BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF SOUTHWESTERN PUBLIC SERVICE COMPANY'S ANNUAL 2021 RENEWABLE ENERGY PORTFOLIO PROCUREMENT PLAN AND REQUESTED APPROVALS THEREIN; PROPOSED 2021 RENEWABLE PORTFOLIO STANDARD COST AND RECONCILIATION RIDERS; APPLICATION FOR AN RPS INCENTIVE; AND OTHER ASSOCIATED RELIEF,	)	**CASE NO. 20-00xxx-UT**
SOUTHWESTERN PUBLIC SERVICE COMPANY,	)	
APPLICANT.	)	

DIRECT TESTIMONY

of

BEN R. ELSEY

on behalf of

SOUTHWESTERN PUBLIC SERVICE COMPANY

July 1, 2020

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GLOSSARY OF ACRONYMS AND DEFINED TERMS

Acronym/Defined Term	Meaning
2018 IRP	SPS's 2018 Integrated Resource Plan
Bonita	Bonita Wind Energy, LLC
Chaves	Chaves County Solar, LLC
Commission	New Mexico Public Regulation Commission
ETA	Energy Transition Act
GIA	Generator Interconnection Agreement
GI Queue	SPP study process for interconnecting new generation resources
IRP	Integrated Resource Plan
Mammoth	Mammoth Plains Wind Project Holdings, LLC
MWh	megawatt-hour
Next Plan Year	SPS's filing for Plan Year 2022
Palo Duro	Palo Duro Wind Energy, LLC
Plan Year	SPS's Filing for Plan Year 2021
PPA	purchased power agreement
RCT	Reasonable cost threshold
REA	Renewable Energy Act
REC	Renewable Energy Certificate
Roswell	Roswell Solar, LLC
RPS	Renewable Portfolio Standard

Acronym/Defined Term	Meaning
Rule 572	Renewable Energy Rule (17.9.572 NMAC)
SPP	Southwest Power Pool
SPS	Southwestern Public Service Company, a New Mexico corporation
VIS	Variable Generation Integration Study
WIS	Wind Integration Study
Xcel Energy	Xcel Energy Inc.
XES	Xcel Energy Services Inc.

LIST OF ATTACHMENTS

Attachment	Description
BRE-1	Forecasted RPS compliance position with existing REC acquisitions for the Plan Year and Next Plan Year
BRE-2	Forecasted RPS compliance position with existing REC acquisitions: Years 2021 – 2030
BRE-3	Forecasted RPS compliance position with proposed REC acquisitions: Years 2021 – 2030

Case No. 20-00xxx-UT
Direct Testimony
of
Ben R. Elsey

I. WITNESS IDENTIFICATION AND QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Ben R. Elsey. My business address is 1800 Larimer, Denver, Colorado 80202.

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") as Analyst II, Resource Planning.

Q. Please briefly outline your responsibilities as Analyst II, Resource Planning.

A. I am responsible for working with other analysts and planners in the development of strategic resource plans for SPS including: need assessment, planning, solicitation and negotiation of long-term purchased power agreements ("PPA"), and financial analysis of various resource and purchase/sales options.

Q. Please describe your educational background.

A. I graduated from Plymouth College of Further Education in Great Britain with a Higher National Certificate in Building Studies in 2004. Since relocating to the United States, I have graduated from Amarillo College with an Associate's Degree in Business Administration in 2017 and am currently pursuing a Bachelor's Degree in Accounting from Colorado State University.

Q. Please describe your professional experience.

A. I began employment with Xcel Energy in June 2012 as a Project Control Specialist in the Engineering and Construction department within Energy Supply. In 2015, I moved into the role of Construction Estimator within the same department. In each of these roles, my responsibilities included producing cost assumptions and estimates to be used in modeling and completing financial analysis and cost forecasting of capital projects. In 2017, I entered into my current position as Analyst II, Resource Planning. Prior to joining Xcel Energy, I worked for various construction companies in Great Britain and the United States as an estimator, quantity surveyor, and contracts manager.

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

A. Yes. I filed testimony with the New Mexico Public Regulation Commission ("Commission") in SPS's 2018 and 2019 Renewable Portfolio Standard ("RPS") filings, Case Nos. 18-00201-UT and 19-00134-UT.

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. What is the purpose of your testimony in this proceeding?

