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# INTEGRATED RESOURCE PLAN - DRAFT

OKLAHOMA GAS & ELECTRIC

PREPARED 2025

OGE ENERGY CORP

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OG&E submits this Integrated Resource Plan (IRP) - Draft in compliance with requirements established pursuant to the Oklahoma Corporation Commission's (OCC) Electric Utility Rules OAC 165:35-37 and the Arkansas Public Service Commission's (APSC) Resource Planning Guidelines for Electric Utilities.

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## EXECUTIVE SUMMARY

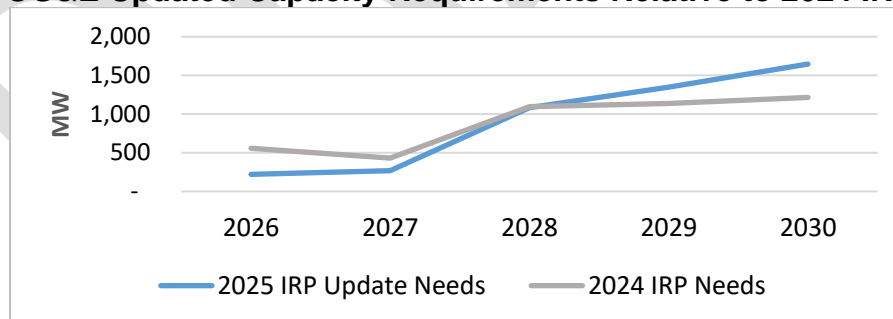
OG&E's 2024 IRP demonstrated the projected need for additional capacity resources at that time. OG&E issued RFPs for generation resources to address the capacity needs identified in the 2024 IRP and is in the process of finalizing contracts for selected projects. Since 2024, OG&E's capacity needs have grown further due to load growth in the OG&E service area. Looking forward, the need for investment in generation resources is likely to grow as SPP further enhances Resource Adequacy policies, regional load growth continues, and environmental regulations evolve. OG&E still has significant generation capacity needs in the near term, as shown in the table below.

OG&E's 2025 IRP Update is designed to address updated planning assumptions and present the current capacity needs. This 2025 IRP Update includes the current load forecast, several finalized SPP policy updates, and up-to-date information about environmental policy impacts.

### Current OG&E Planning Reserve Margin and Needed Capacity (MW unless noted)

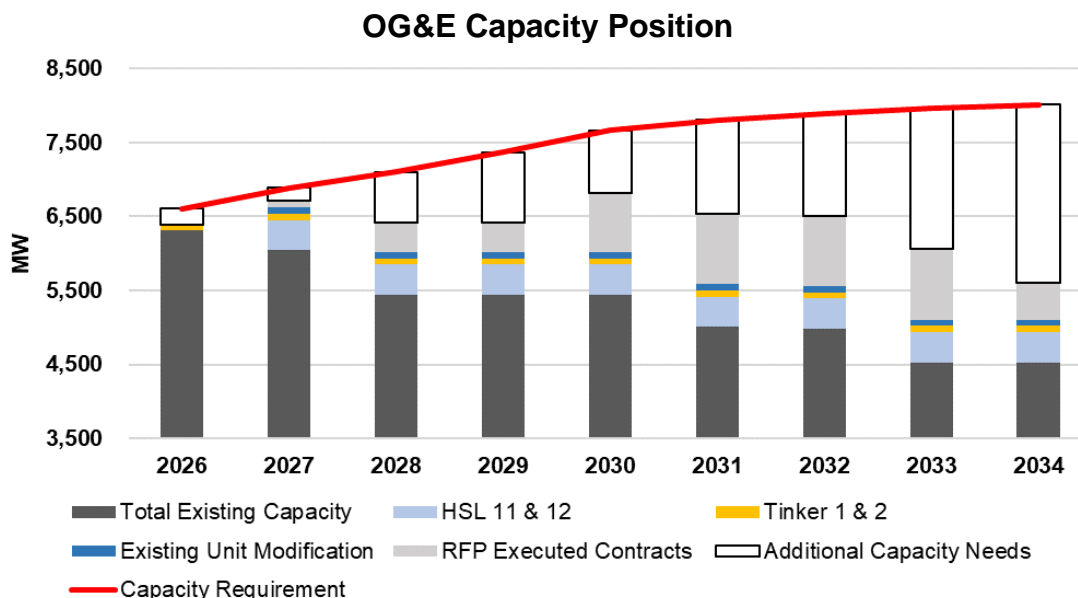
	2026	2027	2028	2029	2030
<b>Total Capacity</b>	6,387	6,618	6,018	6,018	6,018
<b>Net Demand</b>	6,210	6,470	6,674	6,847	7,123
<b>Reserve Margin</b>	3%	2%	-10%	-12%	-16%
<b>Needed Capacity*</b>	221	267	1,083	1,349	1,647
<i>*Indicates the capacity needed to meet planning reserve margin requirements.</i>					

### OG&E Updated Capacity Requirements Relative to 2024 IRP



SPP has recently finalized its planning reserve margin requirements between 2026 and 2029, as well as the Winter Resource Adequacy Requirement. Looking forward, further expected policy development at SPP could increase OG&E's capacity requirements. Resource Adequacy policies expected to be in place in the near future will introduce more volatility in capacity needs from year to year.

