BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF SOUTHWESTERN)
PUBLIC SERVICE COMPANY'S)
APPLICATION REQUESTING: (1)	
ACKNOWLEDGEMENT OF ITS FILING)
OF THE 2017 ANNUAL RENEWABLE)
ENERGY PORTFOLIO REPORT; (2))
APPROVAL OF ITS ANNUAL)
RENEWABLE ENERGY PORTFOLIO) CASE NO. 18-00201-UT
PROCUREMENT PLAN FOR PLAN)
YEAR 2019; (3) APPROVAL OF THE)
PROPOSED RATE FOR ITS 2019)
RENEWABLE PORTFOLIO STANDARD)
RIDER; (4) APPROVAL OF ITS)
PROPOSED TREATMENT OF)
RENEWABLE ENERGY CERTIFICATES)
ASSOCIATED WITH THE SAGAMORE)
AND HALE WIND FACILITIES; AND (5))
OTHER ASSOCIATED RELIEF,)
)
)
SOUTHWESTERN PUBLIC SERVICE)
COMPANY,)
)
APPLICANT.	

SUPPLEMENTAL DIRECT TESTIMONY

of

RUTH M. SAKYA

on behalf of

SOUTHWESTERN PUBLIC SERVICE COMPANY

September 5, 2018

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GLOSSARY OF ACRONYMS AND DEFINED TERMS

Acronym/Defined Term Meaning

Alternate RPS Cost SPS's proposal to recover the cost of its

Recovery Proposal renewable energy purchased power agreements

for which SPS uses the purchased energy to comply with the Renewable Portfolio Standard through SPS's RPS Rider (responsive to Order

Expanding Scope)

Caprock Wind LP

Commission New Mexico Public Regulation Commission

FPPCAC Fuel and Purchased Power Cost Adjustment

Clause

MW Megawatt

MWh Megawatt-hour

Order Hearing Examiner's Second Procedural Order

issued on August 22, 2018

Order Expanding Scope Order Expanding Scope of Proceeding issued on

August 15, 2018

PPA Purchased Power Agreement

Customers 62-16-4.A(2) of the REA

RCT Renewable Cost Threshold

REA Renewable Energy Act (NMSA 1978, §§ 62-16-1

to 62-16-10)

REC Renewable Energy Certificate

RPS Renewable Portfolio Standard

Acronym/Defined Term Meaning

RPS PPAs renewable energy PPAs used to satisfy the RPS

requirements

Rule 572 Renewable Energy Rule (17.9.572 NMAC)

San Juan Mesa Wind Project LLC

SPS Southwestern Public Service Company, a New

Mexico corporation

SunE SunEdison, LLC

LIST OF ATTACHMENTS

Attachment	Description
RMS-S1	Supplemental Version of Attachment RMS-3, Appendix B
RMS-S2	Supplemental Version of Attachment RMS-3, Appendix C
RMS-S3	Supplemental Version of Attachment RMS-4

1 2	I.	WITNESS IDENTIFICATION AND PURPOSE OF SUPPLEMENTAL TESTIMONY
3	Q.	Please state your name and business address.
4	A.	My name is Ruth M. Sakya. My business address is 1400 Ducale Drive SE, Rio
5		Rancho, New Mexico 87124.
6	Q.	On whose behalf are you testifying in this proceeding?
7	A.	I am filing this supplemental direct testimony on behalf of Southwestern Public
8		Service Company, a New Mexico corporation ("SPS") and wholly-owned electric
9		utility subsidiary of Xcel Energy Inc.
10	Q.	Are you the same Ruth M. Sakya who filed direct testimony on behalf of SPS
11		in this docket?
12	A.	Yes.
13	Q.	What is the purpose of SPS's supplemental direct testimony?
14	A.	SPS is filing supplemental testimony to address the New Mexico Public
15		Regulation Commission's ("Commission") Order Expanding Scope of Proceeding
16		issued on August 15, 2018 ("Order Expanding Scope") and the Hearing
17		Examiner's Second Procedural Order issued on August 22, 2018 ("Order"). The
18		Orders require SPS to file supplemental direct testimony presenting a proposal to
19		recover, through SPS's Renewable Portfolio Standard ("RPS") Rider, the costs of

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SPS's renewable energy purchased power agreements ("PPA") used to satisfy the RPS requirements. Throughout my testimony, I refer to these PPAs as the "RPS PPAs" and this proposal as the "Alternate RPS Cost Recovery Proposal."

The Hearing Examiner specified the scope of SPS's supplemental direct testimony in Paragraph D(1)-(7) of the Order. Table RMS-S1 below presents each of the ordered supplemental direct testimony topics and identifies the responsive portions of SPS's supplemental direct testimony.

