



## Filing Receipt

**Received - 2022-11-07 01:18:09 PM**  
**Control Number - 53625**  
**ItemNumber - 151**

**SOAH DOCKET NO. 473-22-00991  
PUC DOCKET NO. 53625**

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

**SOUTHWESTERN ELECTRIC POWER COMPANY’S RESPONSE TO  
CITIES ADVOCATING REASONABLE DEREGULATION’S  
FOURTH SET OF REQUESTS FOR INFORMATION**

**NOVEMBER 7, 2022**

**TABLE OF CONTENTS**

<b><u>SECTION</u></b>	<b><u>FILE NAME</u></b>	<b><u>PAGE</u></b>
Response No. CARD 4-1	53625 CARD04.pdf.....	2
Attachment 1 to Response No. CARD 4-1	53625 CARD04.pdf.....	3
Response No. CARD 4-2	53625 CARD04.pdf.....	53
Response No. CARD 4-3	53625 CARD04.pdf.....	63
Response No. CARD 4-4	53625 CARD04.pdf.....	7
Response No. CARD 4-5	53625 CARD04.pdf.....	8
Response No. CARD 4-6	53625 CARD04.pdf.....	9
Response No. CARD 4-7	53625 CARD04.pdf.....	10
Response No. CARD 4-8	53625 CARD04.pdf.....	11
Response No. CARD 4-9	53625 CARD04.pdf.....	12
Response No. CARD 4-10	53625 CARD04.pdf.....	13
Response No. CARD 4-11	53625 CARD04.pdf.....	14
Response No. CARD 4-12	53625 CARD04.pdf.....	15
Response No. CARD 4-13	53625 CARD04.pdf.....	16
Response No. CARD 4-14	53625 CARD04.pdf.....	17
Response No. CARD 4-15	53625 CARD04.pdf.....	18
Response No. CARD 4-16	53625 CARD04.pdf.....	19
Attachment 5 to Response No. CARD 4-16	53625 CARD04.pdf.....	20
Response No. CARD 4-17	53625 CARD04.pdf.....	22
Response No. CARD 4-18	53625 CARD04.pdf.....	24
Response No. CARD 4-19	53625 CARD04.pdf.....	25
Attachment 1 to Response No. CARD 4-19	53625 CARD04.pdf.....	26
Response No. CARD 4-20	53625 CARD04.pdf.....	30
Response No. CARD 4-21	53625 CARD04.pdf.....	31
Response No. CARD 4-22	53625 CARD04.pdf.....	32
Response No. CARD 4-23	53625 CARD04.pdf.....	33

**Excel files provided electronically on the PUC Interchange**

CARD_4-8_Attachment_1.xlsx	CARD_4-10_Attachment_1.xlsx	CARD_4-11_Attachment_1.xlsx
CARD_4-16_Attachment_1.xlsx	CARD_4-16_Attachment_2.xlsx	CARD_4-16_Attachment_3.xlsx
CARD_4-16_Attachment_4.xlsx	CARD_4-17_Attachment_1.xlsx	CARD_4-17_Attachment_2.xlsx
CARD_4-20_Attachment_1.xlsx	CARD_4-21_Attachment_1.xlsx	CARD_4-23_Attachment_1.xlsx

**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-1:**

Please indicate whether SWEPCO has notified SPP of its intention to retire Pirkey in 2023 and provide any documentation regarding this notice.

**Response No. RFI 4-1:**

SWEPCO notified SPP of its intention to retire Pirkey in 2023 on April 1, 2022. See CARD 4-1 Attachment 1.

Prepared By: Jonathan M. Griffin

Title: Regulatory Consultant Staff

Sponsored By: Albert M. Smoak

Title: President & COO - SWEPCO

### **Addendum 1 to Attachment AB**

Pursuant to the Resource Retirement Process in Attachment AB of the Tariff, notice is hereby provided on **April 1, 2022** (date of notice) to the Transmission Provider that Generator Owner requests the study of retirement of a Resource registered in the Integrated Marketplace.

Responses marked with an asterisk (\*) are required. Supply all details that are known or projected.

### **Resource Retirement Study Request**

- 1) Description of Resource\*\*) CSWPIRKEY1 is a 675MW Lignite Fired Unit located in Harrison County Texas. Unit was placed into commercial operation January 3, 1985, with voltage being generated at 24kV and stepped up to 138kV to 345kV for transmission. Unit is equipped with environmental control features such as Electrostatic Precipitator, Flue Gas Desulphurization system (FGD), Activated Carbon Injection (ACI) and Potassium Iodine Injection for Mercury control, and Low-nitrogen Oxide (NOx) burners with overfired air. Fuel is supplied locally by Sabine Mining Company, a subsidiary of North American Coal. CSWPIRKEY1 has a Planning Model Max Capacity of 692.7 MW.
  - a) Resource name\* CSWPIRKEY1
  - b) Expected retirement date(s)\* April 1, 2023
  - c) Market Participant AEPM\_X
  - d) Transmission Customer AEPM
  - e) Reason for the retirement (e.g., age or limited run time) \* - CCR/ELG Compliance
  - f) Related transmission service agreement\* 1148
  - g) Bus Number and Unit ID\* Bus Name: PIRKEY 1, Bus Number: 509403
- 2) Other pertinent information

**Requestor Contact:**

Name: Ryan Kirk

Title: RTO Operations Analyst Principal

Mailing Address: 1 Riverside Plaza, Columbus, OH 43215

Email Address: rkirk@aep.com

Voice Phone No.: (614) 716-6251

DocuSigned by:  
By: Monte McMahon  
36DC310EA5E542E...  
(Representative of Generator Owner)

Title: VP – Generating Assets – SWEPCO

Date: 3/16/2022 | 7:26 AM EDT

**SOAH DOCKET NO. 473-22-00991  
PUC DOCKET NO. 53625**

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

**Question No. RFI 4-2:**

Please explain whether SWEPCO or SPP has evaluated the cost impacts associated with any new transmission that will be required as a result of the retirement of Pirkey.