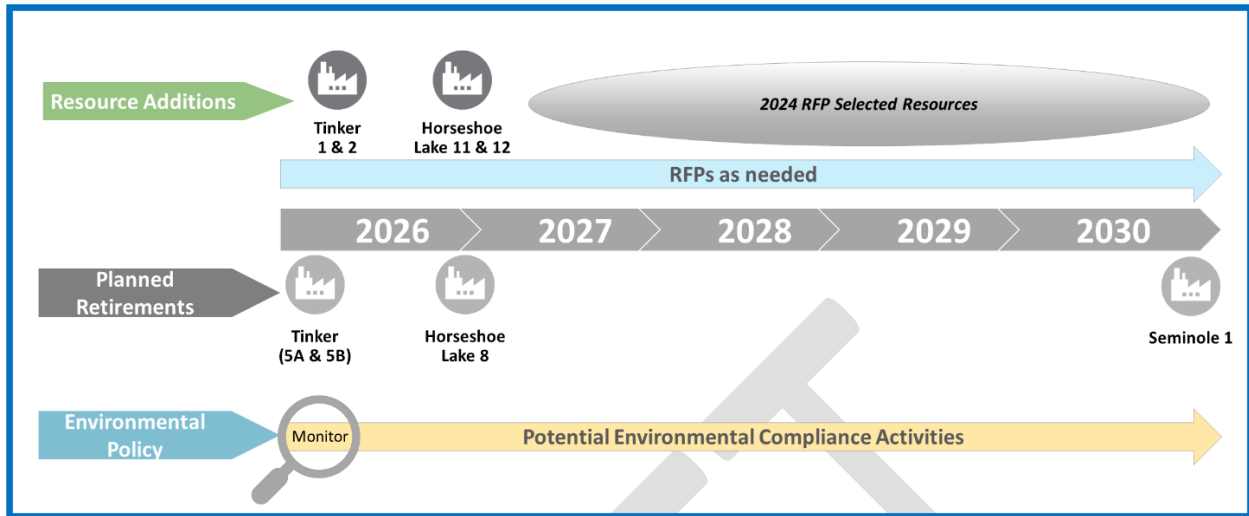
The graph below shows OG&E's capacity position including resources from executed contracts from the 2024 All Source RFP in addition to the existing capacity and capacity contributions from ongoing and future projects. The executed contracts from the RFP considerably reduce the overall capacity needs and are a significant progression towards OG&E meeting its resource adequacy requirements. OG&E will also continue negotiations with resources selected in the 2024 All Source RFP.



On March 12, 2025, the EPA announced that it would begin reconsideration of numerous regulations, including several that apply to OG&E. As potential changes to federal environmental regulations progress, OG&E continues to evaluate its compliance with existing and proposed environmental regulation and take actions if deemed necessary.

In summary, OG&E will complete the current active RFP process and continue to monitor and update planning assumptions including load forecasts, Resource Adequacy policies, and environmental regulations. OG&E will continue to pursue all options available to fully satisfy its remaining capacity needs, including through additional resources selected from the 2024 All Source RFP, future RFPs for resources as necessary to satisfy its capacity requirements, and/or other options for new capacity.

## OG&E Action Plan



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## **List of Acronyms**

<b>Acronym</b>	<b>Phrase Represented</b>	<b>Reference</b>
<b>ACAP</b>	Accredited Capacity	SPP
<b>APSC</b>	Arkansas Public Service Commission	Agency
<b>CO<sub>2</sub></b>	Carbon Dioxide	Environmental
<b>CC</b>	Combined Cycle electricity generating unit	Technology
<b>CT</b>	Combustion Turbine electricity generating unit	Technology
<b>DSM</b>	Demand Side Management	Industry
<b>EGU</b>	Electricity Generating Unit	Technology
<b>ELCC</b>	Effective Load Carrying Capacity	SPP
<b>EPA</b>	U.S. Environmental Protection Agency	Agency
<b>FERC</b>	Federal Energy Regulatory Commission	Agency
<b>FIP</b>	Federal Implementation Plan	Environmental
<b>IM</b>	Integrated Marketplace	SPP
<b>GHG</b>	Greenhouse Gas	Environmental
<b>ITP</b>	Integrated Transmission Planning	SPP
<b>IRP</b>	Integrated Resource Plan	Industry
<b>LRE</b>	Load Responsible Entity	SPP
<b>NPVCC</b>	Net Present Value of Customer Cost	OG&E
<b>NREL</b>	National Renewable Energy Laboratory	Agency
<b>O&amp;M</b>	Operations & Maintenance	General
<b>OCC</b>	Oklahoma Corporation Commission	Agency
<b>OG&amp;E</b>	Oklahoma Gas & Electric	Agency
<b>PBA</b>	Performance Based Accreditation	SPP
<b>PPA</b>	Power Purchase Agreement	Industry
<b>PRM</b>	Planning Reserve Margin	SPP
<b>RAR</b>	Resource Adequacy Requirement	SPP
<b>RFP</b>	Request for Proposal	General
<b>RSC</b>	Regional State Committee	SPP
<b>SIP</b>	State Implementation Plan	Environmental
<b>SPP</b>	Southwest Power Pool	SPP
<b>STEP</b>	SPP Transmission Expansion Plan	SPP

## I. Current and Future Risks

### I. A. Load Forecast and Growth

OG&E continues to receive service requests from a diverse set of prospective customers. In recent years, OG&E has observed a significant and unprecedented increase in the size and frequency of these requests, with some individual customers seeking loads in the hundreds or even thousands of MWs. Historically, most large commercial or industrial customers locating in Oklahoma requested service levels of 50 MW or less, primarily within the manufacturing and oil and gas sectors.