Table RMS-S1: Summary of SPS Supplemental Direct Testimony

Se	cond Procedural Order	Supplemental Direct Testimony Reference
Paragraph D(1)	Revise and supplement, as necessary, SPS's prefiled Direct Testimonies and Attachments to be consistent with SPS's proposal to recover through SPS's Renewable Energy Rider the cost of its PPAs for which it uses the purchased renewable energy to comply with the RPS.	Sakya Supplemental Direct and Attachments, Luth Supplemental Direct and Attachments

Se	Supplemental Direct Testimony Reference	
Paragraph D(2)	For each PPA for which SPS uses the purchased renewable energy to comply with the RPS: a. identify the PPA; b. state the price terms of the PPA; c. state the amount of renewable energy in kWh and/or kW that SPS purchases under the PPA; d. state the dollar amount paid by SPS under the PPA in calendar year 2017; e. state the dollar amount that SPS expects to pay under the PPA in calendar year 2019; and f. state how SPS currently recovers the cost of the PPA, i.e., through its fuel and purchased power cost adjustment clause (FPPCAC), through base rates	Sakya Supplemental Direct, Section II.A. and Section II.B.
Paragraph D(3)	or otherwise. Explain why recovering the cost of PPAs for which SPS uses the renewable energy to comply with the RPS through SPS's Renewable Energy Rider rather than its FPPCAC, would shift cost responsibility from Qualifying Large Customers to "Other Customers" (Other Customers meaning non-Exempt and non-Qualifying Large Customers).	Luth Supplemental Direct, Section II

Se	econd Procedural Order	Supplemental Direct Testimony Reference	
Paragraph D(4)	If the Commission orders SPS to recover through its Renewable Energy Rider the cost of its renewable energy PPAs for which it uses the purchased renewable energy to comply with the RPS, state the estimated amount of such total cost for calendar year 2019 that would be shifted from Qualifying Large Customers to Other Customers.	Luth Supplemental Direct, Section II	
Paragraph D(5)	State whether SPS recovers any costs of complying with the RPS through base rates. For each renewable energy resource that SPS uses to comply with the RPS and for which it recovers the cost through base rates (if any): a. identify the renewable energy resource; and b. estimate the cost to be recovered through base rates in calendar year 2019.	Sakya Supplemental Direct, Section II.B.	
Paragraph D(6)	State whether SPS recommends recovering the cost of its renewable energy PPAs for which it uses the purchased renewable energy to comply with the RPS through its Renewable Energy Rider rather than its FPPCAC and why or why not.	Sakya Supplemental Direct, Section III	
Paragraph D(7)	Explain the procedure that SPS uses to ensure that the cost paid by a Large Qualifying Customer of meeting the RPS does not exceed the Qualifying Large Customer's Cost Cap.	Luth Supplemental Direct, Section II	

1 Q. What is the purpose of your supplemental direct testimony? 2 As noted above, my supplemental direct testimony responds to Paragraph D(1), A. 3 D(2), D(5), and D(6) of the Hearing Examiner's Order. In addition, through my 4 supplemental direct testimony, I will: 5 present SPS's Alternate RPS Cost Recovery Proposal, which provides for 6 the recovery of the economic costs of the RPS PPAs— i.e., avoided costs—through the RPS Rider;¹ 7 8 quantify the total dollar impact of the Alternate RPS Cost Recovery Proposal on SPS's 2019 RPS Rider revenue requirement, the FPPCAC, 9 10 and RPS Rider; and 11 explain SPS's recommendation that the Commission authorize SPS to 12 continue to recover the RPS PPAs' economic costs (avoided costs) 13 through the FPPCAC rather than through the RPS Rider. 14 Q. Are you the only SPS witness filing supplemental direct testimony in 15 response to the Order Expanding Scope? 16 A. No. SPS witness Richard R. Luth is also providing supplemental direct 17 testimony. Mr. Luth's supplemental testimony: 18 provides the calculation of the revised 2019 RPS Rider rate based on the 19 revised 2019 RPS Rider revenue requirement I calculate;

¹ The RPS PPAs have three cost components: (1) economic energy costs; (2) uneconomic energy costs (the Sun Edison costs that are above SPS's system avoided energy costs); and (3) the imputed value of the RPS PPA's bundled renewable energy certificates ("REC"). Currently, SPS recovers the RPS PPAs' economic energy costs through its Fuel and Purchased Power Cost Adjustment Clause ("FPPCAC"); SPS recovers the RPS PPAs' uneconomic costs and bundled REC costs through the RPS Rider.

2		presents revised bill impact calculations reflecting the impact of the Alternate RPS Cost Recovery Proposal;
3 4 5 6 7 8		 explains why including the RPS PPAs' economic costs in the RPS Rider (as opposed to recovering these costs through the FPPCAC, as is done currently) would shift cost responsibility from "Qualifying Large Customers" under Section 62-16-4.A(2) of the Renewable Energy Act (NMSA 1978, §§ 62-16-1 to 62-16-10) ("REA") to SPS's remaining customers;
9 10 11		 provides the estimated amount of costs for calendar year 2019 that would shift from Qualifying Large Customers to other customers if the Commission adopts SPS's Alternate RPS Cost Recovery Proposal; and
12 13		 explains the procedures SPS uses to ensure Qualifying Large Customers do not pay costs in excess of the large customer cap.
14	Q.	Please summarize the conclusions reached in your supplemental direct
15		
		testimony.
16	A.	testimony. As currently designed, SPS collects through the RPS Rider only the uneconomic
16 17	A.	·
	A.	As currently designed, SPS collects through the RPS Rider only the uneconomic
17	A.	As currently designed, SPS collects through the RPS Rider only the uneconomic costs of the RPS PPAs and the imputed cost value of the RPS PPAs' bundled
17 18	A.	As currently designed, SPS collects through the RPS Rider only the uneconomic costs of the RPS PPAs and the imputed cost value of the RPS PPAs' bundled RECs—i.e., only those costs over and above what SPS would otherwise incur are

FPPCAC.² This approach reasonably includes only SPS's RPS compliance costs in the RPS Rider. This is a just and reasonable approach that has previously been approved by the Commission.

