BEFORE THE CORPORATION COMMISSION OF THE STATE OF OKLAHOMA

APPLICATION OF PUBLIC SERVICE COMPANY OF OKLAHOMA, AN OKLAHOMA CORPORATION, FOR AN ADJUSTMENT IN ITS RATES AND CHARGES AND THE ELECTRIC SERVICE RULES, REGULATIONS AND CONDITIONS OF SERVICE FOR ELECTRIC SERVICE IN THE STATE OF OKLAHOMA	)	CAUSE NO. PUD 202100055

DIRECT TESTIMONY OF

DARYLL JACKSON

ON BEHALF OF

PUBLIC SERVICE COMPANY OF OKLAHOMA

April 2021

TABLE OF CONTENTS

EXHIBITS

I. INTRODUCTION

Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is Daryll Jackson. My business address is 212 E 6th St., Tulsa Oklahoma 74119.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Public Service Company of Oklahoma (PSO or Company) as Vice President - Generating Assets. PSO is a subsidiary operating company of American Electric Power Company, Inc. (AEP).

Q. WOULD YOU BRIEFLY DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?

A. I received a Bachelor of Science degree in Electrical Engineering in 2003 from Louisiana Tech University. I began my career with AEP in 2005 at Southwestern Electric Power Company (SWEPCO) as a Distribution Customer Design Engineer. I then held various engineering positions within the Transmission Technical Services Group, including Station Asset Engineer, Relay Analysis & Mis-operation Engineer, and Protection & Control Asset Engineer. In 2016, I was promoted to Supervisor-Protection & Controls (P&C) for SWEPCO within the Transmission Field Services (TFS) organization, with responsibility for maintenance services and capital work on the P&C assets in Shreveport, Louisiana. In 2018, I became the TFS SWEPCO Station Manager, responsible for maintenance services and capital projects for substations in Texas, Louisiana, and Arkansas. In October of 2020, I assumed my current position as Vice President - Generating Assets PSO.

Q. WHAT ARE YOUR RESPONSIBILITIES AS VICE PRESIDENT - GENERATING ASSETS PSO?

A. I am responsible for the safe, reliable, efficient, and environmentally compliant performance of PSO's generating assets. More specifically, I oversee and direct the generation operations and maintenance (O&M) and capital budgets with responsibility for allocation of budget resources to ensure the financial optimization of PSO's generating assets. I work with PSO executive leadership, AEP's Fossil & Hydro Generation group, AEP's Commercial Operations group, and the American Electric Power Service Corporation (AEPSC) organization to optimize the effectiveness of PSO's generation assets.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes, I am sponsoring the following exhibits:

- EXHIBIT DJ-1 - PSO Existing Generation Capacity in 2020
- EXHIBIT DJ-2 - Generation Plant Retirement Dates

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony: (1) provides a description of PSO's generation fleet; (2) discusses PSO's test year fossil generation non-fuel O&M expenses (Generation O&M); (3) provides the generation capital investment placed in service since PSO's last base rate case; and (4) reviews AEPSC's affiliate generation services and expenses.

II. SUMMARY OF TESTIMONY

Q. PLEASE PROVIDE A SUMMARY OF YOUR TESTIMONY.

A. My testimony describes the prudent, reasonable, and necessary generation capital investments made and non-fuel O&M expenditures incurred to maintain a safe, reliable, and environmentally compliant generating fleet. The non-fuel, generation-related, adjusted test year O&M expenditure was $70.7 million. The test year O&M represents a reasonable ongoing level of O&M for the fleet.

Capital projects were also performed to address performance, reliability, and safety priorities at the generating plants. Since PSO's last base rate case, the Company has invested $60.3 million in capital dollars in its generating fleet. I will detail those material investments in my testimony.

III. PSO GENERATION FLEET

Q. PLEASE DESCRIBE THE PSO GENERATION FLEET.

A. PSO currently owns and operates six generating plants, consisting of 17 units, all of which are located within the state of Oklahoma.

Excluding other capacity entitlements (i.e. purchased power) that are used to meet the minimum Southwest Power Pool reserve margin requirement, PSO owns a net generating capacity of approximately 3,709 MW. Based on fuel type, PSO's generating units are approximately 13% (or 465 MW) coal-fired capacity and 87% (or 3,244 MW) natural gas-fired capacity. A table summarizing the generating units is provided in EXHIBIT DJ-1.