**Response No. RFI 4-2:**

SPP is currently performing a Resource Retirement Study by which to assess the impact of the expected resource retirement on the transmission system.

Prepared By: Jonathan M. Griffin

Title: Regulatory Consultant Staff

Sponsored By: Albert M. Smoak

Title: President & COO - SWEPCO

**SOAH DOCKET NO. 473-22-00991  
PUC DOCKET NO. 53625**

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

**Question No. RFI 4-3:**

Please provide documentation provided to SWEPCO and AEP senior management supporting the final decision to retire Pirkey in 2023.

**Response No. RFI 4-3:**

See CARD 4-3 Confidential Attachment 1. Additionally, see the Company's response to CARD 3-2 for the underlying analysis, which was also shared with senior management.

CARD 4-3 Confidential Attachment 1 responsive to this request is CONFIDENTIAL 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.

Prepared By: Jonathan M. Griffin

Title: Regulatory Consultant Staff

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy

Sponsored By: Albert M. Smoak

Title: President & COO - SWEPCO

**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-4:**

Please provide documentation provided to Pirkey co-owners supporting the final decision to retire Pirkey in 2023.

**Response No. RFI 4-4:**

There is no such documentation. However, SWEPCO notified the Pirkey co-owners of the Company's intent to retire the plant at a meeting held on October 29, 2020. SWEPCO subsequently instituted quarterly co-owners meetings to keep co-owners apprised of plant operations and the transition toward plant and mine closures.

Prepared By: Jonathan M. Griffin

Title: Regulatory Consultant Staff

Sponsored By: Albert M. Smoak

Title: President & COO - SWEPCO



**SOAH DOCKET NO. 473-22-00991  
PUC DOCKET NO. 53625**

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

**Question No. RFI 4-5:**

Please provide the current estimated retirement month and year for retirement of Pirkey.

**Response No. RFI 4-5:**

March 31, 2023.

Prepared By: Jonathan M. Griffin

Title: Regulatory Consultant Staff

Sponsored By: Albert M. Smoak

Title: President & COO - SWEPCO

**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-6:**

Please provide the estimated impact on 2022 and 2023 Pirkey fuel costs as a result of the planned early retirement of Pirkey, including any proposals by SWEPCO to accelerate recovery of fixed mining costs and other costs related to retirement.

**Response No. RFI 4-6:**

See page 2 of the Company's August 2022 fuel report filed October 14, 2022 in PUC Project No. 52948. Pirkey comprises \$26,852,315 of the report's adjustment for cumulative Texas share of increased mine costs at Dolet Hills and Pirkey. Fuel-related accounting considerations relating to the recovery of Sabine costs are detailed in the direct testimony of Company witness Yoder in Docket No. 53931 at page 15, line 16 through page 16, line 2. The future Texas jurisdictional impact has not been calculated.

Prepared By: Jonathan M. Griffin

Title: Regulatory Consultant Staff

Sponsored By: John O. Aaron

Title: Dir Reg Pricing & Analysis

Sponsored By: Albert M. Smoak

Title: President & COO - SWEPCO

**SOAH DOCKET NO. 473-22-00991  
PUC DOCKET NO. 53625**

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

**Question No. RFI 4-7:**

Please provide any analysis of the costs, benefits and feasibility of maintaining Pirkey in cold standby service as an alternative to early retirement of the plant in 2023.

**Response No. RFI 4-7:**

Even if the Pirkey plant were in a standby state, it could not produce electricity until environmental compliance construction were planned and completed. The Company's commitment to retire Pirkey tolls the federal Coal Combustion Residuals (CCR) rule's requirement to cease operation of noncompliant facilities by April 2021 and allows Pirkey to operate through its planned 2023 retirement date. There is no provision in the CCR Rule that would allow SWEPCO to instead place the unit in a standby state and continue ash pond use.

Significant uncertainty exists about whether or how a utility might revise retirement commitments within the regulatory framework that exists. At a minimum, should SWEPCO withdraw its commitment to retire Pirkey without having constructed CCR compliant facilities, the April 2021 deadline would cease to be tolled and SWEPCO would be forced to idle the plant until applicable environmental compliance construction is completed.

Prepared By: Jonathan M. Griffin

Title: Regulatory Consultant Staff

Sponsored By: Albert M. Smoak

Title: President & COO - SWEPCO

**SOAH DOCKET NO. 473-22-00991  
PUC DOCKET NO. 53625**

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

**Question No. RFI 4-8:**

Please provide the estimated capital cost (\$/kW), annual O&M cost, assumed first year available, and LCOE for new solar, wind, and gas-fired combustion turbine and combined cycle resources as included in the Company's Fall 2020 Pirkey retirement analysis.

**Response No. RFI 4-8:**

Please see CARD 4-8 Attachment 1 for the estimated capital cost (\$/kW), annual O&M cost, assumed first year available for new solar, wind and gas fired combustion turbine and combined cycle resource alternatives assumed in the Company's Fall 2020 Pirkey retirement analysis. LCOE's are provided for the wind and solar options. The Company did not compute LCOE's for gas resources.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Prepared By: Jonathan M. Griffin

Title: Regulatory Consultant Staff

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy

Sponsored By: Albert M. Smoak

Title: President & COO - SWEPCO

**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-9:**

Please provide the estimated capital cost (\$/kW), annual O&M cost, assumed first year available, and LCOE for new solar, wind, and gas-fired combustion turbine and combined cycle resources as included in the Company's Q1 2021 analysis.

**Response No. RFI 4-9:**

See CARD 4-8 Attachment 1 for the requested information for the natural gas resource options. These amounts were the same in both the Fall 2020 analysis and the Q1 2021 Analysis. The Company did not compute LCOE's for gas resources.

