BEFORE THE CORPORATION COMMISSION OF THE STATE OF OKLAHOMA

IN THE MATTER OF THE APPLICATION OF OKLAHOMA GAS AND ELECTRIC COMPANY FOR AN ORDER OF THE COMMISSION AUTHORIZING APPLICANT TO MODIFY ITS RATES, CHARGES, AND TARIFFS FOR RETAIL ELECTRIC SERVICE IN OKLAHOMA	))))))	CASE NO. PUD 2023-000087

Rebuttal Testimony

of

Kelly M. Riley

on behalf of

Oklahoma Gas and Electric Company

May 17, 2024

QUALIFICATIONS, EXPERIENCE, AND PURPOSE

Q. **Please state your name, your employer, and your business address.**

A. My name is Kelly M. Riley. I am employed by Oklahoma Gas and Electric Company ("OG&E" or "Company") and my business address is 321 N. Harvey, Oklahoma City, Oklahoma 73102.

Q. **What position do you hold with OG&E?**

A. I hold the position of Director of Resource Planning. I am responsible for OG&E's Resource Planning group and for all of its activities including the preparation of integrated resource plan submittals and frequent resource planning analyses that are performed on an ongoing basis.

Q. **Please summarize your professional experience and educational background.**

A. I have been employed by OG&E since 2007. I earned a Bachelor of Science Degree in Business Administration from the University of Oklahoma (1991) and a Master of Science in Management - Operations Research (2001) from Case Western Reserve University in Cleveland, Ohio. Since joining OG&E, I have held various risk management and planning positions. I have been a member of OG&E's resource planning team for the past ten years and have been in my current role since 2019.

Q. **Have you previously testified or appeared before the Oklahoma Corporation Commission ("Commission")?**

A. Yes. I have previously filed testimony before the Oklahoma Corporation Commission for the preapproval of the Horseshoe Lake Flexible Resource Combustion Turbines in Case No. PUD 2023-000038.

Q. **What is the purpose of your Rebuttal Testimony in this proceeding?**

A. The purpose of my Rebuttal Testimony is to rebut various issues raised by Public Utility Division ("PUD") witnesses Geoffrey Rush and William Dunkel, as well as the recommendations of Oklahoma Industrial Energy Consumers ("OIEC") witness Scott Norwood and Federal Executive Agencies ("FEA") witness Brian Andrews.

RESPONSE TO PUD WITNESS RUSH

Q. **What portion of PUD witness Rush's Responsive Testimony will you be responding to?**

A. Mr. Rush testifies that "Risk is the most the important factor to consider when determining the required return on equity."[1] Mr. Rush then describes two different types of risks: company-specific risk and market risk. While Mr. Rush discusses market risks (such as inflation, interest rates and other risks that may affect the entire market) associated with public utilities, he never identifies any company-specific risks. While other OG&E witnesses will address market risks, my Rebuttal Testimony will address some company-specific risks that Mr. Rush appears to have ignored.

Q. **What company-specific risks would you like to discuss in response to Mr. Rush?**

A. There are a number of risks that OG&E discusses in its 2024 Integrated Resource Plan ("IRP"), which was finalized and submitted to the Commission on March 29, 2024. These risks include: (i) changing Southwest Power Pool, Inc. ("SPP") requirements for resource adequacy and the risks associated with greater capacity obligations over the next few years; and (ii) the risks of our existing and future generation portfolio created by new and evolving environmental regulations. Essentially, this puts OG&E in the difficult position of being stuck between the need to increase our generation capacity while also trying to mitigate risks associated with changing environmental regulatory requirements.

PUD witness Rush did not address these risks when he filed his Responsive Testimony, even though these risks were clearly described in detail in OG&E's 2024 IRP filed in March.

[1] Responsive Testimony of Geoffrey Rush, Cause No. PUD 2023-000087 at p. 8.

Q. **Please describe the current resource adequacy risks facing OG&E.**

A. As a member of SPP, OG&E is required to comply with a range of policies and regulations specified by SPP's Open Access Transmission Tariff ("OATT"), Business Practices, Operating Criteria, and Planning Criteria. As the Regional Balancing Authority, SPP is required by the Federal Energy Regulatory Commission to balance electric supply and demand, ensuring there is sufficient generation to reliably meet the demand for electricity within its region. Since OG&E's 2021 IRP, SPP has initiated several new policies to enhance Resource Adequacy in its footprint. Two of the most important factors to determining needed capacity are the Planning Reserve Margin ("PRM") level set by SPP and the capacity accreditation of resources. SPP is planning changes to both crucial factors within the next three years.