This paradigm shift marks a fundamental change in load growth dynamics within OG&E's service area. Recent prospective customers span multiple sectors, including manufacturing, refining, federal facilities, data centers, and cryptocurrency operations. The diversification of these large load requests mitigates the volatility of any single industry, underscoring the need for a flexible and responsive resource planning approach.

Recognizing and planning for these recent changes in load types and size is essential to ensure that OG&E maintains cost-effective and reliable service for its customers while meeting future resource adequacy requirements.

### I. B. SPP Resource Adequacy Policy Updates

In January 2025, FERC issued an order<sup>1</sup> consolidating SPP's proposed Tariff revisions concerning resource accreditation. This revision will implement an Effective Load Carrying Capability (ELCC) accreditation methodology for renewable and battery energy storage resources, and a Performance Based Accreditation (PBA) methodology for conventional resources with a fuel assurance incentive included in the PBA methodology. Resource accreditation, for both ELCC and PBA, including fuel assurance, is expected to apply beginning Summer 2026 and could impact OG&E's capacity needs. In ELCC, the accreditation of resources (or the amount of capacity from a resource that can be used for meeting the SPP PRM requirements) is determined through studies performed by SPP. These studies determine the amount of Load that can reliably be served by the intermittent renewable resources. For PBA of conventional generation, SPP will adjust the accredited capacity of resources by factoring in the unit's historical performance.

While updated assumptions around the impacts of these proposed SPP Tariff revisions to OG&E's resource adequacy requirements have been included in this IRP, the policy will also heighten volatility in OG&E's capacity requirements going forward. With the adoption of PBA and fuel assurance, the accredited capacity for each conventional resource will be recalculated by SPP annually at the conclusion of both the summer and winter capacity seasons. Simultaneously, the corresponding Accredited Capacity

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<sup>1</sup>[https://spp.org/documents/73030/20250116\\_order%20-%20elcc%20pba%20and%20fuel%20assurance%20policy\\_%20er24-1317-000%20and%20er24-2953.pdf](https://spp.org/documents/73030/20250116_order%20-%20elcc%20pba%20and%20fuel%20assurance%20policy_%20er24-1317-000%20and%20er24-2953.pdf)

(ACAP) PRM value will also be adjusted for each capacity season, i.e. twice each year. The ACAP PRM is calculated by SPP based on the approved Base PRM, which will be 16% in the 2026 summer season and 36% in the winter season and growing to 17% and 38% in 2029, respectively. SPP will determine the updated ACAP PRM based upon the collective seasonal performance of conventional resources in SPP. The process calls for the updated ACAP PRM to be provided to OG&E four (4) months prior to the initial submittal deadline for the corresponding Resource Adequacy season. The implementation will thereby result in more year-over-year volatility in the seasonal and annual capacity needs. Seasonal volatility in both the accredited capacity of resources and associated PRM makes identifying and meeting SPP's long-term resource adequacy requirements more difficult for Load Responsible Entities (LRE) such as OG&E. Going forward, this volatility will introduce risks associated with planning strictly to minimum capacity needs.

SPP's Regional State Committee (RSC) and Board of Directors has approved policy implementing a Winter Resource Adequacy Requirement (RAR) similar to the Summer RAR, which would require deficiency payments for non-compliance. This policy was approved by FERC<sup>2</sup> in early 2025. Going forward, all LREs, including OG&E, will have to meet a Winter RAR beginning with the 2025/2026 Winter Season.

SPP has also recently implemented a Resource Availability policy for generation resources. This policy restricts the amount of planned outage time each generation resource can utilize in both the Summer and the Winter Seasons in order to include the resource towards meeting SPP's capacity obligations. The primary change driven by this policy is the restriction of planned outages in the Winter Season, and will likely require all generator owners in SPP to modify outage planning practices.

### I. C. SPP Resource Adequacy Policy Future Risks

Future Policy Risks identified in this section are not currently incorporated into this IRP, however, these policies have the potential to further expand capacity needs or other investments in OG&E's generation fleet.

SPP is refining its demand response policy to ensure accurate accreditation based on availability, performance during events, and capability testing. Precise policy language is still being refined, with a final report and recommendations expected in early 2026 and implementation possibly as early as year-end 2026. OG&E will likely be impacted by having to procure additional capacity, specifically due to the expected modification or elimination of treatment of Demand Response Resources as load modifiers, or a reduction to expected peak load, but instead accounting for them as resources.

