses this allocation method. Within the Xcel Energy holding
16 company group, the legal entities that have proportionately more assets, revenues,
17 and employees will have more focus placed on their operations due to those
18 subsidiaries’ relative influence on the consolidated business balance sheet, income
19 statement and statement of cash flow, and the subsidiaries will benefit accordingly
20 from the services provided. Thus, allocating these costs based upon the average
21 of the total asset ratio, revenue ratio, and the employee ratio is appropriate
22 because it allocates costs in accordance with cost causation and benefits received.
23 Mr. Baumgarten discusses this allocation method in more detail in his testimony.

1 For the cost centers that assign costs based upon this allocation method, the per
2 unit amounts charged by XES to SPS as a result of the application of this
3 allocation method are no higher than the unit amounts billed by XES to other
4 affiliates for the same or similar services and represent the actual costs of the
5 services.

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

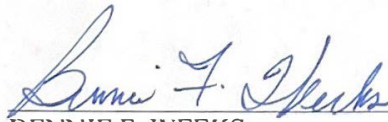
7 A. Yes.

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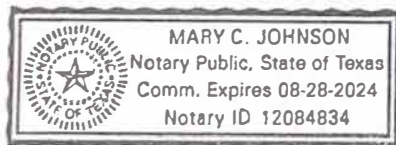
STATE OF TEXAS)
)
COUNTY OF POTTER)

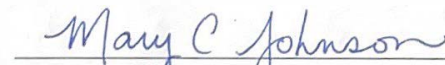
BENNIE F. WEEKS, first being sworn on her oath, states:

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.


BENNIE F. WEEKS

Subscribed and sworn to before me this 29 day of January, 2021 by BENNIE F. WEEKS.