A. As part of my testimony, I will:

- provide an overview of the Resource Planning process;
- present SPS's RPS requirements in the 2021 Plan Year ("Plan Year") and 2022 Next Plan Year ("Next Plan Year");
- support SPS's conclusion that it has or will have renewable energy certificates ("REC") sufficient to comply with its Plan Year and Next Plan Year RPS requirements;
- present SPS's RPS projected compliance position through 2030, which is the year that RPS requirements increase to 50%;
- support SPS's request for authorization to acquire the New Mexico load ratio share of RECs associated with the following renewable energy PPAs: (i) Bonita Wind Energy, LLC ("Bonita"); (ii) Roswell Solar, LLC ("Roswell"); (iii) Chaves County Solar, LLC ("Chaves"); (iv) Mammoth Plains Wind Project Holdings, LLC ("Mammoth"); and (v) Palo Duro Wind Energy, LLC ("Palo Duro");
- support SPS's request to acquire the RECs associated with unassigned capacity from the Roswell and Chaves PPAs;[1] and

[1] The Renewable Energy Act ("REA") states that "a public utility shall meet the renewable portfolio standard requirements. . . to include renewable energy in its electric energy supply portfolio as demonstrated by its retirement of renewable energy certificates; provided that the associated renewable energy is delivered to the public utility and assigned to the public utility's New Mexico customers. . ." NMSA 1978, § 62-16-4 (A). Because my testimony and attachments focus on compliance, I assume the RECs are associated with energy assigned to SPS's New Mexico customers. Ms. Sakya addresses this request, including SPS's request to assign unassigned energy to New Mexico retail customers, in her direct testimony.

- demonstrate that the portfolio procurement plan is consistent with SPS's Integrated Resource Plan ("IRP") and explain any material differences.

Q. Do you sponsor or co-sponsor any sections of the 2021 RPS Plan presented by SPS witness Ruth M. Sakya?

A. Yes. I co-sponsor Sections II(A), II(B), II(E), and III of the 2021 RPS Plan which is provided as Attachment RMS-3 to the Direct Testimony of Ms. Sakya.

Q. Were Attachments BRE-1, BRE-2, and BRE-3 prepared by you or under your direct supervision and control?

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 Southwest Power Pool's ("SPP") 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

the SPP, which currently requires each member to have a planning reserve margin of at least 12.0% of its peak demand forecast, pursuant to SPP's rules for capacity accreditation. Compliance with this SPP planning reserve margin is a consideration in the resource planning process and does not substitute for overall resource planning approaches necessary to ensure that SPS customers' needs will be met and that SPS will achieve compliance with state programs such as the New Mexico RPS.

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. 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 cost-effective manner, without assuming unwarranted risks on behalf of customers or SPS. 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 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.

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 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.[2]

[2] In her direct testimony, Ms. Sakya demonstrates a number of times where SPS has procured economic renewable resources outside the RPS process.

Q. Do the requirements of the RPS as amended by the Energy Transition Act ("ETA") change SPS's planning process?

A. No. SPS already incorporates regulatory requirements, such as the RPS, in its resource planning processes. The ETA will not change the planning processes, though it will be a consideration taken into account during the planning processes. The increase in the renewable generation requirements by the ETA will likely impact the type(s) of resources SPS seeks in its future resource acquisitions.

Q. Do the requirements of the RPS as amended by the ETA change SPS's evaluation process?

A. No, SPS's process does not change, but the RPS requirement as amended by the ETA, including the updated reasonable cost threshold ("RCT") must be considered in that process. Again, SPS already incorporates regulatory requirements when evaluating resource decisions. However, the higher RPS requirements will likely increase the amount of renewable generation SPS is mandated to procure. Therefore, in many future resource planning evaluations, the ultimate decision will be based on complying with the requirements of the RPS and not necessarily the traditional "least-cost, least-risk" option.

Q. How do the two SPS Plan requests, presented by Ms. Sakya, compare to the RCT?

A. Each proposal is well within the constraints of the RCT. The REA defines the RCT as the average levelized cost of $60.00 per megawatt hour ("MWh") at the point of interconnection of the renewable energy resource with the transmission system, adjusted for inflation after 2020. As Ms. Sakya describes in her testimony, SPS is proposing: (1) the purchase of existing RECs at a cost of $0.54 to $1.05 and (2) the purchase of the energy and associated RECs from the unassigned portion of the Roswell and Chaves long-term PPAs. The levelized price over the term of the Roswell PPA is $41.55/MWh, and $42.08/MWh over the term of the Chaves PPA. As discussed by Ms. Sakya, the cost of the Roswell and Chaves proposal is significantly lower than the RCT, as is the proposal to purchase existing RECs of the other facilities.