The capital cost and first available dates for wind and solar in the Q1 2021 analysis were provided in CARD 1-21 Attachment 1. The O&M for wind and solar were provided in CARD 1-22 Attachment 1.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy

**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-10:**

Please provide the estimated capital cost (\$/kW), annual O&M cost, assumed first year available, and LCOE for new solar, wind, and gas-fired combustion turbine and combined cycle resources as included in the Company's 2021 Arkansas IRP analysis.

**Response No. RFI 4-10:**

See CARD 4-10 Attachment 1 for the requested information. Note that the gas resource LCOE's are likely understated versus what LCOE's would be today due to the increase in gas prices, which would drive fuel costs up and capacity factors lower. These amounts are based on the 2021 Arkansas IRP fundamental forecasts.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy

**SOAH DOCKET NO. 473-22-00991  
PUC DOCKET NO. 53625**

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

**Question No. RFI 4-11:**

Please provide the estimated capital cost (\$/kW), annual O&M cost, assumed first year available, and LCOE for new solar, wind, and gas-fired combustion turbine and combined cycle resources as included in the March 2022 CRA Confirmation analysis.

**Response No. RFI 4-11:**

See CARD 4-11 Attachment 1 for the requested information. Note that the gas resource LCOE's are likely understated versus what LCOE's would be today due to the increase in gas prices, which would drive fuel costs up and capacity factors lower. These amounts are based on the 2021 Arkansas IRP fundamental forecasts.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy

**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-12:**

Please provide the estimated SWEPCO customer fuel savings attributable to the operation of Pirkey during the February 2021 Storm Uri event.

**Response No. RFI 4-12:**

SWEPCO has not performed the requested calculation.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: Thomas P. Brice

Title: VP Regulatory & Finance

Sponsored By: John O. Aaron

Title: Dir Reg Pricing & Analysis

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy



**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-13:**

Please provide the estimated SWEPCO customer fuel savings attributable to the operation of the Welsh coal units during the February 2021 Storm Uri event.

**Response No. RFI 4-13:**

SWEPCO has not performed the requested calculation.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: Thomas P. Brice

Title: VP Regulatory & Finance

Sponsored By: John O. Aaron

Title: Dir Reg Pricing & Analysis

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy

**SOAH DOCKET NO. 473-22-00991  
PUC DOCKET NO. 53625**

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

**Question No. RFI 4-14:**

Please provide the estimated SWEPCO customer fuel savings attributable to the operation of the Flint Creek coal plant during the February 2021 Storm Uri event.

**Response No. RFI 4-14:**

SWEPCO has not performed the requested calculation.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: Thomas P. Brice

Title: VP Regulatory & Finance

Sponsored By: John O. Aaron

Title: Dir Reg Pricing & Analysis

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy

**SOAH DOCKET NO. 473-22-00991  
PUC DOCKET NO. 53625**

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

**Question No. RFI 4-15:**

Please provide the estimated SWEPCO customer fuel savings attributable to the operation of the Flint Creek coal plant during the February 2021 Storm Uri event.

**Response No. RFI 4-15:**

SWEPCO has not performed the requested calculation.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: Thomas P. Brice

Title: VP Regulatory & Finance

Sponsored By: John O. Aaron

Title: Dir Reg Pricing & Analysis

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy

**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-16:**

Please provide the following information regarding each of the generating and purchased power resources that were selected to replace Pirkey in the Fall 2020 Pirkey early retirement analysis:

- a. Resource type and year added;
- b. Resource nameplate and firm capacity ratings (MW);
- c. Resource capital cost;
- d. Resource O&M costs;
- e. Resource tax credit assumptions;
- f. Resource LCOE;
- g. Commodity price forecasts including natural gas, coal and SPP market energy prices.

**Response No. RFI 4-16:**

- a. Please see CARD 4-16 Attachment 1 for the requested information for the Base Commodity Price forecast. Please see CARD 4-16 Attachment 2 for the requested information for the No Carbon Price Commodity Price forecast.
- b. Please see CARD 4-16 Attachment 1 for the requested information for the Base Commodity Price forecast. Please see CARD 4-16 Attachment 2 for the requested information for the No Carbon Price Commodity Price forecast.
- c. Please see the response to CARD 4-8 for the requested information.
- d. Please see the response to CARD 4-8 for the requested information.
- e. Please CARD 4-16 Attachment 5 for the requested information.
- f. Please see the response to CARD 4-8 for the requested information.
- g. Please see CARD 4-16 Attachment 3 for the requested information for the Base Commodity Price forecast. Please see CARD 4-16 Attachment 4 for the requested information for the No Carbon Price Commodity Price forecast.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy

Sponsored By: David A. Hodgson

Title: Dir Tax Acctg & Regulatory

## Renewable Electricity Production Tax Credit And Solar Energy Investment Tax Credit

### Summary of Credit Rates, Credit Periods and Deadlines As Amended by 2019 Tax Legislation<sup>1</sup>

Table 1

Renewable Resource Type	Credit Rate in 2019 <sup>2, 3</sup> (cents per kwh)	Credit Period (years from in-service date)	Begin Construction Deadline
Wind	2.5	10	See Table 2
Closed-loop Biomass	2.5	10	December 31, 2020
Open-loop Biomass	1.2	10	December 31, 2020
Geothermal	2.5	10	December 31, 2020
Solar <sup>4</sup>	Not Applicable	Not Applicable	See Table 3
Small Irrigation Power	1.2	10	Placed in service by October 2, 2008
Municipal Solid Waste <sup>5</sup>	1.2	10	December 31, 2020
Incremental Hydropower	1.2	10	December 31, 2020
Refined Coal <sup>6</sup>	\$7.173 per ton	10	Placed in service by December 31, 2011
Indian Coal	\$2.525 per ton	Expires 12/31/20	Not Applicable
Marine and Hydrokinetic Energy	1.2	10	December 31, 2020

<sup>1</sup> Further Consolidated Appropriations Act, 2020, Pub. L. No. 116-94, § 127 (December 20, 2019).

