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APPLICATION OF SOUTHWESTERN ELECTRIC POWER COMPANY FOR CERTIFICATE OF CONVENIENCE AND NECESSITY AUTHORIZATION AND RELATED RELIEF FOR THE ACQUISITION OF GENERATION FACILITIES

BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

AUGUST 2, 2022

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Excel file provided electronically on the PUC Interchange

CARD_2-11_Attachment_1.xlsx

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-1:

Please identify the estimated in-service date, a capital cost, nameplate rating, accredited capacity rating, forecasted capacity factor, estimated service life and assumed production tax credit or investment tax credits for each solar and wind energy resource included in the base case analysis of the preferred plan of the Company's 2021 Arkansas IRP.

Response No. CARD 2-1:

See CARD 2-1 Attachment 1 for requested information.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

Wind Resources

wind Resour	ces						
Resource	In-Service Date	Capital Cost (Nom\$/kW)	Nameplate Capacity (MW)	Accredited Capacity (MW)	Capacity Factor (%)	Estimated Service Life (Yrs)	PTC (Nom\$/MWh) ¹
2024 Wind	12/31/2024	1,493	950	140	45.6%	30	60%
2025 Wind	12/31/2025	1,497	1500	221	45.8%	30	60%
Solar Resourc	ces						
Resource	In-Service Date	Capital Cost (Nom\$/kW)	Nameplate Capacity (MW)	Accredited Capacity (MW) ²	Capacity Factor (%)	Estimated Service Life (Yrs)	ITC (% of Capital Investment) ³
2024 Solar	12/31/2024	1,191	450	256	27.8%	30	26%
2025 Solar	12/31/2025	1,163	100	57	27.9%	30	26%
2027 Solar	1/1/2027	1,102	400	227	28.6%	30	
2028 Solar	1/1/2028	1,070	450	241	28.6%	30	
2029 Solar	1/1/2029	1,035	450	234	28.7%	30	
2030 Solar	1/1/2030	998	450	212	28.7%	30	
2031 Solar	1/1/2031	1,012	300	134	28.7%	30	
2032 Solar	1/1/2032	1,026	250	106	28.8%	30	
2033 Solar	1/1/2033	1,039	450	180	28.8%	30	
2036 Solar	1/1/2036	1,079	50	16	28.9%	30	
2038 Solar	1/1/2038	1,106	100	29	29.0%	30	
2039 Solar	1/1/2039	1,120	250	71	29.0%	30	
2041 Solar	1/1/2041	1,148	300	81	29.1%	30	

¹ The PTC lasts for a 10 year period. For modelling purposes SWEPCO grosses up the PTC to account for additional tax benefits.

²Accredited Capacity for solar is reported for the initial year of operation. As described in section 7.5.2 of the IRP the ELCC of solar is expected to decline over time.

³ For modelling purposes SWEPCO incorporates an additional cost adder to ITC-eligible projects to reflect the fact that benefits to customers must be normalized over the life of the project. Although current tax law includes a 10% ITC after 2025 SWEPCO has not included this in its analysis due to the minimal benefit for customers that would accrue after normalization.

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-2:

Please identify each assumption included in the Aurora modeling for the Confirmation Analysis that had the effect of forcing certain resources to be selected in a certain year, or which limited the level or number of resources selected in any year and explain why such assumptions were used.

Response No. CARD 2-2:

No assumptions were made that had the effect of forcing resources to be in service in any particular year, other than fixing Wagon Wheel, Diversion, and Mooringsport at their planned in service dates and reflecting the short-term capacity purchases in the years for which they have been contracted.

Limits were placed on the total MW of each resource type that can be placed in service in any one year. Those limits are shown in Company witness Martin's direct testimony HIGHLY SENSITIVE EXHIBIT JFM-1. These limits are based on educated judgment as to the practical amount the Company could actually acquire in any one year, while also allowing enough options to allow the model to meet the Company's capacity needs from a diverse variety of alternatives.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-3:

Reference page 18, lines 7-15 of the Direct Testimony of witness Martin, please clarify whether the Selected Resources were forced to be selected as optimal resources in the Confirmation Analysis, or whether they were included as potential resources and then selected as the lowest reasonable cost alternatives by the Aurora modeling for the Confirmation Analysis, and provide the NPV of total company net cost for cases with the Selected Resources in comparison to the NPV of total company net cost for the three cases without the Selected Resources which had the lowest NPV of total company net cost.