Q. **What are the challenges for OG&E to comply with further increases to the PRM?**

A. OG&E has initiated an RFP process seeking both short-term and long-term generation resources to satisfy the capacity needs identified in the 2024 IRP. OG&E's need for capacity is material and very near-term. Long construction and interconnection lead times present risks to the Company.

Q. What are the consequences associated with SPP Resource Adequacy risks?

A. OG&E must construct or acquire capacity to meet these more stringent requirements. This requires OG&E to add to its capital investment plans and forces OG&E to invest in generation resources at the same time there is significant evolution in environmental rules (as discussed below). Also, SPP's OATT calls for significant financial penalties for a generation capacity deficiency.

Q. **How is SPP planning to change the Planning Reserve Margin?**

A. SPP performs a biennial study to determine the amount of generation needed to reliably serve load. The preliminary results of the most recent study recommend a range of potential increases to the PRM, which are being further evaluated through the SPP stakeholder process. All Load Responsible Entities ("LREs") in SPP, including OG&E, are required to maintain generation capacity equal to their forecasted seasonal Net Peak

Demand plus the seasonal PRM requirement. SPP's Summer PRM was increased from 12% to 15% starting in the summer of 2023, based on the prior biennial study. This was an increase of between 180 and 190 MW for OG&E. In the 2024 IRP, OG&E assumed an additional incremental increase in the PRM based on the latest study results, which recommended summer PRM values ranging from 16% to 21% within the next five years.

Q. **How is SPP creating policy changes that affect the capacity accreditation of all thermal and renewable generation resources in the SPP footprint?**

A. SPP's Regional State Committee (RSC) and Board of Directors approved a Performance Based Accreditation ("PBA") policy in October 2023.[2] This policy was submitted to FERC for approval on February 23, 2024. With this policy, thermal generating resources will be required to perform periodic capability tests, just as they are currently, then SPP will adjust the accredited capacity of each thermal generation resource based on the unit's historical performance. Although the net impact of PBA on OG&E's capacity position is not known with certainty, OG&E believes implementation of the PBA policy will result in an increase to OG&E's generation capacity needs. In the 2024 IRP, OG&E assumed PBA is implemented as planned in 2026.

Also, in October 2023, SPP's RSC and Board of Directors approved an Effective Load Carrying Capability ("ELCC") policy, which will utilize annual ELCC studies to calculate the accredited capacity of renewable resources within SPP, based on the amount of incremental load these resources can reliably serve. SPP projects that, as more renewable resources come onto the SPP system, the percentage of accredited capacity compared to nameplate capacity of renewable resources will decrease.[3] The ELCC policy was submitted to FERC for approval along with the PBA policy on February 23, 2024. In its 2024 IRP, OG&E assumed ELCC is implemented as planned in 2026.

[2] https://www.spp.org/Documents/69255/RR554.zip

[3] SPP (2019), *Solar and Wind ELCC Accreditation*, https://www.spp.org/documents/61025/elcc%20solar%20and%20wind%20accreditation.pdf

Q. **Are there any other future resource adequacy risks facing the Company in addition to the current resource adequacy risks discussed above?**

A. Yes. There are a series of policies being considered in the SPP that have the potential to further expand capacity needs or other investments in OG&E's generation fleet. For example, SPP's RSC and Board of Directors has approved a policy implementing a Winter Resource Adequacy requirement ("Winter RAR") (similar to the Summer requirement discussed above), which would require deficiency payments for non-compliance. SPP filed an initial Winter RAR policy with FERC on September 8, 2023[4] and it was rejected on November 30, 2023.[5] With the rejection, FERC recommended SPP prioritize the development of a more robust Winter RAR policy. SPP has begun studying the winter season specifically to determine the appropriate Winter PRM. Initial study results indicate the Winter PRM could be set higher than the Summer PRM (anywhere from 30% to 61%) and may result in incremental capacity needs for OG&E, as well as for other SPP members.

Also, SPP is in the process of modifying other policies that could affect OG&E's capacity needs, such as a demand response program accreditation policy, a fuel assurance policy, and a requirement to ensure certain levels of ramp-able or dispatchable capacity to reliably supply load under fast changing conditions.

Q. **Can you please describe the environmental regulation risk that OG&E faces today and in the future?**

A. As this Commission is aware, OG&E's electric generation is subject to a stringent, complex, and interrelated set of environmental regulations that can restrict or impact OG&E's business activities in many ways including requiring remedial action to mitigate certain emissions and discharges, restricting the way OG&E handles or disposes of waste material, regulating future construction activities to mitigate harm to threatened or

[4] SPP (2023), *Submission of Tariff Revisions to attachment AA to Add the Winter Season Resource Adequacy Requirement*, https://www.spp.org/documents/70094/20230908_revisions%20to%20add%20winter%20season%20resource%20adequacy%20requirement_er23-2781-000.pdf

[5] FERC (2023), *Order Rejecting Tariff Revisions re Southwest Power Pool, Inc. under ER23-2781*, https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20231130-3093&optimized=false

endangered species, and requiring the installation and operation of emission control equipment. Both existing and future environmental regulations can impact OG&E's resource plan.

