

**BEFORE THE
ARKANSAS PUBLIC SERVICE COMMISSION**

**IN THE MATTER OF THE)
APPLICATION OF OKLAHOMA GAS)
AND ELECTRIC COMPANY TO)
PROVIDE NOTICE AND FOR)
AUTHORITY TO PROCEED WITH THE)
CONSTRUCTION OF TWO NATURAL)
GAS COMBUSTION TURBINE)
GENERATION FACILITIES IN THE)
STATE OF OKLAHOMA PURSUANT TO)
ARK. CODE ANN. § 23-18-104**

DOCKET NO. 23-039-U

Direct Testimony

of

Kimber L. Shoop

on behalf of

Oklahoma Gas and Electric Company

1 Q. **Please state your name and business address.**

2 A. My name is Kimber L Shoop. My business address is 321 North Harvey, Oklahoma City,
3 Oklahoma 73102.

4
5 Q. **By whom are you employed and in what capacity?**

6 A. I am employed by Oklahoma Gas and Electric Company (“OG&E” or “Company”) as the
7 Director of Regulatory Affairs.

8
9 Q. **Please summarize your educational background and professional qualifications.**

10 A. I earned a Bachelor of Arts degree in Government from the University of Virginia (1996)
11 and a Juris Doctorate from the University of Oklahoma College of Law (2002). I am a
12 member of the Oklahoma Bar Association, the Arkansas Bar Association, and the District
13 of Columbia Bar Association. After law school, I practiced law in Washington D.C. until
14 accepting the position of Senior Attorney at OG&E in 2006. In 2015, I was named
15 Managing Director of Law at OG&E. In 2017, I left OG&E to establish a private law
16 practice in Edmond, Oklahoma and continued to perform work for OG&E. In 2020, I
17 returned to OG&E as Director of Regulatory Policy and Planning before being named
18 Director of Regulatory Affairs in 2022.

19
20 Q. **Have you testified previously before this Commission?**

21 A. No. However, I have testified before the Oklahoma Corporation Commission and
22 practiced law at this Commission.

23
24 Q. **What is the purpose of your testimony?**

25 A. The purpose of my testimony is to support the Company’s request for relief in this
26 application, including permission from the Commission to commence construction of the
27 Horseshoe Lake Combustion Turbines (“HL CTs”). I will also discuss the Company’s plan
28 to seek a prudence of action and prudence of cost determination for the HL CTs in a
29 subsequent rate filing. My testimony first provides some context for how this investment
30 fits into the Company’s broader goals for ensuring a reliable future grid for our customers.
31 It then provides a narrative discussion of how OG&E came to identify the HL CTs and

1 how and why such facilities were selected as the winning bidders in OG&E's recent series
2 of Request for Proposals for Capacity ("RFPs"). I will also provide an overview of the HL
3 CTs to be constructed by the Company at the OG&E's Horseshoe Lake generating facility
4 and the engineering, procurement and construction process OG&E will undertake to bring
5 the HL CTs on-line before the peak season of 2027.

6
7 **Q. What specific relief is OG&E requesting of the Commission in this proceeding?**

8 A. The Company is requesting the Commission find that OG&E has complied with Ark. § 23-
9 18-104 by seeking and receiving the Commission's "express written approval" prior to
10 constructing the HL CTs.

11
12 **Q. In this proceeding, is OG&E seeking a determination of prudence for cost or action
13 associated with the HL CT construction?**

14 A. No. OG&E only seeks the Commission's express written approval to commence
15 construction. OG&E will seek a prudence of action and cost determination in a general
16 rate case or formula rate filing after the units are in-service, currently planned for late 2026.
17 A finding of compliance with Ark. § 23-18-104 in this case will not be interpreted by
18 OG&E to mean the Commission has determined OG&E's decision to construct the HL
19 CTs as "prudent."

