DOCKET NO. _____

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

Acronym/Defined Term	Meaning
Base Forecast	gas and market energy cost forecast
BEA	Borger Energy Associates, L.P.
Bonita	Bonita Wind Energy LLC
BAU	business-as-usual
Commission	Public Utility Commission of Texas
EOY	End-of-Year
FERC	Federal Energy Regulatory Commission
FOM	fixed O&M costs
High Forecast	high gas and energy market price forecast
IM	Integrated Marketplace
LCOE	levelized cost of energy
LMP	Locational Marginal Price
Low Forecast	low gas and energy market forecast
MW	megawatt
MWh	megawatt-hour
NMPRC	New Mexico Public Regulation Commission
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

Acronym/Defined Term	Meaning
PIRA	Petroleum Industry Research Associates
PPA	purchased power agreement
Promod	Promod IV
PVRR	present value revenue requirement
RFP	Rate Filing Package
SPP	Southwest Power Pool, Inc.
SPS	Southwestern Public Service Company, a New Mexico corporation
Test Year	April 1, 2018 through March 31, 2019
Total Company or total company	Total SPS (before jurisdictional allocation)
Tolk	Tolk Generating Station
T1	Tolk Unit 1
T2	Tolk Unit 2
Update Period	April 1, 2019 through June 30, 2019
Updated Test Year	July 1, 2018 through June 30, 2019
VOM	variable O&M
Wind Resources	Hale Wind Project, the Sagamore Wind Project, and the Bonita PPA
Xcel Energy	Xcel Energy Inc.
XES	Xcel Energy Services Inc.

LIST OF ATTACHMENTS

Attachment	Description
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(CD)	Strategist Base Case Analysis Workpapers (*Provided on CD*)
BFW-RR-4(CD)	Strategist Thermal Case Analysis Workpapers (*Provided on CD*)
BFW-RR-5(CD)	Strategist Low Load Case Analysis Workpapers (*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)
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

I. WITNESS IDENTIFICATION AND QUALIFICATIONS

Q. Please state your name and business address.

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

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

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

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

A. I am employed by Xcel Energy Services Inc. ("XES"), the service company subsidiary of Xcel Energy, as Manager of Resource Planning and Bidding.

Q. Please briefly outline your responsibilities as Manager of Resource Planning and Bidding.

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

Q. Please describe your educational background.

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

Q. Please describe your professional experience.

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

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

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

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

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

II. ASSIGNMENT AND SUMMARY OF TESTIMONY AND RECOMMENDATIONS

Q. What is your assignment in this proceeding?

A. I have several assignments. In my testimony, I will:

(1) provide an overview of the process for SPS's resource planning and assessment of resource needs;

(2) describe SPS's purchased power agreements ("PPA") under which capacity-related costs were incurred during the Test Year (April 1, 2018 – March 31, 2019) and the Update Period (April 1, 2019 – June 30, 2019);

(3) discuss the reasonableness and prudence of SPS's decision to enter into the Bonita PPA as part of the Hale Wind Project transaction;

(4) present the economic analysis supporting SPS's decision to revise the retirement date of its Tolk Generating Station ("Tolk") to end-of-year ("EOY") 2032; and

(5) support the Updated Test Year (July 1, 2018 – June 30, 2019)[1] operation and maintenance ("O&M") expenses and the administrative and general expenses for the Resource Planning class of affiliate services.

Additionally, I sponsor or co-sponsor the following Rate Filing Package ("RFP") schedules:

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] The Updated Test Year consists of the last nine months of the Test Year and the three months in the Update Period. In addition to supporting the Updated Test Year costs, I have also reviewed the costs for the first three months of the Test Year for the classes I support and find those costs to be reasonable.

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

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

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

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

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

A. SPS's resource planning process is reasonable and has resulted in the prudent acquisition of resources to meet the needs of SPS's customers, including PPAs. These resources produce costs that are reasonable and necessary. I recommend that the Commission approve the capacity-related costs incurred under SPS's PPAs. I also recommend that the Commission find that SPS's decision to enter into the Bonita PPA, which was entered into as part of the transaction for the Hale Wind Project, was reasonable and prudent.

Additionally, the Commission should grant SPS's request for a revised retirement date for Tolk. The economic analysis presented in my testimony demonstrates that SPS's proposal to retire Tolk by EOY 2032 is reasonable and prudent.

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

- The costs are for services that are necessary to ensure that SPS is able to obtain a cost-effective, highly reliable energy supply portfolio for SPS's customers. SPS conducts electric resource planning by utilizing forecasts of customer electric demand and energy and determining the appropriate sources of electric supply that should be developed to meet customer requirements in a cost-effective and reliable fashion. This process works to ensure that SPS has an appropriate reserve margin to provide reliable service.[2] Based on the determinations for resource needs made in the planning process, SPS evaluates its options for procuring resources and procures resources to meet the forecasted needs of its customers.

- The costs are reasonable because they are shared with other affiliates, consist primarily of reasonable personnel costs, and are subjected to rigorous budgeting and cost control processes.

- SPS does not provide these services for itself, and the services do not duplicate services provided by others.

- Each charge from SPS's affiliates for these services is no higher than the charge by those affiliates to any other entity for the same or similar service.

[2] SPS is required by the Southwest Power Pool, Inc. ("SPP") to have a planning reserve margin of 12.0% of its peak demand forecast.

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

A. As explained by SPS witness William A. Grant, SPS is using an Updated Test Year in this case. SPS's initial filing presents actual expenses for the Test Year and estimated information for the Update Period. Accordingly, the first nine months of SPS's Updated Test Year consist of actual cost information and the last three months include estimated cost information. For this reason, certain SPS witnesses refer to the Updated Test Year in direct testimony as the "estimated Updated Test Year."

Regarding the Resource Planning affiliate costs I support, as explained by SPS witness Melissa L. Schmidt, actual figures for April and May 2019 have been provided and June 2019 figures have been estimated based on the forecasted budget. However, these expenses have not gone through the full pro forma adjustment review process.

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

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

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

Q. Has SPS entered into any new PPAs or executed any substantive amendments to its PPAs during the Test Year or Update Period?

A. No. However, SPS is requesting that the Commission find SPS's execution of Bonita Wind Energy LLC ("Bonita") PPA that SPS executed as part of the wind transactions that were approved in Docket No. 46936 reasonable and prudent.[3]

Q. Were Attachments BFW-RR-1 through BFW-RR-5 and BFW-RR-A through BFW-RR-D prepared by you or under your direct supervision and control?

A. Yes, as to Attachments BFW-RR-1 through BFW-RR-5. Attachments BFW-RR-A through BFW-RR-D were prepared by Ms. Schmidt and her staff. My staff and I have reviewed these attachments, and I believe them to be accurate. Although the same information provided in Attachments BFW-RR-A through BFW-RR-D is presented in Ms. Schmidt's attachments MLS-RR-A through MLS-RR-D, I have presented this information in the attachments to my testimony for the convenience of those reviewing my testimony.

[3] *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).

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

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

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

A. Yes.

III. SPS'S RESOURCE PLANNING PROCESS AND EVALUATION METHODS

Q. Please generally describe SPS's resource planning process.

A. In its simplest form, electric resource planning is the process of using forecasts of customer electric demand and energy to determine the appropriate sources of electric supply that should be developed to meet those 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.

