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

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

OCTOBER 31, 2019

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

Question No. TIEC 8-1:

Referring to SWEPCO's response to TIEC 1-7, please provide the Henry Hub and basis differential analysis discussed.

Response No. TIEC 8-1:

The information responsive to this request is HIGHLY SENSITIVE under the terms of the Protective Order. The Highly Sensitive information is available for review at the Austin offices of American Electric Power Company (AEP), 400 West 15th Street, Suite 1520, Austin, Texas, 78701, (512) 481-4562, during normal business hours.

Please see TIEC 8-1 Highly Sensitive Attachment 1 for the Henry Hub and basis differential analysis for the Enable Gas Pipeline long-term agreement discussed in the Company's response to TIEC 1-7.

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

Question No. TIEC 8-2:

Referring to SWEPCO's response to TIEC 1-11 and TIEC 1-12: If it is not appropriate to assume that natural gas is on the margin during all hours, including off-peak hours, why did SWEPCO/AEP use an implied heat rate based on natural gas to calculate the breakeven natural gas price?

Response No. TIEC 8-2:

The purpose of the natural gas breakeven analysis shown in Company witness Bletzacker's testimony is to approximate the natural gas price curve at which power is generated at the SWEPCO-specific breakeven power price demonstrated by Company witness Torpey. It does not imply that natural gas generation will always be on the margin in SPP. The actual marginal generating unit sets the power price and is indifferent to the energy/fuel source.

To calculate a natural price curve at which a natural gas generator can be profitable by burning natural gas to generate power, a natural gas generator implied heat rate must be used. The natural gas Implied Heat Rate is the forecasted power price divided by forecasted natural gas price. The comparison of the marginal power price to the coincident natural gas price yields the natural gas Implied Heat Rate. Therefore, dividing Company-specific Break-Even power prices ($/MWh) by the natural gas Implied Heat Rates (MMBtu/MWh) taken from the comparable Low No Carbon Fundamentals Forecast case resulted in an appropriate Break-Even natural gas price curve ($/MMBtu) at which a natural gas generator can be profitable by burning natural gas to generate power.

The fact that there are hours in which a natural gas plant will not be on the margin indicates that the breakeven power price curve calculated by Company witness Torpey and displayed in Figure 1 in his testimony is a more relevant and reliable way to evaluate the likelihood of breakeven economics for the proposed facilities.

The price of gas in isolation does not directly impact the economics of wind resources. For a wind resource, gas price is only relevant if it is evaluated together with the market heat rate, in order to determine the reasonableness of the market power price that the wind generation will receive in the energy market. For example, a gas price forecast with prices above recent actual prices paired with a market heat rate forecast that is lower than recent actuals could yield power prices lower than recent power prices, as is the case with witness Torpey's breakeven power price curve. Focusing only on gas price misses this important assumption in the economics of wind resources.

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