Response No. CARD 2-3:

The Selected Facilities were input into the model as optional resources. The Confirmation Analysis was not prepared based on cases with these resources compared to cases without them, and therefore there is no comparative NPV information to provide in this response. The analysis simultaneously included these resources as options amongst a diverse portfolio of other options, and the model calculated which resources comprised the least cost resource plan. The Selected Facilities plus over 2,000 MW of additional generic wind and solar and a conversion of Welsh unit 1 to burn gas were all selected by the model.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-4:

Reference page 18, line 16 through page 19, line 7 of the Direct Testimony of witness Martin, please provide all of the referenced inputs provided to CRA related to the proposals that remained under consideration in March 2022 that were used in the Confirmation Analysis.

Response No. CARD 2-4:

These inputs provided to CRA for the costs of the projects that remained under consideration at the time the analysis was prepared are summarized in Company witness Augustine's workpapers provided with the filing on the Project List worksheet in the file Confidential SWEPCO RFP Modeling Input Summary AEP.xlsx . Other tabs in that file were needed to convert these nominal dollar inputs into real dollar values needed by the Aurora model.

The source documents provided to witness Augustine by witness Martin are provided in Company witness Martin's workpapers provided with the filing.

The Levelized Congestion and Losses net of Hedging for Wagon Wheel, Diversion, and Mooringsport (the SF) provided by Company witness Ali are located in the witness Martin workpaper file SWEPCO F1 Congestion Report Confirmation Analysis.xlsx which was provided with the filing.

The levelized FOM \$/KW-Year values for the SF were calculated using Company witness DeRuntz's O&M workpapers provided with the filing.

Prepared By: Emily K. Brown	Title: Regulatory Consultant Prin
Sponsored By: James F. Martin	Title: Dir Resource Planning Strategy

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-5:

Reference page 19, lines 7-15 of the Direct Testimony of witness Martin, please explain why the highest cost wind and solar bids of the seven projects were used as the cost of the two generic resource types in the Confirmation Analysis.

Response No. CARD 2-5:

The seven projects that survived the RFP due diligence process at the time the Confirmation Analysis was prepared in March 2022. represent the best available market information about the cost of resources actually available to SWEPCO. The Company elected to use that information to price the generic resources.

The Company has capacity needs well in excess of the SPP accredited capacity value of the Selected Facilities. Therefore the Aurora model used for the Confirmation Analysis (to test whether the three Selected Facilities would be selected as the part of the least-cost plan to serve customers) needed to solve for a resource plan that included these specific resources (if they were least-cost) plus additional generic resource options to address SWEPCO's capacity needs. With the results of the RFPs representing the best market information available to SWEPCO, it would be inappropriate to assume generic resources would cost less than the RFP bids. By inputting them into the Aurora model at their actual costs and projected energy output, that would demonstrate whether resources which cost that amount would be chosen by the model's optimization functionality, versus other options.

For the generic resources needed to fill the remainder of the capacity need, the highest cost project was chosen in order to determine whether wind and solar projects that cost more than the three Selected Facilities would also be selected by the model as part of a least-cost capacity plan. A result identifying generic resources (with costs greater than the Selected Facilities) as optimal in addition to the Selected Facilities, indicated to SWEPCO that the three Selected Facilities are economic compared to other options.

Note that the cost of the generic options was maintained at the RFP bid price value for two years, and then allowed to decline to the average RFP bid cost for a year. This modeling assumption indicates that the Company expects current market conditions will be representative of the conditions that will influence the bids the Company expects to get in the next RFPs it will issue for new resources which could be placed in service from 2025 through January of 2027, prior to abating modestly during 2027. After 2027 the cost was assumed to vary based on the same assumed rates of inflation and learning curve cost reductions assumed in the 2021 Arkansas IRP.

Prepared By: Emily K. Brown Sponsored By: James F. Martin Title: Regulatory Consultant Prin Title: Dir Resource Planning Strategy

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-6:

Please provide the estimated SPP interconnection cost for each new resource option evaluated in the Q1 2021 Analysis, SWEPCO's 2021 Arkansas IRP, the CRA Confirmation Analysis the Economic Analysis of proposals received pursuant to the 2021 Wind and Solar RFPs, and the basis for such interconnection cost estimates. If interconnection costs were not included for each resource in each analysis, please explain why not.