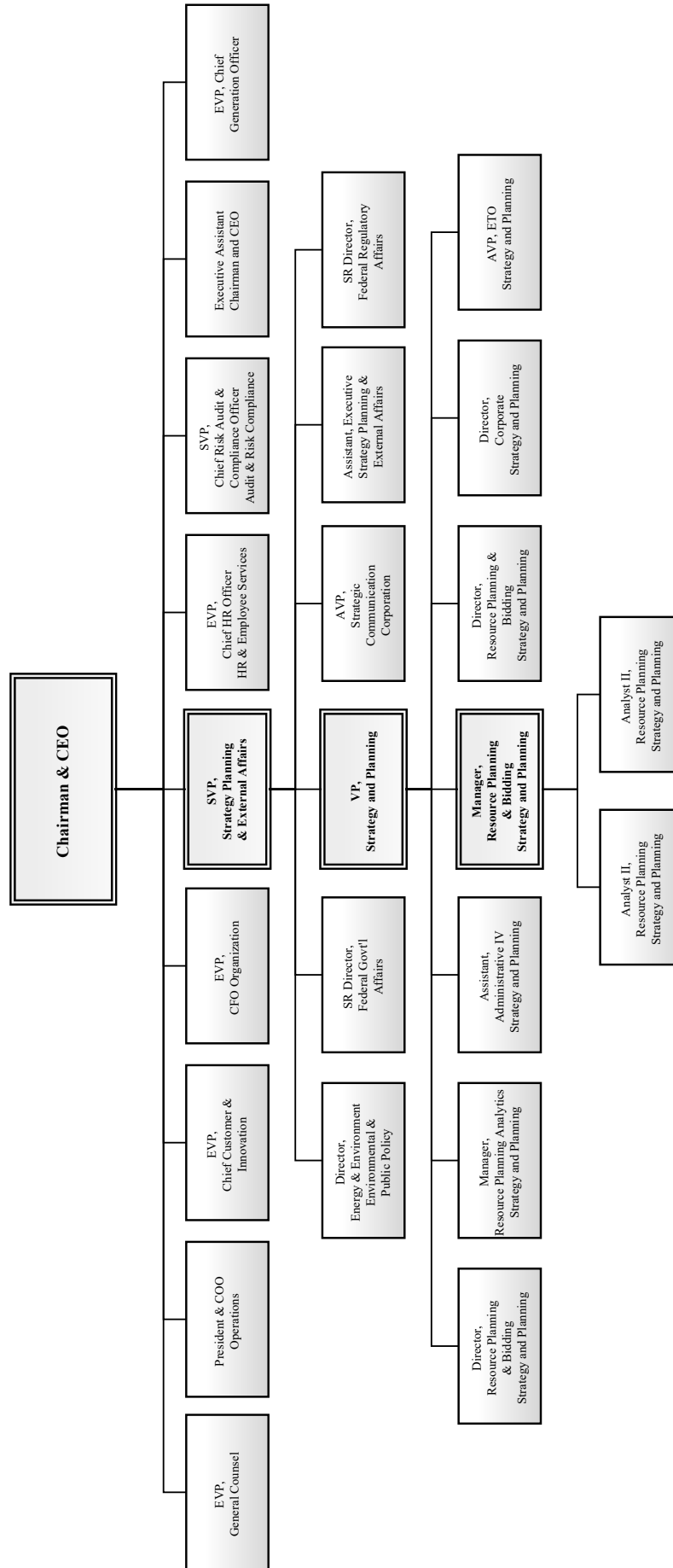

Notary Public, State of Texas

My Commission Expires: 8-28-24

Attachment BFW-RR-1			
Docket/Case Number	Regulatory Commission	Type of Case	Subjects of Testimony
49831	Public Utility Commission of Texas ("PUCT")	Base Rate Case	Resource planning and acquisition processes; authorization to shorten the service life of the Tolk Generating Station units; SPS's PPAs; and other related relief
48973	"PUCT"	Fuel Reconciliation	Resource planning and acquisition processes; Acquisition of firm purchased power, and The reasonableness and prudence of SPS's power purchase agreements ("PPA")
47527	PUCT	Base Rate Case	
46025	PUCT	Fuel Reconciliation	
43695	PUCT	Base Rate Case	
42004	PUCT	Base Rate Case and Fuel Reconciliation	
40824	PUCT	Base Rate Case and Fuel Reconciliation	
39541	PUCT	Application of CNN for Jones 4	Resource planning and acquisition processes; including the need for a combustion turbine in Lubbock County, TX
38192	PUCT	Application of CNN for Jones 3	Resource planning and acquisition processes; including the need for a combustion turbine in Lubbock County, TX
19-00170-UT	New Mexico Public Regulation Commission ("NMPRC")	Application for Revision of Retail Rates	Resource planning and acquisition processes; authorization to shorten the service life of and abandon the Tolk Generating Station units; SPS's generating resources, and other related relief

18-00308-UT	NMPRC	Application for: 1) Voluntary Solar*Connect community program and enter into a PPA for capacity & energy 2) Approval of proposed methodology for calculating and adjusting rates and; 3) Authorization to flow through all costs and revenues through the Solar*Connect rider and its Fuel and Purchased Power Cost Adjustment Clause (“FPPCAC”)	Acquisition of a solar resource
17-00255-UT	NMPRC	Application for Revision of Retail Rates	Resource planning and acquisition processes; includes acceleration of depreciation of the Tolk plant
13-00233-UT	NMPRC	Approval of Wind PPAs Mammoth, Palo Duro, and Roosevelt; and recovery of associated energy costs through the FPPCAC	Acquisition of firm purchased power; and the reasonableness and prudence of SPS’s PPAs
12-00235-UT	NMPRC	Approval of Calpine PPA for capacity and associated energy; and recovery of all energy related costs through the FPPCAC	Acquisition of firm purchased power; and the reasonableness and prudence of SPS’s PPAs
11-00313-UT	NMPRC	Application for issuance of a CCN, authorization to accrue an allowance for funds used during construction, and authorization to recover fuel costs in accordance with Rule 550 all for Jones 4	Resource planning processes and acquisition of a combustion turbine
10-00388-UT	NMPRC	Approval of Spinning Spur PPA for energy and associated RECs; and recovery of all energy related costs under the PPA through the FPPCAC	Acquisition of firm purchased power; and the reasonableness and prudence of SPS’s PPAs
10-00170-UT	NMPRC	Application for issuance of a CCN for Jones 3; and authority to enter into the Calpine I PPA for capacity and energy in accordance with Case No. 08-00354-UT	Acquisition of firm purchased power and a combustion turbine in Lubbock County, TX
EL89-50	Federal Energy Regulatory Commission (“FERC”)	Golden Spread Electric Cooperative, Inc. vs. SPS	Off-system sales