20
21 **Q. Is OG&E seeking a prudence determination in its Oklahoma jurisdiction concurrent
22 to this filing in Arkansas?**

23 A. Yes. 17 O.S. § 286(C) authorizes the Oklahoma Corporation Commission to grant a
24 determination of prudence for new generation additions (and other investments) in advance
25 of the in-service date, if the Commission determines a need for such investment exists and
26 the utility has evaluated reasonable alternatives.

27
28 **Q. Please provide an overall summary of the need for, and decision to pursue, the HL
29 CT project.**

30 A. This case is about addressing OG&E's immediate need to invest in new generation to meet
31 the needs of its customers, while maintaining a fuel diverse portfolio of generation projects

1 at the lowest reasonable cost to customers. As this Commission is aware, OG&E has the
2 obligation to maintain reliable electric service to its customers and sometimes that
3 obligation requires significant capital outlays. The addition of new generation is a
4 significant decision for OG&E and its customers. Adding new generation is expensive and
5 the investment increases rates for customers. OG&E therefore must conduct its resource
6 planning responsibly and identify the lowest reasonable cost options for reliably serving
7 its customers.

8 In the fifteen years prior to 2020, OG&E tried to avoid the construction of new,
9 incremental fossil fuel-fired generating capacity. It did this by implementing its Smart
10 Grid investments, investing in wind generation, expanding its energy efficiency and
11 demand response programs, eliminating the wholesale business, and acquiring existing
12 facilities like Redbud, McClain, Frontier, and River Valley. Since 2020, OG&E's load
13 growth coupled with looming and necessary generation retirements has led to additional
14 capacity needs that require the Company to now construct new generating facilities as
15 required by the capacity requirements of the Southwest Power Pool ("SPP") and identified
16 in the 2021 Integrated Resource Plan ("IRP").

17 The HL CTs are the result of extensive economic analyses to determine what
18 combination of new resources are the lowest reasonable costs to customers. After OG&E
19 determined the most affordable and reliable combination of technological generation
20 resources for customers, OG&E conducted a series of competitive bidding processes that
21 identified the lowest reasonable costs for those resource options. OG&E now can
22 confidently say that the HL CTs, which were self-bid into the Flexible Resource RFP by
23 OG&E, will add needed generation capacity to OG&E's fleet at the lowest reasonable cost
24 for customers.

25 26 Overview of OG&E's Decision

27 **Q. How did OG&E determine its capacity need that led to the 448 MW of HL CTs?**

28 **A.** The SPP is charged with maintaining reliability of the regional electric grid. One of the
29 ways it ensures reliability in the region is to make sure there is enough generation capacity
30 in the SPP footprint to meet load requirements in all scenarios and circumstances. SPP
31 ensures there is enough generating resources at all times by requiring all load serving

1 entities to maintain enough generating capacity to serve their peak loads plus a “reserve.”
2 The reserve is used to ensure all load serving entities have extra capacity above and beyond
3 their peak load so SPP can maintain a reliable grid during unforeseen events (such as
4 generation outages, derates, fuel disruptions, etc.).

5 As required under Commission rules, OG&E conducted an IRP in 2021 to
6 determine how much generating capacity it needed to meet the SPP requirement. In that
7 IRP analysis, OG&E assessed the state of its existing resources (supply side and demand
8 side resources) and studied its load forecast to determine whether there was any capacity
9 needed in the coming years. An IRP is done at least every three years to ensure OG&E
10 plans appropriately for future years.

11 The 2021 IRP determined OG&E had a need of 145 MW beginning in 2023 and
12 growing to 514 MW in 2026 and 942 MW in 2027. After a detailed analysis of different
13 generating technologies and their costs and risks, the IRP concluded OG&E should meet
14 its capacity needs with a combination of combustion turbines and solar generation. This
15 blend of combustion turbines and solar generation was found to mitigate future risks to
16 customers and fulfill the many objectives of the IRP (*e.g.*, fuel diversity, operational
17 flexibility, resiliency).