Q. HAVE THERE BEEN ANY CHANGES TO THE GENERATION FLEET SINCE THE LAST PSO BASE CASE?

A. Yes. The Oklaunion Power Plant (Oklaunion) was retired in 2020.

Q. WAS OKLAUNION RETIRED ON SCHEDULE?

A. Yes. Oklaunion ceased operation in August of 2020, consistent with the information presented in the Company's last base case[1].

IV. TEST YEAR GENERATION O&M

Q. WHAT PERIOD WAS USED TO DEVELOP THE TEST YEAR GENERATION O&M?

A. The test year is the twelve-month period ending December 31, 2020.

Q. PLEASE PROVIDE PSO'S TEST YEAR LEVEL OF GENERATION O&M.

A. As shown in Table 2, PSO's test year Generation O&M is approximately $73.4 million.

[1] Oklahoma Corporation Commission Cause No. PUD 201800097, EXHIBIT MAM-2.

TABLE 2 –PSO Test Year Generation O&M by FERC Account

FERC Account	Description	Amount ($)
500	Operation Supervision and Engineering	$14,952,535
502	Steam Expenses	$9,933,548
505	Electric Expenses	$3,334,646
506	Miscellaneous Steam Power Expenses	$10,168,906
507	Rents	$ 3,762
509	Allowances	$18,847
510	Maintenance Supervision and Engineering	$3,422,424
511	Maintenance of Structures	$2,681,919
512	Maintenance of Boiler Plant	$12,669,730
513	Maintenance of Electric Plant	$9,580,981
514	Maintenance of Miscellaneous Steam Plant	$2,616,473
546	Operation Supervision and Engineering	$61,999
548	Generation Expenses	$354,394
549	Miscellaneous Other Power Generation Expenses	$9,548
552	Maintenance of Structures	$10,421
553	Maintenance of Generating and Electric Plant	$968,036
554	Other Power Maintenance	$247,037
556	System Control and Load Dispatching	$549,922
557	Other Expenses	$2,533,313
Total Test Year Generation O&M		**$74,118,442**
Adjustments to Test Year O&M		($3,392,918)
Total Adjusted O&M		**$70,725,524**

*Total may not sum due to rounding

Q. WERE ANY ADJUSTMENTS MADE TO THE TEST YEAR GENERATION O&M?

A. Yes. Pro forma adjustments to the $73.4 million Test Year O&M expense result in a Company request in this proceeding of approximately $70.7 million, with those pro forma adjustments being supported by Company witness Heather Whitney. The adjustment includes a reduction of $3,392,918 in areas including payroll, incentives, employee expenses, and AEPSC. This adjustment also includes the removal of fuel expenses recovered via the fuel adjustment clause.

Q. IS PSO'S LEVEL OF TEST YEAR GENERATION O&M CONSISTENT WITH HISTORIC GENERATION O&M?

A. Yes. As shown in Table 3, the Company's test year Generation O&M is consistent with Generation O&M in calendar years 2018 and 2019.

TABLE 3 – Historical PSO Generation O&M

2018	2019	Test Year	2018-2020 Average
$77,978,942	$77,759,460	$74,118,442	$76,387,254

Q. PLEASE DESCRIBE ANY PROCESSES, SUCH AS BUDGETING, PLANNING, AND COST REVIEW, WHICH ARE USED TO CONTROL GENERATION O&M COSTS.

A. PSO's generation planning and budgeting is a cohesive and dynamic planning process that is linked to the annual business planning process. Generation Management reviews any variances versus budget for O&M expenses to keep such expenditures within budget.

PSO generation employs a competitive bidding process in selecting contractors to perform maintenance, inspection, and procurement of the necessary equipment and materials to help control costs without sacrificing safety and reliability.