IV. CALCULATION OF RPS REQUIREMENT FOR THE PLAN YEAR AND NEXT PLAN YEAR

Q. What are SPS's Plan Year and Next Plan Year RPS requirements?

A. The REA and Renewable Energy Rule (17.9.572 NMAC) ("Rule 572") require SPS to supply no less than 20% of SPS's New Mexico retail energy sales by renewable energy during the Plan Year and Next Plan Year. *See* Rule 572.10(B)(3) and NMSA § 62-16-4 (A)(2).[3] Based on SPS's projected Plan Year and Next Plan Year total retail sales, SPS's overall RPS requirement for the Plan Year and Next Plan Year are 1,556,180 MWh and 1,788,814 MWh, respectively. Please refer to Attachment RMS-3, (Appendix A, pages 1-2, line 5) to the direct testimony of Ms. Sakya.

Q. How did SPS determine its projected Plan Year and Next Plan Year New Mexico retail energy sales?

A. As part of its normal course of business, SPS projects monthly energy (kWh) sales on an annual basis. XES's Forecasting Department provides total billed retail sales, by month, for each New Mexico retail rate class. SPS's sales forecast

[3] Per NMSA § 62-16-7 (B)(2), New Mexico retail energy sales to be reduced by the volume of renewable energy purchased through a voluntary program prior to applying the RPS percentage.

is developed using industry standard multiple regression modeling techniques and includes appropriate adjustments to account for energy efficiency and load management programs, new load growth, and customers switching between rate classes.

Q. Do the projected Plan Year and Next Plan Year retail energy sales assume normal weather conditions?

A. Yes. Normal daily weather conditions were based on the average of the last 30 years of historical heating-degree days and cooling-degree days.

Q. Can you summarize SPS's forecasted compliance position for the Plan Year and Next Plan Year based on existing resources in SPS's generation portfolio?

A. Yes. Using SPS's most current load forecast produced in April 2020, SPS will comply with the RPS requirement for the Plan Year and Next Plan Year. Attachment BRE-1 provides SPS's annual projected RPS requirement, generation and retirement of RECs, and SPS's compliance position for the Plan Year and Next Plan Year.

V. CALCULATION OF RPS REQUIREMENTS AND COMPLIANCE POSITION THROUGH 2030

Q. Please briefly describe this section of your testimony.

A. In my direct testimony from SPS's 2019 RPS filing, Case No 19-00134-UT, I described how demonstrating compliance with the Plan Year and Next Plan year is not reflective of the long-term nature of resource planning. In other words, acquiring new, cost-effective renewable generation is often a multi-year process; thus, for SPS to evaluate all viable options, SPS should review RPS compliance over a longer planning period. In this section, I present a look-ahead of SPS's compliance position through 2030, which includes the increased REA RPS requirement in 2025, to 40%, and the next requirement increase to 50%. For clarity, I am not suggesting SPS needs to demonstrate compliance throughout this period, only that SPS should consider a longer-term planning horizon in its decision making. Attachment BRE-2 provides SPS's annual projected RPS requirement, generation and retirement of RECs, and SPS's compliance position for the years 2021 through 2030. Attachment BRE-2 does not include any of the additional REC acquisitions SPS is requesting in this proceeding.

Q. Can you summarize the results shown in Attachment BRE-2?

A. Yes. The projections indicate that SPS will remain in compliance through 2026. This includes reliance on banked RECs to meet compliance beginning in 2025, when SPS is to supply no less than 40% of SPS's New Mexico retail energy sales by renewable energy.

Q. What is SPS recommending in this case?

A. As described by Ms. Sakya in her direct testimony, SPS is requesting Commission approval to purchase the New Mexico load ratio share of RECs from SPS's existing long-term renewable purchased power agreements, notably Bonita, Roswell, Chaves, Mammoth, and Palo Duro. Ms. Sakya also discusses SPS's request for approval to acquire the energy and RECs associated with the unassigned capacity associated with Roswell and Chaves. As shown in Attachment BRE-3, the acquisition of low-cost additional RECs from existing facilities will extend SPS's projected compliance period beyond 2030, based on current load projections.

Q. If SPS is projected to be compliant through 2026 without acquiring these additional RECs, why is SPS requesting approval to acquire them?

A. The acquisition of low-cost RECs from existing long-term renewable PPAs, i.e., PPAs with resources from which SPS is already purchasing electricity to serve New Mexico customers, allows SPS to apply renewable energy already on SPS's system towards RPS compliance. This is particularly beneficial as the RPS requirement increases over time. Securing low-cost, long-term compliance with the RPS standard today allows SPS flexibility in the future to pursue the most optimal and cost-effective renewable resources.

For example, without the acquisition of additional RECs, SPS will be in compliance through 2026. SPS would need to begin now the process of acquiring additional renewable generation resources due to the length of time it currently takes to obtain a generator interconnection agreement ("GIA"). Additionally, based on recent SPP studies, new renewable generation resources could trigger very expensive network upgrade costs, which SPS would be required to accept to maintain RPS compliance, ultimately raising the cost of renewable generation that SPS would have to incur.