Q. Please describe the reserve margin requirement.

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 SPP, which currently requires each member to have a planning reserve margin of 12.0% of its peak demand forecast.

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

A. SPS's assessment of electric resource need includes determining both the magnitude of need as well as the type of resources needed (i.e., peaking,

intermediate, or baseload). Additionally, resource need assessment must, depending on the jurisdiction, be conducted in accordance with regulatory requirements specifying resource assessment processes and resource specific acquisitions (e.g., requirements for integrated resource planning and amounts of renewable resources in a supply portfolio).

The type of resource that the SPS electric supply system needs is determined through an evaluation of how different resource technologies integrate with SPS's existing electric supply to serve the overall system capacity and energy needs in a least-cost manner. Typical solutions for meeting resource needs consist of the following: enhancing current resources, demand management, building new resources, and conducting competitive bid solicitations for new long-term or short-term energy and capacity. The ultimate decision is made on the economic value of the alternatives, the risks inherent in each alternative, the ability to get the generation installed in a timely manner, and other factors affecting a project's value to SPS and its customers. SPS uses Strategist in its evaluation of the economic value of resource alternatives.[4]

Q. Could SPS determine that its customers would benefit from obtaining additional resources to save energy costs even if SPS does not need additional resources for capacity purposes?

A. Yes. SPS could determine that additional resources are needed for economic energy purposes. Periodically, SPS will evaluate the long-term avoided costs of

[4] Strategist is one model in a portfolio of modeling tools owned by ABB (ASEA Brown Boveri). Xcel Energy has a licensing agreement with ABB for use of the Strategist model.

the SPS system. The projected avoided costs provide a price signal that may show acquiring lower cost energy resources would be a benefit to SPS's customers.

Q. What is Strategist?

A. Strategist is a resource planning model specifically designed to determine the least-cost resource mix for a utility system from a prescribed set of resource technologies under given sets of constraints and assumptions. Strategist incorporates a wide variety of resource expansion planning parameters to develop a coordinated integrated plan that best suits the utility system being analyzed. Examples of resource expansion planning parameters incorporated by Strategist are: alternative generation technologies available to meet future needs; renewable energy resources; unit capacity sizes; heat rates; load management; conservation programs; reliability limits; emissions trading; and environmental compliance options**.**

Q. Please describe the costs that SPS incorporates in the Strategist model for purposes of long-range resource expansion planning.

A. The Strategist model includes only a portion of the total electric system costs SPS incurs to provide electric service to its customers. The following list summarizes the costs that are typically included in Strategist and those that are excluded from the model:

Costs Included in Strategist

1. fuel costs for all electric power supply resources (owned and purchased) and market energy costs;

2. purchased energy costs for all electric power supply resources;

3. capacity costs of purchased power;

4. variable operational and maintenance ("VOM") costs of purchased power;

5. capital costs for new electric generation facilities added to meet future load;

6. energy costs for new wind and solar generation facilities added to meet future energy need;

7. electric transmission interconnection and network upgrade costs for new generation;

8. emissions and emission costs for CO_2, SO_2, and NOx;

9. fixed operation and maintenance ("FOM") costs for existing and new generation facilities;

10. VOM costs for existing and new generation facilities; and

11. remaining book value of SPS-owned generating units.

Costs Not Included in Strategist

1. remaining book value of existing electric transmission or distribution facilities;

2. capital costs for planned electric transmission upgrades or distribution facilities;

3. capital costs for emission control systems; and

4. administrative and general costs.

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

A. The following assumptions are likely the most influential in the Strategist modeling evaluation of the least-cost resource mix:

1) **Natural Gas Price Forecast** – The price of natural gas is a significant variable. SPS uses a combination of market prices and fundamental price forecasts, based on multiple highly respected, industry leading sources, to calculate monthly delivered gas prices. As the foundation of the gas price forecast, Henry Hub natural gas prices are developed using a blend of market information (New York Mercantile Exchange ("NYMEX") futures prices) and long-term fundamentally based forecasts from Wood Mackenzie, IHS Energy, and Petroleum Industry Research Associates ("PIRA"). The forecast is fully market-based for the first few years, then transitions into blending the four sources to develop a composite forecast. The Henry Hub forecast is adjusted for regional basis differentials and specific delivery costs for each generating unit to develop final model inputs. The weightings for each component at various time intervals of the forecast period are consistent with SPS's prior proceedings at the Commission and are shown in Table BFW-RR-2 below:

Table BFW-RR-2 – Natural Gas Forecast Weightings

Months	NYMEX	IHS Energy*	PIRA	Wood MacKenzie
1-36	100.0%	0.0%	0.0%	0.0%
37-48	74.5%	8.5%	8.5%	8.5%
49-60	49.7%	16.8%	16.8%	16.8%
61-end of forecast period	25.0%	25.0%	25.0%	25.0%

*formerly known as CERA or Global Insight

2) **Coal Price Forecast** – Coal price forecasts are developed using two major inputs: (1) current coal contract volumes and prices combined with (2) current estimates of required spot market coal volumes and prices. Typically, coal volumes and prices are under contract on a plant by plant basis for a one to five-year term with annual spot volumes filling the remainder of the estimated fuel requirements of the coal plant. The spot coal price forecasts are developed by averaging price forecasts provided by multiple industry-leading consulting firms, as well as price indicators from recent request for proposals 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.

To determine the price at which SPS may buy from or sell into the SPP market, power prices are derived using an average of the market-implied heat-rate forecasts from Wood Mackenzie, IHS Energy, and PIRA. The average of the market-implied heat-rate forecasts are then multiplied by the blended natural gas forecast (as described above) to derive a market price for electricity. 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.

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

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

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

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

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

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

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

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

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

IV. SPS'S PURCHASED POWER AGREEMENTS RESULTING IN CAPACITY COSTS

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

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

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

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

Q. Can you identify the six PPAs that incurred capacity costs?

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

Q. Were the capacity-related costs incurred under the six contracts summarized in Mr. Klein's Attachment JCK-RR-1 reasonably incurred?

A. Yes. The Borger Energy Associates, L.P. ("BEA") PPA was approved by the Commission in Docket No. 17525.[5] Competitive capacity solicitations resulted in the PPA with Lea Power Partners, LLC and the Oneta Power, LLC I and II PPAs.[6] SPS needed the capacity purchased under these PPAs and these three offers provided the best value.

[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).

[6] The energy under the Oneta Power I and II PPAs is delivered from the Oneta Energy Center, which was formerly owned by Calpine Energy Services, L.P. Accordingly, in prior SPS rate cases, these PPAs were referred to as the "Calpine I" and "Calpine II" PPAs.

SPS contracted to buy capacity and energy from the City of Lubbock, Texas Cooke units, at approximately the same time as it began making wholesale sales to West Texas Municipal Power Agency (of which Lubbock is the largest member). The Cooke PPA provided inexpensive capacity ($2.12 per kilowatt/month) and SPS managed the units in the SPP Integrated Marketplace ("IM").

Sid Richardson Carbon, Ltd. is an SPS industrial customer. The PPA with this customer provides a relatively small amount of capacity (approximately 7.96 megawatts ("MW")). Because this power producer is located within the SPS service area, its power could be delivered into the SPS transmission grid with no investment in new transmission facilities for firm delivery of the energy. This PPA also offered attractive capacity pricing.