18
19 **Q. What steps did OG&E take to implement the IRP Action Plan?**

20 **A.** Based on the need established in the 2021 IRP and the determination that the lowest
21 reasonable cost capacity option for meeting OG&E’s need was a combination of solar and
22 CT resources, OG&E planned to initiate two RFPs: one for solar resources (and solar
23 resources coupled with energy storage) (the “Solar RFP”) and another for flexible
24 resources (*i.e.*, standalone energy storage, gas-fired combustion turbines or gas-fired
25 reciprocating internal combustion engines (“RICEs”) (the “Flexible Resource RFP”).

26 The Solar RFP was issued in January 2022 and sought solar generating capacity
27 that would be available no later than the summers 2023, 2024 and 2025. The Flexible
28 Resource RFP was issued in June 2022 and sought flexible resources (*i.e.*, resources that
29 could start quickly and cycle multiple times per day) that would be available no later than
30 the summer of 2027. Given construction of CTs or RICEs could take many years to

1 complete, the Solar RFP would focus on the shorter term needs and the Flexible Resource
2 RFP would focus on the longer-term needs.

3

4 **Q. Did the Solar RFP proposals address the Company's shorter-term needs?**

5 A. No. When OG&E opened the bids from the initial Solar RFP in March 2022, none of the
6 Solar RFP bids could meet the shorter-term needs beginning in 2023. Also, while some
7 bidders had projects that initially could meet the Company's 2025 in-service date
8 requirements, those bidders later notified OG&E they could no longer meet the 2025 in-
9 service dates. Therefore, the initial Solar RFP yielded no projects with in-service dates
10 until after the summer of 2025.

11

12 **Q. How did OG&E respond to the lack of bids in the initial Solar RFP?**

13 A. OG&E decided to re-issue the Solar RFP in October 2022. This re-issuance was designed
14 to cast a wider net and receive projects that could be in service as early as 2023, but no
15 later than summer 2027, two years beyond the latest in-service date allowed in the original
16 solar RFP. Also, in August 2022, President Biden signed into law the Inflation Reduction
17 Act ("IRA"), which contained enhanced federal tax incentives for solar generation. It was
18 hoped the re-issued Solar RFP would attract bids from more projects and from lower
19 overall cost projects that were able to take advantage of the new IRA tax credits.

20

21 **Q. Did the Flexible Resource RFP proposals address OG&E's shorter-term capacity
22 needs in 2023, 2024 or 2025?**

23 A. No. When OG&E began to analyze the myriad of bids received from the Flexible Resource
24 RFP, it was apparent none of the bids were capable of meeting OG&E's shorter-term needs.

1 Q. **What did OG&E do in response to the lack of 2023-2025 capacity in the Flexible**
2 **Resource RFP and the initial Solar RFP?**

3 A. Since the Company had shorter term capacity needs beginning in 2023 and those needs
4 were growing as a result of the SPP's increasing capacity reserve margin,¹ OG&E initiated
5 another RFP for the purchase of existing capacity within the SPP ("Existing Capacity
6 RFP") to determine whether there were any SPP resources available to purchase that could
7 be used to satisfy both immediate and long-term capacity needs beginning in 2023.

8

9 Q. **When did OG&E have bids back from the Flexible Resource RFP, the re-issued Solar**
10 **RFP and the Existing Capacity RFP?**

11 A. OG&E opened bids for the Existing Capacity RFP at the end of August 2022, the Flexible
12 Resource RFP in October 2022 and the re-issued Solar RFP in November 2022. Therefore,
13 by the end of November 2022, OG&E had all the bids from the RFPs available to select
14 the lowest reasonable cost projects.