Environmental regulations are expected to become increasingly stringent, requiring increased expenditure for installing and operating control equipment and to monitor and report compliance. The current presidential administration has targeted a 50 to 52 percent reduction in economy wide net greenhouse gas emissions from 2005 levels by 2030 with full decarbonization of the electric power industry by 2035.[6] Many new, upcoming, or potential requirements are focused on coal-fired generation. OG&E has identified several proposed or anticipated environmental rules and actions by the U.S. Environmental Protection Agency ("EPA") that, if implemented, could affect OG&E's generation portfolio, including: (i) revisions to the Cross State Air Pollution Rule ("CSAPR") program for electric generating units; (ii) revisions to the Mercury and Air Toxics Standards ("MATS") rule; (iii) Effluent Limitation Guidelines under the Federal Clean Water Act; (iv) standards for greenhouse gas emissions from new and existing power plants; (v) anticipated adoption of more stringent standards for pollutants covered by the National Ambient Air Quality Standards (NAAQS); and (vi) review of Oklahoma's State Implementation Plan ("SIP"), submitted in August 2022, addressing Regional Haze requirements under Section 169A of the Clean Air Act (CAA) for the second planning period.

Q. **What are the potential impacts of these environmental rules on OG&E's existing and future generation fleet?**

A. Precise implementation details are not yet completely clear. In some cases, there could be mandated technology retrofits to control emissions. In other cases, the Company may need to consider fuel switching or early retirement of some facilities. EPA finalized a series of rules at the end of April 2024 and OG&E is trying to quickly assess these final rules and the impact they could have if they survive judicial scrutiny.

[6] https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/

Q. **Can you please discuss the most recent final rule issued by EPA relating to greenhouse gas emission standards for existing coal fired generation?**

A. One of the final rules released by EPA in April 2024 addressed greenhouse gas emission standards for existing coal fired generating units.[7] In this rule, EPA establishes two compliance pathways for existing coal-fired generating units. First, coal units planning to retire after 2039 must commit to installing carbon capture and sequestration/storage technology that captures 90 percent of their carbon dioxide emissions by 2032. Alternatively, coal units retiring before 2039 could commit to co-firing with 40 percent natural gas by 2030. If this rule survives judicial scrutiny, OG&E would need to develop a compliance plan that could affect approximately 27 percent of OG&E's accredited generation, which includes Sooner Units 1 and 2, Muskogee Unit 6 and the River Valley Units.

RESPONSE TO OIEC WITNESS NORWOOD

Q. **What portion of OIEC witness Norwood's Responsive Testimony will you be responding to?**

A. In his Responsive Testimony, Mr. Norwood states that he is concerned with declining energy production levels and the high operating costs of OG&E's Sooner and Muskogee coal units over the last several years. While other Company witnesses will address Mr. Norwood's concerns, my Rebuttal Testimony focuses on one of his recommendations on page 27-28 of his Responsive Testimony.

Q. **Please explain Mr. Norwood's recommendation appearing on page 27-28 of his Responsive Testimony.**

A. Mr. Norwood states that he "recommend[s] that the Commission direct OG&E to conduct an analysis to assess early retirement, retrofit and gas conversion alternatives to the current plan of continued operations of the Sooner and Muskogee coal units, and to present the

[7] https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power

results of those analyses as a supplement technical appendix to the Company's final 2024 IRP."

Q. **How do you respond to Mr. Norwood's recommendation?**

A. I agree with Mr. Norwood that conducting an analysis to determine a strategy for addressing the environmental rules discussed above is appropriate. As the final rules are analyzed and the outcome of expected litigation on those rules is determined, OG&E will certainly be assessing a compliance strategy.

Q. **Do you have any other suggestions regarding Mr. Norwood's recommendation for an analysis of the options related to continued operation of the coal units?**

A. Yes. If the Commission agrees with Mr. Norwood's recommendation, OG&E believes the clear possibility of early retirement of the coal units may warrant revisiting the retirement dates of the coal units.