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

Q. Have the capacity costs incurred under these six PPAs been included previously in SPS's rates?

A. Yes. Capacity costs incurred under the BEA PPA have been included in SPS's rates for years. Fuel costs incurred under this PPA have been included in calculating the fuel cost balances approved in multiple SPS fuel reconciliations. Capacity-related costs under each of the other five PPAs have been included in SPS's rates either through settlement or a fully-litigated rate case. Additionally, the fuel costs incurred under all six of these PPAs have been included in calculating the fuel cost balances approved in SPS's most recently completed fuel

reconciliation proceeding, Docket No. 46025.[7] All of the PPAs under which capacity-related costs were incurred in the Test Year and Update Period were reviewed, and their capacity-related costs were approved by the Commission in SPS's last litigated base rate case, Docket No. 43695,[8] and were included in the costs approved in SPS's most recent base rate cases, Docket Nos. 45524 and 47527.[9]

[7] *Application of Southwestern Public Service Company for Authority to Reconcile Fuel and Purchased Power Costs*, Docket No. 46025, Order (Mar. 30, 2017).

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

[9] *Application of Southwestern Public Service Company for the Authority to Change Rates*, Docket No. 45524, Order (Jan. 26, 2017); *Application of Southwestern Public Service Company for Authority to Change Rates*, Docket No. 47527, Final Order (Dec. 10, 2018).

V. BONITA PPA

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

A. In this section of my testimony, I discuss SPS's request for a prudence finding on the Bonita PPA, which SPS entered into as part of the transaction to acquire the rights for the Hale Wind Project. Mr. Grant also discusses SPS's request for a prudence finding.

Q. Please briefly describe the Hale Wind Project.

A. The Hale Wind Project is a 478 MW wind generation facility located in Hale County, Texas. SPS sought and received regulatory approvals from the Commission in Docket No. 46396 and the NMPRC in Case No. 17-00044-UT to construct, own, and operate the Hale Wind Project.

Q. Please briefly describe the Bonita PPA.

A. The Bonita PPA enables SPS to purchase 230 MW of electrical energy from two wind facilities located near Lubbock, Texas. The first site (Bonita I) is an 80 MW project located in northwestern Crosby County, near the towns of Lorenzo and Ralls. The second site (Bonita II) is a 150 MW project located in Cochran County west of Lubbock and along the New Mexico border. The Bonita PPA is a pay-for-performance agreement that has a term of 30 years and will provide SPS with approximately, 1,029,563 megawatt-hours ("MWh") of economically priced energy per year over the term. Additional details about the Bonita PPA are provided by Mr. Klein.

Q. Please summarize the Bonita PPA-related analyses that SPS conducted in Docket No. 46936.

A. The benefits of the Bonita PPA were evaluated as part of Docket No. 46936, in which SPS conducted and presented multiple analyses of the wind resources proposed in that docket, all of which demonstrated significant customer benefits.[10] SPS evaluated customer costs and benefits using the Strategist resource planning application to determine the overall net cost and benefits to SPS's customers from the Wind Resources. SPS evaluated a base case and multiple sensitivities using Strategist, including a low gas price scenario.

SPS also performed additional cost effectiveness analyses using the Promod IV ("Promod") modeling tool that simulates the SPP IM[11] and conducted additional sensitivity cases in Promod to validate the projected customer savings.

SPS also compared the levelized cost of energy ("LCOE") of the Wind Resources to existing and historically offered PPA alternatives. More specifically, SPS selected three PPA bids from SPS's 2013 wind request for proposal (the "2013 Wind PPAs") that resulted in PPAs representing a total of 700 MW because those projects were developed and placed in service within a reasonably close timeframe to the Wind Resources.

[10] The proposed wind resources in Docket No. 46936 were the Hale Wind Project, the Sagamore Wind Project, and the Bonita PPA (collectively, "Wind Resources").

[11] Promod is a fundamental electric market simulation that incorporates extensive details in generating unit operating characteristics, the make-up of the transmission grid and constraints, and market system operations. Promod performs an 8760-hour commitment and dispatch recognizing both generation and transmission impacts at the nodal level. The transmission grid is fully integrated with the commitment and dispatch algorithm, so that generators are scheduled, started, and cycled while enforcing realistic transmission constraints. Promod forecasts hourly energy; congestion and loss prices; unit generation, revenues and fuel consumption; external market transactions; and transmission flows. The hourly Locational Marginal Price ("LMP") may be output for any transmission or generator bus in the system.

In addition, SPS provided supplemental settlement testimony, which included modeling of the projected savings of the Hale and Sagamore projects and Bonita PPA under various assumptions.[12]

Q. Please summarize the results of the various analyses you just described.

A. The Strategist analysis estimated the overall net customer savings to be $1.19 billion on a present value revenue requirement ("PVRR") basis. The Promod LMP analysis corroborated Strategist's results, and resulted in a modeled value to SPS's customers of approximately $1.04 billion in customer savings. Although the models use different approaches to estimate the effect on customers, they yielded consistent results. Significant customer savings were also present under each of the sensitivity analyses SPS conducted. The LCOE cost comparisons showed that the LCOE of the resources from the 2013 PPAs were $23.05/MWh, whereas the LCOE for the Wind Resources was $19.59/MWh.

The supplemental testimony referenced in my prior answer demonstrated that, using SPS's expected inputs for capital costs, net-capacity factor, a projected low cost of natural gas in its production-costing model, and incorporating the effects of the reduction in the corporate federal income tax rate from 35% to 21%, the projected savings to customers on a total company, net present-value basis are approximately $543 million.[13] The supplemental testimony also demonstrated that even in a worst-case scenario in which (a) the costs to construct the Hale and

[12] Docket No. 46396, Order at 3; Supplemental Settlement Testimony of David T. Hudson (Apr. 19, 2018).

[13] Docket No. 46936, Order at 3 (citing Docket No. 46936 Supplemental Settlement Testimony of David Hudson, SPS Ex. 29 at 28:13-16; Attachment DTH-SS-4).

Sagamore project reach the cap on construction costs, (b) the output of the Hale and Sagamore projects and the Bonita PPA is at the minimum 48% net capacity factor, and (c) levelized gas prices are lower than expected in SPS's base case scenario, the projected savings to customers on a total company, net-present-value basis are approximately $232 million.[14]

Q. Will SPS's customers benefit from the Bonita PPA?

A. Yes. Extensive analytical evaluations showed that the Wind Resources, including the Bonita PPA, would provide significant customer benefit at a reasonable cost. Accordingly, the Commission should find SPS's decision to enter into the Bonita as part of the Hale Wind Project transaction PPA reasonable and prudent.

[14] Docket No. 46936, Order at 3-4.

VI. STRATEGIST ECONOMIC ANALYSIS OF THE IMPACTS OF WATER LIMITATIONS AND TOLK OPTIMIZATION

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

A. In this section of my testimony, I present the economic analysis that supports SPS's request to retire its two Tolk generating units at EOY 2032. SPS performed this analysis using the Strategist model, which I described in Section III of my testimony. After discussing the assumptions that SPS used in its Strategist analysis regarding Tolk, I provide the result of the analysis, which demonstrates the projected PVRR of various operating scenarios/sensitivities regarding the retirement dates of the two Tolk units.