Response No. CARD 2-6:

See the Company's response to CARD 1-20 for the assumed interconnection costs. The Q1 2021 and 2021 Arkansas IRP values were based on the interconnection costs included in the EIA's generic resource costs that do not include site specific considerations, which were the basis for costs in those two analyses. The interconnection costs for each resource in the Economic Analysis of the RFP bids was based on site specific studies using information gathered during the RFP due diligence process. The interconnection costs used for the generic resources in the Confirmation Analysis were based on the cost estimates from the RFP bid Economic Analysis.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-7:

Please provide the estimated congestion costs for each new resource option evaluated in the Q1 2021 Analysis, SWEPCO's 2021 Arkansas IRP, the CRA Confirmation Analysis the Economic Analysis of proposals received pursuant to the 2021 Wind and Solar RFPs, and the basis for such congestion cost estimates. If congestion costs were not included for each resource in each analysis, please explain why not.

Response No. CARD 2-7:

In all of these analyses, the congestion value represents the difference in congestion from the location of the resource to the financial settlement point of SWEPCO's load in SPP, which is referred to as the AEP Load Zone aggregate.

For the Q1 2021 analysis and the 2021 Arkansas IRP, the first 2,000 MW of wind was assumed to bear \$2/MWh of congestion. Wind above 2,000 MW was assumed to bear \$5/MWh. No congestion was assigned to solar resources in either the Q1 2021 Analysis or the IRP. Both of these were based on AEP's assessment of congestion risk at that time.

In the economic analysis of the 2021 RFP bids and for the specific resources modeled in the Confirmation Analysis, the Company used the PROMOD model to evaluate congestion at each specific resource's interconnection point, and then calculate that difference between that point and the AEP Load Zone aggregate settlement point.

The congestion for the generic solar resources in the Confirmation Analysis was set equal to Mooringsport's estimated congestion. The congestion for the generic wind resources was set equal to Diversion's estimated congestion.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-8:

Please provide the estimated tax credits for each new resource option evaluated in the Q1 2021 Analysis, SWEPCO's 2021 Arkansas IRP, the CRA Confirmation Analysis the Economic Analysis of proposals received pursuant to the 2021 Wind and Solar RFPs, and the basis for such tax credit estimates. If tax credits were not included for each resource in each analysis, please explain why not.

Response No. CARD 2-8:

See the response to CARD 1-23 for the assumed tax credits. All credits and expiration dates were based on current tax law as of the date each analysis were prepared.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-9:

Please explain whether the option of conversion to natural gas as an alternative to retirement of the Pirkey and Welsh units was evaluated in the Q1 2021 Analysis, SWEPCO's 2021 Arkansas IRP and the CRA Confirmation Analysis. If so, provide the results of these analyses and explain why this option was not selected. If gas conversion was not evaluated as an alternative to retirement of these units, please explain why not.

Response No. CARD 2-9:

See the Company's response to CARD 1-37. A conversion of Welsh 1 was selected in the Q1 2021 Analysis under the "no carbon" fundamental forecast scenario, but was not selected in the "with carbon" fundamental forecast scenario. The Welsh 1 conversion was selected under both carbon and no carbon scenarios in the 2021 Arkansas IRP and the Confirmation Analyses.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-10:

Please indicate whether SWEPCO's planned retirement of the Pirkey plant in 2023 has been approved by regulators in any jurisdiction, and if so, provide the Final Orders addressing this issue.

Response No. CARD 2-10:

None of SWEPCO's jurisdictions require pre-approval of asset retirements, and as such, SWEPCO's planned retirement of the Pirkey plant has not been approved by regulators in any jurisdiction.

Prepared By: Jonathan M. Griffin

Title: Regulatory Consultant Staff

Sponsored By: Albert M. Smoak

Title: President & COO - SWEPCO

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-11:

Reference page 20 of the Direct Testimony of witness Martin, please provide the capital and operating cost estimates used for new gas-fired combined cycle and combustion turbine units in the Q1 2021 Analysis, SWEPCO's 2021 Arkansas IRP and the CRA Confirmation Analysis, and provide workpapers and the source of such estimates.