15

16 Q. **Why did OG&E not just issue a single "all source" RFP at the beginning?**

17 A. The IRP itself is designed to consider and evaluate "all sources." "All source" RFPs by
18 themselves do not balance the goals of affordable, safe, and reliable capacity because they
19 fail to take into account the bigger picture analysis conducted in the IRP. As part of a
20 comprehensive planning process, the IRP, and subsequent RFPs work in tandem. The
21 purpose of the IRP is to develop a resource plan that will allow the Company to most
22 reasonably and affordably meet its capacity obligations on the planning horizon with due
23 consideration of the uncertainties attributable to many of the planning assumptions and
24 other items of value to OG&E customers. The IRP considers many factors, including the
25 types of generation alternatives available in the market, to reach a recommended course of
26 action for the Company's future generation capacity needs. The 2021 IRP concluded a
27 combination of flexible combustion turbines and solar resources were the most cost-
28 effective resources to meet OG&E's needs beginning in 2023. The IRP considers more

¹ The SPP increased the capacity reserve requirement beginning in 2023 from 12% to 15%. This change in capacity requirements increased OG&E's needs over and above the needs identified in the 2021 IRP by approximately 180-190 MW beginning in 2023.

1 than just the lowest capital cost or net present value of available market resources – it also
2 considers capacity obligation, the expected cost to customers, exposure to external risks,
3 fuel and technology diversity, operational flexibility, adaptability, portfolio age, resiliency
4 benefits, and environmental stewardship. Therefore, OG&E issued RFPs to seek the
5 resources identified by the IRP in order to meet its capacity needs.

6 **Q. What were the practical reasons for separating the RFPs in 2022?**

7 A. Because the Flexible Resource RFP would take time to develop (with the technical
8 specifications needed for CTs and RICEs), the Solar RFP had a shorter timeline in order to
9 ascertain project availability in 2023. When the Solar RFP yielded no results in the short-
10 term, OG&E had to pivot investigating short-term capacity options, including through the
11 issuance of an Existing Capacity RFP. While the Existing Capacity RFP was not identified
12 in the 2021 IRP Action Plan, OG&E decided to investigate its options from any existing
13 capacity options that could meet the Company’s shorter-term need. That is how OG&E
14 began with two RFPs and ended up issuing a total of four RFPs.

15
16 **Q. How did OG&E consider the options presented in the Flexible Resource RFP, the re-
17 issued Solar RFP and the Existing Capacity RFP?**

18 A. OG&E started negotiating with the lowest bidders in each of those RFPs. OG&E did not
19 have success in negotiating deals with any bidders in the re-issued Solar RFP or the
20 Existing Capacity RFP. OG&E felt those RFPs failed to yield actionable projects. In some
21 circumstances, bidders withdrew their bids because the projects were sold to other buyers.
22 But the Flexible Resource RFP had a clear winning bidder (which was the OG&E self-
23 bid), and OG&E proceeded to finalize contracts for the HL CTs.

24
25 **Q. Of all the RFPs issued, what was the lowest reasonable price option for new
26 generation capacity?**

27 A. Comparing bids from the Flexible Resource RFP, the Existing Capacity RFP and the Solar
28 RFP shows that the lowest reasonable cost project was the HL CTs.

1 Q. **Was an Independent Evaluator involved in the RFP processes?**

2 A. Yes. As OG&E began to issue the series of RFPs, the Company consulted with the Public
3 Utility Division of the Oklahoma Corporation Commission (“PUD”) and the Attorney
4 General about the RFP process. PUD and the Attorney General selected Guernsey as an IE
5 to monitor each of the Company’s RFPs. Subsequently, the Oklahoma Corporation
6 Commission issued orders approving the use of an independent evaluator in Order No.
7 722166 in Cause No. PUD 202100165, Order No. 723950 in Cause No. PUD 202200013,
8 and Order No. 726134 in Cause No. PUD 2022-000049.

9
10 Q. **Do the HL CTs satisfy all of the Company’s capacity needs?**

11 A. No. The HL CTs adds approximately 448 MW of capacity for the peak season of 2027.
12 This does not address the full need of the Company in 2027 as identified in the 2021 IRP
13 (estimated at approximately 940 MW). This also does not address the growing need caused
14 by the SPP’s increase in the planning reserve margin from 12 to 15 percent. However, it
15 is the critical first step in addressing OG&E’s total needs and amounts to approximately
16 48% of the estimated total need established in the 2021 IRP.