SPS witness Mark Lytal discusses the considerations underlying SPS's proposed changes to the useful lives of the Tolk units and explains the development of the cost inputs that Xcel Energy's Energy Supply group provided to the Resource Planning group for purposes of the Strategist analysis. SPS witnesses Dane A. Watson and Mark P. Moeller discuss how the proposed changes to the retirement dates for the Tolk units affect SPS's depreciation rates.

A. Strategist Modeling

Q. Please briefly describe Tolk.

A. Tolk consists of two coal-powered steam turbine units, located in Lamb County, Texas with a total net capacity of 1,082 MW. Tolk Unit 1 ("T1") has a net capacity of 540 MW; Tolk Unit 2 ("T2") has a net capacity of 542 MW. The assets at Tolk currently have a depreciation retirement date of 2037 pursuant to the Stipulation in Docket No. 47527.

Q. Please describe how SPS used Strategist to develop its proposed changes to the retirement dates of the Tolk generating units.

A. SPS used Strategist to determine the costs and benefits of five operational scenarios for the Tolk generating units under different time horizons and operating parameters. To develop these scenarios, the Strategist model performs a complete commitment and dispatch simulation of the SPS portfolio of resources, while optimizing a resource expansion plan using the input assumptions described earlier in my testimony and factoring in the input assumptions regarding water limitations at Tolk.

Q. Please describe SPS's process for evaluating the impact of water availability for the Tolk generating units.

A. Mr. Lytal describes this process in detail in his direct testimony. In summary, personnel from the Water Resources and Energy Supply departments within XES first determined when the water supply for Tolk would be depleted assuming Tolk operations remain business-as-usual ("BAU") with no additional water rights acquisitions. Under the BAU assumption, the economic depletion range (expressed in years of service) was determined to be 2024 – 2026. Based on this BAU economic depletion range, Resource Planning developed scenarios that incorporate various ranges of reduced operations at Tolk in an attempt to extend the economic depletion range of the groundwater supply. The scenarios were vetted with Water Resources and Energy Supply personnel to determine a new economic water depletion range for each scenario. As shown in Attachment ML-RR-3 to Mr. Lytal's direct testimony, each scenario has an economic

depletion range that spans approximately three years. As Mr. Lytal discusses in his direct testimony, Energy Supply developed cost estimates for each scenario, including on-going capital expenditures and FOM for Tolk. Please refer to Attachment ML-RR-3 to Mr. Lytal's testimony for the estimated cost inputs for each scenario.

Q. What scenarios were used for the Strategist analysis?

A. The scenarios used for the analysis are:

- **<u>Scenario 1 (Economic Dispatch)</u>:**

  Tolk operations BAU to projected water depletion

  - retire T1 & T2 at EOY 2025

- **<u>Scenario 2 (Reduced Operations of Both Units as follows)</u>:**

  2019 and 2020 – T1 and T2 economic dispatch (June-September) and minimum load in off-peak months (or equivalent generation) (October-May).

  2021 and beyond – T1 and T2 economic dispatch (June-September) and offline in off-peak months (October-May).

  - synchronous condenser installed on each unit by EOY 2020
  - retire T1 and T2 at EOY 2031

- **<u>Scenario 3 (Reduced Operations of Both Units as follows)</u>:**

  2019 and 2020 - T1 and T2 economic dispatch (June-September), minimum load in off-peak months (or equivalent generation) (October-May).

  2021 and beyond - T1 and T2 economic dispatch (June-September), one unit offline and second unit at minimum (or equivalent generation) in off-peak months (October-May).

  - synchronous condenser installed on one unit by EOY 2020
  - retire T1 and T2 at EOY 2028

- **Scenario 4 (Reduced Operations of Both Units as follows):**

  Fall 2019 and beyond – T1 and T2 economic dispatch (June-September) and minimum load in off-peak months (or equivalent generation) (October-May).

  - retire T1 and T2 at EOY 2027

- **Scenario 5 (Economic Dispatch/Staggered Retirement):**

  2019 through 2021 – T1 and T2 economic dispatch (June-September), minimum load in off-peak months (or equivalent generation) (October-May).

  2022 and beyond – T2 economic dispatch.

  - synchronous condenser installed on T1 by EOY 2021
  - retire T1 at EOY 2021 and retire T2 at EOY 2031

Q. Why did you choose these scenarios for modeling in Strategist?

A. The objective was to develop scenarios that would allow SPS to keep the Tolk units online and maximize the amount of energy available from those resources. These scenarios are the most feasible from that perspective. In Docket No. 47527, SPS modeled scenarios that included retiring the Tolk units at the end of their then-approved service lives in 2042 and 2045. As explained by Mr. Grant, SPS did not perform that analysis here because it is not feasible for SPS to continue running the Tolk units until then.

Q. What was the next step in evaluating the effect of the economic depletion ranges?

A. SPS developed a reference case (Scenario 1) that assumed existing PPAs and thermal resources (with the exception of the Tolk generating units) expire at their PPA termination date, or at the end of the depreciable lives that SPS proposes in this case, as discussed by Mr. Lytal.

Each scenario was modeled taking into account the cost estimates developed by Energy Supply personnel. Mr. Lytal provides the cost estimates used in developing SPS's Tolk analysis. The resulting costs of each scenario were compared to the reference case (Scenario 1) and ranked from lowest to highest cost.

Q. Did SPS perform any sensitivity analysis to determine the costs and benefits of each operating scenario?

A. Yes. As I described earlier in my testimony, many costs are included in the Strategist analysis, one of which is the gas and market energy cost forecast ("Base Forecast"). SPS performed additional sensitivity analyses assuming a high gas and energy market price forecast ("High Forecast") and a low gas and energy market forecast ("Low Forecast"), which are discussed below.

B. Results of Strategist Analysis

Q. What was the initial analysis performed by SPS?

A. SPS developed a base case analysis that includes all base assumptions that I described earlier in my testimony, including but not limited to the Base Forecast. Sensitivity analyses were performed assuming a High Forecast and Low Forecast. The High Forecast and Low Forecast price assumptions were developed by applying a rate of growth that is reduced by 50% and increased by 150%.

Q. What are the results of the Strategist Base Case analysis regarding the retirement of the Tolk generating units?

A. A summary of the results of SPS's Strategist Base Case analysis is shown in Table BFW-RR-3. The workpapers that relate to this analysis are provided in Attachment BFW-RR-3(CD). As shown in Table BFW-RR-3, under the base assumptions for electric sales and natural gas prices, and the expected level of

operation, maintenance, and capital expense for the Tolk units, Scenario 2 is the most cost-effective alternative in all the gas forecast sensitivity analyses.