Response No. CARD 2-11:

The 2021 Arkansas IRP and Confirmation Analysis gas resource costs were provided on the Post-AFUDC worksheet in Company witness Augustine's workpaper "Confidential SWEPCO RFP Modeling Input Summary AEP.xlsx" which was provided with the Company's initial filing in this proceeding. The gas resources were assumed to be inflated by 23.5% from the IRP costs, based on third party guidance regarding inflation in gas resource costs gathered between the issuance of the IRP and the Confirmation Analysis. AEP obtained guidance from a service provider named PowerAdvocate that AEP relies on for market intelligence regarding resource costs.

The factors

influencing inflation economy-wide such as supply chain shortages, energy costs, steel prices, labor rates, shipping costs, etc. have impacted the cost of gas-fired resources. The calculations of this inflation impact on the construction cost are shown on the witness Augustine workpaper referenced above. The source of the IRP costs was described in the IRP document.

A portion of the information responsive to this request is HIGHLY SENSITIVE PROTECTED INFORMATION under the terms of the Protective Order. This information is being provided electronically and a secure login to access the information will be provided upon request to individuals who have signed the Protective Order Certification.

See CARD 2-11 Attachment 1 for the costs assumed in the Q1 2021 analysis.

Prepared By: Emily K. Brown

Sponsored By: James F. Martin

Title: Regulatory Consultant Prin

SOAH Docket 473-22-00991 PUC Docket No. 53625 CARD's 2nd, CARD 2-11 Attachment 1 Combined Cycles Page 1 of 2

Q1 2021 Analysis Gas CC construction cost

	1,100 MW CC						
	Build Cost	\$/KW					
	(\$000)						
2020	0						
2021	0						
2022	0						
2023	0						
2024	0						
2025	0						
2026	0						
2027	1,186,968	\$	1,079				
2028	1,215,925	\$	1,105				
2029	1,249,881	\$	1,136				
2030	1,284,506	\$	1,168				
2031	1,321,783	\$	1,202				
2032	1,358,613	\$	1,235				
2033	1,393,477	\$	1,267				
2034	1,428,298	\$	1,298				
2035	1,463,843	\$	1,331				
2036	1,498,648	\$	1,362				
2037	1,534,088	\$	1,395				
2038	1,569,105	\$	1,426				
2039	1,604,559	\$	1,459				
2040	1,642,345	\$	1,493				
2041	1,684,674	\$	1,532				
2042	1,728,279	\$	1,571				
2043	1,773,916	\$	1,613				
2044	1,821,076	\$	1,656				
2045	1,869,090	\$	1,699				
2046	1,916,011	\$	1,742				
2047	1,965,809	\$	1,787				
2048	2,016,387	\$	1,833				
2049	2,067,734	\$	1,880				
2050	2,119,381	\$	1,927				

SOAH Docket 473-22-00991 PUC Docket No. 53625 CARD's 2nd, CARD 2-11 Attachment 1 EIA 250 MW CT Frame Page 2 of 2

Q1 2021 Analysis Gas CT construction cost

Nominal In-Service Date Project Cost (\$000)	190,060
Base Year Construction Escalation	2.22%

	250 MW CT Frame							
	Consruction Costs							
w_AFUCD ('\$000) \$/KW								
2027	190,060	\$	760.24					
2028	194,279	\$	777.12					
2029	198,592	\$	794.37					
2030	203,001	\$	812.00					
2031	207,508	\$	830.03					
2032	212,114	\$	848.46					
2033	216,823	\$	867.29					
2034	221,637	\$	886.55					
2035	226,557	\$	906.23					
2036	231,587	\$	926.35					
2037	236,728	\$	946.91					
2038	241,983	\$	967.93					
2039	247,355	\$	989.42					
2040	252,846	\$	1,011.39					
2041	258,460	\$	1,033.84					
2042	264,197	\$	1,056.79					
2043	270,063	\$	1,080.25					
2044	276,058	\$	1,104.23					
2045	282,186	\$	1,128.75					
2046	288,451	\$	1,153.80					
2047	294,855	\$	1,179.42					
2048	301,400	\$	1,205.60					
2049	308,091	\$	1,232.37					
2050	314,931	\$	1,259.72					

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-12:

Reference page 21 of the Direct Testimony of witness Martin, please provide a schedule showing the assumed times for planning and development, interconnection approval, regulatory approval and construction and any other required tasks that supports the January 1, 2029 first available date assumed for natural gas-fired combined cycle and combustion turbine options.