17
18 **The HL CTs**

19 Q. **Please describe the existing Horseshoe Lake Generating Facility.**

20 A. The Horseshoe Lake Generating Facility is located on the east side of Oklahoma City in
21 Oklahoma County, Oklahoma. It has three gas-fired, steam turbine electric generating
22 units (Horseshoe Lake 6, 7, and 8) with a total capacity of 782 MWs. It also has two simple
23 cycle gas combustion turbines (Horseshoe Lake 9 and 10) with a total capacity of 86 MWs.

24 Horseshoe Lake Units 6, 7 and 8 are the oldest units in OG&E’s generation fleet
25 and among the oldest of their size and type in the entire SPP footprint. These units have
26 been providing service to customers for 65 years, 60 years, and 54 years, respectively. The
27 Company has determined these units should all be retired before the end of 2027.

1 Q. **Other than the HL CTs being identified as the lowest reasonable cost alternative from**
2 **the series of RFPs discussed above, what are some of the other advantages of locating**
3 **new CTs at the Horseshoe Lake Generating Station?**

4 A. OG&E will replace both Horseshoe Lake 6 and 7 vintage gas fired steam units with new
5 gas fired CTs totaling approximately 448 MWs. Unlike the old steam units that were not
6 very flexible and were designed to be base load units, the new HL CT units will have the
7 ability to be turned off and on quickly, which allows them to supply power during peak
8 times, to serve changing demand in real-time, and to supply ancillary services to the grid.
9 Compared to the old steam units, the HL CTs will deliver better reliability, improved
10 efficiency, better load response, improved operational flexibility, and lower emission rates.

11 Adding more flexible generation to the Horseshoe Lake Generating Station also
12 makes sense from a reliability perspective. The Horseshoe Lake site already has an existing
13 robust high voltage transmission system in place. This results in better reliability of the
14 transmission grid. Quick start generation also facilitates our system restoration plan in
15 which the Horseshoe Lake Generating Station plays a critical role in re-energizing the grid
16 after a blackout scenario.

17 Also, the Horseshoe Lake Generation Station already has the existing infrastructure
18 to accommodate new CT units. That facility already has a secured property, existing roads,
19 facilities to support maintenance and operation, water supply/water rights; fuel supply
20 facilities, as well as the existing transmission infrastructure discussed above. Additionally,
21 the Horseshoe Lake site is currently staffed with a highly skilled/trained workforce.
22 Finally, with the increasing difficulty in obtaining air emissions permits from the
23 environmental regulatory agencies, OG&E has the ability to use existing emissions under
24 the air permits for Units 6 and 7 to support the permitting of the new HL CTs through a
25 process referred to as “netting.” This process typically allows for quicker assured
26 permitting.

27

28 Q. **Will the HL CTs also be flexible with regards to the fuel used to generate electricity?**

29 A. Yes. The new HL CTs will be “hydrogen capable.” This means the CTs will be designed
30 and engineered at commissioning to have the potential to burn hydrogen directly safely and
31 reliably as a fuel, including the ability to convert the facility to utilize hydrogen as its

1 primary fuel in the future. This kind of hydrogen capability is important as OG&E must
2 grapple with evolving environmental regulations in the future.

3
4 **Q. What is the total cost of the HL CTs?**

5 A. The total costs of the HL CTs is approximately \$330.5 million (excluding AFUDC and
6 taxes). This cost is broken down between (i) the costs negotiated with the RFP process
7 (engineering, procurement, and construction) (“Bid Costs”), (ii) the costs incurred by the
8 Company that are in addition to the Bid Costs associated with purchasing the equipment
9 and constructing the project (“Owner’s Costs”), and (iii) contingency costs. At this time,
10 the construction contracts have been finalized and executed. Pursuant to those contracts,
11 OG&E can realize a \$1.1 million reduction to the total project cost if it provides a notice
12 to proceed to its contractors before November 30, 2023.