Table BFW-RR-3

	2019-2054 PVRR Total ($M)	2019-2054 PVRR Costs/(Savings) ($M)	Rank	2019-2033 PVRR Total ($M)	2019-2033 PVRR Costs/(Savings) ($M)	Rank
Base - Base Forecast						
Scenario 1	16,743	0	2	10,009	0	2
Scenario 2	16,725	(17)	1	9,916	(93)	1
Scenario 3	16,802	59	3	10,039	29	3
Scenario 4	16,802	60	4	10,049	40	4
Scenario 5	16,892	149	5	10,050	40	5
Base - Low Forecast						
	2019-2054 PVRR Total ($M)	2019-2054 PVRR Costs/(Savings) ($M)	Rank	2019-2033 PVRR Total ($M)	2019-2033 PVRR Costs/(Savings) ($M)	Rank
Scenario 1	15,676	0	2	9,823	0	2
Scenario 2	15,661	(15)	1	9,733	(90)	1
Scenario 3	15,736	61	3	9,854	31	3
Scenario 4	15,738	62	4	9,864	42	5
Scenario 5	15,743	68	5	9,856	33	4
Base - High Forecast						
	2019-2054 PVRR Total ($M)	2019-2054 PVRR Costs/(Savings) ($M)	Rank	2019-2033 PVRR Total ($M)	2019-2033 PVRR Costs/(Savings) ($M)	Rank
Scenario 1	18,258	0	2	10,217	0	2
Scenario 2	18,239	(19)	1	10,122	(95)	1
Scenario 3	18,316	58	3	10,245	28	3
Scenario 4	18,316	58	4	10,255	38	4
Scenario 5	18,533	275	5	10,268	51	5

Q. Please describe Scenario 2 in more detail.

A. As described earlier in my testimony, Scenario 2 assumes a start date for reduced operations at Tolk Station beginning in 2019. The reduced operations assume T1 and T2 will operate at minimum load (or equivalent generation) for the months of October – May and are available for economic dispatch for the months of June – September of each year. This operating schedule continues through EOY 2020. Beginning in 2021, T1 and T2 are off-line October – May each year and are available for economic dispatch for the months of June – September.

Also, as described by SPS witness Jarred J. Cooley, it will be necessary to install one or more synchronous condenser(s) at Tolk. Because of the time required to acquire and install the synchronous condenser(s), it is not feasible to take both Tolk generating units off-line during the off-peak months beginning in 2019. Scenario 2 assumes two synchronous condensers are installed by EOY 2020.

Q. If SPS's analysis shows that the retirement date for Tolk could be earlier than 2032, why does SPS propose a 2032 retirement date for ratemaking purposes?

A. SPS is proposing a 2032 retirement date to be conservative for ratemaking purposes. SPS first requested the retirement date EOY 2032 in Docket No. 47527. As explained by Mr. Lytal, the useful lives of the Tolk units have diminished due to further decline in the aquifer. However, as discussed by Mr. Grant, SPS has taken steps to make it feasible to operate the Tolk units until 2032. Many factors will impact the useful life of the Tolk units, including future water usage from the aquifer, load requirements on the SPS system, and fuel prices. For these reasons, SPS is proposing an EOY 2032 retirement date for Tolk in this rate case.

C. Additional Strategist Analysis

Q. Did SPS perform any other analyses to determine the costs and benefits of each operating scenario?

A. Yes. As I describe above, the Base Case analysis included many input assumptions. One of those assumptions was the energy cost for new wind and solar generation facilities. The resulting resource expansion plan in each of the

operating scenarios analyzed in the Base Case includes new solar and wind generation. SPS performed additional analyses assuming that only thermal resources are available for resource expansion planning purposes (Thermal Case). SPS did a Base Forecast, High Forecast, and Low Forecast sensitivity analysis on the Thermal Case. Results of the Thermal Case analysis are shown below in Table BFW-RR-4. The workpapers that relate to this analysis are provided in Attachment BFW-RR-4(CD).

Table BFW-RR-4

Thermal - Base Forecast						
	2019-2054 PVRR Total ($M)	2019-2054 PVRR Costs/(Savings) ($M)	Rank	2019-2033 PVRR Total ($M)	2019-2033 PVRR Costs/(Savings) ($M)	Rank
Scenario 1	17,675	0	2	10,378	0	2
Scenario 2	17,612	(62)	1	10,236	(142)	1
Scenario 3	17,733	59	3	10,407	29	4
Scenario 4	17,737	62	4	10,406	28	3
Scenario 5	17,874	199	5	10,464	86	5
Thermal - Low Forecast						
	2019-2054 PVRR Total ($M)	2019-2054 PVRR Costs/(Savings) ($M)	Rank	2019-2033 PVRR Total ($M)	2019-2033 PVRR Costs/(Savings) ($M)	Rank
Scenario 1	16,291	0	2	10,106	0	2
Scenario 2	16,233	(58)	1	9,968	(138)	1
Scenario 3	16,351	60	4	10,137	31	4
Scenario 4	16,351	60	3	10,132	26	3
Scenario 5	16,473	182	5	10,203	97	5
Thermal - High Forecast						
	2019-2054 PVRR Total ($M)	2019-2054 PVRR Costs/(Savings) ($M)	Rank	2019-2033 PVRR Total ($M)	2019-2033 PVRR Costs/(Savings) ($M)	Rank
Scenario 1	19,634	0	2	10,685	0	2
Scenario 2	19,563	(70)	1	10,534	(150)	1
Scenario 3	19,689	56	3	10,711	26	3
Scenario 4	19,700	66	4	10,717	32	4
Scenario 5	19,860	226	5	10,755	70	5

Q. What do the results of the Thermal Case analysis show?

A. The results of the Thermal Case analysis show that Scenario 2 is the most cost-effective alternative in all the gas forecast sensitivity analyses.

Q. Were other sensitivity analyses performed by SPS?

A. Yes. SPS performed a low load analysis on the Base Case and Thermal Case (Low Load Case). The gas and market price sensitivities were also performed on the Low Load Case. Table BFW-RR-5 (next two pages) shows the results of the Low Load Case. The workpapers that relate to this analysis are provided in Attachment BFW-RR-5(CD).

Table BFW-RR-5

Base Low Load - Base Forecast						
	2019-2054 PVRR Total ($M)	2019-2054 PVRR Costs/(Savings) ($M)	Rank	2019-2033 PVRR Total ($M)	2019-2033 PVRR Costs/(Savings) ($M)	Rank
Scenario 1	14,644	0	2	8,833	0	3
Scenario 2	14,656	12	3	8,832	(1)	2
Scenario 3	14,746	102	4	8,954	121	5
Scenario 4	14,752	107	5	8,945	112	4
Scenario 5	14,631	(14)	1	8,803	(30)	1
Base Low Load - Low Forecast						
	2019-2054 PVRR Total ($M)	2019-2054 PVRR Costs/(Savings) ($M)	Rank	2019-2033 PVRR Total ($M)	2019-2033 PVRR Costs/(Savings) ($M)	Rank
Scenario 1	13,783	0	3	8,697	0	3
Scenario 2	13,742	(41)	2	8,688	(9)	2
Scenario 3	13,830	47	5	8,809	112	5
Scenario 4	13,830	47	4	8,796	99	4
Scenario 5	13,732	(51)	1	8,675	(23)	1
Base Low Load - High Forecast						
	2019-2054 PVRR Total ($M)	2019-2054 PVRR Costs/(Savings) ($M)	Rank	2019-2033 PVRR Total ($M)	2019-2033 PVRR Costs/(Savings) ($M)	Rank
Scenario 1	15,877	0	1	8,985	0	2
Scenario 2	15,963	87	3	8,991	7	3
Scenario 3	16,054	178	4	9,115	130	5
Scenario 4	16,071	195	5	9,112	127	4
Scenario 5	15,919	43	2	8,944	(41)	1

Table BFW-RR-5 (continued)