The Alternate RPS Cost Recovery Proposal, which provides for the recovery of the economic costs of the RPS PPAs through the RPS Rider, would unreasonably result in cost shifts among customers. The costs that would be shifted are costs SPS would have incurred anyway even if it weren't using the PPAs for RPS compliance. Accordingly, SPS recommends the Commission retain the current cost recovery mechanism, as it is consistent with the REA, Renewable Energy Rule (17.9.572 NMAC) ("Rule 572"), and prior Commission orders, and appropriately balances the interests of customers, the environment, and the public interest.

Q. Were Attachments RMS-S1 through RMS-S3 prepared by you or under your direct supervision or control?

15 A. Yes.

² To comply with the RPS, SPS incurs costs in addition to the costs of the RPS PPAs. Specifically, SPS pays customers participating in Distributed Generation programs incentives for the actual output of the systems. Further, for 2019, SPS expects to incur costs for: (i) registering RECs with Western Renewable Energy Generation Information System; (ii) annual amortizations of the 2013 REC Tracker balance and associated interest; and (iii) reconciliation of the 2017 RPS Rider and associated interest. SPS recovers all of these costs through the RPS Rider. Accordingly, they are not addressed in this supplemental direct testimony.

1 2		II. THE RPS PPAs AND SPS'S CURRENT COST RECOVERY METHODOLOGY
3	Q.	Please describe SPS's general approach to securing renewable resources
4		necessary to satisfy its RPS obligations.
5	A.	To the extent practical, SPS procures the renewable resources necessary to
6		comply with the RPS requirements at the lowest reasonable cost consistent with
7		system reliability.
8	A.	Background of the RPS PPAs
9	Q.	Please generally describe the RPS PPAs SPS uses for RPS compliance.
10	A.	To comply with its RPS requirements, SPS purchases both energy and RECs
11		through PPAs with Caprock Wind LP ("Caprock"), San Juan Mesa Wind Project
12		LLC ("San Juan"), and SunEdison, LLC ("SunE"), collectively the RPS PPAs.
13		Other wind and solar purchased energy resources were solely for economic
14		purposes and not for RPS compliance. Please refer to Table RMS-S2 for: (1) the
15		price terms of the RPS PPAs; (2) the projected amount of renewable energy SPS
16		will purchase in 2019 under the RPS PPAs; (3) the amounts SPS paid under the
17		RPS PPAs in 2017; and (4) the amounts that SPS expects to pay under the RPS
18		PPAs in 2019.

Table RMS-S2: RPS PPA Summary

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PPA	Installed Capacity (Megawatt ("MW")	2019 Bundled Price	Pricing Terms	Total 2017 Cost	Expected 2019 Megawatt hour ("MWh")	Expected Total 2019 Cost
Caprock Wind	80	\$ 33.35	Fixed Price with Annual Escalator	\$ 9,999,397	321,226	\$ 10,641,958
San Juan Wind	120	\$ 33.91	Fixed Price with Annual Escalator	\$ 12,875,268	395,677	\$ 13,330,039
SunE Solar	50	\$129.17	Stated Annual Price	\$ 11,766,105	109,102	\$ 14,092,657

Q. Earlier you noted that the RPS PPAs have both economic and uneconomic costs. Please describe what you mean by economic and uneconomic costs.

SPS is a multi-jurisdictional utility and must balance the interests of not only its New Mexico retail customers, but its Texas retail customers and its wholesale customers. Historically, SPS has procured resources to serve all of its customers. However, state-specific renewable requirements have changed the regulatory landscape. In order to maintain the benefits of SPS's system-wide planning and resource acquisition processes, while also procuring resources to meet its RPS requirements, SPS has segregated the energy costs between economic and non-economic energy. In other words, SPS identifies those costs that would have been incurred but for state-specific RPS requirements (the economic energy) and

allocates those costs among SPS's three jurisdictions. SPS has been doing this since 2008.³

Similarly, when identifying those costs used to meet RPS compliance requirements, SPS separates RPS PPA economic costs and recovers those through the FPPCAC. SPS recovers the remaining costs – the uneconomic costs (those costs incremental to RPS compliance) and the imputed value of the bundled RECs – through the RPS Rider.