<sup>2</sup> The basic credit rate is 1.5 cents/kwh, but annually indexed for inflation. The credit rates for 2019 were published by the IRS in the Federal Register on June 6, 2019 at 84 Fed. Reg. 26508.

<sup>3</sup> The election to claim 30% investment tax credit in lieu of production tax credit for wind facilities was extended for the same period as the PTC. The depreciable basis of an energy facility is reduced by 50% of the energy credit amount. As noted in Table 2, the phase-out applicable to production tax credits also applies to investment tax credits claimed in lieu of production tax credits.

<sup>4</sup> Solar electric generating facilities are eligible for the 30% energy credit under section 48. The depreciable basis of a solar facility is reduced by 50% of the energy credit amount.

<sup>5</sup> Includes both landfill gas facilities and trash combustion facilities.

<sup>6</sup> Steel Industry Fuel was added in 2008 as a type of refined coal, with a placed in service deadline of December 31, 2009. The credit rate for steel industry fuel is \$2 per barrel-of-oil equivalent, indexed for inflation.

## Renewable Electricity Production Tax Credit And Solar Energy Investment Tax Credit

Table 2  
Phase-out of Production Tax Credit/Investment Tax Credit  
For Wind Facilities

Construction Commencement Date	Placed in Service Deadline to Satisfy Continuity Safe Harbor	% of PTC*	ITC Rate*
Before January 1, 2017	December 31, 2020 (for facilities that began construction in 2016)	100%	30%
During 2017	December 31, 2021	80%	24%
During 2018	December 31, 2022	60%	18%
During 2019	December 31, 2023	40%	12%
During 2020	December 31, 2024	60%	18%
After December 31, 2020	N/A	No PTC	No ITC

\* There is no statutory deadline for a facility to be placed in service in order to qualify for the credit amounts shown above. However, the IRS has issued administrative guidance requiring that a taxpayer make continuous progress towards completion once construction has begun in order to be entitled to the amount of credit allowed for the year in which construction commenced (the “Continuity Requirement”).<sup>7</sup> Whether a taxpayer maintains a continuous program of construction to satisfy the Continuity Requirement will be determined by the relevant facts and circumstances. The relevant IRS guidance includes a safe harbor (the “Continuity Safe Harbor”) providing that if a taxpayer places a facility in service by the end of a calendar year that is no more than four calendar years after the calendar year during which construction of the facility began, the facility will be considered to satisfy the Continuity Requirement.

Table 3  
Phase-out of 30% Investment Tax Credit  
For Solar Facilities

<u>Construction Commencement Date</u>	<u>ITC %**</u>
Construction commences before January 1, 2020	30%
Construction commences during 2020	26%
Construction commences during 2021	22%
Construction commences after December 31, 2021	10%

\*\* For solar facilities that commence construction any time prior to January 1, 2022 but which are not placed into service before January 1, 2024, the amount of the ITC will be reduced to 10%

<sup>7</sup> IRS Notice 2017-04 (PTC); IRS Notice 2018-59 (ITC).

**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-17:**

Please provide the following information regarding each of the generating and purchased power resources that were selected in the cases which assumed continued operation of Pirkey in the Fall 2020 Pirkey early retirement analysis:

- a. Resource type and year added;
- b. Resource nameplate and firm capacity ratings (MW);
- c. Resource capital cost;
- d. Resource O&M costs;
- e. Resource tax credit assumptions;
- f. Resource LCOE;
- g. Commodity price forecasts including natural gas, coal and SPP market energy prices;
- h. Pirkey net generation (MWh) and capacity factor by year for the first 15 years of the analysis.

**Response No. RFI 4-17:**

- a. Please see CARD 4-17 Attachment 1 for the requested information for the Base Commodity Price forecast. Please see CARD 4-17 Attachment 2 for the requested information for the No Carbon Price Commodity Price forecast.
- b. Please see CARD 4-17 Attachment 1 for the requested information for the Base Commodity Price forecast. Please see CARD 4-17 Attachment 2 for the requested information for the No Carbon Price Commodity Price forecast.
- c. Please see the response to CARD 4-8 for the requested information.
- d. Please see the response to CARD 4-8 for the requested information.
- e. Please see CARD 4-16 Attachment 5 for the requested information.
- f. Please see the response to CARD 4-8 for the requested information.
- g. Please see CARD 4-16 Attachment 3 for the requested information for the Base Commodity Price forecast. Please see CARD 4-16 Attachment 4 for the requested information for the No Carbon Price Commodity Price forecast.

- h. Please see CARD 4-17 Attachment 1 for the requested information for the Base Commodity Price forecast. Please see CARD 4-17 Attachment 2 for the requested information for the No Carbon Price Commodity Price forecast.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy

Sponsored By: David A. Hodgson

Title: Dir Tax Acctg & Regulatory



**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-18:**

Please provide SWEPCO's estimated net system production plant with and without the proposed Diversion, Wagon Wheel and Mooringsport facilities.

**Response No. RFI 4-18:**

Please see the table below for SWEPCO estimated net production plant at 12/31/2022 and estimated net production plant for Diversion, Wagon Wheel and Mooringsport facilities.

	Forecast Amounts			
		Diversion	Wagon Wheel	Mooringsport
		IS 12/31/2024	IS 12/31/2025	IS 12/31/2025
	<u>YE 2022</u>	<u>YE 2025</u>	<u>YE 2026</u>	<u>YE 2026</u>
Production Plant In Service	5,456,478,030	464,128,398	1,282,733,428	427,926,319
Production Acc Depr	(1,682,738,992)	(15,470,947)	(42,757,781)	(12,226,466)
Net Plant In Service	3,773,739,038	448,657,451	1,239,975,647	415,699,853

Prepared By: Jacob A. Miller

Title: Regulatory Consultant Sr

Sponsored By: John O. Aaron

Title: Dir Reg Pricing & Analysis

**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-19:**

Please provide documentation of SWEPCO and AEP's current policy related to carbon reduction and retirement and replacement of coal-fired generation with renewable energy resources.