Response No. CARD 2-12:

The roughly two-year regulatory approval process is a significant contributor to the first available date assumption. An example of this timeline is the current proceeding. The 2021 wind and solar RFPs were prepared during the second quarter of 2021. Issuances of the RFP's, evaluation of bids and negotiations throughout the rest of 2021 and first half of 2022 led to this filing at the end of May of 2022. The hearing on the merits of the resources at question is currently scheduled for January 18-20, 2023. An order from the PUCT is expected in May of 2023.

The January 2029 date is also heavily influenced by the current lack of utility-scale greenfield gas combustion turbine and combined cycle options in the SPP interconnection queue in the SPP Central or adjacent SPP regions, and the time to get a new resource through the queue. SPP is targeting having the current interconnection queue backlog cleared by the end of 2024. Starting in 2025 SPP will be able to study new interconnection requests from resources such as a new gas plants. The Company estimates it would take until mid-2026 for a greenfield plant which has not yet gotten into the SPP queue to get its interconnection agreement approved.

As of August 1, 2022, there are only 108.6 MW of gas facilities in the SPP queue in the SPP Central region where SWEPCO is located. See CARD 2-12 Attachment 1 for the thermal units in the SPP queue as of that date. Around all of SPP there are only a few utility scale gas facilities in the SPP queue, and the vast majority of the capacity MW is being built by specific utilities or co-operatives far away from SWEPCO, The proposed OPPD and SPS facilities are known to be for their own use serving their load. As a result, there are currently no available gas facilities in the queue of any real size which are likely to be available to SWEPCO.

See CARD 2-12 Attachment 2 for an example development and construction timeline for a new gas-fired simple-cycle combustion turbine plant in SPP, reflective of a 3-year period of time to get an approved interconnection agreement, which results in the project going in service in

January 2029. The SWEPCO all source RFP's and regulatory filings are assumed to be timed to start well prior to receipt of the approved interconnection, so that these processes can proceed in parallel with the interconnection approval process. The developer RFP portions of this schedule that occur between November of 2023 and June of 2025 include the activities of the project developer to do initial engineering and conduct the RFP processes for sourcing the major components of the project, such as the turbines. This development work is timed in order to have that equipment sourced and available for construction once a notice to proceed has been provided to the developer by SWEPCO once it receives regulatory approval to acquire the resource.

A combined cycle takes longer to build than simple cycle combustion turbines. That additional time is not included in this schedule. Additionally, this schedule assumes no slippage in a 27-month combustion turbine construction schedule, which is a risk for projects of this size. Either of those assumptions would push the in-service date out to later than January 1, 2029.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