Q. Are there any other costs associated with the RPS PPAs?

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9 Yes. As noted above, the energy and RECs are bundled (i.e., there is no separate A. 10 price for the energy and RECs) in the RPS PPAs. Under New Mexico law, however, the REC component is not considered part of the energy and is 11 12 considered a separate commodity. Specifically, in its Final Order Partially 13 Adopting Recommended Decision (November 20, 2008) in Case No. 05-00352-UT, the Commission concluded that "...the Legislature intended RECs 14 15 to have some value independent from the value or cost of the associated renewable energy..." (page 8). Accordingly, SPS treats the REC as a cost of 16 17 complying with the RPS.

³ In Case No. 08-00354-UT, a REC value was imputed to segregate those costs from economic energy. In Case No. 10-00015-UT, a REC value was imputed for the SunE contracts and a calculation was established to segregate the remaining costs between economic and uneconomic energy.

1 Q. Please describe how SPS determines the RPS PPAs' economic costs.

- A. In the case of the Caprock and San Juan PPAs, the energy costs are determined by multiplying the PPAs' projected MWh production by the applicable year contract costs less the Commission-established wind REC price (currently, \$1.35/MWh for San Juan and Caprock).⁴ For the SunE PPAs, the economic energy cost is the total cost of the New Mexico retail jurisdictional share of all energy purchased under the PPAs at prices at or below SPS's actual system avoided energy cost less the Commission-established solar REC price (currently, \$10.00/MWh).⁵
- Q. Has the Commission reviewed the RPS PPAs and approved SPS's current
 cost recovery methodology?
- 11 A. Yes. The Caprock and San Juan PPAs were originally approved in Case Nos.
 12 04-00334-UT and 05-00354-UT, respectively. The SunE PPAs were originally
 13 approved in Case No. 10-00015-UT. SPS's RPS Rider was established by the

⁴ In the Matter of Southwestern Public Service Company's Application for Revision of its Retail Rates Under Advice Notice No. 234, Case No. 10-00395-UT, Final Order Adopting Amended Certification of Stipulation (Dec. 28, 2011).

In the Matter of Southwestern Public Service Company's ("SPS") Application to the New Mexico Public Regulation Commission for a Final Order Granting: (1) Approval of SPS's Solar Purchase Agreements with Sune SPS1, LLC Through Sune SPS5, LLC; (2) Authorization for SPS to Recover All Reasonable Costs of the Solar PPAs; (3) Authorization to Recover Costs Associated With the Solar Deferral Variance; (4) Acceptance of SPS's Report in Compliance With the Commission's Order in Case No. 09-00258-UT; and (5) All Other Approvals, Authorizations, or Variances Required for SPS's Performance and Cost Recovery Under the Solar PPAs, Case No. 10-00015-UT, Final Order Approving Recommended Decision (Sep. 14, 2010).

1		Commission in Case No. 12-00350-UT. Appendix C to Attachment RMS-2 to
2		my direct testimony identifies the RPS PPAs, the existing RPS PPA cost recovery
3		mechanism, and each case number in which the RPS PPAs have been reviewed by
4		the Commission.
5	В.	SPS's Proposed RPS Cost Recovery Methodology
6	Q.	In this proceeding, how has SPS proposed to recover its RPS PPA-related
7		costs?
8	A.	SPS has proposed to continue recovering the costs of the RPS PPAs through the
9		FPPCAC and the RPS Rider. Specifically, the economic costs (i.e., avoided
10		costs) will be recovered through the FPPCAC and the RPS-specific compliance
11		costs (e.g., the RECs and uneconomic energy) will be recovered through the RPS
12		Rider. No RPS-related costs are recovered through base rates. Tables RMS-S3
13		and RMS-S4 below identify the RPS PPAs' costs for calendar years 2017 and
14		2019, respectively.

Table RMS-S3: 2017 PPA Costs

PPA	NM Allocation Economic Energy (FPPCAC)	NM Uneconomic Energy (RPS Rider)	RECs (RPS Rider)	Total NM Cost	All Other Jurisdictions Economic Energy	Total Cost
Caprock Wind	\$2,218,786	N/A	\$ 343,394	\$2,562,180	\$7,437,217	\$9,999,397
San Juan Wind	\$2,858,694	N/A	\$ 434,432	\$3,293,126	\$9,582,142	\$12,875,268
SunE Solar	\$ 720,921	\$ 7,590,985	\$1,019,368	\$9,331,274	\$2,434,831	\$11,766,105

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3 Table RMS-S4: 2019 PPA Costs