**Response No. RFI 4-19:**

Please see CARD 4-19 Attachment 1 for documentation of AEP's carbon emission reduction goal. AEP and SWEPCO do not have a "policy of retirement and replacement of coal-fired generation with renewable energy resources". Replacements, if required, are determined on a case-by-case basis using least-cost planning and considering a full range of resource options including natural-gas fired options.

Prepared By: Jonathan M. Griffin

Title: Regulatory Consultant Staff

Sponsored By: Albert M. Smoak

Title: President & COO - SWEPCO

# Taking Bold Steps to Accelerate CO<sub>2</sub> Emission Goals

We Have an Achievable Pathway to Net-Zero by 2045

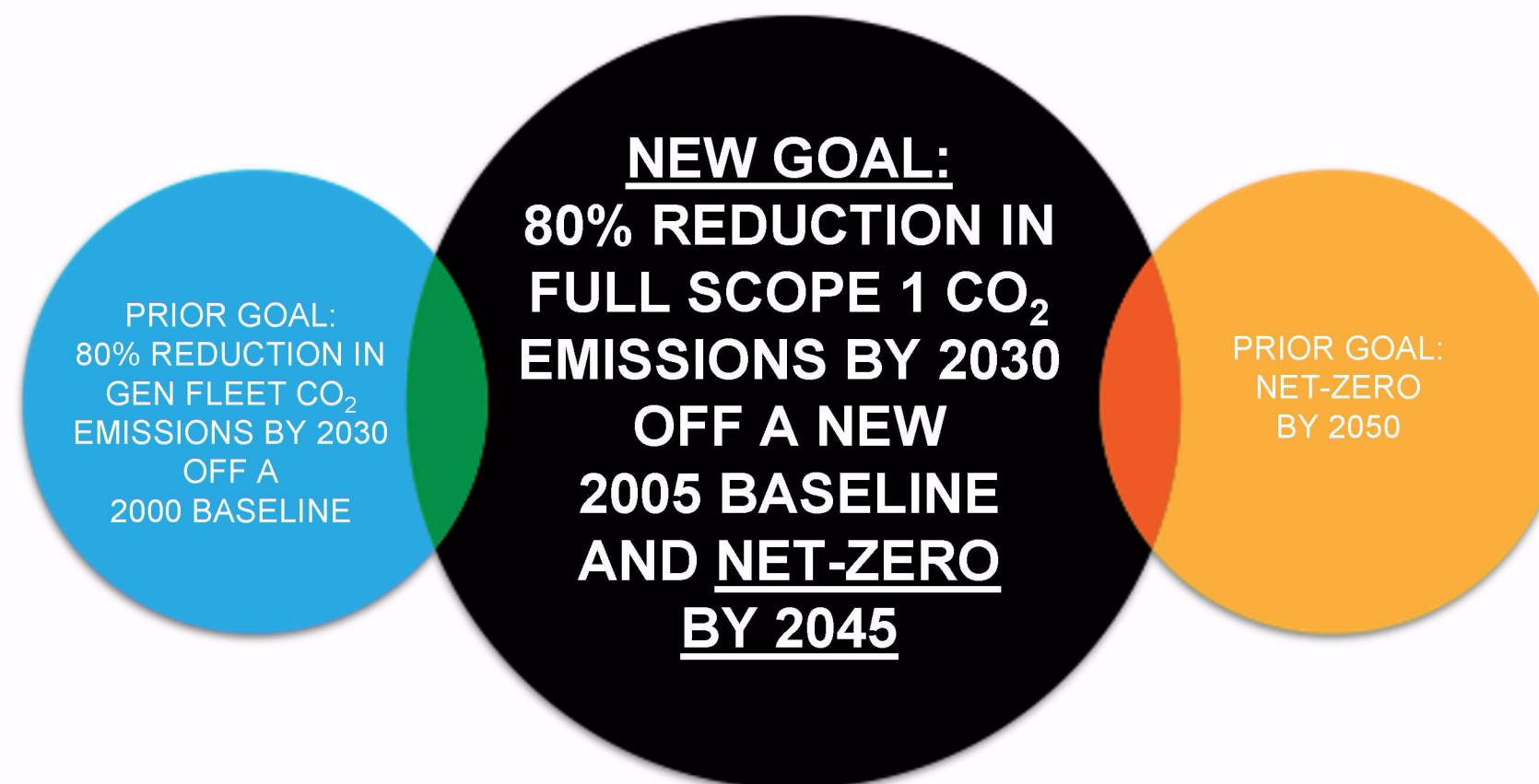
NEAR  
TERM

- Planned Retirement and Disposition of Select Fossil Units
- + Adding Solar, Wind, Natural Gas and Energy Storage to Our Generation Portfolio
- + Building-out a Resilient and Reliable Grid to Efficiently Deliver Clean Energy to Customers
- + Closely Evaluating New Technologies to Further Reduce or Eliminate CO<sub>2</sub> Emissions

LONG  
TERM

- + Procure Carbon Offsets to Neutralize Any Remaining CO<sub>2</sub> Emissions from our Generation Fleet