Currently, OG&E has the following retirement dates for its coal units:

Sooner Unit 1	-	2044
Sooner Unit 2	-	2045
Muskogee Unit 6	-	2049
River Valley	-	2048

As stated above, the EPA just issued a final rule that could require OG&E to retire its existing coal units by 2039 if it cannot install carbon capture and sequestration/storage technology (which is not yet even commercially available) for each plant by 2032. Given this stringent requirement, OG&E proposes that this Commission consider adjusting the lives of the coal units to a retirement date at the end of 2038 in order to reflect this risk of early retirement. OG&E witness Kimber Shoop discusses this recommendation further, and OG&E witness Dane Watson addresses how this change to the retirement dates for these coal units could impact depreciation rates and expense

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RESPONSE TO PUD WITNESS DUNKEL

Q. **What does Mr. Dunkel claim about retirement dates for OG&E's existing wind facilities?**

A. Mr. Dunkel inaccurately labels the 25-year expected useful life for OG&E's wind generation facilities as a change.[8]

Q. **Did OG&E agree to extend the retirement dates for existing wind generation facilities in its 2021 Rate Case settlement agreement?**

A. No, it did not. My understanding is the settlement in the 2021 Rate Case was not an agreement to shift retirement dates of wind generation facilities later and adopt a 30-year life span for every rate case going forward. OG&E agreed to the production plant depreciation rates recommended by the AG in the last case for settlement purposes, but there was no specific agreement relating to wind or solar service lives for that case or any case going forward.

Q. **When were OG&E's existing wind generation facilities placed in service?**

A. OG&E was a pioneer in wind generation in Oklahoma. The Company first placed the Centennial wind farm into service in 2006, followed by OU Spirit in 2009 and Crossroads in 2011.

Q. **What did OG&E's 2024 Integrated Resource Plan ("IRP") assume for the useful life of OG&E's existing wind generation resources?**

A. OG&E's 2024 IRP assumed a 25-year useful life for the Company's existing wind generation resources.

Q. **What did OG&E's 2024 IRP assume for the useful life of *new* wind generation resources?**

A. OG&E's most recent IRP assumed a 30-year useful life for *newly constructed* wind generation resources. Mr. Dunkel (and FEA witness Brian Andrews) cite OG&E's IRPs

[8] Responsive Testimony of William Dunkel, Cause No. PUD 2023-000087 at p. 16.

as evidence of OG&E's belief that 30 years is an appropriate service life for wind. They are correct that OG&E uses a 30-year life for *new* wind resources, but they fail to acknowledge that OG&E's 2024 IRP assumed a 25-year life for its existing wind fleet. This is consistent with OG&E's previous depreciation studies and the Commission order in Cause No. PUD 201500273.

Q. **Does the study cited by Mr. Dunkel (and FEA Witness Andrews) support 30-year useful lives for *all* wind resources, regardless of their vintage?**

A. No, it does not. The study actually supports a 25-year life for wind facilities placed into service in the 2000s and 2010s. It states:

> "We find that most wind project developers, sponsors and long-term owners have increased project-life assumptions over time, from a typical term of ~20 years in the early 2000s to ~25 years by the mid-2010s and ~30 years more recently. Current assumptions range from 25 to 40 years, with an average of 29.6 years."[9]

In fact, both Mr. Dunkel and Mr. Andrews both cite this same excerpt and expressly recognize that the study shows that wind farms of the same vintage owned by OG&E should have a 25-year life. However, both witnesses then cite the study as evidence that 30 years is appropriate. The study referenced states, "The findings in this paper largely draw from a brief survey of U.S. wind project developers, sponsors, financiers, and consultants."[10] The wind project developers, sponsors, financiers, and consultants surveyed for this study are parties involved in the development process for *new* wind resources before they are placed in service. OG&E witness Robert Doupe explains in his Rebuttal Testimony why 25 years continues to make sense for the specific OG&E wind facilities in the early 2000s and early 2010s.

[9] Ryan Wiser and Mark Bolinger, "Benchmarking Anticipated Wind Project Lifetimes: Results from a Survey of U.S. Wind Industry Professionals" 1, Lawrence Berkeley National Laboratory (September 2019), Exhibit WWD-6, page 1

[10] Ibid.

CONCLUSION

Q. **Do you have any concluding remarks?**

A. Yes. OG&E faces many risks today, including resource adequacy risks due to changing SPP policies and environmental risk due to changing EPA rules.

Due to the environmental risks, if the Commission agrees with OIEC's recommendation, I recommend the Commission consider adjusting the lives of OG&E's coal plants to a retirement date of 2039.

Additionally, the recommendations of PUD witness Dunkel and FEA witness Andrews to extend the useful life of our wind facilities from 25 years to 30 years should be rejected. OG&E's IRP and the study cited by Mr. Dunkel and Mr. Andrews both support a 25-year useful life, rather than the 30 years as claimed. I recommend the Commission maintain a 25-year useful life for OG&E's wind facilities.

Q. **Does this conclude your Rebuttal Testimony?**

A. Yes, it does.