PPA	NM Allocation Economic Energy (FPPCAC)	NM Uneconomic Energy (RPS Rider)	RECs (RPS Rider)	Total NM Cost	All Other Jurisdictions Economic Energy	Total Cost
Caprock Wind	\$2,321,431	N/A	\$ 362,726	\$ 2,684,157	\$7,957,801	\$10,641,958
San Juan Wind	\$2,909,513	N/A	\$ 446,796	\$ 3,356,309	\$9,973,730	\$13,330,039
SunE Solar	\$ 615,321	\$10,277,016	\$1,091,016	\$11,983,353	\$2,109,304	\$14,092,657

		radii 171 Saleya
1		III. ALTERNATE RPS COST RECOVERY PROPOSAL
2	Q.	Please describe SPS's alternate proposal.
3	A.	In Compliance with the Commission's Order Expanding Scope and the Hearing
4		Examiner's Second Procedural Order, SPS's Alternate RPS Cost Recovery
5		Proposal:
6 7		 calculates the New Mexico retail share of the economic portion of the RPS PPAs;
8		 removes those costs from the FPPCAC; and
9		• includes the costs as part of the RPS Rider revenue requirement.
10	Q.	How does the Alternate RPS Cost Recovery Proposal affect the 2019 RPS
11		Rider revenue requirement?
12	A.	As shown on Attachment RMS-S1, the Alternate RPS Cost Recovery Proposal
13		shifts recovery of \$5,846,265 (\$5,230,944 wind energy costs and \$615,321 solar
14		economic energy costs) from the FPPCAC to the RPS Rider. This increases the
15		2019 RPS Rider revenue requirement to \$24,117,607 as shown on Attachment
16		RMS-S3. In addition to the \$5.8 million increase for the cost shift, there is a
17		\$0.5 million increase to account for projected refunds due to large industrial
18		customers for prior-year billings in excess of two percent of the customer's annual

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billings (line 24). The calculation appears on Attachment RML-S1 to Mr. Luth's

supplemental direct testimony. Mr. Luth also estimates that approximately 41% (\$2.4 million) of the expected \$5.8 million increase to SPS's 2019 RPS Rider revenue requirement that would have been charged to Qualifying Large Customers through the FPPCAC will be shifted through the RPS Rider to customers who are not subject to the large customer cap. Finally, Mr. Luth also presents the revised 2019 RPS Rider rate as well as the revised bill impact information.

O. What is SPS's recommendation?

A.

For the reasons discussed in my testimony, SPS recommends the Commission retain its current cost recovery methodology. Consistent with the objectives of the REA and Rule 572, the existing cost recovery mechanism accurately captures the costs of the RPS, while ensuring customers are charged fairly for economic system costs. Otherwise, there will be a cost shift from large industrial customers to small customers such as residential, small commercial, municipals, irrigation and schools.

1		IV. <u>DIRECT TESTIMONY AND ATTACHMENT UPDATES</u>
2	Q.	Have you revised or prepared supplemental versions of all attachments to
3		your direct testimony to be consistent with the Alternate RPS Cost Recovery
4		Proposal discussed above?
5	A.	No. I have prepared supplemental versions of Attachments RMS-3, Appendix B,
6		RMS-3, Appendix C, and RMS-4 to my direct testimony (see Attachments
7		RMS-S1, RMS-S2, and RMS-S4). However, I did not prepare supplemental
8		versions of Attachments RMS-1, RMS-2, the remaining Appendices to RMS-3
9		and RMS-5 because no changes to these attachments were necessary for them to
10		reflect changes based on the Alternate RPS Cost Recovery Proposal.
11	Q.	Have you updated the RCT calculation presented in your direct testimony to
12		account for the costs shifted to the RPS Rider under the Alternate RPS Cost
13		Recovery Proposal?
14	A.	No. As indicated in my direct testimony, SPS is well over the RCT. A shift in
15		costs from the FPPCAC to the RPS Rider would increase the amount SPS is over
16		the RCT by approximately \$6 million in 2019. Accordingly, updating the RCT
17		calculation is unnecessary. Of course, an increase in RCT overage also would

- delay SPS having the headroom to add more renewable resources for RPS
- 2 compliance.
- 3 Q. Does this conclude your prefiled supplemental direct testimony?
- 4 A. Yes.

VERIFICATION

STATE OF NEW MEXICO)
) ss
COUNTY OF SANTA FE)

Ruth M. Sakya, first being sworn on her oath, states:

I am the witness identified in the preceding supplemental direct testimony. I have read the testimony and the accompanying attachments and am familiar with their contents. Based upon my personal knowledge, the facts stated in the direct 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.

Ruth M. Sakya RUTH M. SAKYA

SUBSCRIBED AND SWORN TO before me this 5th day of 5th. 2018.

OFFICIAL SEAL
Sonya Mares
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 930 17

Notary Public of the State of New Mexico
My Commission Expires: 9130 18

Supplemental Appendix B: Summary of Projected Renewable Costs and Recovery Mechanism Southwestern Public Service Company For the Year 2019