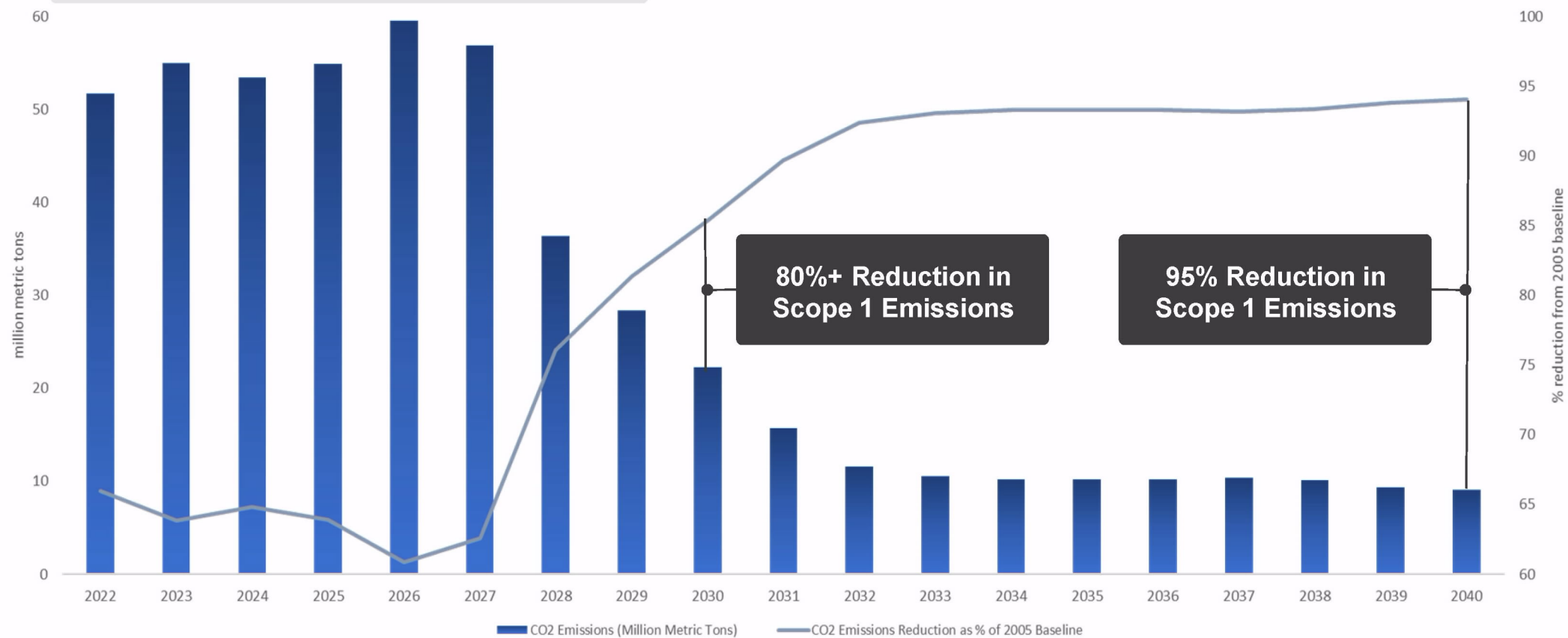
We are rebasing our near-term CO<sub>2</sub> emission reduction target to 2005, upgrading our 2030 target to include full Scope 1 emissions and accelerating our net-zero goal by 5 years



Climate goals remain highly assumption driven and are dependent upon factors outside of our control such as generation resource adequacy in our markets, access to clean energy projects, power/commodity market assumptions, federal and state public policy, development of new technologies, cost of abatement, ability to recover costs from customers, etc.

# Proven Track Record of Reducing Fleet Emissions

Forecasted CO<sub>2</sub> Emissions (Scope 1)



Projections based upon latest filed Integrated Resource Plans for regulated companies and also assumes an extension of the Cook nuclear power plant through the forecast period. Ability to meet the transition timeline is dependent upon market availability of resources, regulatory approvals, transmission system availability, etc.

**63%**

Reduction in CO<sub>2</sub> emissions from 152M metric tons in 2005 to 56M metric tons in 2021

**98%**

Reduction in SO<sub>2</sub> emissions between 1990-2021

**95%**

Reduction in NO<sub>x</sub> emissions between 1990-2021

**97%**

Reduction in mercury air emissions from 2001-2021



# Continuing to Advance Our Coal Fleet Transition

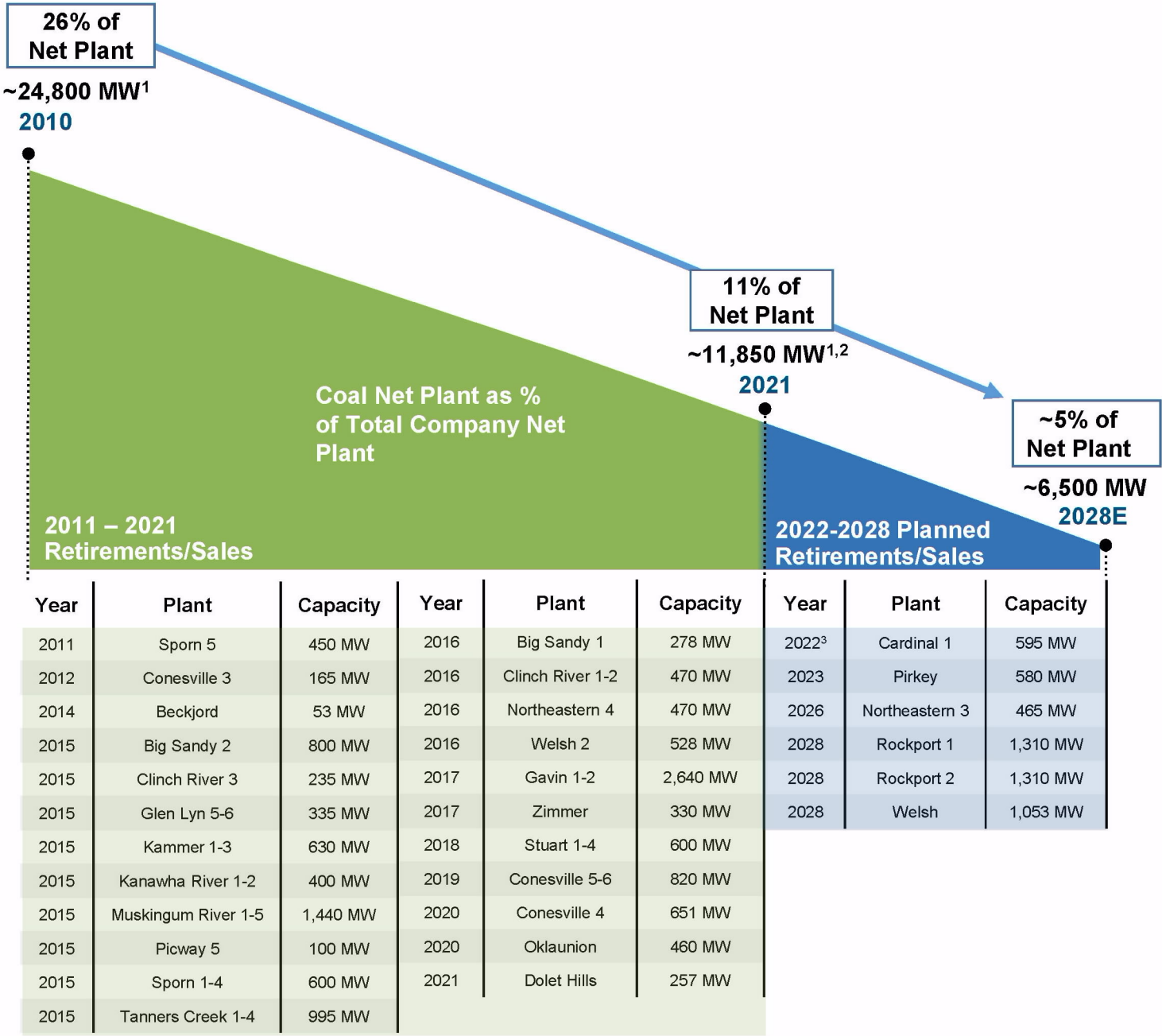
Coal-fired generation is projected to be less than 5% of AEP's Net Plant by YE 2028