The acquisition of existing RECs would provide SPS with the option not to proceed with renewable projects that include excessive transmission network upgrade costs and remain in compliance. However, the acquisition of existing RECs would not prevent SPS from pursuing new economic renewable projects in the future.

Q. Can you elaborate on the time required to obtain a GIA?

A. Yes. Earlier, I described how SPS is a member of the SPP. It is the responsibility of the SPP to manage and study requests for interconnecting new generation resources ("GI Queue") to determine the need and costs of any new transmission network upgrades to accommodate interconnection to the transmission grid. The SPP interconnection study process continues to be overwhelmed by numerous requests which have created a backlog in processing and studying new generator applications. For example, if a proposed generator resource was to be submitted into the SPP GI Queue this year, the final interconnection costs will not be known for a minimum of five years and possibly longer. Therefore, if the acquisition of additional RECs is not approved in this case, I would recommend SPS immediately begin the process of pursuing additional renewable generation, with the understanding that transmission costs could potentially be extremely

expensive and that the resources could have significant cost uncertainty and schedule uncertainty.

Q. Does purchasing RECs as proposed mitigate the amount and impact of renewable energy that can be added in any given year without adding generating resources for load following or system regulation purpose?[4]

A. Yes. Because SPS is proposing to purchase RECs from existing resources, there is not a need to analyze the impact additional renewable resources may have on load following or system regulation. As Ms. Sakya discusses, system reliability has already been studied.

Q. If SPS did add new renewable resources to its system, how would SPS analyze the impact to load following and system regulation needs?

A. I stated earlier that SPS is a member of the SPP. The SPP is responsible for determining the impacts of adding additional renewable energy to the SPP transmission system. Beginning in 2009, SPP conducted a Wind Integration Study ("WIS"), which forecasted a significant increase of installed wind capacity in the SPP region. SPP implemented a number of recommendations from the

[4] *See* Rule 572.14(B)(9)

study to ensure continued reliable operation of the power grid. In 2015, after the SPP Integrated System was launched, SPP performed another WIS. A second phase of the 2015 study called the Variable Generation Integration Study ("VIS") began in 2016. The VIS was a detailed analysis that stressed the SPP transmission system to a point of instability to identify reliability impacts.

All of these studies have resulted in recommendations for additional solutions and enhancements for increased reliability of the bulk electric system. SPS, along with all members of SPP, are required to follow any resulting recommendations from the studies.

Currently, in conjunction with the WIS and VIS studies, SPP studies the impacts of additional renewable resources through its annual Integrated Transmission Planning process.

Q. Will purchasing existing RECs prevent SPS from acquiring additional renewable energy in the future?

A. No, particularly economic renewable energy resources. SPS has, and will continue, to seek opportunities to acquire economic renewable energy. As I describe above, the purchase of existing RECs will provide an inexpensive method to extend SPS's compliance period while providing flexibility in future

decision-making. In addition, the low-cost RECs from existing generation provide additional protection against uncertainty in SPS's modeling (e.g., New Mexico Retail sales being greater than projected).

Q. Could SPS's New Mexico Retail sales be greater than SPS projected in this case?

A. Yes. As I discussed previously, any projection or forecast has inherent uncertainty; this is especially true as projections or forecasts are extended out into the future. The COVID-19 global pandemic and collapse of oil prices has also increased load forecast uncertainty. Recently, SPS has experienced significant oil and gas load growth in southeast New Mexico. However, COVID-19 and the collapse of oil prices have disrupted this growth. I used SPS's COVID-19 load forecast in my projections, which includes only a moderate amount of future oil and gas growth. This is a conservative view of projected load growth in the Delaware Basin, if, or perhaps when, activity and load growth in the Delaware Basin returns to pre-COVID levels, the out-of-compliance date I present will be accelerated.

VI. 2018 IRP

Q. Is the current RPS filing reflected in SPS's 2018 IRP ("2018 IRP")?

A. No. The updated requirements of the RPS set by the ETA came into effect after SPS's 2018 IRP received Commission acceptance; therefore, the updated RPS requirements are not reflected in that filing.

Q. Would the updated requirements of the RPS change the action plan previously filed in the 2018 IRP?

A. As shown in Attachment BRE-1, SPS has sufficient resources, including banked RECs, to comply with the 2021 and 2022 RPS requirements. Therefore, the updated RPS requirements will not change the action plan for the Plan Year or Next Plan Year. However, looking beyond those plan years, SPS's 2021 IRP filing will address the increased RPS requirements, as amended by the ETA. Public meetings for SPS's 2021 IRP have begun.