V. MAJOR CAPITAL ADDITIONS

Q. WOULD YOU PLEASE PROVIDE AN OVERVIEW OF GENERATION CAPITAL ADDITIONS BEING REQUESTED FOR THE FIRST TIME IN RATES?

A. Shown in Table 4 below, PSO is requesting capital additions totaling approximately $60.3 million, for the first time in rates. Of that amount, $13.4 million is associated with major capital projects that had a cost greater than $500,000. Allocations to PSO's generation organization for intangible projects (information technology projects that are not associated with physical capital additions at PSO's plants, but nonetheless provide benefits to PSO) account for a combined total of approximately $16.3 million. $34.6 million is associated with an individual production plant blanket (PPB) capital projects. The remaining capital amounts include revisions to the ARO estimates that resulted in approximately $12 million reduction to the capital spend and $8.7 million of anticipated capital additions to be placed in service in the six month post test year time frame.

TABLE 4 - Generation Capital Additions
October 1, 2018 – December 31, 2020

Plant	Project Description	Addition to Plant ($)
Comanche Generating Plant	Replace Inlet Filters	$5,410,382
Riverside Generating Plant	Replace U2 North and South Draft Fan	$1,910,410
Northeastern Generating Plant	N12 Replace Turbine Packing U1S	$1,693,332
Comanche Generating Plant	Turbine Inspection and Seal Replacement	$1,587,068
Northeastern Generating Plant	N12 Replace Rotor Winding and Retaining Rings	$1,214,544
Sub Total Major Capital		**$11,815,736**
Intangible Capital Projects		**$16,283,151**
All Plants and Units	Minor Plant Blanket Projects	$34,624,918
Various Facilities	ARO Reduction	-$12,108,008
Various Facilities	Other Capital Projects	$936,314
Sub Total Other Capital		**$23,554,726**
Total PSO Capital Additions		**$51,552,111**

*Total may not sum due to rounding

Q. PLEASE SUMMARIZE THE MAJOR GENERATION CAPITAL ADDITIONS INCLUDED IN TABLE 4 AND EXPLAIN WHY EACH WAS NECESSARY.

A. The capital additions greater than $500,000 are summarized below. Each capital project was undertaken based on engineering principles to address safety, performance, or reliability issues.

Comanche Generating Plant Replace Inlet Filters

Comanche used filter cloth upstream of the evaporative cooler for inlet filtration, which allowed dirt and debris to pass through to the combustion turbine resulting in the potential to foul the compressor and plug the new low NOx burner combustion components. The plant installed a new inlet filtration system for both gas turbines. In addition to the inlet filtration system, an inlet fogging system was installed to replace

the evaporative coolers, ensuring full MW output during the summer season. The new fogging system required an upgrade to the plant's reverse osmosis system to supply the needed quality and quantity of water for the fogging system.

Riverside Generating Plant Replace North and South Forced Draft Fan

The variable frequency drives on both the north and south forced draft (FD) fans had reached the end of their design life and were replaced due to increasing maintenance costs. In addition, the equipment was no longer supported by the manufacturer, making replacement reasonable.

Northeastern Generating Plant N12 Replace Turbine Packing

In 2019, the Northeastern Unit 1 steam turbine was inspected, and steam erosion was noticed on the reheat turbine stationary rows 2 and 3, but were not replaced at the time. This erosion indicates an increased risk of blade failure and forced outage, therefore, a plan to replace the packing was initiated. The capital work included replacing packing seals in the high-pressure and reheat (HP/RH) and double flow low pressure (DFLP) turbine sections, and replacement of the RH turbine row 2 and 3 stationary blades.

Comanche Generating Plant - Steam Turbine Inspection and Seal Replacement

Since 2014, the Comanche Plant has transitioned from operating primarily as a base load unit to cycling operation, which resulted in more than twice as many unit starts and increased equipment wear. This has created additional stress corrosion cracking on certain rows of blades on the steam turbine. Weld repairs were required to address

erosion and impact damage to the stationary steam path components. The steam path, gland packing, and seals were replaced to increase turbine efficiency.

N12 Replace Rotor Winding and Retaining Ring

The existing rotor winding and retaining ring on the Northeastern Unit 1 steam turbine were over 56 years old and exceeded their design operating life. The longer these parts remained in service the more likely they could have failed in service, which had the potential to cause repairs costs as high as $50 million.

Q. PLEASE SUMMARIZE THE INTANGIBLE CAPITAL INVESTMENTS

A. Intangible capital projects include routine software updates and new programs that increase the efficiency. Company witness Therace Risch testimony includes additional details on the intangible capital projects.