The finalized PRM increases between 2026 and 2029 precede another anticipated PRM increase for summer 2030 and winter 2030/2031, which is expected to be approved in

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<sup>2</sup>[https://spp.org/documents/73507/20250320\\_order%20-winter%20season%20resource%20adequacy%20requirement%20\(rr%20605%20rr%20549\).pdf](https://spp.org/documents/73507/20250320_order%20-winter%20season%20resource%20adequacy%20requirement%20(rr%20605%20rr%20549).pdf)

2026. Changes in PRM values, combined with changes to accreditation methodologies for all resources have the potential to add to OG&E's capacity needs in the future.

#### I. D. Environmental Compliance

The Environmental Protection Agency (EPA) has begun reviewing its rules in light of the priorities and policies of the current presidential administration. Outcomes include the possibility of the EPA repealing or reconsidering numerous regulations, including some that may impact OG&E's generation portfolio. Several recently promulgated rules are also in the process of judicial review. In particular, the 2023 Good Neighbor Federal Implementation Plan (FIP) and 2024 Greenhouse House Gas (GHG) emissions rules for electric generating units (EGU) are being challenged at the U.S. Supreme Court, the U.S. Court of Appeals for the DC Circuit, and U.S. Court of Appeals for the Tenth Circuit. The FIP is currently not in effect due to a court-ordered stay of the regulation and, separately, EPA has announced its intent to reconsider the regulation. The 2024 GHG regulation for EGUs is in effect and includes requirements for certain classes of new and existing units.

Under Section 111(d), existing coal units will be required to use carbon capture covering 90 percent of emissions by 2032 if they plan to operate beyond 2039. If coal units plan to operate until 2039, they must co-fire with natural gas at 40 percent by 2030. Coal plants that commit to retire by 2032 are exempt and may continue to operate as is. Existing natural gas-fired boilers are addressed under Section 111(d) with emissions rates based on a unit's annual capacity factor. OG&E's existing gas boilers currently meet the new requirements and therefore no additional compliance steps beyond reporting are expected. Unlike the proposed rules, the final rules do not address existing simple and combined-cycle combustion turbine units.

Under Section 111(b), the EPA finalized standards for new natural gas-fired turbines commencing construction after May 23, 2023, using capacity factor thresholds to differentiate among new units establishing three subcategories: baseload, intermediate load, and low load. All three categories are subject to efficiency standards. Baseload units, those with a capacity factor greater than 40 percent, are also subject to a phase two requirement based on 90 percent capture of CO<sub>2</sub> with a compliance deadline of January 1, 2032.

The GHG litigation is being held in abeyance and EPA will initiate a new notice-and-comment rulemaking process to reassess the challenged rule. As further stated on EPA's website, EPA intends to issue a proposed reconsideration rule in Spring 2025 and issue a final rule by December 2025<sup>3</sup>.

Regarding EPA's review of the Oklahoma SIP for second Regional Haze implementation period, on June 28, 2024, the EPA entered into a consent decree which requires the EPA to propose action on the Oklahoma SIP no later than December 31, 2025 and take final

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<sup>3</sup> <https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power>

action no later than December 31, 2026. EPA announced in March 2025 that it intends to restructure the Regional Haze regulation.

OG&E continually evaluates the status of these matters, but at the date of this 2025 IRP Update, it is not possible to know whether or when these regulations will affect Resource Planning.

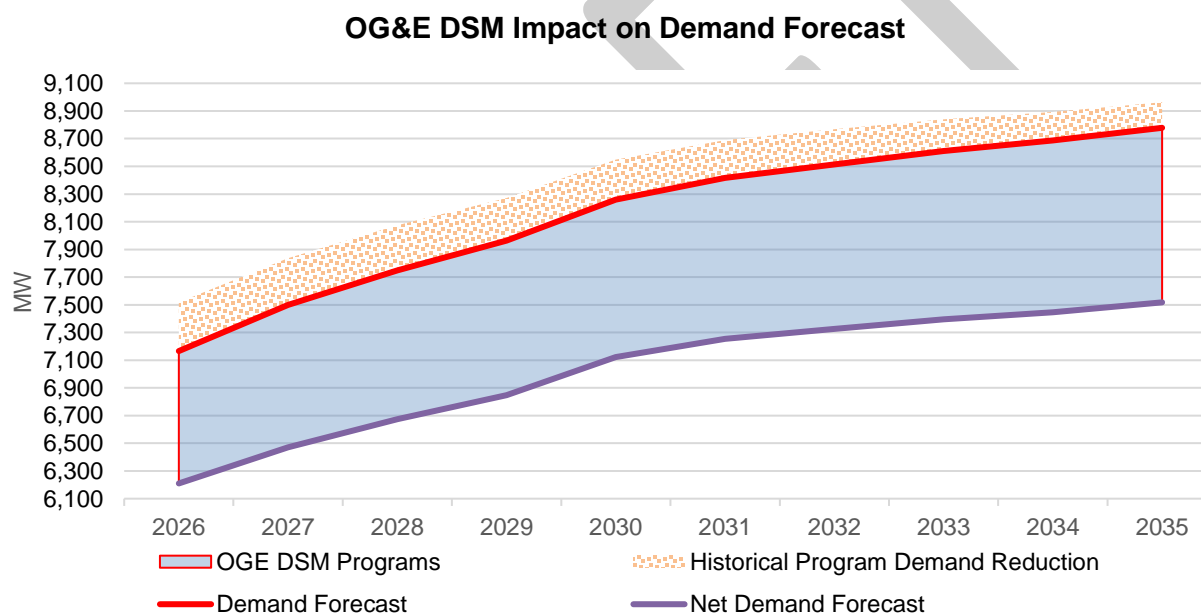
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## II. Schedules

This section provides schedules and tabular information described in the OCC's Electric Utility Rules, Subchapter 37 of Chapter 35, Section 4 (c).