13
14 **Q. Is the HL CT project the lowest cost project bid in the Flexible Resource RFP?**

15 A. Yes. OG&E performed an additional analysis to ensure the final costs still showed that the
16 HL CTs were the lowest reasonable costs project of the various alternatives available to
17 the Company, and it shows the HL CTs are still the most attractive projects among all
18 alternatives.

19
20 **Ark. § 23-18-104**

21 **Q. You mentioned Ark. § 23-18-104 above, what is your understanding of that statute?**

22 A. That statute prevents some public utilities subject to the jurisdiction of the Commission,
23 including OG&E, from “[commencing] construction of any power-generating facility to
24 be located outside the boundaries of this state without the express written approval of the
25 commission.” To comply with the statute, OG&E must “[...]render adequate written notice
26 to the commission of its intent in order that the commission may conduct any germane
27 inspection, investigation, public hearing, or take any other action deemed appropriate by
28 the commission.” Failure to do so “[...]shall constitute grounds for disallowance by the
29 commission of all costs and expenses associated with the construction and subsequent
30 operation of the facility when computing the utility's cost of service for purposes of any
31 rate-making proceedings.”

1 An exemption to the requirements of this statute exists for public utilities that are
2 not owned in whole or in part by a holding company and derive less than 25% of their total
3 revenues from Arkansas. OG&E is owned in whole by OGE Energy Corp., a holding
4 company that has previously owned natural gas transmission companies but that has not
5 owned any other utility operating companies. Unlike Entergy Arkansas (owned by
6 Entergy) and Southwestern Electric Power Company (owned by American Electric
7 Power), OGE Energy Corp. owns a single utility operating company with two retail
8 jurisdictions: Oklahoma Gas & Electric Company. This utility operating company derives
9 less than 25% of its total revenues from its Arkansas customers.

10
11 Q. **Has OG&E complied with the requirements of Ark. § 23-18-104?**

12 A. Yes. The Company's Application and my Direct Testimony renders adequate written
13 notice of the Company's intent to construct the HL CTs so the Commission "may conduct
14 any germane inspection, investigation, public hearing, or take any other action deemed
15 appropriate by the commission." OG&E has demonstrated a need for the HL CT project
16 through its 2021 IRP and explained the competitive bidding and selection process in this
17 testimony. Therefore, the Commission can be assured the project was not selected
18 arbitrarily or without regard to customer need.

19
20 Q. **Does OG&E believe an extensive investigation with a lengthy procedural schedule is
21 necessary for this filing?**

22 A. No. As previously explained, OG&E is not seeking a determination of prudence for its
23 decision to construct the HL CTs. OG&E plans to further explain and support its decision
24 to construct the HL CTs in a general rate case or formula rate plan filing once following
25 the actual in-service dates of the projects. As with any type of investment, the Company
26 fully assumes the risk of making the HL CT investment until such time the Commission
27 conducts a full investigation and makes a determination of prudence. Conducting a lengthy
28 investigation at this time would be a duplicitous and inefficient use of Commission,
29 Company, Attorney General, and intervening party resources.

Conclusion

1
2
3
4
5
6
7
8
9
10

Q. **What are your recommendations to this Commission?**

A. I recommend the Commission grant express written permission for OG&E to begin construction of the HL CTs under Ark. § 23-18-104. OG&E has established a need for the generation and these HL CTs have been evaluated to be the lowest reasonable cost option for meeting OG&E's need.

Q. **Does this conclude your testimony?**

A. Yes.

CERTIFICATE OF SERVICE

I, Lawrence E. Chisenhall, Jr., hereby state that a copy of the foregoing instrument was served on all the parties of record via the APSC Electronic Filing System on this the 12th day of July, 2023.

/s/ Lawrence E. Chisenhall, Jr.
Lawrence E. Chisenhall, Jr.