Southwestern Public Service Company
Organization Chart – Resource Planning
As of September 30, 2020



Southwestern Public Service Company
Harrington Generating Station Analysis

Table 1: Financial Forecast – Base Gas

Scenario	2040		2054	
	PVRR	Rank	PVRR	Rank
Fully Maintain Coal Operations				
DSI on all units	\$135	7	\$239	7
SDA on all units	\$346	8	\$449	8
Partially Maintain Coal Operations				
Convert two units to gas + DSI on remaining unit	\$13	3	\$117	3
Convert one unit to gas + DSI on remaining units	\$79	6	\$183	6
Retire two units + DSI on remaining unit	\$70	4	\$126	4
Retire one unit + DSI on remaining units	\$74	5	\$160	5
Cease Coal Operations				
Convert all units to gas	(\$80)	1	\$24	2
Retire all units	\$0	2	\$0	1
SPP Generator Replacement / Surplus Interconnection				
Convert 2 units to gas + convert 1 unit to SC + solar	(\$108)		(\$83)	
Convert all units to gas + Solar	(\$126)		(\$55)	

Southwestern Public Service Company

Harrington Generating Station Analysis

Table 2: Planning Forecast – Base Gas

Scenario	2040		2054	
	PVRR	Rank	PVRR	Rank
Fully Maintain Coal Operations				
DSI on all units	\$188	7	\$283	7
SDA on all units	\$397	8	\$492	8
Partially Maintain Coal Operations				
Convert two units to gas + DSI on remaining unit	\$70	3	\$165	4
Convert one unit to gas + DSI on remaining units	\$136	5	\$231	6
Retire two units + DSI on remaining unit	\$80	4	\$121	3
Retire one unit + DSI on remaining units	\$146	6	\$224	5
Cease Coal Operations				
Convert all units to gas	(\$26)	1	\$69	2
Retire all units	\$0	2	\$0	1
SPP Generator Replacement / Surplus Interconnection				
Convert 2 units to gas + convert 1 unit to SC + solar	(\$47)		(\$28)	
Convert all units to gas + Solar	(\$71)		(\$4)	

Southwestern Public Service Company

Harrington Generating Station Analysis

Table 3: Financial Forecast – High Gas

Scenario	2040		2054	
	PVRR	Rank	PVRR	Rank
Fully Maintain Coal Operations				
DSI on all units	(\$62)	5	\$42	7
SDA on all units	\$144	8	\$248	8
Partially Maintain Coal Operations				
Convert two units to gas + DSI on remaining unit	(\$98)	2	\$6	3
Convert one unit to gas + DSI on remaining units	(\$78)	3	\$25	6
Retire two units + DSI on remaining unit	(\$2)	6	\$14	4
Retire one unit + DSI on remaining units	(\$69)	4	\$17	5
Cease Coal Operations				
Convert all units to gas	(\$133)	1	(\$29)	1
Retire all units	\$0	7	\$0	2
SPP Generator Replacement / Surplus Interconnection				
Convert 2 units to gas + convert 1 unit to SC + solar	(\$180)		(\$199)	
Convert all units to gas + Solar	(\$220)		(\$191)	