### II. A. Electric Demand and Energy Forecast

The retail energy forecast is based on retail sector-level econometric models representing weather, growth and economic conditions in OG&E's Oklahoma and Arkansas service areas. The peak demand forecast relies on an hourly econometric model. Historical and forecast weather-adjusted retail energy sales are the main driver for the peak demand forecast projections. Historical DSM programs implemented by OG&E since 2007 are incorporated into the load forecast. The peak demand forecast is further reduced by planned future OG&E DSM program implementations to determine the net demand used for planning purposes, as shown in the figure below.



**Energy Sales Forecast (GWh)**

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
<b>Energy Forecast<sup>4</sup></b>	41,300	44,649	46,968	49,140	51,653	52,995	54,088	55,053	56,117	57,198
<b>OG&amp;E DSM<sup>5</sup></b>	490	641	764	910	1,012	1,168	1,307	1,451	1,595	1,347
<b>Net Energy</b>	40,810	44,007	46,205	48,229	50,641	51,827	52,781	53,602	54,522	55,851

<sup>4</sup> Includes SmartHours and Historical Energy Efficiency programs.

<sup>5</sup> Represents estimates for incremental Energy Efficiency programs in Oklahoma and Arkansas, incremental growth of SmartHours, the Load Reduction Program, and Business Demand Response.

**Peak Demand Forecast (MW)**

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
<b>Demand Forecast<sup>6</sup></b>	7,166	7,499	7,749	7,963	8,260	8,418	8,514	8,610	8,687	8,778
<b>OG&amp;E DSM<sup>7</sup></b>	956	1,028	1,075	1,117	1,136	1,163	1,188	1,214	1,240	1,261
<b>Net Demand</b>	6,210	6,470	6,674	6,847	7,123	7,255	7,326	7,396	7,447	7,518

<sup>6</sup> Includes SmartHours and Historical Energy Efficiency programs.

<sup>7</sup> Represents estimates for incremental Energy Efficiency programs in Oklahoma and Arkansas, incremental growth of SmartHours, the Load Reduction Program, and Business Demand Response.

## II. B. Existing Generation Resources

This schedule provides a summary of existing resources.

### OG&E Existing Thermal Resources

Unit Type	Unit Name	First Year In Service	Tested Capability (MW)
<b>Gas Fired Steam (2,888 MW)</b>	Horseshoe Lake 8	1969	377
	Seminole 1	1971	500
	Seminole 2	1973	513
	Seminole 3	1975	509
	Muskogee 4	1977	498
	Muskogee 5	1978	491
<b>Combined Cycle (1,120 MW)</b>	Frontier	1989	126
	McClain <sup>8</sup>	2001	375
	Redbud <sup>8</sup>	2002	619
<b>Combustion Turbine (553 MW)</b>	Tinker (Mustang) 5A	1971	33
	Tinker (Mustang) 5B	1971	31
	Horseshoe Lake 9	2000	45
	Horseshoe Lake 10	2000	46
	Mustang 6	2018	57
	Mustang 7	2018	56
	Mustang 8	2018	58
	Mustang 9	2018	57
	Mustang 10	2018	55
	Mustang 11	2018	58
	Mustang 12	2018	57
<b>Coal Fired Steam (1,880 MW)</b>	Sooner 1	1979	519
	Sooner 2	1980	519
	Muskogee 6	1984	521
	River Valley <sup>9</sup>	1990	321

<sup>8</sup> Represents OG&E owned interest: 77% of McClain and 51% of Redbud.

<sup>9</sup> River Valley is primarily a coal-fired steam unit. It can also utilize natural gas and tire-derived fuel in the combustion process.

**OG&E Existing Renewable Resources**

Unit Type	Unit Name	First Year In Service	Nameplate Capacity (MW)	Summer Capability (MW)
<b>Wind (81 MW)</b>	Centennial	2006	120	22
	OU Spirit	2009	101	14
	Crossroads	2012	228	45
<b>Solar (24 MW)</b>	Mustang	2015	2.5	2
	Covington	2018	9.7	7
	Chickasaw Nation	2020	5	4
	Choctaw Nation	2020	5	4
	Butterfield	2022	5	4
	Branch	2021	5	3

**OG&E Existing Power Purchase Contracts**

	Unit Name	Contract Start date	Nameplate Capacity (MW)	Summer Capability (MW)
<b>Power Purchase (69 MW)</b>	Keenan	2010	152	29
	Taloga	2011	130	18
	Blackwell	2012	60	15
	Southwestern Power Administration	1979	7	7