Thermal Low Load - Base Forecast						
	2019-2054 PVRR Total ($M)	2019-2054 PVRR Costs/(Savings) ($M)	Rank	2019-2033 PVRR Total ($M)	2019-2033 PVRR Costs/(Savings) ($M)	Rank
Scenario 1	15,612	0	2	9,236	0	3
Scenario 2	15,477	(135)	1	9,012	(224)	1
Scenario 3	15,632	20	3	9,225	(11)	2
Scenario 4	15,652	41	4	9,256	20	5
Scenario 5	15,661	49	5	9,238	2	4
Thermal Low Load - Low Forecast						
	2019-2054 PVRR Total ($M)	2019-2054 PVRR Costs/(Savings) ($M)	Rank	2019-2033 PVRR Total ($M)	2019-2033 PVRR Costs/(Savings) ($M)	Rank
Scenario 1	14,502	0	2	9,040	0	3
Scenario 2	14,370	(132)	1	8,819	(221)	1
Scenario 3	14,525	23	3	9,032	(9)	2
Scenario 4	14,545	44	5	9,064	23	5
Scenario 5	14,525	23	4	9,050	9	4
Thermal Low Load - High Forecast						
	2019-2054 PVRR Total ($M)	2019-2054 PVRR Costs/(Savings) ($M)	Rank	2019-2033 PVRR Total ($M)	2019-2033 PVRR Costs/(Savings) ($M)	Rank
Scenario 1	17,193	0	2	9,455	0	4
Scenario 2	17,056	(137)	1	9,228	(227)	1
Scenario 3	17,211	18	3	9,441	(14)	2
Scenario 4	17,231	38	4	9,472	17	5
Scenario 5	17,284	91	5	9,450	(5)	3

Q. What do the results of the Low Load Case analysis show?

A. Although the Base Low Load analysis shows that Scenario 5 is the most cost-effective, that result only occurred in three of the 12 sensitivities that SPS analyzed. Scenario 2 is ranked #2 in the Base and Low Forecasts and #3 in the High Forecast sensitivities. The Thermal Low Load analysis shows that Scenario 2 is the most cost-effective alternative in all the gas forecast sensitivities.

D. Conclusion

Q. What conclusion can be drawn based on the results of the Tolk operating scenario analyses?

A. Based on the results of Base Case, Thermal Case, and Low Load analyses as described earlier in my testimony, Scenario 2 is the most cost-effective option and SPS is requesting an EOY 2032 retirement date for Tolk in this rate case.

Q. If SPS's plan to manage the operations of Tolk to a planned EOY 2032 retirement date is not accepted, then what will be the consequence?

A. Rejection of SPS's plan would indicate the Commission's desire for SPS to resume "normal" operations at Tolk and not conserve water to manage the life of the plant. That would have the effect of further shortening the useful lives of the Tolk units to EOY 2025 (as per Scenario 1) instead of EOY 2032. This would, in turn, cause the need for the acquisition of a large amount of generation capacity to meet SPP's reliability requirements and the transmission needs on the SPS system. The earlier acquisition of capacity will cause an earlier cost impact to customers. This is illustrated in Table BFW-RR-3. The majority of the savings in Scenario 2 occurs in the first 15 years of the analysis. Attempting to keep the capacity provided by the Tolk plant until 2032 minimizes the cost impact to customers.

VII. AFFILIATE EXPENSES FOR THE RESOURCE PLANNING CLASS OF SERVICES

Q. Earlier in your testimony, you referred to an "affiliate class." What do you mean by the terms "affiliate class" or "affiliate class of services"?

A. A portion of SPS's costs reflects charges for services provided by a supplying affiliate, specifically XES or one of the Operating Companies. 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 her direct testimony, Ms. Schmidt provides a detailed explanation of how the affiliate classes were developed and are organized for this case.

Q. Which affiliate class do you sponsor?

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

A. Summary of Affiliate Expenses for the Resource Planning Class of Services

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

A. Attachment MLS-RR-6 to Ms. Schmidt'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 seen on that attachment, the Resource Planning affiliate class was part of the Utilities business area during the Updated Test Year. Attachment BFW-RR-2 to my testimony is an organization chart showing the Resource Planning organization.

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

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

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

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

Table BFW-RR-5

		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	$3,348,157	$210,377	0%	100%

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

Requested Amount of XES Class Expenses Billed to SPS (total company)	Requested dollar amount of XES expenses to SPS (total company) for this affiliate class after exclusions and pro forma adjustments. This is the amount from Column K in Attachment BFW-RR-A.
% Direct Billed	The percentage of SPS's requested XES expenses (total company) for this class that were billed 100% to SPS.
% Allocated	The percentage of SPS's requested XES expenses (total company) for this class that were allocated to SPS.

Q. Please describe the attachments that support the information provided on Table BFW-RR-5.

A. There are four attachments to my testimony that present information about the requested SPS affiliate expenses for the Resource Planning affiliate class.

Attachment BFW-RR-A: Provides a summary of the affiliate expenses for this class during the Updated Test Year. The portion of the summary specific to billings to SPS starts with the total of the XES expenses to SPS for the services provided by this affiliate class and ends with the requested dollar amount of XES expenses to SPS (total company) for this affiliate class after exclusions and pro forma adjustments. The columns on this attachment provide the following information.

Column A —	Line No.	Lists the Attachment line numbers.
Column B —	Affiliate Class	Lists the affiliate class.
Column C —	Billing Method (Cost Center)	Shows the billing method that XES uses to charge the expenses to the affiliates, and the billing method short title. In her direct testimony, Ms. Schmidt explains the billing methods and defines the codes.

Column D —	Allocation Method	Shows the allocation method applicable to the billing method (cost center).
Column E —	Total XES 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.

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

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

Column A —	Line No.	Lists the Attachment line numbers.
Column B —	Legal Entity Receiving XES 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 her direct testimony, Ms. Schmidt explains the billing methods and defines the codes.
Column G —	FERC Account	Shows the FERC Account in which the expense was recorded for the operating companies.
Column H —	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 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.

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

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

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

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

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

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

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

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

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

A. Yes. As I mentioned earlier, pro forma adjustments are revisions to Updated Test Year expenses for known and measurable changes. Pro forma adjustments are shown on Attachment BFW-RR-A, Column J, and on Attachment BFW-RR-B(CD), Column M. The details for the pro forma adjustments, including the witness or witnesses who sponsor each pro forma adjustment, are provided in Attachment BFW-RR-D. Given the time of SPS's initial filing, only the first nine months of the Updated Test Year have completed the full pro forma adjustment review process. In SPS's 45-day case update, I will present an updated Attachment BFW-RR-D that will complete the full pro forma adjustment review process for the last three months of the Updated Test Year.

Q. Attachment BFW-RR-D shows that you sponsor pro forma adjustments for expenses for the Resource Planning affiliate class during the first nine months of the Updated Test Year that result in a decrease for the Resource Planning affiliate class of $87.18. Please explain the adjustments.

