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APPLICATION OF SOUTHWESTERN § BEFORE THE STATE OFFICE
 ELECTRIC POWER COMPANY FOR §
 CERTIFICATE OF CONVENIENCE §
 AND NECESSITY AUTHORIZATION § OF
 AND RELATED RELIEF FOR THE §
 ACQUISITION OF WIND §
 GENERATION FACILITIES § ADMINISTRATIVE HEARINGS

**SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO
 TEXAS INDUSTRIAL ENERGY CONSUMERS' SEVENTEENTH
 REQUEST FOR INFORMATION**

FEBRUARY 24, 2020

TABLE OF CONTENTS

<u>SECTION</u>	<u>FILE NAME</u>	<u>PAGE</u>
Response No. TIEC 17-1	49737 TIEC17 PKG.pdf	2
Response No. TIEC 17-2	49737 TIEC17 PKG.pdf	3
Response No. TIEC 17-3	49737 TIEC17 PKG.pdf	4
Response No. TIEC 17-4	49737 TIEC17 PKG.pdf	5
Response No. TIEC 17-5	49737 TIEC17 PKG.pdf	6
Response No. TIEC 17-6	49737 TIEC17 PKG.pdf	7
Response No. TIEC 17-7	49737 TIEC17 PKG.pdf	8
Response No. TIEC 17-8	49737 TIEC17 PKG.pdf	9

280

SOAH DOCKET NO. 473-19-6862
PUC DOCKET NO. 49737

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO
TEXAS INDUSTRIAL ENERGY CONSUMERS' SEVENTEENTH
REQUEST FOR INFORMATION

Question No. TIEC 17-1:

In reference to Bletzacker WP Non-Confidential.xlsx, please provide a version of the WP with all formulas intact and please provide all source documents used.

Response No. TIEC 17-1:

Bletzacker WP Non-Confidential.xlsx, as provided, has all formulas intact. Source documents are all publicly available and referenced in the Rebuttal Testimony of Company witness Bletzacker.

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Title: Economic Forecast Analyst Staff

Sponsored By: Karl R. Bletzacker

Title: Dir Fundamental Analysis

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**SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO
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Question No. TIEC 17-2:

In reference to Figure 2 from the Rebuttal Testimony of Johannes P. Pfeifenberger:

- a. Please specify which natural gas and carbon price scenario is reflected in the Bid Evaluation and SPP Upgrades scenarios, respectively.
- b. Please explain the differences in the natural gas and carbon price scenarios between the assumptions used in the Bid Evaluation and in quantifying the net economic benefits of the Traverse, Sundance, and Maverick Wind projects.
- c. Identify all other differences between the Bid Evaluation analysis and the net benefits analysis of the Traverse, Sundance, and Maverick Wind projects.
- d. Please define the SWEPCO Gen Zone and explain how the SWEPCO Gen Zone LMPs were derived.

Response No. TIEC 17-2:

- a. The natural gas and carbon prices in the "Bid Evaluation" and "No SPP Upgrades" scenario results summarized in Figure 2 are identical to SPP's 2019 ITP Reference Case assumptions. As discussed in the direct testimony of Mr. Pfeifenberger, these SPP reference case assumptions used third-party (ABB) gas price projections. The SPP Reference case did not include carbon prices.

Note that Figure 2 shows the results of the Company's PROMOD simulations for both the RFP Bid Evaluation case and the "No- SPP- Upgrades" case (addition to the PROMOD Base Case). Both these cases employ the same SPP 2019 ITP Reference Case PROMOD model as the starting point. The only difference between these cases is that the Bid Evaluation case included an additional 4,400 MW of wind capacity, compared to an additional 1,000 MW of wind capacity in the No-SPP-Upgrades case. These additional 4,400 MW and 1,000 MW of wind capacity were added by the Company to the SPP Reference Case to reflect RFP Bids and Selected Wind Facilities, respectively, that were not already reflected in the SPP Reference Case. Further, these results are before making any adjustments to combine the PROMOD simulations-based market prices with the company's Aurora-based fundamental price forecasts, as was done to support the Company's customer benefits analysis for the Selected Wind Facilities.

- b. See response to a.
- c. See response to a. For differences in PROMOD assumptions and results between the Bid Evaluation Case and those used for the net economic benefit analysis, see Mr. Pfeifenberger's direct testimony.
- d. SWEPCO generation zone comprises all of SWEPCO's conventional generation units (but not wind or solar units). The SWEPCO Gen Zone LMP shown in Figure 2 is calculated as the annual average of the hourly generation-weighted average of market prices at each of SWEPCO's pricing nodes for conventional generation in the PROMOD simulations.

Prepared By: Shelli A. Sloan

Title: Dir Case Suppt & Special Proj

Prepared by: Johannes P. Pfeifenberger

Title: Principal, The Brattle Group

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**SOAH DOCKET NO. 473-19-6862
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Question No. TIEC 17-3:

In reference to Figure 1 from the Rebuttal Testimony of Johannes P. Pfeifenberger, please provide a tabulation of the nameplate capacity of the renewable resources for the following status levels in the 1/26/2020 SPP GI Active Request Queue:

- a. Total Requests.
- b. Fully Executed Generation Interconnection Agreements / On Schedule.
- c. Facility Study Stage.
- d. DISIS Stage.

Response No. TIEC 17-3:

- a.-d. Mr. Pfeifenberger has not reviewed or downloaded any data related to SPP's 1/26/2020 Generation Interconnection Active Request Queue.