**OG&E Existing Capacity Purchase Contracts**

Agreement Type	Name	Contract Year	Summer Capability (MW)
<b>Capacity Purchase</b>	Bridge Capacity	2026	600
	Bridge Capacity	2027	600

*II. B. 1. Resource Retirements and Contract Expirations**II. B. 1. ) (i) Horseshoe Lake*

Horseshoe Lake Unit 8 is a 377 MW natural gas-fired steam turbine unit originally commissioned in 1969. OG&E plans to retire Horseshoe Lake unit 8 in 2027, after 58 years of service. Horseshoe Lake Units 9 and 10 are natural gas-fired combustion turbine generators placed in service in 2000. OG&E plans to retire Horseshoe Lake units 9 and 10 in 2035.

*II. B. 1. ) (ii) Mustang (Tinker)*

Mustang Units 5A and 5B are two aero-derivative simple-cycle combustion turbines (CTs) that were originally installed at OG&E's Mustang power plant site in 1971. In 1990, OG&E

moved these two units to Tinker Air Force Base. These units have a combined net capacity of approximately 64 MW and support all customers, while providing islanding and resiliency benefits to Tinker. The two units located at Tinker are planned to be retired in late 2025 or early 2026 after 54 years of service.

II. B. 1. ) (iii) Seminole

Seminole Units 1, 2 and 3 are natural gas-fired steam generators located at the Seminole power plant in Konawa, Oklahoma. These units were placed in service in the early to mid-1970s. OG&E currently anticipates retiring Seminole Units 1, 2, and 3 at the end of 2030, 2032, and 2034, respectively, after each unit achieves 59 years of service. The three Seminole units represent approximately 1,500 MWs of OG&E's current generating capacity.

II. B. 1. ) (iv) Owned Wind Retirements

OG&E's Centennial Wind farm was placed in service in 2006 and is scheduled for retirement in late 2031. OG&E's OU Spirit Wind farm was placed in service in 2009 and is scheduled for retirement in late 2034. Both of these wind farms will have completed 25 years of service to OG&E's customers. OG&E is exploring alternatives to retirement for its owned wind resources.

II. B. 1. ) (v) Wind Power Purchase Agreements

OG&E entered into 20-year PPAs with the Keenan and Taloga Wind facilities starting in 2010 and 2011, respectively. Those agreements are expected to end on schedule in 2030 and 2031. The Blackwell Wind 20-year PPA began in 2012 and will end in 2032.

*II. B. 2. Planned Resource Additions*

II. B. 2. ) (i) Horseshoe Lake

Horseshoe Lake Units 11 and 12 are planned to go into service in 2026. These units include two identical GE 7FA.05 natural gas-fired combustion turbines selected from OG&E's 2022 Flexible Resource RFP. Horseshoe Lake Units 11 and 12 were unanimously approved by OCC in Order number 738566 in Cause number PUD2023-00038 in October 2023. They will bring a total of 448 MW of capacity, quick starting capability, modernization, and improved reliability to OG&E's generation fleet.

II. B. 2. ) (ii) Tinker

Tinker units 1 and 2 will be located at Tinker Air Force Base and are planned to go into service in 2026. These new resources replace the retiring Mustang 5A and 5B units. The Tinker Air Force Base site is close to Oklahoma City, OG&E's largest load center. The proximity to the load center reduces the effect of congestion on the transmission system and provides reliable energy to all OG&E's retail customers. The new Tinker CT units will have the ability to be turned on and off quickly, which allows them to supply power during peak times, to serve changing demand in real-time, and to supply ancillary services to the grid. The new units are two identical GE LM6000 natural gas-fired combustion turbines.

They will bring a total of 88 MW of capacity, quick starting capability, modernization, and improved reliability to OG&E's generation fleet. The units will not only address part of OG&E's overall capacity need, but they will also be able to be dispatched by SPP to serve all customers and will provide the added benefit of providing islanding and resiliency benefits to Tinker Air Force Base, in the event of a national security emergency.

II. B. 2. ) (iii) Future Resources

OG&E's evaluation and selection of projects offered into the RFPs issued in 2024 is near completion. OG&E plans to seek pre-approval of selected resources after contracts are finalized.

## II. C. Transmission Capability and Needs

OG&E's transmission system is directly interconnected to seven other utilities' transmission systems at over 50 interconnection points. Indirectly, OG&E is connected to the entire Eastern interconnection through the SPP regional transmission organization. The SPP footprint covers 552,000 square miles, serves over 19 million customers, and has members in 14 states across all of Kansas and Oklahoma and parts of Arkansas, Colorado, Iowa, Louisiana, Minnesota, Missouri, Montana, Nebraska, New Mexico, North Dakota, South Dakota, Texas, and Wyoming. In compliance with FERC Order 890 for transmission planning, SPP performs annual expansion planning for the entire SPP footprint. OG&E provides input to the SPP planning process, and SPP is ultimately responsible for transmission system planning, including the OG&E system.