Q. WHAT ARE PPB PROJECTS?

A. PPB projects are necessary to provide for the safe, environmentally responsible, reliable, and efficient operation of our generating units. These projects are generally classified as projects with a total cost under $3,000,000, the vast majority of which are smaller component replacements and installations under $150,000 total cost. When completing these PPB projects, PSO looks for cost savings whenever it is possible without jeopardizing reliability and safety. PPB projects totaled approximately $34.6 million of generation plant in service in the test year. All PPB projects over $1 million are reviewed and approved through PSO's Strategic Capital Prioritization Process (SCPP) which includes review and approval by AEP's Senior

Vice President of Generation, Vice President Projects, Controls and Construction, and Vice President Engineering Services.

Q. WOULD YOU PLEASE DESCRIBE SOME OF THE PPB CAPITAL ADDITIONS DURING THE TEST YEAR AT PSO POWER PLANTS?

Replace Riverside Unit 2 Low Pressure Rotor Blades

This project was to replace the Riverside Station Unit 2 Low Pressure Turbine rotor with a reconditioned rotor from Northeastern Station. The original low pressure blades had significant pitting and corrosion due to a past water chemistry event. Previous non-destructive examinations had also shown that one turbine wheel was cracked ($2,390,718).

Southwest Fuel System Transfer

This project converted Southwestern Station Units 4 and 5 fuel system from transfer less to a transfer system. This included piping modifications, installation of new fuel nozzles and the addition of new transfer valves ($3,042,460).

Riverside Unit 1 FD Fan Repair

Following the FD fan drive replacement noted in the description of capital work above, the South FD fan failed on startup, destroying the fan casing, shaft, dampers, and pedestal, all of which required replacement ($2,020,686).

Northeastern Transformer Replacement

Northeastern Units 1 & 2 replaced a vintage date 20 MVA transformer with a used 37 MVA transformer ($877,885).

Northeastern Load Compensator

Northeastern Generating Station purchased and installed a Load Compensation Inverter Mod U1A ($526,079).

Riverside Gas Control Skid

Riverside Generating Station installed a gas control skid downstream of the ONEOk supply line to allow ONEOK gas to be blended in a controlled fashion with Enable gas. This allows the plant to take advantage of lower cost gas to be used in conjunction with the existing source ($506,601).

VI. EXPECTED USEFUL LIVES OF PSO'S GENERATING UNITS

Q. HOW ARE THE EXPECTED USEFUL LIVES OF THE POWER PLANTS IN THE PSO GENERATION FLEET DETERMINED?

A. The life of any generating unit is influenced by numerous factors, including the operating conditions experienced, fuel and ash characteristics, the type of service provided, ongoing equipment maintenance practices, technological developments occurring during the unit's life, environmental requirements, and other factors. Initial assumptions are made for depreciation and other purposes, and can be adjusted as changes occur in any of these factors. To estimate the potential remaining unit life at any specific time requires an assessment to determine if there are any known conditions that would limit that unit life. These conditions include unit and infrastructure liabilities, operational flexibility, plant economics, cost and availability of newer replacement technologies and environmental or other regulatory constraints.

The expected useful life of a power plant depends on many factors, including the original design, the current condition of the unit, the operational demands on the unit, and whether the unit is expected to operate economically and in compliance with environmental rules and regulations. The expected useful life for each plant is updated as these factors change. Another consideration is the potential future cost to replace the generation with another resource. The expected useful lives of the PSO generation plants are included in EXHIBIT DJ-2 and are used in the depreciation study discussed by Company witness Jason Cash.

Q. DO THE EXPECTED UNIT LIVES SHOWN IN EXHIBIT DJ-2 REPRESENT A FIRM COMMITMENT AS TO WHEN A UNIT WILL BE RETIRED?

A. No. Expected useful lives are based on variables such as the estimated number of unit starts per year, environmental compliance costs, fuel supply, the forecasted market price of electricity, and assumptions about the cost of replacing generation in future years. An expected unit life does not represent a firm retirement date, but instead represents a best estimate of the approximate expected life over which customers will receive a benefit from that generating unit.

