

**SOUTHWEST POWER POOL
FINANCE COMMITTEE MEETING**

August 5, 2021
Videoconference

MINUTES

ADMINISTRATIVE ITEMS

Julian Brix called the meeting to order at 12:30 p.m. The following members were in attendance:

Susan Certoma	SPP Director
Julian Brix	SPP Director
Sandra Bennett	AEP
Al Tamimi	Sunflower Electric Coop
Matt Pawlowski	NextEra
Emily Koenig	Lincoln Electric
Tom Dunn	SPP

Others in attendance: See attached roster

A quorum was present. Minutes from the July 15, 2021 meeting were reviewed. Al Tamimi made a motion to accept the minutes. The motion was seconded by Sandra Bennett and approved by unanimous voice vote.

OUT OF BUDGET REQUEST – ENGINEERING STUDY CONSULTING

SPP staff presented a request to approve additional funding out of budget for engaging external engineering firms to help complete the backlog of studies. The 2021 budget for consultants in the engineering department was \$3.3 million. SPP senior management had already approved, but not incurred, expenditures above the budget amount but consistent with expenditure policy. Additional expenditures of \$3.6 million were identified beyond the budget amount and the amount approved by senior manager, to perform the remaining study workload in 2021; resulting in a total consultant expenditure for engineering studies of \$8.4 million in 2021. All funding for these studies is obtained from the study participants.

Matt Pawlowski made a motion to approve the out-of-budget request for an additional \$3.6 million to reflect a total 2021 outside services expense for GI studies of \$8.4 million. The motion was seconded by Al Tamimi and approved by unanimous voice vote.

VIRTUAL REFERENCE PRICE WAIVER

SPP staff presented a recommendation from the Credit Practices Working Group to seek a waiver from the FERC which would exclude pricing from the week of February 12-19, 2021 from the calculation of virtual reference prices during the first quarter of 2022. Inclusion of pricing from that week in 2021 will significantly increase the calculation of potential exposure for all virtual purchases in the first quarter of 2022 and, likely, result in most all virtual activity ceasing during the quarter.

Julian Brix made a motion to recommend the SPP Board of Directors approve seeking a one-time waiver with the FERC to remove pricing data from February 12 – 19, 2021 from the calculation of first quarter 2022 virtual reference prices. The motion was seconded by Sandra Bennett and approved by unanimous voice vote.

FUTURE MEETINGS

The next meeting of the Finance Committee will be a video conference on September 22, 2021 when the committee will have a preliminary review of the 2022 operating and capital budgets.

The meeting was adjourned at 1:30pm

Respectfully Submitted,

Tom Dunn

Secretary

ATTENDANCE ROSTER

Tom	Hestermann	Sunflower
Farzad	Khalili	State of Oklahoma
Robert	Pick	NPPD
SCOTT	SMITH	SPP
Tom	Dunn	SPP
Heather	Starnes	MJMEUC
Jeff	Parkison	CUS
Jason	Mazigian	Basin Electric
Bradley	Cochran	OG&E
Meghan	Carnahan	NPPD
David	Kelley	SPP
Emily	Koenig	LES
Bernie	Liu	Xcel Energy
Sandra	Bennett	AEP
Al	Tamimi	Sunflower Electric
Julian	Brix	SPP
Susan	Certoma	SPP
Matt	Pawlowski	NextEra Energy Resources, LLC



**SOUTHWEST POWER POOL, INC.
FINANCE MEETING**

**August 5, 2021 (12:30pm – 1:30pm CDT)
WebEx**

AGENDA

1. Administrative Items Susan Certoma
2. Out of Budget Request – Engineer Consulting (*20 minutes*)..... David Kelly
3. Virtual Reference Price Waiver (*20 minutes*)..... Scott Smith
4. Future Meetings

**SOUTHWEST POWER POOL
FINANCE COMMITTEE MEETING**

July 15, 2021
Videoconference

MINUTES

ADMINISTRATIVE ITEMS

SPP Chair Susan Certoma called the meeting to order at 8:00 a.m. The following members were in attendance:

Susan Certoma	SPP Director
Julian Brix	SPP Director
Darcy Ortiz	SPP Director
Sandra Bennett	AEP
Sarah Stafford	OG&E
Mike Wise	Golden Spread Electric Coop
Al Tamimi	Sunflower Electric Coop
Matt Pawlowski	NextEra
Emily Koenig	Lincoln Electric
Tom Dunn	SPP

Others in attendance: See attached roster

A quorum was present. Minutes from the April 15, 2021 and June 17, 2021 meetings were reviewed. Mike Wise made a motion to accept the minutes. The motion was seconded by Matt Pawlowski and approved by unanimous voice vote with one abstention (Emily Koenig).

2022 SPP OPERATING PLAN

SPP staff presented the 2022 Operating Plan document, highlighting i) the primary corporate objectives, and ii) the 2022-24 project plan. Additionally, staff demonstrated how the corporate objectives and projects aligned with the draft 2022 strategic plan. Staff advised the committee members that the Strategic Planning Committee was briefed on the operating plan and alignment during a meeting the prior day and the Markets and Operations Policy Committee were advised of the 2022-24 project plan earlier in the week.

Some committee members expressed concern that the operating plan (and strategic plan) lacked clarity around what items in the plan are “must-do” items and lacked estimates of costs to complete and implement the plan.

Sandra Bennett made the following motion: The Finance Committee recommends the SPP Board of Directors accept the 2022 SPP Operating Plan as a working document for development of the 2022 budget. The motion was seconded by Mike Wise and approved by unanimous voice vote with one abstention (Mike Wise). Mike Wise indicated his abstention was due to the lack of constraints within the plan.

PROCESS IMPROVEMENT REPORT

The committee received a report from SPP staff on process improvement program efforts that have occurred over the trailing 12 month period. Eight improvement projects were highlighted which resulted in estimated financial savings of \$1,200,000.

SCHEDULE 1A RATE CAP

SPP staff presented a recommendation to increase the rate cap in recognition of the growth of SPP’s operations and inflation of costs to provide services. SPP’s 2021 budget contained a forecast for 2022-2025 which indicated the net revenue requirement divided by transmission service billing units would exceed the existing 43¢/MWh cap beginning in 2022.

Sandra Bennett made a motion to increase the cap to 46.5¢/MWh. This motion was seconded by Mike Wise and approved by unanimous voice vote.

The committee further indicated to SPP staff its expectation that 2022 costs would be held at or below 45¢/MWh.

MID YEAR REVIEW

SPP staff provided a concise overview of full year projected financial performance. The net revenue requirement is projected to be at budget levels while tariff revenues are slightly below budget. Projections currently indicate a mild under-recovery during 2021. Staff further highlighted how the under-recovery presents itself within the 4 administrative fee rate schedules. Schedule 1A-1 is expected to produce a slight over-recovery while the other three rate schedules are expected to under-recover. The primary driver is lower billing determinants in the three under-recovering rate schedules.

FUTURE MEETINGS

The next meeting of the Finance Committee will be a video conference on September 22, 2021 when the committee will have a preliminary review of the 2022 operating and capital budgets.

The meeting was adjourned at noon.

Respectfully Submitted,

Tom Dunn

Secretary

First	Last	Company
Sandra	Bennett	AEP
Dianne	Branch	Southwest Power Pool
Julian	Brix	SPP
Denise	Buffington	Evergy Companies
Susan	Certoma	SPP
Jason	Chaplin	OCC
Michael	Desselle	Southwest Power Pool
Tom	Dunn	SPP
Tom	Hestermann	Sunflower Electric Power Corporation
Jim	Jacoby (AEP)	AEP/PSO
Laura	Kapustka	NPPD
Farzad	Khalili	State of Oklahoma
Emily	Koenig	Lincoln Electric System
Darcy	Ortiz	SPP Director
Jeff	Parkison	CUS
Matt	Pawlowski	NextEra Energy Resources, LLC
Joshua	Phillips	Southwest Power Pool
Robert	Pick	NPPD
Russell	Quattlebaum	Southwest Power Pool
SCOTT	SMITH	SPP
Sarah	Stafford	OGE Energy Corp.
Barbara	Sugg	SPP
Robert	Tallman	OG&E
Al	Tamimi	Secp
Zeynep	Vural	Southwest Power Pool
Michael	Wise	Golden Spread Electric Coop, Inc.