Southwestern Public Service Company

Harrington Generating Station Analysis

Table 4: Planning Forecast – High Gas

Scenario	2040		2054	
	PVRR	Rank	PVRR	Rank
Fully Maintain Coal Operations				
DSI on all units	(\$14)	4	\$81	7
SDA on all units	\$190	8	\$285	8
Partially Maintain Coal Operations				
Convert two units to gas + DSI on remaining unit	(\$43)	2	\$52	4
Convert one unit to gas + DSI on remaining units	(\$27)	3	\$68	5
Retire two units + DSI on remaining unit	(\$3)	5	\$37	3
Retire one unit + DSI on remaining units	\$0	6	\$77	6
Cease Coal Operations				
Convert all units to gas	(\$78)	1	\$17	2
Retire all units	\$0	6	\$0	1
SPP Generator Replacement / Surplus Interconnection				
Convert 2 units to gas + convert 1 unit to SC + solar	(\$114)		(\$136)	
Convert all units to gas + Solar	(\$163)		(\$137)	

Southwestern Public Service Company
Harrington Generating Station Analysis

Table 5: Financial Forecast – Low Gas

Scenario	2040		2054	
	PVRR	Rank	PVRR	Rank
Fully Maintain Coal Operations				
DSI on all units	\$250	7	\$354	7
SDA on all units	\$469	8	\$573	8
Partially Maintain Coal Operations				
Convert two units to gas + DSI on remaining unit	\$54	3	\$158	3
Convert one unit to gas + DSI on remaining units	\$161	6	\$265	6
Retire two units + DSI on remaining unit	\$106	4	\$187	4
Retire one unit + DSI on remaining units	\$153	5	\$239	5
Cease Coal Operations				
Convert all units to gas	(\$83)	1	\$21	2
Retire all units	\$0	2	\$0	1
SPP Generator Replacement / Surplus Interconnection				
Convert 2 units to gas + convert 1 unit to SC + solar	(\$79)		(\$27)	
Convert all units to gas + Solar	(\$96)		\$3	

Southwestern Public Service Company

Harrington Generating Station Analysis

Table 6: Planning Forecast – Low Gas

Scenario	2040		2054	
	PVRR	Rank	PVRR	Rank
Fully Maintain Coal Operations				
DSI on all units	\$305	7	\$400	7
SDA on all units	\$523	8	\$618	8
Partially Maintain Coal Operations				
Convert two units to gas + DSI on remaining unit	\$112	3	\$207	4
Convert one unit to gas + DSI on remaining units	\$219	5	\$315	6
Retire two units + DSI on remaining unit	\$127	4	\$168	3
Retire one unit + DSI on remaining units	\$227	6	\$305	5
Cease Coal Operations				
Convert all units to gas	(\$29)	1	\$66	2
Retire all units	\$0	2	\$0	1
SPP Generator Replacement / Surplus Interconnection Options				
Convert 2 units to gas + convert 1 unit to SC + solar	(\$19)		\$26	
Convert all units to gas + Solar	(\$41)		\$53	

Southwestern Public Service Company
Harrington Generating Station Strategist
Workpapers
Financial Forecast Base Case

2021 TX Rate Case

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

BFW-RR-4(CD) is provided in electronic format.

Southwestern Public Service Company
Harrington Generating Station Strategist
Workpapers
Financial Forecast High Case

2021 TX Rate Case

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

BFW-RR-5(CD) is provided in electronic format.

Southwestern Public Service Company
Harrington Generating Station Strategist
Workpapers
Financial Forecast Low Case

2021 TX Rate Case

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

BFW-RR-6(CD) is provided in electronic format.

Southwestern Public Service Company

Harrington Generating Station Strategist

Workpapers

Planning Forecast Base Case

2021 TX Rate Case

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

BFW-RR-7(CD) is provided in electronic format.

Southwestern Public Service Company

Harrington Generating Station Strategist

Workpapers

Planning Forecast High Case

2021 TX Rate Case

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

BFW-RR-8(CD) is provided in electronic format.

Southwestern Public Service Company
Harrington Generating Station Strategist
Workpapers
Planning Forecast Low Case

2021 TX Rate Case

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

BFW-RR-9(CD) is provided in electronic format.