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

A. Yes.

VERIFICATION

On this day, June 30, 2020, I, Ben R. Elsey, swear and affirm under penalty of perjury under the law of the State of New Mexico, that my testimony contained in Direct Testimony of Ben R. Elsey is true and correct.

/s/ Ben R. Elsey
BEN R. ELSEY

Southwestern Public Service Company
Summary RPS Position

Line No.				
1	**2020 - RPS Filing**			
2		**Unit**	**2021**	**2022**
3	Adjusted Load Forecast	GWh	7,781	8,944
4	REC Requirement	%	20%	20%
5	**NM - RPS Requirements**	**GWh**	**1,556**	**1,789**
6	Existing Agreements & WIP	GWh	2,333	2,475
7	**Total RECs**	**GWh**	**2,333**	**2,475**
8	**Annual Position - Long (Short)**	**GWh**	**777**	**686**
9	**Annual Position - Percentage**	**%**	**30%**	**28%**
10	**Banked Position - Long (Short)**			
11	Position Long / (Short)	RECs (000s)	2,629	3,315

Southwestern Public Service Company
RPS Position

Line No.				
1	**REC Requirements**			
2	**Load and Allocation**	**Unit**	**2021**	**2022**
3	Total Retail	GWh	23,576	25,028
4	NM Retail Allocation	%	33%	36%
5	**NM - Load Forecast**	GWh	**7,785**	**8,949**
6	Less Voluntary Programs (subscribed)	GWh	4	5
7	**NM - Adjusted Load Forecast**	**GWh**	**7,781**	**8,944**
8	RPS Requirement	%	20%	20%
9	**NM - RPS Requirements**	**GWh**	**1,556**	**1,789**
10	**Current Position**			
11	**Existing Facilities & Construction WIP w/ RECs**	**Unit**	**2021**	**2022**
12	Hale Wind	GWh	740	802
13	Sagamore Wind	GWh	812	880
14	Caprock	GWh	286	292
15	San Juan	GWh	370	378
16	Sun Edison 1-5	GWh	110	109
17	Mesaland	GWh	1	1
18	NM DG	GWh	13	12
19	**Existing REC Acquisitions**	**GWh**	**2,333**	**2,475**

Southwestern Public Service Company
RPS Position

Line No.				
20	**Filing Month**	Month	7	7
21	**Opening Banked Position**			
22	RECs less than 1 year old	MWh	1,454,599	972,001
23	RECs less than 2 years old	MWh	397,427	1,656,647
24	RECs less than 3 years old	MWh	-	-
25	RECs less than 4 years old	MWh	-	-
26	RECs lost this period	MWh	-	-
27	**RECs Generated this Period before Filing Date**	MWh	1,360,802	1,443,855
28	**RECs Generation this Period after Filing Date**	MWh	972,001	1,031,325
29	**RECs Available During this Period**			
30	RECs Generated after Filing Date	MWh	972,001	1,031,325
31	RECs less than 1 year old	MWh	2,815,401	2,415,857
32	RECs less than 2 years old	MWh	397,427	1,656,647
33	RECs less than 3 years old	MWh	-	-
34	RECs less than 4 years old	MWh	-	-
35	**RECs to be Retired this Period**	MWh	1,556,180	1,788,814
36	**Closing Banked Position**			
37	RECs Generated after Filing Date	MWh	972,001	1,031,325
38	RECs less than 1 year old	MWh	1,656,647	2,283,690
39	RECs less than 2 years old	MWh	-	-
40	RECs less than 3 years old	MWh	-	-
41	RECs less than 4 years old	MWh	-	-
42	**Final Position**	**RECs**	**2,628,649**	**3,315,015**

Southwestern Public Service Company
Summary RPS Position

Line No.											
1	**2020 - RPS Filing**										
2		**Unit**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
3	Adjusted Load Forecast	GWh	7,781	8,944	9,399	9,744	9,839	9,903	9,948	10,031	10,084	10,142
4	REC Requirement	%	20%	20%	20%	20%	40%	40%	40%	40%	40%	50%
5	**NM - RPS Requirements**	**GWh**	**1,556**	**1,789**	**1,880**	**1,949**	**3,935**	**3,961**	**3,979**	**4,012**	**4,033**	**5,071**
6	Existing Agreements & WIP	GWh	2,333	2,475	2,523	2,578	2,284	1,936	1,956	1,961	1,955	1,955
7	**Total RECs**	**GWh**	**2,333**	**2,475**	**2,523**	**2,578**	**2,284**	**1,936**	**1,956**	**1,961**	**1,955**	**1,955**
8	**Annual Position - Long (Short)**	**GWh**	**777**	**686**	**644**	**630**	**(1,651)**	**(2,026)**	**(2,023)**	**(2,051)**	**(2,078)**	**(3,116)**
9	**Annual Position - Percentage**	**%**	**30%**	**28%**	**27%**	**26%**	**23%**	**20%**	**20%**	**20%**	**19%**	**19%**
10	**Banked Position - Long (Short)**											
11	Position Long / (Short)	RECs (000s)	2,629	3,315	3,959	4,588	2,937	911	(1,112)	(3,163)	(5,242)	(8,357)