<sup>1</sup> Total includes owned coal units and the Rockport 2 lease; excludes AEP's investment in OVEC.

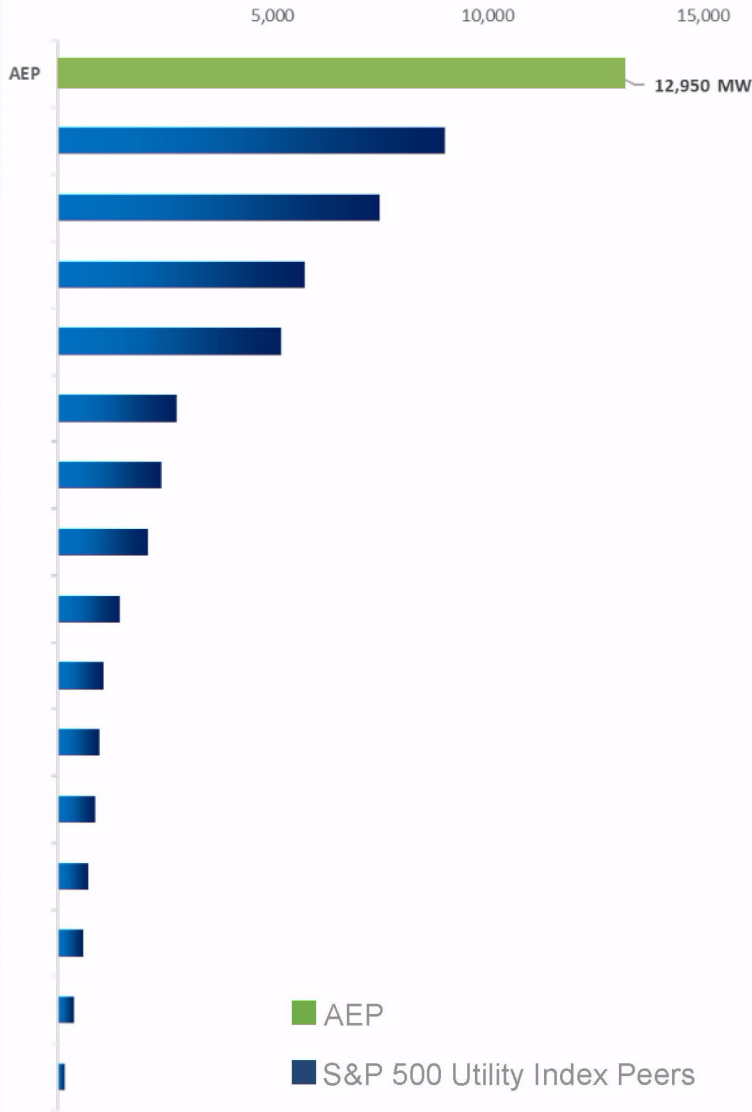
<sup>2</sup> Includes 2012 Turk Plant addition.

<sup>3</sup> In April 2022, AEP executed simultaneous agreements with Buckeye Power to sell Cardinal 1 and purchase 100% of the output through 2028 via a PPA. The sale was completed in August 2022.

<sup>4</sup> Chart represents AEP vs. S&P 500 Utility Index peers; data sourced from 10-K filings and company presentations and publications.



AEP Has Retired or Divested the Most Coal Generation in the Industry Since 2010<sup>4</sup>