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Question No. TIEC 17-4:

Assume that SWEPCO had the right to receive a cash payment from an investment-grade utility equal to the value of 1 MMBtu of gas delivered to Henry Hub at the end of each of the next ten years.

- a. What natural gas price forecast would SWEPCO use to value that cash flow stream? Please explain SWEPCO's choice.
- b. What discount rate would he use to account for the risk of that cash flow stream? Please explain SWEPCO's choice.
- c. Now assume that SWEPCO had the right to receive a \$1 cash payment from an investment-grade utility at the end of each of the next ten years. What discount rate would SWEPCO use to account for the risk of that cash flow stream? What discount rate would SWEPCO use to account for the risk of that cash flow stream if the payments were from the U.S. federal government? Please explain SWEPCO's choices.

Response No. TIEC 17-4:

In this hypothetical and greatly underspecified scenario that does not allow for a concise response. With that qualification, SWEPCO's partial responses are as follows:

- a. The value of 1 MMBtu of natural gas delivered to the Henry Hub at the end of each of the next ten years is equivalent to the Henry Hub spot price for 12/31 of each year, as published in Platt's Gas Daily. The Company is unaware of any forecast for single-day spot prices for December 31 as defined in this hypothetical scenario.
- b. SWEPCO uses its weighted average cost of capital for discounting future cash flows associated with its regulated business operations.
- c. See response to b.

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Title: Resource Planning Mgr

Prepared By: James F. Martin

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Prepared By: Connie S. Trecuzzi

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Title: Dir Fundamental Analysis

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Question No. TIEC 17-5:

Assume Mr. Pfeifenberger had the right to receive a cash payment from an investment-grade utility equal to the value of 1 MMBtu of gas delivered to Henry Hub at the end of each of the next ten years.

- a. What natural gas price forecast would he use to value that cash flow stream? Please explain Mr. Pfeifenberger's choice.
- b. What discount rate would he use to account for the risk of that cash flow stream? Please explain Mr. Pfeifenberger's choice.
- c. Now assume that Mr. Pfeifenberger had the right to receive a \$1 cash payment from an investment-grade utility at the end of each of the next ten years. What discount rate would he use to account for the risk of that cash flow stream? What discount rate would Mr. Pfeifenberger use to account for the risk of that cash flow stream if the payments were from the U.S. federal government? Please explain Mr. Pfeifenberger's choices.

Response No. TIEC 17-5:

In this hypothetical and greatly underspecified scenario that does not allow for a concise response. With that qualification, Mr. Pfeifenberger's partial responses are as follows:

- a. Mr. Pfeifenberger would consider a range of gas price forecasts for the next ten years at Henry Hub—such as that illustrated in Bletzacker Rebuttal Testimony's Highly Sensitive Figure 10. An adjustment for end-of-year gas prices may then still be necessary.
- b. The question lacks the specifics for Mr. Pfeifenberger to provide a response. The discount rate would depend on the specific terms and additional business context in which these payments would be received.
- c. The question lacks the specifics for Mr. Pfeifenberger to provide a response. Please see response to part b.

Prepared by: Johannes P. Pfeifenberger

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Sponsored by: Johannes P. Pfeifenberger

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Question No. TIEC 17-6:

Is the composite forecast that Mr. Bletzacker presented using the SPS Forecast Methodology in Figure 9 using SPS's Base or Low case methodology? In responding, please provide an explanation of how Mr. Bletzacker knows whether he used SPS's Base or Low case methodology.

Response No. TIEC 17-6:

For illustrative purposes, Mr. Bletzacker use the Natural Gas Forecast Weightings shown on Table JSA-2 to the direct testimony of Jonathan S. Adelman in Docket No. 46936. The composite forecast presented by Mr. Bletzacker utilized Base case forecasts from the respected, industry leading sources.

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Question No. TIEC 17-7:

Referring to pages 28-29 of the Rebuttal Testimony of Mr. Bletzacker, please provide the 2019 monthly and annual average on-peak and off-peak LMPs at the SPP Central Zone. If there is no single SPP Central Zone hub, please provide the average of the LMPs at the hubs that constitute what AEP considers the SPP Central Zone.

Response No. TIEC 17-7:

Zonal prices at the SPP Central Zone

Power Prices (\$/MWh) -Nominal \$'s

Month	SPP_CENTRAL	
	On-Peak	Off-Peak
Jan-19	26.60	21.17
Feb-19	26.26	21.37
Mar-19	24.69	19.47
Apr-19	22.97	17.44
May-19	23.38	17.02
Jun-19	25.63	19.57
Jul-19	28.36	21.46
Aug-19	28.27	21.81
Sep-19	26.11	19.12
Oct-19	23.84	17.87
Nov-19	25.15	19.97
Dec-19	25.80	21.27
2019 Avg	25.59	19.80

Prepared By: Connie S. Trecuzzi

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**SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO
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Question No. TIEC 17-8:

Referring to page 7 of the Rebuttal Testimony of Mr. Torpey, please state whether the comparison between SWEPCO's breakeven LMPs over the first ten years and the average day-ahead AEP zone LMPs for 2019 takes into account projected congestion costs. If congestion costs are taken into account, please explain how. If congestion costs are not taken into account, please provide the breakeven LMPs with congestion costs taken into account.

Response No. TIEC 17-8:

Yes. The break-even analysis calculated the change in day-ahead prices required to reduce the NPV of the benefits less the costs (which include congestion costs) to zero.

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