Southwestern Public Service Company
RPS Position

Line No.												
1	**REC Requirements**											
2	**Load and Allocation**	**Unit**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
3	Total Retail	GWh	23,576	25,028	25,231	25,512	25,618	25,352	25,190	25,401	25,534	25,682
4	NM Retail Allocation	%	33%	36%	37%	38%	38%	39%	40%	40%	40%	40%
5	**NM - Load Forecast**	GWh	**7,785**	**8,949**	**9,404**	**9,749**	**9,844**	**9,909**	**9,953**	**10,036**	**10,089**	**10,148**
6	Less Voluntary Programs (subscribed)	GWh	4	5	5	5	5	5	5	5	5	5
7	**NM - Adjusted Load Forecast**	**GWh**	**7,781**	**8,944**	**9,399**	**9,744**	**9,839**	**9,903**	**9,948**	**10,031**	**10,084**	**10,142**
8	RPS Requirement	%	20%	20%	20%	20%	40%	40%	40%	40%	40%	50%
9	**NM - RPS Requirements**	**GWh**	**1,556**	**1,789**	**1,880**	**1,949**	**3,935**	**3,961**	**3,979**	**4,012**	**4,033**	**5,071**
10	**Current Position**											
11	**Existing Facilities & Construction WIP w/ REC**	**Unit**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
12	Hale Wind	GWh	740	802	838	862	864	879	888	891	888	888
13	Sagamore Wind	GWh	812	880	917	943	945	962	972	975	972	972
14	Caprock	GWh	286	292	297	300	-	-	-	-	-	-
15	San Juan	GWh	370	378	375	378	380	-	-	-	-	-
16	Sun Edison 1-5	GWh	110	109	82	83	82	82	82	83	82	82
17	Mesaland	GWh	1	1	1	1	1	1	1	1	1	1
18	NM DG	GWh	13	12	12	12	12	12	12	12	12	12
19	**Existing REC Acquisitions**	**GWh**	**2,333**	**2,475**	**2,523**	**2,578**	**2,284**	**1,936**	**1,956**	**1,961**	**1,955**	**1,955**

Southwestern Public Service Company
RPS Position

Line No.												
20	**Filing Month**	Month	7	7	7	7	7	7	7	7	7	7
21	**Opening Banked Position**											
22	RECs less than 1 year old	MWh	1,454,599	972,001	1,031,325	1,051,374	1,074,294	951,811	806,499	(1,112,193)	(3,163,463)	(5,241,510)
23	RECs less than 2 years old	MWh	397,427	1,656,647	2,283,690	2,503,249	2,555,386	1,985,148	104,736	-	-	-
24	RECs less than 3 years old	MWh	-	-	-	403,920	958,402	-	-	-	-	-
25	RECs less than 4 years old	MWh	-	-	-	-	-	-	-	-	-	-
26	RECs lost this period	MWh	-	-	-	-	-	-	-	-	-	-
27	**RECs Generated this Period before Filing Date**	MWh	1,360,802	1,443,855	1,471,924	1,504,012	1,332,535	1,129,099	1,140,801	1,144,020	1,140,664	1,140,597
28	**RECs Generation this Period after Filing Date**	MWh	972,001	1,031,325	1,051,374	1,074,294	951,811	806,499	814,858	817,157	814,760	814,712
29	**RECs Available During this Period**											
30	RECs Generated after Filing Date	MWh	972,001	1,031,325	1,051,374	1,074,294	951,811	806,499	814,858	817,157	814,760	814,712
31	RECs less than 1 year old	MWh	2,815,401	2,415,857	2,503,249	2,555,386	2,406,829	2,080,909	1,947,301	31,827	(2,022,799)	(4,100,914)
32	RECs less than 2 years old	MWh	397,427	1,656,647	2,283,690	2,503,249	2,555,386	1,985,148	104,736	-	-	-
33	RECs less than 3 years old	MWh	-	-	-	403,920	958,402	-	-	-	-	-
34	RECs less than 4 years old	MWh	-	-	-	-	-	-	-	-	-	-
35	**RECs to be Retired this Period**	MWh	1,556,180	1,788,814	1,879,770	1,948,767	3,935,469	3,961,322	3,979,088	4,012,447	4,033,472	5,071,142
36	**Closing Banked Position**											
37	RECs Generated after Filing Date	MWh	972,001	1,031,325	1,051,374	1,074,294	951,811	806,499	(1,112,193)	(3,163,463)	(5,241,510)	(8,357,344)
38	RECs less than 1 year old	MWh	1,656,647	2,283,690	2,503,249	2,555,386	1,985,148	104,736	-	-	-	-
39	RECs less than 2 years old	MWh	-	-	403,920	958,402	-	-	-	-	-	-
40	RECs less than 3 years old	MWh	-	-	-	-	-	-	-	-	-	-
41	RECs less than 4 years old	MWh	-	-	-	-	-	-	-	-	-	-
42	**Final Position**	**RECs**	**2,628,649**	**3,315,015**	**3,958,543**	**4,588,082**	**2,936,959**	**911,235**	**(1,112,193)**	**(3,163,463)**	**(5,241,510)**	**(8,357,344)**