Southwest Power Pool, Inc.
Recommendation to the SPP Finance Committee
Generator Interconnection Outside Services Out-of-Budget Request
7/23/2021

Background

SPP Generator Interconnection (GI) is required to conduct a variety of interconnection study projects as referenced in Attachment V, SPP OATT. In recent years, the Generation Interconnection Study Queue has grown into a multi-year backlog of nearly 560 individual interconnection requests, within seven Definitive Interconnection System Impact Study (“DISIS”) clusters representing over 103,000 megawatts of generation capacity. In SPP’s 2021 Operating Plan, truncating the GI Backlog is one of the top corporate and departmental objectives.

In addition to the DISIS studies, Attachment V contemplates several types of “ad hoc” study types that are required to be performed upon request by interconnection customers. These ad hoc study types include Affected System, Modification, Replacement, Surplus Service, Incremental Long-Term Congestion Rights (ILTCR), and Interim Service. The volume of these request-driven ad hoc studies have increased significantly as interconnection customers seek to interconnect their projects in light of the DISIS backlog. This increase in request-driven ad hoc studies is the primary driver behind this request for out-of-budget outside services expenditures.

In order to accelerate clearing the GI Backlog, the GI Department is making aggressive utilization of powerflow and stability consulting firms to re-distribute the engineering analysis functions and support the overall GI process. Contracted consultants bring the necessary expertise and engineering support to SPP so the department can continue the pace of addressing the multi-year backlog while implementing numerous process improvements. With the amount of pending tariff study work that GI is projecting through the end of 2021, the original budget of \$3,304,000 is insufficient to perform the volume of request-driven ad hoc studies. SPP is requesting approval for additional out-of-budget expenditures for outside services by an additional \$3,609,000 to accommodate the remaining 2021 study projects. All of the additional unbudgeted expenditures will be direct pass-through to SPP GI Customers, as provided for in Attachment V of SPP’s Tariff, and will not impact SPP’s recovery of its Net Revenue Requirement.

Approximately \$1,477,620 of out-of-budget outside services expenses have already been approved in 2021. SPP is submitting this additional request of \$3,609,000 for an expected end-of-year out-of-budget total for outside services expense of approximately \$5,086,000 above the original budget of \$3,304,000. This would result in a revised total outside services expense forecast for GI studies for 2021 of \$8,390,000.

Analysis

GI Department has a budget of \$3,304,000 for pass-through consultant costs for 2021 per the approved 2021 budget. After analyzing the volume of remaining GI studies that are expected to be performed in 2021 and that require outside services support, SPP is requesting approval for additional unbudgeted expenditures. Approval is being requested for additional unbudgeted, pass-through outside services expenditures which will benefit the efficiency of the contracting process and provide a notion for more realistic 2021 forecast expectations to the Finance Committee. SPP has depleted the entirety of the outside services pass-through budget for GI studies for 2021 now requiring any new consultant expenses to follow the out-of-budget approval process. As of the date of this justification request, GI has remaining work of one DISIS Phase 2 study and 56 request-driven, ad hoc study requests. Failure to secure consultant budget for these studies will result in stoppage of processing these request-driven, ad hoc studies through the end of 2021. GI customers have expressed the need to continue delivering studies as soon as possible recognizing the costs for SPP to perform these studies are directly passed onto the applicable GI customers

Although SPP increased the 2021 outside services budget from \$300,000 to \$3,304,000, the number of request-driven, ad hoc studies, new studies, and affected system studies, significantly exceeded SPP’s expectations. GI customers call on a daily and weekly basis to confirm their request study schedules. Without additional out-of-budget expenditures, SPP will not be able to continue processing these studies.