		$(\mathbf{A}) = (\mathbf{B}) + (\mathbf{C})$	(B)	(C)		<u>(</u>	\mathbf{E}	$(\mathbf{E}) = (\mathbf{C}) + (\mathbf{D})$
i					Z	NM Retail	L	Total NM
Line	Description	Total Cost	System Firel 1	RPS Rider	AII	Allocation - Fuel	4	Retail Allocation
		200 1100					1	
⊣ (Wind		00 00	€		4.0000	E	000
7	Energy Only (San Juan, Caprock)	\$ 23,162,475	\$ 25,162,475	-	^	5,250,944	^	5,230,944
2.5	Move NM Portion to RPS			5,230,944		(5,230,944)	↔	ı
\mathcal{C}	RECs (San Juan, Caprock, Less Wholesale Transfers)	809,522	1	809,522		1		809,522
4	Total Wind $(L2 + L2.5 + L3)$	\$ 23,971,997	\$ 23,162,475	\$ 6,040,466	\$	•	\$	6,040,466
S	Solar (SunE PPAs)							
9	Economic Energy	\$ 2,724,625	\$ 2,724,625	·	↔	615,321	∨	615,321
6.5	Move NM Portion to RPS			615,321		(615,321)		
7	Uneconomic Energy	10,277,016	1	10,277,016				10,277,016
∞	RECs	1,091,016	1	1,091,016				1,091,016
6	Total Solar $(L6+L6.5+L7+L8)$	\$ 14,092,657	\$ 2,724,625	\$ 11,983,353	8	,	8	11,983,353
10	DG							
11	Incentives & Administration	\$ 2,315,141	· S	\$ 2,315,141	↔		↔	2,315,141
12	Total DG	\$ 2,315,141	- \$	\$ 2,315,141	\$	1	S	2,315,141
13	WREGIS							
14	Registration Costs	\$ 8,500	· •	\$ 8,500	S	1	⊗	8,500
15	Total WREGIS	\$ 8,500	· •	\$ 8,500	\$	1	S	8,500
	Refund for Costs Charged in Excess of the Large							
16	Customer Cap							
17	Annual Refund (Applied as a Reduction to Revenue)		S	\$ 2,497,581	\$	1	\$	2,497,581
18	Total Refunds	\$ 2,497,581	· S	\$ 2,497,581	↔	ı	↔	2,497,581
	Total Renewable Energy Costs (L4 + L9 + L12 + L15 +							
19	L18)	\$ 42,885,875	\$ 25,887,100	\$ 22,845,041	\$ \$.		65	22,845,041
20	Original Filing:							
21	Total Renewable Energy Costs	\$ 42,377,821	\$ 25,887,100	\$ 16,490,722	\$	5,846,265	89	22,336,987
22	Difference			6,354,319				
23	Move from FPPCAC to RPS Rider			5,846,265				
24	Increase to LCC Refund Total Difference			\$ 6 354 310	Í			
7	rom Difference			0,5074,017	1			
	1 Represents a total company (SPS) amount before allocation among SPS's three invisdictions	on among SPS's t	hree inricdictions	The SunF uneconomic costs however are allocated	, Jimour	note houses	Per 3	re allocated

¹ Represents a total company (SPS) amount before allocation among SPS's three jurisdictions. The SunE uneconomic costs, however, are allocated 100% to New Mexico.

Supplemental Appendix B: Summary of Projected Renewable Costs and Recovery Mechanism Southwestern Public Service Company For the Year 2020

		$(\mathbf{A}) = (\mathbf{B}) + (\mathbf{C})$	(B)	(C)		<u>e</u>	Ξ	$(\mathbf{E}) = (\mathbf{C}) + (\mathbf{D})$
					~ 	NM Retail		Total NM
Line No.	Description	Total Cost	System Fuel ¹	RPS Rider	V	Allocation - Fuel	A	Retail Allocation
Т	Wind							
7	Energy Only (San Juan, Caprock)	\$ 23,833,645	\$ 23,833,645	₩	∽	5,382,519	↔	5,382,519
2.5	Move NM Portion to RPS			5,382,519	6	(5,382,519)		
ω	RECs (San Juan, Caprock, Less Wholesale Transfers)	828,538	1	828,538	8	-		828,538
4	Total Wind $(L2+L2.5+L3)$	\$ 24,662,182	\$ 23,833,645	\$ 6,211,057	\$ 1	1	8	6,211,057
5	Solar (SunE PPAs)							
9	Economic Energy	\$ 2,477,021	\$ 2,477,021	· •	∽	559,403	↔	559,403
6.5	Move NM Portion to RPS			559,403	3	(559,403)		
7	Uneconomic Energy	10,962,630	ı	10,962,630	0	1		10,962,630
∞	RECs	1,088,848	ı	1,088,848	8	1		1,088,848
6	Total Solar $(L6+L6.5+L7+L8)$	\$ 14,528,499	\$ 2,477,021	\$ 12,610,881	\$ I		\$	12,610,881
10	DG Incentives & Administration	\$ 2,303,744	S	\$ 2.303.744	4 &	,	↔	2.303.744
12	Total DG	\$ 2,303,744	-		4 8	1	S	2,303,744
13	WREGIS							
14	Registration Costs	\$ 8,500	\$	\$ 8,500	\$ 0	1	\$	8,500
15	Total WREGIS	\$ 8,500	.	\$ 8,500	0	•	S	8,500
16	Refund for Costs Charged in Excess of the Large Customer Cap							
17	Annual Refund (Applied as a Reduction to Revenue)	\$ 2,497,581	-	\$ 2,497,581	1 \$	•	8	2,497,581
18	Total Refund	\$ 2,497,581	-	\$ 2,497,581	1	1	↔	2,497,581
19	Total Renewable Energy Costs (L4 + L9 + L12 + L15 + L18)	\$ 44.000.507	\$ 26.310.665	\$ 23.631.763	\$5 \$7	,	69	23.631.763
20	Original Filing:							
21	Total Renewable Energy Costs	\$ 43,492,453	\$ 26,310,665	\$ 17,181,787	2 \$	5,941,922	8	23,123,709
22	Difference			6,449,976	9			
23	Move from FPPCAC to RPS Rider			5,941,922	2			
24	Increase to LCC Refund				4			
25	Total Difference			\$ 6,449,976	او			

¹ Represents a total company (SPS) amount before allocation among SPS's three jurisdictions. The SunE uneconomic costs, however, are allocated 100% to New Mexico.