A. The adjustments that I sponsor remove costs not benefitting SPS in the amount of $87.18.

B. The Resource Planning Class of Services are Necessary Services

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

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

Q. What are the specific services that are provided to SPS by the Resource Planning affiliate class?

A. The specific services that are provided to SPS by the Resource Planning affiliate class are:

- aligning and analyzing customer load forecasts with available resources to determine resource needs, and then evaluating alternative capacity and energy resources that could be used to meet the forecasted resource needs;

- evaluating how different resource technologies integrate with SPS's existing system to serve the overall system capacity and energy needs in a cost effective and reliable manner, including the use of computer simulation tools (such as Strategist and PLEXOS) that seek a least-cost solution that is consistent with resource availability, predicted market conditions and fuel costs, power supply reliability, system reliability, and electric system constraints;

- developing and implementing comprehensive integrated electric resource plans that ensure adequate generation sources are developed or acquired on a timely basis;

- preparing requests for proposals, conducting competitive resource solicitations, selecting criteria for use in the bid evaluation phase, evaluating the bids to identify the most cost-effective resource to meet the need in a timely manner, and clarifying bid details; and

- developing generation plans that align with long-term transmission plans to deliver energy and capacity from owned and contracted generation to system loads.

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

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

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

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

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

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

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

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

1. Additional Evidence

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

A. Yes. Of the estimated Updated Test Year costs for the Resource Planning affiliate class, 94.46% are compensation and benefits costs for personnel performing resource planning work. SPS witnesses Michael T. Knoll and Richard R. Schrubbe establish that the level of Xcel Energy's compensation and benefits is reasonable and necessary.

2. Budget Planning

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

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

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

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

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

A. Yes. A budgetary goal is incorporated into the Area Vice President's performance 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 2016, 2017, and 2018 (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-6

	(Per Book) Charges Over Time			
Class of Services	2016	2017	2018	Updated Test Year (Estimated)
Resource Planning	$828,944	$848,317	$674,874	$704,556

Q. What are the reasons for this trend?

A. The overall trend reflects that the department provided fewer services to SPS in 2018 and the Updated Test Year than it had previously.

4. Staffing Trends

Q. Please provide the staffing levels for the Resource Planning class of services for the three fiscal years preceding the end of the Updated Test Year and for the Updated Test Year.

A. The following table shows, for the fiscal years 2016, 2017, and 2018 (calendar years) and for the Updated Test Year, the average of the end of month staffing levels for the Resource Planning class of services.

Table BFW-RR-7

	Average End of Month # of Staff			
Class of Services	2016	2017	2018	Updated Test Year (Estimated)
Resource Planning	18	19	21	20

Q. What are the reasons for this trend?

A. In mid-2017, the Resource Planning group added three direct reports to help assist its Strategic Asset Planning Directors, which resulted in average staffing levels increasing by two between 2017 and 2018.

5. Cost Control and Process Improvement Initiatives

Q. Separate from the budget planning process, does the Resource Planning affiliate class take any steps to control its costs or to improve its services?

A. Yes. Resource Planning focuses on the efficient use of personnel and resources, including sharing market and forecasting data among the Operating Companies.

This has enabled Resource Planning to reduce its cost of researching data while providing a more comprehensive view of the future energy and generation markets.

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

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

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

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

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

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

the Updated Test Year provide actual data and conform to the information provided for the first nine months. If the predominant billing methods and associated allocation methods for the Resource Planning affiliate O&M expenses on my updated Attachments BFW-RR-A and BFW-RR-B(CD) differ from those discussed below, I will explain those differences in supplemental testimony in SPS's 45-day case update filing

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

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

- MWH Generation: 99.64% of XES charges to SPS were $209,630.75; and
- Assets, Revenue, and Number of Employees: 0.46% of XES charges to SPS were $958.10.

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

A. Cost Center 200136, which uses the "MWH Generation" method as the allocator, captures the costs associated with providing services necessary to supply the Operating Companies' electric systems with reliable energy and fuel supplies. For example, the costs related to the Area Vice President oversight of resource planning activities are included in the cost center. Thus, this cost center allocates costs among the Operating Companies based upon their proportionate share of MWh of generation (i.e., the MWh of generation of a particular Operating

Company as a percentage of the total MWh of generation of all of the Operating Companies). This allocation reflects cost causation and the distribution of the benefits of the services received. For the cost centers that assign costs based upon this allocation method, the per unit amounts charged by XES to SPS as a result of the application of this allocation method are no higher than the per unit amounts billed by XES to other affiliates for the same or similar services and represent the actual costs of the services.

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

A. The three factor allocation method using assets, revenue, and employees produces an allocation of costs that recognizes the complexity, risk, and overall business activity levels that drives the costs included in the cost centers and measures the benefits received from those activities. For the cost centers billed using this allocator, there is no one specific cost driver for the support tasks and services provided, and the services benefit multiple Xcel Energy affiliates. For example, the costs associated with ensuring compliance with applicable laws and regulations of the Operating Companies are collected in Cost Center 200087, which uses this allocation method. Within the Xcel Energy holding company group, the legal entities that have proportionately more assets, revenues, and employees will have more focus placed on their operations due to those subsidiaries' relative influence on the consolidated business balance sheet, income statement and statement of cash flow, and the subsidiaries will benefit accordingly

from the services provided. Thus, allocating these costs based upon the average of the total asset ratio, revenue ratio, and the employee ratio is appropriate because it allocates costs in accordance with cost causation and benefits received. Ms. Schmidt discusses this allocation method in more detail in her testimony. For the cost centers that assign costs based upon this allocation method, the per unit amounts charged by XES to SPS as a result of the application of this allocation method are no higher than the unit amounts billed by XES to other affiliates for the same or similar services and represent the actual costs of the services.

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

A. Yes.

AFFIDAVIT

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
BENNIE F. WEEKS

Subscribed and sworn to before me this 29 day of July, 2019 by BENNIE F. WEEKS.

MARY C. JOHNSON
Notary Public, State of Texas
Notary ID #12084834
My Commission Expires 08-28-2020