The following represents SPP's forecast of study work remaining for 2021:

<u>2021 Pending Studies</u>	<u>Projected Consultant Costs</u>
Pending Contracts (submitted, not approved)	\$1,260,000
DISIS-2017-002 P2	\$ 658,000
Affected Systems Studies (estimated @ 6)	\$ 420,000
MISO and AECI JOA (estimated @ 2)	\$ 350,000
Interim and Limited Studies (estimated @ 6)	\$ 350,000
ILTCR (estimated @ 2)	\$ 170,000
Utilicast GI Study Program Support/Backlog Mitigation	\$ 401,000
	<u>\$3,609,000</u>

There remains a risk that request-driven, ad hoc studies could still exceed this revised estimate. If new requests are received, even later in the year, SPP is obligated to use reasonable efforts to complete the studies in accordance with the timelines established in the Tariff.

Pricing

SPP is requesting approval for additional unbudgeted, pass-through outside services expenditures for 2021 from the original budget of \$3,304,000 to a revised 2021 forecast of \$8,390,000 to accommodate all additional GI study work expected for the remainder of the year. This would be an increase of \$5,086,620 for all out of budget expenditures to the original 2021 budget. All GI consultant costs are funded, as pass-through, from nearly \$45,000,000 in cash study deposits on hand, from active GI requests.

Recommendation

SPP Staff recommends the Finance Committee approve this out-of-budget request for an additional \$3,304,000 to reflect a total 2021 outside services expense forecast for GI studies of \$8,390,000.

Alternative(s)

Without approval for additional unbudgeted, pass-through outside services expenditures, GI will not be able to complete its mission to clear the GI Study Backlog, train staff in production, increase customer satisfaction, and meet its tariff obligations.

**SOUTHWEST POWER POOL, INC.
CREDIT PRACTICES WORKING GROUP**

**RECOMMENDATION TO THE BOARD OF DIRECTORS
AUGUST __, 2021
FIRST QUARTER 2022 VIRTUAL REFERENCE PRICES**

ORGANIZATIONAL ROSTER

The following persons are members of the Credit Practices Working Group:

Caleb Head (Chair), NTEC	Mark Holler, Tenaska
Mark Breese (Vice Chair), Xcel	Jason Regehr, City Utilities
Seth Cochran, DC Energy	Zachary Wegner, OPPD
Tom Hestermann, Sunflower	Justin Riddell, TEA
LaGena O'Neal, OMPA	Terri Wendlandt, Evergy
Matthew Simon, Basin	

BACKGROUND

The extreme pricing of energy experienced during the February 12th - 19th, 2021 winter storm event may have an adverse impact on the calculations of virtual reference prices for first quarter 2022. If virtual reference prices are artificially high, trading volumes may be reduced due to lack of available credit resulting in inefficiencies of the virtual and real energy markets. Initial modeling/estimates of first quarter 2022 virtual reference prices indicates an average collateral requirement increase of approximately 7,300% compared to first quarter 2021.

ANALYSIS

Virtual Demand Bids or Virtual Supply Offers allow SPP's market participants to transact in the day-ahead market up to seven days in advance of the desired operating day. After submission, the virtual bid/offer is cleared during SPP's daily process and financially binding positions are awarded to the participant. Awarded positions settle at the difference between the Day-Ahead Market Locational Marginal Price (DALMP) and the Real-Time Balancing Market Locational Marginal Price (RTLMP) which could result in either a charge or a credit to the market participant (MP).

Since these positions are financially binding, a collateral requirement is calculated for each potential trade and assessed to the MP. To calculate the collateral requirement, the maximum

megawatt hour (MWh) value on the submitted bid/offer curve is multiplied by a virtual reference price (VRP). SPP uses the maximum MWh value since the clearing process has not yet occurred and it is assumed the maximum amount can be awarded.

The VRP is calculated for each settlement location using the 97th percentile of previous year’s hourly differential of DALMP and RTLMP from the same quarter. Using the 97th percentile differential provides a risk premium for trading virtuals and using same quarter, prior year data provides a seasonality component. Each settlement location uses a distinct VRP for a calendar quarter and VRPs are always negative, which requires the use of collateral or a portion of any unsecured credit allowance granted to the MP (based upon creditworthiness).