Southwestern Public Service Company Supplemental Appendix C: Details of RPS Cost Projections For the Plan Year 2019

Line No.	Description	\$/MWh	MWh		Total Cost	Ž	NM Retail Fuel*		RPS Rider
_	Wind Energy (Excludes RECs)								
7	San Juan	\$ 32.56	395,677	↔	\$ 12,883,243.12	↔	2,909,512.98	S	1
ω	Caprock	\$ 32.00	321,226	8	10,279,232.00	S	2,321,430.92	S	ı
3.5	Move NM Portion to RPS					89	(5,230,943.89)	83	5,230,943.89
4									
2	Wind RECs (Less Wholesale Transfers)								
9	San Juan	\$ 1.35	330,960	↔	446,795.58	↔	1	8	446,795.58
7	Caprock	\$ 1.35	268,686	\$	362,726.06	S		8	362,726.06
∞									
6	Solar (SunE PPAs)								
10	Economic Energy	\$ 24.97	109,102	↔	2,724,624.72	↔	615,321.07	8	ı
10.5	Move NM Portion to RPS					89	(615,321.07)	69	615,321.07
11	Uneconomic Energy	\$ 94.20	109,102	8	\$ 10,277,015.91	↔	ı	\$	\$ 10,277,015.91
12	RECs	\$ 10.00	109,102	8	1,091,016.25	↔	ı	8	\$ 1,091,016.25
13									
14	DG								
15	Projected Payments			\$	2,315,140.76	↔	ı	8	2,315,140.76
16									
17	WREGIS Registration Costs			∽	8,500.00	↔	1	\$	8,500.00
18									
,	Refund for Billings in Excess of the Large Customer			+					1
19	Cap**			S	2,497,581.07	S	1	S	2,497,581.07

* 22.5837% allocation factor (based on 2017 actual allocation). 2019 allocation factor expected to increase due to decrease in wholesale load.

** Reduction to Revenue.

Southwestern Public Service Company Supplemental Appendix C: Details of RPS Cost Projections For the Next Plan Year 2020

Line			į			,	; ;		
Š Ž	Description	\$/MWh	MWh		Total Cost	Z	NM Retail Fuel*		RPS Rider
1	Wind Energy (Excludes RECs)								
7	San Juan	\$ 33.41	396,649	\$	\$ 13,252,043.09	\$	2,992,801.66	↔	,
\mathcal{E}	Caprock	\$ 32.83	322,315	\$	\$ 10,581,601.45	8	2,389,717.13	↔	,
3.5	Move NM Portion to RPS					83	(5,382,518.78)	83	5,382,518.78
4									
3	Wind RECs (Less Wholesale Transfers)								
9	San Juan	\$ 1.35	338,593	\$	457,100.42	\$	1	↔	457,100.42
7	Caprock	\$ 1.35	275,139	\$	371,437.52	8	ı	S	371,437.52
8									
6	Solar (SunE PPAs)								
10	Economic Energy	\$ 22.75	108,885	\$	2,477,020.61	↔	559,402.90	S	ı
10.5	Move NM Portion to RPS					83	(559,402.90)	8	559,402.90
11	Uneconomic Energy	\$ 100.68	108,885	↔	\$ 10,962,630.01	8	1	\$	\$ 10,962,630.01
12	RECs	\$ 10.00	108,885	8	1,088,847.98	8	ı	↔	\$ 1,088,847.98
13									
14	DG								
15	Projected Payments			↔	2,303,744.47	↔	1	↔	2,303,744.47
16									
17	WREGIS Registration Costs			↔	8,500.00	\$	ı	\$	8,500.00
18									
19	Refund for Billings in Excess of the Large Customer Cap**	*		↔	2,497,581.07	\$	1	\$	2,497,581.07

* 22.5837% allocation factor (based on 2017 actual allocation). 2020 allocation factor expected to increase due to decrease in wholesale load.