Southwestern Public Service Company
Summary RPS Position

Line No.												
1	**2020 - RPS Filing**											
2		**Unit**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
3	Adjusted Load Forecast	GWh	7,781	8,944	9,399	9,744	9,839	9,903	9,948	10,031	10,084	10,142
4	REC Requirement	%	20%	20%	20%	20%	40%	40%	40%	40%	40%	50%
5	**NM - RPS Requirements**	**GWh**	**1,556**	**1,789**	**1,880**	**1,949**	**3,935**	**3,961**	**3,979**	**4,012**	**4,033**	**5,071**
6	Existing Agreements & WIP + Proposed	GWh	3,624	3,853	3,919	4,005	3,713	3,387	3,421	3,429	3,418	3,416
7	**Total RECs**	**GWh**	**3,624**	**3,853**	**3,919**	**4,005**	**3,713**	**3,387**	**3,421**	**3,429**	**3,418**	**3,416**
8	**Annual Position - Long (Short)**	**GWh**	**2,068**	**2,064**	**2,039**	**2,056**	**(222)**	**(574)**	**(558)**	**(583)**	**(616)**	**(1,655)**
9	**Annual Position - Percentage**	**%**	**47%**	**43%**	**42%**	**41%**	**38%**	**34%**	**34%**	**34%**	**34%**	**34%**
10	**Banked Position - Long (Short)**											
11	Position Long / (Short)	RECs (000s)	3,920	5,984	8,023	10,079	9,856	9,282	8,724	8,141	7,525	5,870

Southwestern Public Service Company
RPS Position

Line No.												
1	**REC Requirements**											
2	**Load and Allocation**	**Unit**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
3	Total Retail	GWh	23,576	25,028	25,231	25,512	25,618	25,352	25,190	25,401	25,534	25,682
4	NM Retail Allocation	%	33%	36%	37%	38%	38%	39%	40%	40%	40%	40%
5	**NM - Load Forecast**	GWh	**7,785**	**8,949**	**9,404**	**9,749**	**9,844**	**9,909**	**9,953**	**10,036**	**10,089**	**10,148**
6	Less Voluntary Programs (subscribed)	GWh	4	5	5	5	5	5	5	5	5	5
7	**NM - Adjusted Load Forecast**	**GWh**	**7,781**	**8,944**	**9,399**	**9,744**	**9,839**	**9,903**	**9,948**	**10,031**	**10,084**	**10,142**
8	RPS Requirement	%	20%	20%	20%	20%	40%	40%	40%	40%	40%	50%
9	**NM - RPS Requirements**	**GWh**	**1,556**	**1,789**	**1,880**	**1,949**	**3,935**	**3,961**	**3,979**	**4,012**	**4,033**	**5,071**
10	**Current Position**											
11	**Existing Facilities & Construction WIP w/ RECs**	**Unit**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
12	Hale Wind	GWh	740	802	838	862	864	879	888	891	888	888
13	Sagamore Wind	GWh	812	880	917	943	945	962	972	975	972	972
14	Caprock	GWh	286	292	297	300	-	-	-	-	-	-
15	San Juan	GWh	370	378	375	378	380	-	-	-	-	-
16	Sun Edison 1-5	GWh	110	109	82	83	82	82	82	83	82	82
17	Mesaland	GWh	1	1	1	1	1	1	1	1	1	1
18	NM DG	GWh	13	12	12	12	12	12	12	12	12	12
19	**Existing REC Acquisitions**	**GWh**	**2,333**	**2,475**	**2,523**	**2,578**	**2,284**	**1,936**	**1,956**	**1,961**	**1,955**	**1,955**