August 1, 2022 SPP Queue - Gas CT/CC

Generation		MAX MAX													
Interconnection			Nearest Town or			In-Service	Commercial		Summer	Winter	Service			Request	
Number	Current Cluster	Cluster Group	County	State	TO at POI	Date	Operation Date	Capacity	MW	MW	Туре	Fuel Type	Substation or Line	Received	Status
GEN-2019-004	DISIS-2019-001	05 SOUTHWEST	Hobbs	NM	SPS	6/4/2019	6/4/2019	56	56	5 5	56 ER	CT	Hobbs 230kV / 115kV Switchyard	04/22/19	DISIS STAGE
GEN-2019-018	DISIS-2019-001	03 CENTRAL	Rice	KS	MIDW	3/1/2020	6/1/2021	15.56	11.97	15.	56 ER/NR	Gas Turbine	Saxman 115kV substation	04/24/19	DISIS STAGE
GEN-2019-019	DISIS-2019-001	01 NORTH	Sioux	IA	NIPCO	2/1/2020	7/22/2022	15.15	15.15	5 15.3	L5 ER/NR	Gas Turbine	Siouxland 69kV	04/24/19	DISIS STAGE
GEN-2020-014	DISIS-2020-001	01 NORTH	Alexander	ND	BEPC	6/17/2021	10/18/2021	60.5	45	5 4	15 ER/NR	Gas	Lonesome Creek 115kV	04/20/20	DISIS STAGE
GEN-2020-024	DISIS-2020-001	02 NEBRASKA	Sarpy County	NE	OPPD	4/30/2023	5/31/2023	424.5	418	3 424	.5 ER/NR	СТ	Substation 1363; 161kV Substation	04/29/20	DISIS STAGE
GEN-2020-025	DISIS-2020-001	02 NEBRASKA	Sarpy County	NE	OPPD	4/30/2023	5/31/2023	303	258	3 30	D3 ER/NR	СТ	Substation 1363; 161kV Substation	04/29/20	DISIS STAGE
GEN-2020-028	DISIS-2020-001	02 NEBRASKA	Sarpy County	NE	OPPD	4/30/2023	5/31/2023	303	258	3 30	D3 ER/NR	СТ	Substation 1363; 161kV Substation	04/29/20	DISIS STAGE
GEN-2020-031	DISIS-2020-001	02 NEBRASKA	Sarpy County	NE	OPPD	4/30/2023	5/31/2023	303	258	3 30	D3 ER/NR	СТ	Substation 1363; 161kV Substation	04/29/20	DISIS STAGE
GEN-2020-035	DISIS-2020-001	02 NEBRASKA	Plattsmouth	NE	OPPD	4/30/2023	5/31/2023	424.5	418	424	.5 ER/NR	СТ	Substation 3740; 345kV	04/29/20	DISIS STAGE
GEN-2020-036	DISIS-2020-001	02 NEBRASKA	Plattsmouth	NE	OPPD	4/30/2023	5/31/2023	303	258	3 30	03 ER/NR	СТ	Substation 3740; 345kV	04/29/20	DISIS STAGE
GEN-2020-038	DISIS-2020-001	02 NEBRASKA	Plattsmouth	NE	OPPD	4/30/2023	5/31/2023	303	258	3 30	03 ER/NR	СТ	Substation 3740; 345kV	04/29/20	DISIS STAGE
GEN-2020-040	DISIS-2020-001	02 NEBRASKA	Plattsmouth	NE		4/30/2023	5/31/2023	303	258	3 30	03 ER/NR	СТ	Substation 3740; 345kV	04/29/20	DISIS STAGE
GEN-2020-061	DISIS-2020-001	03 CENTRAL	Pleasant Hill	MO	GMO	5/1/2021	5/1/2021	. 29	29	9 2	21 ER/NR	Gas	Pleasant Hill 345/161/69 kV Substation	04/28/20	DISIS STAGE
GEN-2020-064	DISIS-2020-001	03 CENTRAL	Joplin	MO	EDE	10/1/2020	10/31/2020	64	36	56	54 ER/NR	СТ	4544 Stateline CC 161kV Substation	04/22/20	DISIS STAGE
GEN-2020-065	DISIS-2020-001	05 SOUTHWEST	Gaines	TX/NM	SPS	12/1/2025	5/1/2026	1003	912.3	100	03 ER	Combined Cycle	Hobbs-Andrews 345 kV Line	04/30/20	DISIS STAGE
GEN-2021-093	DISIS-2021-001	04 SOUTHEAST	Oklahoma	OK	OGE	6/1/2023	6/1/2025	109	109	9 13	32 ER/NR	Gas Turbine	Tinker	04/30/21	DISIS STAGE
GEN-2021-094	DISIS-2021-001	01 NORTH	Mercer	ND	BEPC	8/1/2024	4/1/2025	446.5	446.5	5 446	.5 ER	Combustion Turbine	AVS 345kV Substation	04/30/21	DISIS STAGE
GEN-2021-095	DISIS-2021-001	01 NORTH	Mercer	ND	BEPC	8/1/2025	4/1/2026	446.5	446.5	6 446	.5 ER	Combustion Turbine	AVS 345kV substation	04/30/21	DISIS STAGE

Notes:

OPPD entered the same resources at two separate sites. OPPD is proposing these resources for its own use. BEPC Is Basin Electric. It's proposed resources are located in North Dakota

SPS is building the combined cycle listed here in New Mexico for its own use.