Due to the extreme pricing of energy during the 2021 winter weather event, calculation of VRPs for first quarter in 2022 will be significantly higher than any previous quarterly calculations. The tables below demonstrate the severity of the issue. Average VRPs for first quarter 2022 are estimated to be \$1,562/MWh as compared to \$21/MWh for first quarter 2021 (which is representative of most historical quarters). Using these estimated VRPs would result in average collateral requirement increases of approximately 7,300% in first quarter 2022.

VIRTUAL REFERENCE PRICE COMPARISON			ESTIMATED COLLATERAL REQUIREMENT COMPARISON		
	Q1 2021	Q1 2022 (Est)		Q1 2021	Q1 2022 (Est)
MIN	\$17	\$1,060	MWh	250	250
MEAN	\$21	\$1,562	x Virtual Ref Price	\$21	\$1,562
MAX	\$50	\$1,773	= Collateral Requirement	\$5,250	\$390,500

It is assumed that VRPs of this magnitude would likely curtail all trading of virtual energy in first quarter 2022. Lack of virtual trading could also have a significant impact on DALMPs and RTLMPs, resulting in distorted energy values.

As a potential correction, SPP staff recalculated first quarter 2022 VRPs after removing the extreme hourly pricing for the period of February 12, 2021 to February 19, 2021. The results show that by removing the data from this one week period, VRPs are more comparable to the same quarter over the past few years. The tables below contain the actual VRPs used for first quarters 2019 to 2021 and then estimated first quarter 2022. When removing the extreme LMPs from the calculation of the reference price, the average collateral requirement shows an increase of approximately 80% in first quarter 2022.

VIRTUAL REFERENCE PRICE COMPARISON					VIRTUAL REFERENCE PRICE COMPARISON		
	Q1 2019	Q1 2020	Q1 2021	Q1 2022 (Est)		Q1 2021	Q1 2022 (Est)
MIN	\$18	\$21	\$17	\$29	MWh	250	250
MEAN	\$27	\$29	\$21	\$39	x Virtual Ref Price	\$21	\$39
MAX	\$83	\$120	\$50	\$139	= Collateral Requirement	\$5,250	\$9,750

RECOMMENDATION

Seek a one-time waiver with the FERC to remove pricing data from February 12, 2021 to February 19, 2021 from the calculations of first quarter 2022 VRPs.

Approved: Credit Practices Working Group July 15, 2021
Passed Unopposed
Finance Committee

Action Requested: Approve Recommendation



VIRTUAL ENERGY REFERENCE PRICES USED FOR CREDIT CALCULATIONS

FINANCE COMMITTEE PRESENTATION



VIRTUAL ENERGY PRIMER

Market:

- Financial transactions only
- Clearing does not result in transfer of energy/title
- Other ISO/RTOs have similar product
- Market intended to facilitate price convergence

Transactions:

- Bid/offer up to 7 days in advance
- Singular settlement locations for singular hour of day
- Cleared daily during DA/RT process
- Settled daily & invoiced weekly

Participants:

- Majority of transactions from financial only MPs
- Wide range of credit profiles for FOs
- Some utilities use to hedge real energy
- MMU: \$400MM in profits from virtuals during winter event

VIRTUAL ENERGY CREDIT REQUIREMENTS

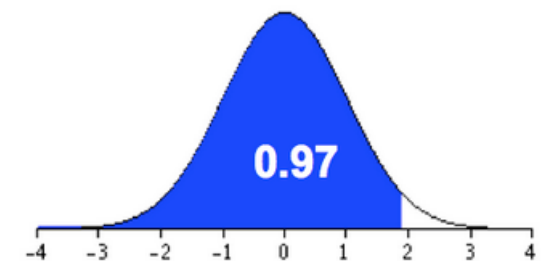
$$\text{Virtual Energy Credit Requirement} = \text{Maximum MW in Bid/Offer Curve} \times \text{Virtual Energy Reference Price}$$