** Reduction to Revenue.

Southwestern Public Service Company Supplemental RPS Rider Revenue Requirement Calculation For Calendar Year 2019

		(A)		(B)	(C)
Line No.	Description	Total Costs	R 20	2019 Revenue Requirement	Reference/Notes
- 7 c	REC Tracker Reconciliations: 2013 REC Tracker* Projected REC Tracker Interest (2013 Tracker)*	\$ 220,536.30 \$ 17,367.23	↔ ↔	63,010.37	42 mo amort, beginning 1/17 (\$220,536.30/42)*12 Based on 2018 Customer Deposit Interest Rate
4	2017 RPS Rider Reconciliation (Collect Under-Recovery)		¥	1 135 751 95	Renort Annendix F (Attachment RMS-2)
· v	2017 Rider Interest	\$ 68,842.29	÷ •	68,842.29	Monthly interest (Cust. Dep. Rate), 1/2017-12/2017
9	2019 Projected Annual Costs:				
r «	DG (Incentive, Admin, and Marketing) WREGIS	\$ 2,315,140.76 8 500.00	↔	2,315,140.76	Attachment RMS-3, Appendices B & C Attachment RMS-3 Amendices B & C
6	SunE RECs (at \$10/MWh)	1,091,016.25		1,091,016.25	Attachment RMS-3, Appendices B & C
10	SunE Uneconomic Costs	10,277,015.91	_	10,277,015.91	Attachment RMS-3, Appendices B & C
10.5	SunE Economic Costs	615,321.07		615,321.07	
Π	Wind RECs (at \$1.35/MWh)	809,521.64		809,521.64	Attachment RMS-3, Appendices B & C
11.5	Wind Energy	5,230,943.89		5,230,943.89	
15	Total Annual Costs (Sum L7:L11.5)	\$ 20,347,459.52	\$	20,347,459.52	
13					
-	RPS Rider 2019 Revenue Requirement	96 230 902 10 8	6	00 700 007 1	
15	(+LZ+L3+L4+L3+L1Z)	\$ 21,789,957.30	≈	\$ 21,020,020.20	
	2019 Refunds to Qualifying Large Customers for				
16	Amounts Paid in Excess of REA Cap	\$ 2,497,581.07	\$	2,497,581.07	Attachment RML-3, page 3
7	Total RPS Rider 2019 Revenue Requirement				
18	(L14+L16)	\$ 24,287,538.37	\$ 2	24,117,607.27	
19 20	Original Filing: Total RPS Rider 2019 Revenue Requirement		<i>I</i> \$	\$ 17,763,288.33	
21	Difference		89	6,354,318.94	
22	Move from FDDCAC to RDS Rider			5 846 265	
23	Increase to LCC Refund		Ð	508,054	
† 7	Total Difference		9	0,504,519	

^{*}Total costs for historic amounts reflect the initial balances. The revenue requirement reflects the annual collections of amortized balances.

Southwestern Public Service Company Supplemental RPS Rider Revenue Requirement Calculation - Projected For Calendar Year 2020

			(A)		(B)	(C)
Line No.	Description		Total Costs	7 -	2020 Revenue Requirement	Reference/Notes
П	REC Tracker Reconciliations:					
2	2013 REC Tracker	S	220,536.30	↔	31,505.19	42 mo amort, beginning 1/17 (\$220,536.30/42)*6
3	Projected REC Tracker Interest (2013 Tracker)*	\$	17,367.23	S	2,481.03	Based on 2018 Customer Deposit Interest Rate
4	Projected 2018 RPS Rider Reconciliation	∽	1,135,751.95	8	1,135,751.95	Assumed to be the same as 2019
S	2018 Rider Interest	↔	68,842.29	↔	68,842.29	Assumed to be the same as 2019
9	2020 Projected Annual Costs:					
7	DG (Incentive, Admin, and Marketing)	↔	2,303,744.47	8	2,303,744.47	Attachment RMS-3, Appendices B & C
∞	WREGIS		8,500.00		8,500.00	Attachment RMS-3, Appendices B & C
6	SunE RECs (at \$10/MWh)		1,088,847.98		1,088,847.98	Attachment RMS-3, Appendices B & C
10	SunE Uneconomic Costs		10,962,630.01		10,962,630.01	Attachment RMS-3, Appendices B & C
10.5	SunE Economic Costs		559,402.90		559,402.90	
11	Wind RECs (at \$1.35/MWh)		828,537.94		828,537.94	Attachment RMS-3, Appendices B & C
11.5	Wind Energy		5,382,518.78		5,382,518.78	
12	Total Annual Costs (Sum L7:L11.5)	\$	21,134,182.09	89	21,134,182.09	
13						
	RPS Rider 2020 Revenue Requirement					
14	(+L2+L3+L4+L5+L12)	65 65	22,576,679.86	69.	22,372,762.55	
15						
,	2020 Refunds to Qualifying Large Customers for	4		4		
16	Amounts Paid in Excess of REA Cap	•	2,497,581.07	•	2,497,581.07	Assumed to be the same as 2019
-	Total RPS Rider 2020 Revenue Requirement					
18	(L14+L16)	\$	25,074,260.93	89.	24,870,343.62	
,						
90	Original Filing: Total RPS Rider 2010 Revenue Recuirement			64	18 420 367 96	
21	Difference			\$ 69.	6,449,975.66	
22	Move from FPPCAC to RPS Rider				5,941,922	
53	Increase to LCC Refund			€	508,054	
24				×	6,449,976	

*Total costs for historic amounts reflect the initial balances. The revenue requirement reflects the annual collections of amortized balances.