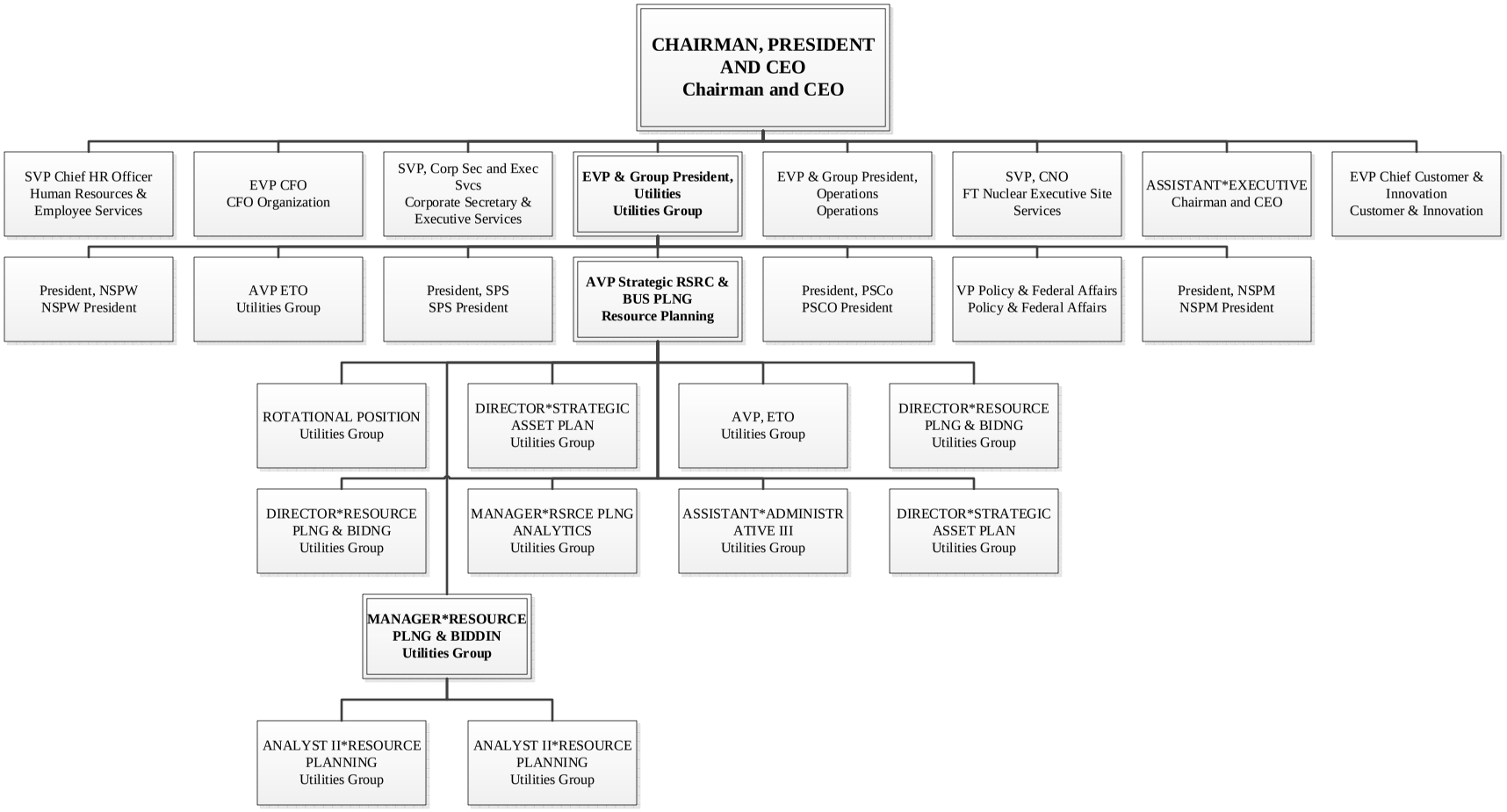
Mary C Johnson
Notary Public, State of Texas

My Commission Expires: 8.28.2020

Attachment BFW-RR-1			
Docket/Case Number	**Regulatory Commission**	**Type of Case**	**Subjects of Testimony**
48973	Public Utility Commission of Texas ("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	
45524	PUCT	Base Rate Case	
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
18-00308-UT	New Mexico Public Regulation Commission ("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 FFPCAC	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 March 31, 2019



Southwestern Public Service Company

Strategist Base Case Analysis Workpapers

Bennie F. Weeks

2019 TX Rate Case

APPLICATION OF
SOUTHWESTERN PUBLIC SERVICE COMPANY
FOR AUTHORITY TO CHANGE RATES

BFW-RR-3(CD)

Southwestern Public Service Company

Strategist Thermal Case Analysis Workpapers

Bennie F. Weeks

2019 TX Rate Case

APPLICATION OF
SOUTHWESTERN PUBLIC SERVICE COMPANY
FOR AUTHORITY TO CHANGE RATES

BFW-RR-4(CD)

Southwestern Public Service Company Strategist

Low Load Case Analysis Workpapers

Bennie F. Weeks

2019 TX Rate Case

APPLICATION OF
SOUTHWESTERN PUBLIC SERVICE COMPANY
FOR AUTHORITY TO CHANGE RATES

BFW-RR-5(CD)

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

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Line No.	**Affliate 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 for 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	200087 - Accounting - Operating Companies	Assets/Revenue/No. of employees	$ (4,046.70)	$ (3,462.29)	$ (584.41)	$ -	$ (584.41)	$ (17.53)	$ (601.94)	-0.29%
2	Resource Planning	200092 - Corp Strategy & Bus Dev - OpCo	Assets/Revenue/No. of employees	10,487.57	8,972.97	1,514.60	-	1,514.60	45.44	1,560.04	0.74%
3	Resource Planning	200135 - Energy Supply Business Resources	MWH Generation	3,844.99	3,000.96	844.03	-	844.03	-	844.03	0.40%
4	Resource Planning	200136 - Energy Markets - Fuel	MWH Generation	938,476.48	725,182.44	213,294.04	(1,417.16)	211,876.88	(3,090.16)	208,786.72	99.24%
5	Resource Planning	Direct	Direct	2,399,394.46	1,908,489.77	490,904.69	-	490,904.69	(491,116.97)	(212.28)	-0.10%
6	**Resource Planning Total**			**$ 3,348,156.80**	**$ 2,642,183.85**	**$ 705,972.95**	**$ (1,417.16)**	**$ 704,555.79**	**$ (494,179.23)**	**$ 210,376.56**	**100.00%**
7	**Total - Witness Bennie F. Weeks**			**$ 3,348,156.80**	**$ 2,642,183.85**	**$ 705,972.95**	**$ (1,417.16)**	**$ 704,555.79**	**$ (494,179.23)**	**$ 210,376.56**	
	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

2019 TX Rate Case

APPLICATION OF
SOUTHWESTERN PUBLIC SERVICE COMPANY
FOR AUTHORITY TO CHANGE RATES

BFW-RR-B(CD)

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

(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	$ (454.01)
2	Resource Planning	426.5 - Other Deductions	Below the line	(963.15)
3	**Resource Planning Total**			**$ (1,417.16)**
4				
5	**Total - Witness Bennie F. Weeks**			**$ (1,417.16)**
	Amounts may not add or tie to other schedules due to rounding.			

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

(A) Line No.	(B) Affiliate Class	(C) FERC Account	(D) Explanation for Pro Formas	(E) Sponsor	(F) Pro Formas (Total Company)
1	Resource Planning	408.1 - Tax Other Than Income Tax - Payroll	Foundation	William Grant	$ (27,910.63)
2	Resource Planning	556 - System control and load dispatching	3% Wage Adjustment	Arthur Freitas/Michael Knoll	(6.18)
3	Resource Planning	557 - Other expenses	Foundation	William Grant	(327,655.97)
4	Resource Planning	920 - Administrative and general salaries	116.5% Incentive	Arthur Freitas/Michael Knoll	(3,147.39)
5	Resource Planning	920 - Administrative and general salaries	3% Wage Adjustment	Arthur Freitas/Michael Knoll	3,573.25
6	Resource Planning	920 - Administrative and general salaries	Foundation	William Grant	(24,960.89)
7	Resource Planning	921 - Office supplies and expenses	Business Area Adjustment	Bennie Weeks	(87.18)
8	Resource Planning	925 - Injuries & Damages	Foundation	William Grant	(496.32)
9	Resource Planning	926 - Employee pensions and benefits	Foundation	William Grant	(110,086.98)
10	Resource Planning	926 - Employee pensions and benefits	Pension & Benefits Adjustment	William Grant	(3,400.94)
11	**Resource Planning Total**				**$ (494,179.23)**
12					
13	**Total Witness - Bennie F. Weeks**				**$ (494,179.23)**
	Amounts may not add or tie to other schedules due to rounding				