- Max MW used for pre-clearing credit requirement
 - Replaced with cleared MW value once available
- Virtual Energy Reference Prices



97th percentile of DA/RT LMP difference from same quarter in previous year

- Each settlement location has bid/offer VRPs
- VRPs are used for a calendar quarter to reflect seasonality

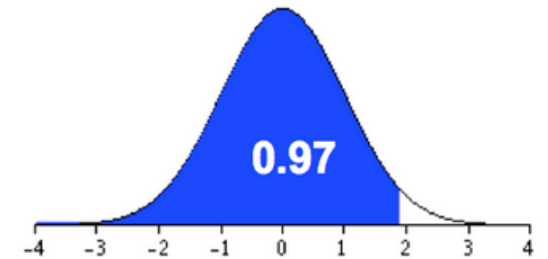


IMPACT OF WWE ON Q1 2022 VRPs

- 2021 WWE produced never before seen LMPs during February 12-19



Q1 2022 VRPs are referencing this period for 97th percentile resulting in significant potential credit requirements (*one week out of 13*)



VIRTUAL REFERENCE PRICE COMPARISON		
	Q1 2021	Q1 2022 (Est)
MIN	\$17	\$1,060
MEAN	\$21	\$1,562
MAX	\$50	\$1,773

- Average VRP for Q1 2021 is \$21/MWh
- Without intervention, average VRP for Q1 2022 will be \$1,562/MWh

ESTIMATED COLLATERAL REQUIREMENT COMPARISON		
	Q1 2021	Q1 2022 (Est)
MWh	250	250
x Virtual Ref Price	\$21	\$1,562
= Collateral Requirement	\$5,250	\$390,500

- 250 MWh transaction would require approx. \$5k collateral in Q1 2021...similar transaction would require approx. \$400k collateral in Q1 2022

RECOMMENDATION FROM CPWG

- Without intervention, collateral requirements will likely curtail vast majority of trading in virtual markets for Q1 2022
- Removing February 12-19 2021 data from VRP calculations would result in the following:

VIRTUAL REFERENCE PRICE COMPARISON				
	Q1 2019	Q1 2020	Q1 2021	Q1 2022 (Est)
MIN	\$18	\$21	\$17	\$29
MEAN	\$27	\$29	\$21	\$39
MAX	\$83	\$120	\$50	\$139

- Removing February data would result in average of \$39/MWh collateral requirement. Would provide add'l collateralization if another event occurred.

VIRTUAL REFERENCE PRICE COMPARISON		
	Q1 2021	Q1 2022 (Est)
MWh	250	250
x Virtual Ref Price	\$21	\$39
= Collateral Requirement	\$5,250	\$9,750

- Similar transactions would be more comparable between Q1 2021 and 2022. Add'l collateralization may be available if another event occurred.

Request SPP seeks a one-time waiver from the FERC to remove these days (2/12-2/19) from consideration of Q1 2022 VRPs

Memorandum

To: Finance Committee Members

From: Tom Dunn

CC: Kaye McCarty

Date: July 29, 2021

Re: 2021-22 Meeting Schedule

Detailed below is a schedule for meetings of the Finance Committee for 2020 along with suggested agenda items to be covered at the meetings.

<u>Meeting Date</u>	<u>Time</u>	<u>Location</u>	<u>Agenda</u>
Sep 22, 2021	9:30 – 11:30	Virtual	2022 Budget Preview
Oct 14, 2021	8:00 – noon	Little Rock	2022 Operating and Capital Budgets
Jan 13, 2022	8:00 – noon	Oklahoma City	Liability Insurance, Actuary Assumptions
Apr 14, 2022	8:00 – noon	Virtual	2021 Financial Audit, Benefit Plan Funding
Jul 14, 2022	8:00 – noon	Rapid City	Mid-year Review, 2023 Operating Plan,
Oct 13, 2022	8:00 - noon	Video Conference	2023 Operating and Capital Budgets

Consider conducting the July 2022 meeting virtually and the October 2022 meeting face-to-face in Little Rock