Each year, SPP produces the SPP Transmission Expansion Plan<sup>10</sup> (STEP) which provides a comprehensive listing of all transmission projects in the SPP. These projects are derived from several SPP analysis efforts including upgrades required to satisfy requests for Transmission Service or Generator Interconnection, approved projects for the annual ITP assessments, sponsored upgrades from each SPP member if applicable, and any remaining approved projects from previous studies. The purpose of the ITP process is to maintain reliability, provide economic benefits and meet public policy needs in both the near and long-term to create a cost-effective, flexible, and robust transmission grid with improved access to the SPP region's diverse resources. The reports for each SPP study are provided on the SPP website<sup>11</sup>. SPP also provides a comprehensive tracking spreadsheet for all projects<sup>11</sup>. The projects located on the OG&E system are provided in Schedule J.

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<sup>10</sup> SPP. (2025). *2025 SPP Transmission Expansion Plan Report*. SPP.

<https://www.spp.org/Documents/56611/2025%20SPP%20Transmission%20Expansion%20Plan%20Report.zip>

<sup>11</sup> SPP. *Integrated Transmission Planning*. ITP reports: <https://www.spp.org/engineering/transmission-planning/>

## II. D. Needs Assessment

This schedule provides the needs assessment for new generating resources for the next 10 years.

**OG&E Summer Capacity Position (MW unless noted)**

		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
<b>Capacity</b>	Owned Capacity	5,632	5,452	5,452	5,452	5,452	5,071	5,048	4,608	4,608	4,131
	Planned Additions	81	493	493	493	493	493	493	493	493	493
	Purchase Contracts	674	674	74	74	74	20	20	7	7	7
	Total Capacity	6,387	6,618	6,018	6,018	6,018	5,584	5,561	5,107	5,107	4,631
<b>Demand</b>	Demand Forecast	7,166	7,499	7,749	7,963	8,260	8,418	8,514	8,610	8,687	8,778
	OG&E DSM	956	1,028	1,075	1,117	1,136	1,163	1,188	1,214	1,240	1,261
	Net Demand	6,210	6,470	6,674	6,847	7,123	7,255	7,326	7,396	7,447	7,518
<b>Margin</b>	Reserve Margin <sup>12</sup>	3%	2%	-10%	-12%	-16%	-23%	-24%	-31%	-31%	-38%
<b>Needs</b>	Needed Capacity	221	267	1,083	1,349	1,647	2,223	2,323	2,851	2,906	3,459

OG&E anticipates minimal near-term incremental needs in the Winter seasons following implementation of SPP's Winter Resource Adequacy Requirement.

## II. E. Resource Options

This schedule provides a description of the resource options available to OG&E to address the needs identified in Schedule D. The information provided below is identical to Schedule E in OG&E 2024 IRP.

<sup>12</sup> Reserve Margin % = ((Total Net Capacity) - (Net System Demand)) / Net System Demand

## New Generation Resources (2023\$)

Technology	Model	Nameplate Capacity (MW)	Up-front Capital Cost (\$/kW)	Summer Capability (MW)	Fixed O&M Cost (\$/kW)	Variable O&M Cost (\$/MWh)
Wind	Land-Based	250	\$1,940	50	\$42.40	N/A
Batteries	Lithium Ion	100	\$2,130	100	\$30.00	N/A
Solar	Photovoltaic Single Axis	150	\$2,220	90	\$17.40	N/A
Solar/Battery Combo	Single Axis/Lithium Ion	150	\$3,230	150	\$36.00	N/A
RICE	Reciprocating Engine 3x	55	\$1,800	55	\$15.40	\$4.60
	Reciprocating Engine 6x	110	\$1,420	110	\$15.10	\$4.60
CT Aero	1x LM2500 SCGT	32	\$3,200	29	\$9.10	\$1.70
	12x LM2500 SCGT	389	\$2,660	352	\$9.20	\$1.70
	1x LM6000 SCGT	54	\$2,190	50	\$5.60	\$1.40
	8x LM6000 SCGT	428	\$1,870	399	\$5.30	\$1.40
	1x LMS100 SCGT	102	\$2,200	87	\$3.10	\$1.20
	4x LMS100 SCGT	406	\$1,940	347	\$3.90	\$1.20
CT Frame	1x "E" Class SCGT	86	\$2,030	78	\$7.50	\$7.50
	1x "F" Class SCGT	221	\$1,130	211	\$3.30	\$2.10
	1x "G/H" Class SCGT	280	\$930	264	\$3.70	\$2.20
Combined Cycle (CC)	1x1 J Class	531	\$1,180	503	\$4.10	\$1.50
	1x1 J Class Duct Fired	637	\$990	613	\$4.10	\$2.30
	2x1 G/H Class Duct Fired	1001	\$870	944	\$2.90	\$2.30
	2x1 F Class	729	\$1,130	662	\$2.70	\$1.50
	2x1 F Class Duct Fired	880	\$960	828	\$2.80	\$2.30
	1x1 F Class Duct Fired	441	\$1,250	411	\$4.90	\$2.40
Nuclear	Small Modular Reactor	320	\$11,720	320	\$234.40	Unknown

## II. F. Fuel Procurement and Risk Management Plan

On May 15, 2025, OG&E submitted its annual Fuel Supply Portfolio and Risk Management Plan to the OCC as part of Cause No. PUD 200100095. The submitted document can be found at the OCC.