Southwestern Public Service Company

Tolk Generating Station Analysis

Workpapers

2021 TX Rate Case

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

BFW-RR-10(CD) is provided in electronic format.

Southwestern Public Service Company

Sagamore Wind Project Analysis

Workpapers

2021 TX Rate Case

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

BFW-RR-11(CD) is provided in electronic format.

Southwestern Public Service Company

Summary of XES Expenses to SPS by Affiliate Class and Billing Method
For the Twelve Months Ended December 31, 2020

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Line No.	Affiliate Class	Billing Method (Cost Center)	Allocation Method	Total XES Billings for Class to all Legal Entities (FERC Acct. 400-935)	XES Billings for Class to all Legal Entities Except SPS (FERC Acct. 400-935)	XES Billings for Class to SPS (Total Company) (FERC Acct. 400-935)	Exclusions	Per Book	Pro Formas	Requested Amount (Total Company)	% of Class Charges
1	Resource Planning	200070 - Corporate Strategy & Business Development - Corporate Governance	Assets/Revenue/No. of employees	\$ 760,519.56	\$ 662,236.97	\$ 98,282.59	\$ -	\$ 98,282.59	\$ 1,817.82	\$ 100,100.41	12.79%
2	Resource Planning	200135 - Energy Supply Business Resources	MWH Generation	766.18	587.48	178.70	-	178.70	-	178.70	0.02%
3	Resource Planning	200136 - Energy Markets - Fuel	MWH Generation	899,721.16	686,777.18	212,943.98	(1,653.63)	211,290.35	4,809.74	216,100.09	27.61%
4	Resource Planning	Direct	Direct	2,109,249.22	1,655,751.01	453,498.21	-	453,498.21	12,800.79	466,299.00	59.58%
5	Resource Planning Total			\$ 3,770,256.12	\$ 3,005,352.64	\$ 764,903.48	\$ (1,653.63)	\$ 763,249.85	\$ 19,428.36	\$ 782,678.21	100.00%
6	Total Witness Bennie F. Weeks			\$ 3,770,256.12	\$ 3,005,352.64	\$ 764,903.48	\$ (1,653.63)	\$ 763,249.85	\$ 19,428.36	\$ 782,678.21	
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

Bennie F. Weeks

2021 TX Rate Case

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

BFW-RR-B(CD) is provided in electronic format.

Southwestern Public Service Company

**Exclusions from XES Expense to SPS
For the Twelve Months Ended December 31, 2020**

(A)	(B)	(C)	(D)	(E)
Line No.	Affiliate Class	FERC Account	Explanation for Exclusions	Exclusions (Total Company)
1	Resource Planning	426.1 - Donations	Below the Line	\$ (1,175.25)
2	Resource Planning	426.5 - Other Deductions	Below the Line	(478.38)
3	Resource Planning Total			\$ (1,653.63)
4	Total Witness Bennie F. Weeks			\$ (1,653.63)
	Amounts may not add or tie to other schedules due to rounding			

Southwestern Public Service Company

Pro Forma Adjustments to XES Expenses by Affiliate Class and FERC Account
For the Twelve Months Ended December 31, 2020

(A) Line No.	(B) Affiliate Class	(C) FERC Account	(D) Explanation for Pro Formas	(E) Sponsor	(F) Pro Formas (Total Company)
1	Resource Planning	557 - Other expenses	3% Wage Adjustment	Stephanie N. Niemi/Michael P. Deselich	\$ 12,356.96
2	Resource Planning	557 - Other expenses	Business Area Adjustment	Bennie F. Weeks	(81.60)
3	Resource Planning	920 - Administrative and general salaries	3% Wage Adjustment	Stephanie N. Niemi/Michael P. Deselich	7,241.08
4	Resource Planning	921 - Office supplies and expenses	Business Area Adjustment	Bennie F. Weeks	(88.08)
5	Resource Planning Total				\$ 19,428.36
6	Total Witness Bennie F. Weeks				\$ 19,428.36
	Amounts may not add or tie to other schedules due to rounding				