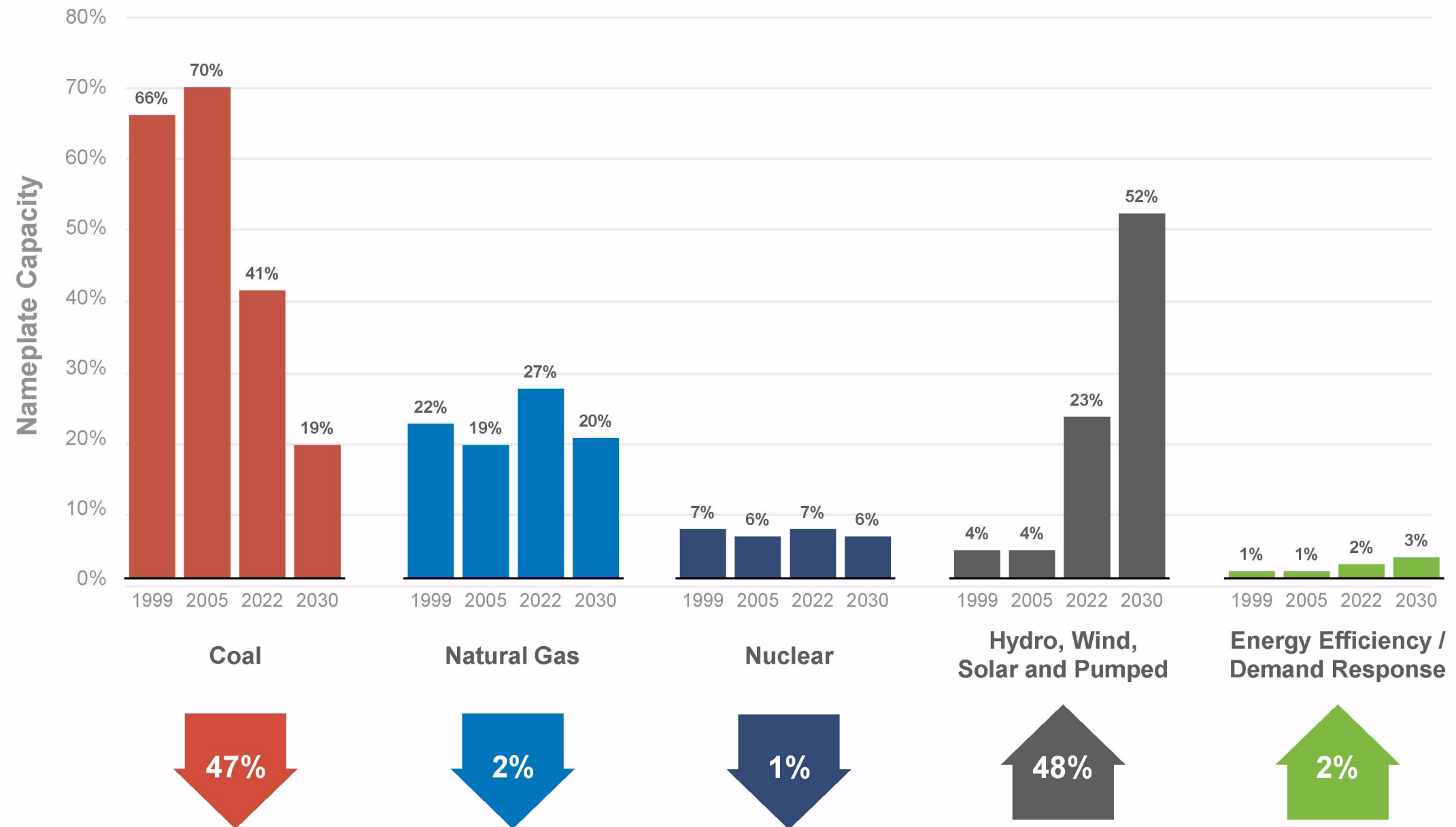
# Transforming Our Generation Fleet

Capacity includes both owned and PPA generation. Energy Efficiency / Demand Response represents avoided capacity rather than physical assets.

2022 data as of 6/30/2022 and includes current capacity of KPCo. In October 2021, AEP entered into an agreement to sell its Kentucky operations to Algonquin Power & Utilities. The sale is expected to close in January 2023 following regulatory approvals. 2030 includes forecasted additions and retirements and excludes previously identified projected resource additions for KPCo.

2030 coal capacity includes Amos, Mountaineer and Mitchell plants as the WVPSC approved ELG investment to keep optionality for these plants to operate post 2028. 2030 coal capacity also includes SWEPCO's Turk and Flint Creek plants.

2030 Hydro, Wind, Solar and Pumped capacity includes unregulated contracted renewable assets business announced for sale in 2022. Excluding this capacity would not materially change 2030 projected capacity mix.



**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-20:**

Please provide SWEPCO's monthly system average cost of coal from January 1, 2019 through August 31, 2022.

**Response No. RFI 4-20:**

See CARD 4-20 Attachment 1 for the monthly system average for coal, gas and lignite.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy

**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-21:**

Please provide SWEPCO's projected monthly system average cost of coal from November 1, 2022 through December 31, 2023.

**Response No. RFI 4-21:**

See CARD 4-21 Attachment 1 for the requested information.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy



**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-22:**

Please provide SWEPCO's monthly system average cost of natural gas from January 1, 2019 through August 31, 2022.

**Response No. RFI 4-22:**

See CARD 4-20 Attachment 1 provided with the Company's response to CARD 4-20.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy

**SOAH DOCKET NO. 473-22-00991**  
**PUC DOCKET NO. 53625**

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

**Question No. RFI 4-23:**

Please provide SWEPCO's projected monthly system average cost of natural gas from November 1, 2022 through December 31, 2023.

**Response No. RFI 4-23:**

See CARD 4-23 Attachment 1 for the requested information.

Prepared By: Emily K. Brown

Title: Regulatory Consultant Prin

Sponsored By: James F. Martin

Title: Dir Resource Planning Strategy

The following files are not convertible:

CARD\_4-8\_Attachment\_1.xlsx  
CARD\_4-10\_Attachment\_1.xlsx  
CARD\_4-11\_Attachment\_1.xlsx  
CARD\_4-16\_Attachment\_1.xlsx  
CARD\_4-16\_Attachment\_2.xlsx  
CARD\_4-16\_Attachment\_3\_With\_Carbon.xlsx  
CARD\_4-16\_Attachment\_4\_No\_Carbon.xlsx  
CARD\_4-17\_Attachment\_1.xlsx  
CARD\_4-17\_Attachment\_2.xlsx  
CARD\_4-20\_Attachment\_1.xlsx  
CARD\_4-21\_Attachment\_1.xlsx  
CARD\_4-23\_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](mailto:centralrecords@puc.texas.gov) if you have any questions.