Q. WHO IS RESPONSIBLE FOR DETERMINING THE EXPECTED LIVES OF PSO'S GENERATING UNITS?

A. The expected life of a generating unit is determined with input from many groups. PSO employees and AEPSC Generation organization engineers routinely track any issues that arise during normal operation or that are found during equipment inspections. Along with the operational and engineering side, the Generation

Business Services group routinely updates assessments of PSO's existing units, as well as assumptions regarding the economics of ongoing operation.

With input from each of the groups above, the condition of major equipment-planned capital investments, O&M expense levels, compliance with existing and expected environmental regulations, and generation costs are all evaluated with the intent of tracking the economic viability and the safe, reliable operation of each unit in PSO's fleet. In considering all relevant data, PSO and AEPSC are able to create a reasonable assessment of each generating unit and determine what the expected useful life is for each unit. This allows PSO and AEPSC to best plan the future of the generating fleet, and ensure that a reasonable approach is taken to ensure a reliable supply of electricity for PSO's customers at reasonable prices.

Q. ARE THERE ANY MATERIAL CHANGES IN THE ANTICIPATED RETIREMENT DATES OF PSO GENERATING UNITS?

A. No. There are no material changes to the retirement dates of PSO generating units.

VII. AFFILIATE GENERATION SERVICES

Q. WHAT IS THE RELATIONSHIP BETWEEN THE PSO GENERATION FLEET AND THE AEPSC GENERATION ORGANIZATION?

A. AEPSC provides PSO generation with executive leadership, management direction, and staff support. Both PSO and AEPSC focus on the safe, reliable, and low-cost operation of PSO's generation fleet for the benefit of its customers. This relationship is enhanced through the sharing of best practices and lessons learned.

Q. ARE ALL GENERATION-RELATED ACTIVITIES MANAGED THROUGH AEPSC?

A. No. While AEPSC provides planning, engineering and management support activities, PSO management is responsible for directing PSO generation employees in the day-to-day operation and maintenance of PSO's fleet of power plants as well as serving as the interface between PSO's plants and AEPSC.

PSO employees at the plant level perform routine maintenance on PSO's power plants that may include predictive, preventive, and corrective maintenance. This maintenance may be the result of routine inspection, analysis of operation of a piece of equipment, correction of a failed piece of equipment, or through the detection of an imminent failure of a piece of equipment at a plant.

Q. WHAT GENERATION-RELATED SERVICES ARE PROVIDED TO PSO BY AEPSC?

A. AEPSC provides expertise on the operation and maintenance of PSO's fleet of power plants, as well as outage planning, unit dispatch management, and engineering and environmental support. AEPSC is responsible for providing these services for power plants across an 11-state area. This vast knowledge of generation operation and maintenance is shared with PSO to help minimize the overall cost of generation and optimize plant reliability.

Because AEPSC provides support to a large number of power plants, it is possible for PSO to have access to generation-related information and knowledge that is not readily available within the PSO organization. This synergy not only helps PSO

operationally, but also because the AEPSC charges are spread over a number of AEP operating companies, the cost to each AEP company is reduced. This means that it is not necessary for PSO to provide this level of support for its own organization on a stand-alone basis, which decreases the overall cost to PSO customers while maximizing the benefit of the knowledge accumulated from power plants across the country.

Q. WHAT ARE THE SPECIFIC AEPSC GROUPS THAT PROVIDE GENERATION-RELATED SERVICES TO PSO?

A. There are six organizations responsible for providing services and support to PSO that report through the AEPSC Executive Vice President of Generation. These six groups are Fossil & Hydro Generation, Engineering Services, Environmental Services, Projects, Controls, and Construction (PCC), Regulated Commercial Operations, and Generation Business Services.

Q. WHAT WERE THE COSTS OF THESE AFFILIATE SERVICES DURING THE TEST YEAR?

A. The cost of these services by AEPSC organization is summarized in Table 5 below.

TABLE 5 – AFFILIATE CHARGES BY AEPSC GENERATION ORGANIZATION

AEPSC Organization	Test Year Amount
Fossil & Hydro Generation	$3,584,921
Engineering Services	$3,452,375
Environmental Services	$1,988,501
Projects, Controls, and Construction	$601,790
Regulated Commercial Operations	$3,375,360
Generation Business Services	$365,248
General Administration	$198,497
Grand Total	**$13,566,693**

Q. PLEASE PROVIDE A DESCRIBE AND OVERVIEW OFTHE ROLES OF THESE GROUPS.

A. The roles of these groups are as follows:

- Fossil & Hydro Generation is the organization within AEPSC that is directly responsible for operating and maintaining the power plants for each of the operating companies owned by AEP. This group is comprised of the Senior Vice President of Fossil & Hydro Generation, as well as the vice presidents and managing directors of Generation. As discussed previously, each operating company vice president operates as an interface between its operating company and the Fossil & Hydro Generation organization. The organization is involved directly in the operation and maintenance of the power plants in each of the AEP operating companies. This group is also responsible for fleet optimization, operational excellence, technical skills training and field services.