Southwestern Public Service Company
RPS Position

Line No.												
20	**Proposed REC Acquistions from Existing Facilities**	**Unit**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
21	Palo Duro	GWh	352	381	386	397	398	405	409	410	409	409
22	Mammoth	GWh	276	299	298	307	308	313	316	317	316	316
23	Bonita II	GWh	230	249	250	257	258	262	265	266	265	265
24	Bonita I	GWh	127	138	133	137	138	140	141	142	141	141
25	Chaves	GWh	153	155	164	165	165	167	168	167	166	165
26	Roswell	GWh	153	155	163	163	163	165	166	165	164	163
27	**Proposed REC Acquisitions**	**GWh**	**1,291**	**1,378**	**1,395**	**1,426**	**1,429**	**1,452**	**1,466**	**1,468**	**1,462**	**1,460**
28	**Total RECs (Existing + Proposed)**	**GWh**	**3,624**	**3,853**	**3,919**	**4,005**	**3,713**	**3,387**	**3,421**	**3,429**	**3,418**	**3,416**
29	**Filing Month**	Month	7	7	7	7	7	7	7	7	7	7
30	**Opening Banked Position**											
31	RECs less than 1 year old	MWh	1,454,599	1,510,092	1,605,298	1,632,753	1,668,556	1,547,156	1,411,321	1,425,577	1,428,856	1,424,017
32	RECs less than 2 years old	MWh	397,427	2,409,974	3,757,508	3,891,152	3,968,732	3,834,575	3,523,005	3,407,129	3,425,976	3,422,480
33	RECs less than 3 years old	MWh	-	-	621,160	2,498,898	3,891,152	3,968,732	3,834,575	3,523,005	3,286,399	2,678,903
34	RECs less than 4 years old	MWh	-	-	-	-	550,131	505,815	513,225	368,712	-	-
35	RECs lost this period	MWh	-	-	-	-	-	-	-	-	-	-
36	**RECs Generated this Period before Filing Date**	MWh	2,114,128	2,247,417	2,285,854	2,335,979	2,166,019	1,975,849	1,995,808	2,000,398	1,993,624	1,992,532
37	**RECs Generation this Period after Filing Date**	MWh	1,510,092	1,605,298	1,632,753	1,668,556	1,547,156	1,411,321	1,425,577	1,428,856	1,424,017	1,423,237
38	**RECs Available During this Period**											
39	RECs Generated after Filing Date	MWh	1,510,092	1,605,298	1,632,753	1,668,556	1,547,156	1,411,321	1,425,577	1,428,856	1,424,017	1,423,237
40	RECs less than 1 year old	MWh	3,568,727	3,757,508	3,891,152	3,968,732	3,834,575	3,523,005	3,407,129	3,425,976	3,422,480	3,416,549
41	RECs less than 2 years old	MWh	397,427	2,409,974	3,757,508	3,891,152	3,968,732	3,834,575	3,523,005	3,407,129	3,425,976	3,422,480
42	RECs less than 3 years old	MWh	-	-	621,160	2,498,898	3,891,152	3,968,732	3,834,575	3,523,005	3,286,399	2,678,903
43	RECs less than 4 years old	MWh	-	-	-	-	550,131	505,815	513,225	368,712	-	-
44	**RECs to be Retired this Period**	MWh	1,556,180	1,788,814	1,879,770	1,948,767	3,935,469	3,961,322	3,979,088	4,012,447	4,033,472	5,071,142
45	**Closing Banked Position**											
46	RECs Generated after Filing Date	MWh	1,510,092	1,605,298	1,632,753	1,668,556	1,547,156	1,411,321	1,425,577	1,428,856	1,424,017	1,423,237
47	RECs less than 1 year old	MWh	2,409,974	3,757,508	3,891,152	3,968,732	3,834,575	3,523,005	3,407,129	3,425,976	3,422,480	3,416,549
48	RECs less than 2 years old	MWh	-	621,160	2,498,898	3,891,152	3,968,732	3,834,575	3,523,005	3,286,399	2,678,903	1,030,241
49	RECs less than 3 years old	MWh	-	-	-	550,131	505,815	513,225	368,712	-	-	-
50	RECs less than 4 years old	MWh	-	-	-	-	-	-	-	-	-	-
51	**Final Position**	**RECs**	**3,920,065**	**5,983,966**	**8,022,803**	**10,078,572**	**9,856,278**	**9,282,125**	**8,724,423**	**8,141,231**	**7,525,400**	**5,870,027**