## II. G. Action Plan

OG&E plans to retire existing Tinker units 5A and 5B in late 2025 and will replace those retiring resources with Tinker units 1 and 2 in 2026. New units Horseshoe Lake 11 and 12 will also be placed into service in 2026, while Horseshoe Lake unit 8 will retire in 2027. OG&E plans to retire Seminole unit 1 at the end of 2030. For planning purposes, OG&E will continue to evaluate conditions impacting long-term capacity needs, as required by Commission rules. In the near-term, OG&E will continue to pursue all options available to fully satisfy its remaining capacity needs, including through additional resources selected from the 2024 All Source RFP, future RFPs for resources as necessary to satisfy its capacity requirements, and/or other options for new capacity. OG&E will also continue to monitor environmental regulation developments and take actions, if deemed necessary.

## II. H. Requests for Proposals

As noted in Schedule G, OG&E will consider RFPs for capacity resources, as necessary.

## II. I. Modeling Methodology and Assumptions

The table below notes the source of each assumption.

Assumption	Source
Load Forecast	OG&E
Existing Generation Resources	OG&E
Resource Changes	OG&E
Future Resource Options	Burns & McDonnell
Planning Reserve Margin	SPP

Future resource options shown, including pricing, are taken from the Technical Assessment prepared by Burns & McDonnell in 2023.

## II. J. Transmission System Adequacy

As described in Schedule C, OG&E is a member of and provides input to SPP, who is ultimately responsible for the planning of the OG&E system. SPP evaluates system adequacy and develops a transmission expansion plan to determine what improvements are necessary to ensure reliable transmission service. The planned projects located on the OG&E system to meet the transmission needs are provided in the following table.

Year	Description	Type of Upgrade	Project Type	Current Cost Estimate (\$M)	STEP Upgrade Type	Notice to Construct ID
2026	Osage 138 kV Terminal	Substation Upgrades	Economic	\$1.20	ITP	220774
2026	Webb City Tap - Osage 138 kV Circuit 1 Rebuild	Substations Upgrades, Line Upgrades	Economic	\$28.88	ITP	220774
2026	Tinker 138 kV Breaker	Substation Upgrades	Regional Reliability	\$0.60	ITP	220812
2026	Maud Tap 138 kV Circuit 1 Terminal	Substation Upgrades	Economic	\$0.43	ITP	220812
2027	Gracemont 138 kV Circuit 2	Substation Upgrades	Economic	\$2.18	ITP	220774
2027	Anadarko - Gracemont 138 kV Circuit 3	New Line, Substation Upgrades	Economic	\$10.00	ITP	220774
2027	Anadarko - Gracemont 138 kV Circuit 2	New Line, Substation Upgrades	Economic	\$10.00	ITP	220774
2027	Redbud 345 kV Terminal	Substation Upgrades	Economic	\$3.58	ITP	220772
2027	Matthewson 345 kV Terminal	Substation Upgrades	Economic	\$3.95	ITP	220772

Transmission system expansion provides benefits to members throughout the SPP; therefore, the costs of projects constructed in the SPP are shared through various cost allocation methods, depending on the type of project.

## II. K. Resource Plan Assessment

This 2025 IRP Update assesses the need for additional resources to satisfy the capacity requirements established by state and federal laws and regulations.

## II. L. Proposed Resource Plan Analysis

This 2025 IRP Update provides an update of capacity needs since the 2024 IRP. The information provided in this report confirms the direction set out in the Five-Year Action Plan identified in the 2024 IRP.

## II. M. Physical and Financial Hedging

OG&E's diverse mix of generation assets and its Fuel Cost Adjustment tariff help mitigate customer exposure to price volatility of a single fuel type. Additionally, OG&E's participation in the SPP Integrated Marketplace (IM) with these generation assets assures OG&E customers the lowest reasonable cost due to the economic commitment and dispatch of the market.

OG&E also has physical fuel storage of both coal and natural gas. In 2022, OG&E expanded its physical hedging of natural gas by expanding its natural gas storage services and implementing monthly gas contracts that increase price surety for customers. These surety contracts include fixed price, call options, first-of-month pricing, and call cap options. The combination of these expanded actions help to provide a measurable increase in both price and volume surety, further reducing exposure to volatility often seen in the natural gas market.

Financial Hedging of a commodity such as power plant fuel is aimed at reducing the volatility in price. Financial hedging comes at a cost in the form of transaction costs, margin calls, and premiums required to lock in pricing. OG&E's customers have been protected to a large extent from the historic volatility in natural gas prices by OG&E's diversified portfolio approach to fuel and purchased power. OG&E has implemented a three-year financial hedging pilot program for natural gas with December 2024 through February 2025 being the first term of the three year pilot. The pilot, as mentioned, holds costs to implement, and has proven to provide good surety regarding fuel costs in its inaugural debut.

All of OG&E's hedging activities are designed to protect customer costs while simultaneously ensuring that reliability remains strong. The actions taken by OG&E in the last few years have provided great advancements in these objectives while also increasing OG&E's preparedness for future periods when fuel assurance may not be known as of yet.