- Engineering Services is responsible for developing and maintaining the design criteria basis information for the existing power plant equipment and systems, as well as the engineering and planning of larger capital projects at the plants. The organization also is responsible establishing and communicating technical recommendations and requirements to all of the plants across the system. Engineering Services is comprised of the following groups:
  - Electrical and Instrumentation & Controls Engineering, and New Project Development;
  - Digital Engineering Technologies;
  - Plant Engineering & Compliance Programs; and
  - Mechanical, Civil and Chemical Engineering.

  The organization is typically responsible for projects costing more than $750,000, but less than $5,000,000. Engineering Services provides technical expertise for complex, highly involved problems and facilitates the sharing of knowledge by acting as a data-clearing house. This group also establishes and communicates technical recommendations and requirements to all of the plants across the system. The Engineering Services organization is typically responsible for complex and technical projects. Sharing internal resources avoids paying a premium for the services of third-party engineering firms. It also allows for guidance in the selection of vendors allowing PSO to locate vendors with quality records of accomplishment and reasonable market cost structures.

- Environmental Services provides permitting and compliance support, guidance, procedures, recommendations, and training for AEP's operating companies in order to maintain and improve their environmental programs and

enhance compliance with environmental laws, regulations, and policies. Environmental Services is also involved in the development process for environmental regulations, coordinating with other groups within AEP as well as with PSO and other operating companies as applicable. The Environmental Services organization includes the following sections: Air Quality Services, Water & Ecological Resource Services (WERS), Land Environment and Remediation Services, Analytical Chemistry Services, and Strategic Policy Analysis

- Projects, Controls & Construction (PCC) is the organization within AEPSC that is responsible for providing project management and execution services for large capital projects for the existing generating plants - those projects greater than $5,000,000 in total cost, which includes new generation projects. The PCC organization manages safety, construction, cost, schedule and quality activities to ensure successful execution of large capital additions. The PCC organization manages these projects by tracking costs, procurement, engineering, and construction activities to ensure successful execution of large capital additions. This group is also responsible for planning and estimating, as well as controlling and tracking costs for large outages and projects. The Projects Controls and Construction organization is also responsible for the Dolet Hills mining operations.

- Regulated Commercial Operations is responsible for market operations and support (e.g., Southwest Power Pool Regional Transmission Organization), as well as the procurement and delivery of suitable fuels and consumable products to the PSO generating plants. Regulated Commercial Operations also manages the emissions credits of the generating fleet.

- Generation Business Services is tasked with providing financial analyses, and business and strategic planning, and contract administration at the coporate level within the Generation organization. This group, along with PSO, is also responsible for assisting in the determination of projected useful plant lives.

Q. IS THERE ANY OVERLAP OF FUNCTIONS OR DUPLICATION OF EFFORTS BY THE AEPSC GENERATION ORGANIZATION AND PSO?

A. No. The division of responsibility I have described above prevents any overlap or duplication of services between PSO and AEPSC generation employees.

VIII. CONCLUSION

Q. WOULD YOU PLEASE SUMMARIZE YOUR TESTIMONY?

A. To serve its customers, it is essential that PSO's fleet of coal- and gas-fired units remains safe, environmentally compliant, reliable, and economical. Providing the proper levels of O&M expense expenditures, coupled with prudent capital investments, is necessary to maintain the PSO generation fleet so it may continue providing low-cost generation for PSO's customers. The capital and O&M spent to maintain the fleet in proper operating condition was necessary to comply with safety, health, or environmental requirements as well as to maintain or improve the reliability and efficiency of the PSO generating fleet.