The total of the three resources in the SPP Central region where SWEPCo is is 108.56 MW

	SPP Centra	
GEN-2019-018	15.56	
GEN-2020-061	29	
GEN-2020-064	64	
	108.56	Total

Example SPP New Gas Combustion Turbine Timeline

3 year Interconnection agreement approval	
year meeteon agreement approval	

January 2029 in service date			2022				202	23						, A	2024	1						2	2025							20	26					
Task	Duration (months)	A S	ΟN	DJF	м	A M	1 J J	JA	s c	D N	D 1	F	MA	м	l l	AS	5 O	N	D J	FI	MА	МJ	J	A S	0	N D) l	FМ	AN	L N	JA	s (лс	D J	F	М
Feasibility Study	3	3												II						II																
Project Evaluation & Planning	6	5																																\square		
SPP Interconnection Agreement Approval	36	5												Π	Ι	Π		Π		Π			Ι						Π			Π	Т	Π	Π	
Developer Preliminary Engineering & RFP prep	9									L																								Œ		
Developer All Sources RFP & Contract Develop	15																																			
SWEPCo All-source RFP preparation, evaluation, due diligence and negotiations	9																																			
Air Permit preparation	6	5																																Œ		
Air Permit	12																																	Ш		
Regulatory filing and approval	15																																			
Construction	27																																			
Interconnection upgrades (if applicable)	6	5																																Œ		

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SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-13:

Reference page 21 of the Direct Testimony of witness Martin, please clarify whether the January 1, 2029 first available date assumed for natural gas-fired combined cycle and combustion turbine options was used in the Q1 2021 Analysis, SWEPCO's 2021 Arkansas IRP and the CRA Confirmation Analysis.

Response No. CARD 2-13:

This date was used only in the Confirmation Analysis. See the Company's response to CARD 2-14 for additional information.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-14:

Reference page 21 of the Direct Testimony of witness Martin, please indicate whether the January 1, 2029 first available date assumed for natural gas-fired combined cycle and combustion turbine options was also used in the two most recent SWEPCO IRPs preceding the 2021 IRP Analysis. If not, provide the first available dates used in these earlier analyses and explain the basis for the change to the current January 1, 2029 first available date.

Response No. CARD 2-14:

The table below provides the dates requested:

IRP	Date Assumed for First Available CT	Date Assumed for First Available CC
2021 AR IRP	2024	2024
2019 LA IRP	Jan. 1, 2022	Jan.1, 2023
2018 AR IRP	Jan. 1, 2021	Jan. 1, 2022

The dates identified in each IRP were three to four years from the date each IRP was prepared. The January 1, 2029 date is 6.5 years after the Confirmation Analysis was prepared. There are two changes in assumptions incorporated into the January 1, 2029 date that were not factored into the dates in the IRPs.

- 1. The IRP assumptions did not include any significant time for an interconnection agreement. Historic assumptions regarding interconnection agreements were consistent with other permitting activities at 12 18 months. New projects in development today or in the near future are subject to an extended wait of three years to receive an approved interconnection request. This extended period was factored into the Jan. 1, 2029 date described in the Direct Testimony of James F. Martin.
- 2. Further, dates assumed in the IRPs mentioned above did not include the roughly two-year period required to prepare an RFP, issue an RFP, negotiate commercial agreements, prepare regulatory filings, and receive regulatory approvals from SWEPCO's three states.

In addition, see the Company's response to CARD 2-12 for additional details on how the 2029 first available date was derived.

Prepared By: Emily K. BrownTitle: Regulatory Consultant PrinSponsored By: James F. MartinTitle: Dir Resource Planning Strategy

SOUTHWESTERN ELECTRIC POWER COMPANY'S RESPONSE TO CITIES ADVOCATING REASONABLE DEREGULATION'S SECOND SET OF REQUESTS FOR INFORMATION

Question No. CARD 2-15:

Reference page 21 of the Direct Testimony of witness Martin, please explain whether the January 1, 2029 first available date assumed for natural gas-fired combined cycle and combustion turbine options applies to new generating units located at existing SWEPCO generating stations. If not, explain why the time for such resources to obtain SPP interconnection rights for new resources would be the same as for resources located at SWEPCO plant sites that already have firm interconnection rights.

Response No. CARD 2-15:

The Company did not specifically consider locating new units at any existing SWEPCO generation stations. In general, the existing unit(s) would need to retire and a new gas asset would need to go through SPP's interconnection replacement process in order to count as SPP capacity. The replacement request must be submitted to SPP at the same time as the retirement notice. Any increase in capacity above the current level of MW at these sites would require entering the resources into the SPP new generator interconnection queue process, and be subject to the same interconnection approval timeline as any other new resource not located at an existing SWEPCO generation site.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

The following files are not convertible:

CARD_2-11_Attachment_1.xlsx

Please see the ZIP file for this Filing on the PUC Interchange in order to access these files.

Contact centralrecords@puc.texas.gov if you have any questions.