PSO Existing Generation Capacity in 2020

Plant Name	Unit No.	Net Maximum Capacity (MW)	In-Service Date	Mode of Operation	Fuel Type	State
Northeastern	3	465	1979	Base	Coal	OK
Comanche	1	248	1973	Load Following	Natural Gas	OK
Northeastern	1	470	2001	Load Following	Natural Gas	OK
Northeastern	2	434	1970	Load Following	Natural Gas	OK
Riverside	1	448	1974	Load Following	Natural Gas	OK
Riverside	2	448	1976	Load Following	Natural Gas	OK
Riverside	3	80	2008	Peaking	Natural Gas	OK
Riverside	4	80	2008	Peaking	Natural Gas	OK
Southwestern	1	56	1952	Peaking	Natural Gas	OK
Southwestern	2	79	1954	Peaking	Natural Gas	OK
Southwestern	3	311	1967	Load Following/Reliability	Natural Gas	OK
Southwestern	4	83	2008	Peaking	Natural Gas	OK
Southwestern	5	85	2008	Peaking	Natural Gas	OK
Tulsa	2	164	1963	Peaking/Reliability	Natural Gas	OK
Tulsa	4	158	1964	Peaking/Reliability	Natural Gas	OK
Weleetka	4	50	1975	Peaking	Natural Gas	OK
Weleetka	5	50	1976	Peaking	Natural Gas	OK
TOTAL All Units		**3,709**				

PUBLIC SERVICE COMPANY OF OKLAHOMA
GENERATION PLANT RETIREMENT DATES

Plant	Fuel	Year Installed	Retirement Year	Life Span (Years)	Change from Prior Study
Steam Production Plant					
Northeastern					
Unit 3	Coal	1979	2026	47	No
Rail Spur		1995	2026	31	No
Comanche	Combined Cycle Gas	1973*	2035	62	No
Northeastern					
Unit 1	Combined Cycle Gas	2001	2036	35	No
Unit 2	Gas	1970	2036	66	No
Riverside					
Unit 1	Gas	1974	2041	67	No
Unit 2	Gas	1976	2041	65	No
Southwestern					
Unit 1	Gas	1952	2022	70	No
Unit 2	Gas	1954	2024	70	No
Unit 3	Gas	1967	2037	70	No
Tulsa					
Unit 2	Gas	1963	2034	71	No
Unit 4	Gas	1964	2034	70	No
Other Production Plant					
Weleetka					
Unit 4	Gas	1975	2022	47	No
Unit 5	Gas	1976	2022	46	No
Weleetka Diesel	Diesel	1963	2022	59	No
Comanche Diesel	Diesel	1962	2035	73	No
Northeastern Units 1&2 Diesel	Diesel	1968	2036	68	No
Northeastern Unit 3 Diesel	Diesel	1980	2026	46	No
Riverside - Diesel	Diesel	1976	2041	65	No
Southwestern - Diesel	Diesel	1962*	2037	75	No
Tulsa Diesel	Diesel	1967	2034	67	No
Riverside - Gas Peaking	Gas	2008	2056	48	No
Southwestern - Gas Peaking	Gas	2008	2056	48	No

* Updated to original installation date of the unit. Retirement date did not change.
** Weleetka Unit 6 has not been retired as of the date of this filing.
Note:

AFFIDAVIT OF DARYLL JACKSON

STATE OF OHIO)

COUNTY OF FRANKLIN)

04/26/2021

On the _____ day of April, 2021, before me appeared Daryll Jackson, to me personally known, who, being by me first duly sworn, states that he is Vice President, Generating Assets for Public Service Company of Oklahoma, and acknowledges that he has read the above and foregoing document and believes that the statements therein are true and correct to the best of his information, knowledge and belief.

Daryll Jackson
Signed on 2021/04/26 07:03:33 -8:00

Daryll Jackson

04/26/2021

Subscribed and sworn to before me this _____ day of April, 2021.

NOTARY PUBLIC STATE OF OHIO
Amanda Rowe
Commission # 2015-RE-520913
Electronic Notary Public
State of Ohio
My Comm Exp. Feb 01, 2025
Notary Stamp 2021/04/26 07:03:33 PST D3D03B5970D6

Signed on 2021/04/26 07:03:33 -8:00

Notary Public

My commission expires: ___02/01/2025_____