

INTEGRATED RESOURCE PLAN

OKLAHOMA GAS & ELECTRIC

PREPARED 2025

OGE ENERGY CORP

OG&E submits this Integrated Resource Plan (IRP) 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.



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 is designed to address updated planning assumptions and present the current capacity needs. This 2025 IRP 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) in Summer Season

	2026	2027	2028	2029	2030
Total Capacity ¹	6,387	6,618	6,018	6,018	6,018
Net Demand	6,210	6,470	6,674	6,847	7,123
Reserve Margin	3%	2%	-10%	-12%	-16%
Base PRM	16%	16%	16%	17%	17%
Est. ACAP PRM	6.4%	6.4%	6.4%	7.6%	7.6%
Needed Capacity*	221	267	1,083	1,349	1,647
*Indicates the capacity	needed to	meet planni	ing reserve	margin requ	uirements.

Current OG&E Planning Reserve Margin and Needed Capacity (MW unless noted) in Winter Season

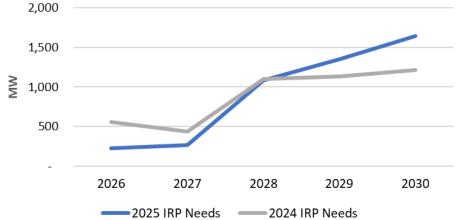
	2026	2027	2028	2029	2030
Total Capacity ¹	5,340	5,406	5,435	5,439	5,367
Net Demand	4,986	5,125	5,257	5,461	5,566
Reserve Margin	7%	5%	4%	0%	-3%
Base PRM	36%	36%	36%	38%	38%
Est. ACAP PRM	12.7%	12.7%	12.7%	14.7%	14.7%
Needed Capacity*	280	371	490	825	1,017
*Indicates the capacity	needed to	meet planni	na reserve	margin regu	uirements.

i

¹ Total Capacity includes the seasonal impact of Performance Based Accreditation, Effective Load Carrying Capability, and the Resource Availability policy.

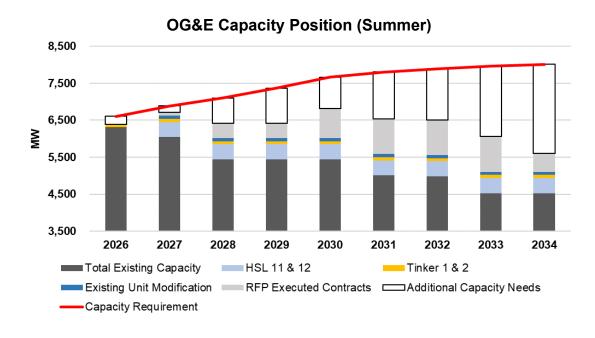


OG&E Updated Summer Capacity Requirements Relative to 2024 IRP



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

The graph below shows OG&E's summer capacity position including resources from executed contracts from the 2024 All Source RFP in addition to the existing resource 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 additional 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.

2024 RFP Selected Resources Tinker Horseshoe Lake 11 & 12 RFPs as needed 2026 2027 2028 2029 Planned Retirements Tinker Seminole 1 (5A & 5B) Lake 8 **Environmental** Monitor **Potential Environmental Compliance Activities**

OG&E Action Plan



Table of Contents

I. Current and Future Risks	1
I. A. Load Forecast and Growth	1
I. B. SPP Resource Adequacy Policy Updates	1
I. C. SPP Resource Adequacy Policy Future Risks	2
I. D. Environmental Compliance	3
II. Schedules	5
II. A. Electric Demand and Energy Forecast	5
II. B. Existing Generation Resources	7
II. B. 1. Resource Retirements and Contract Expirations	8
II. B. 2. Planned Resource Additions	9
II. C. Transmission Capability and Needs	10
II. D. Needs Assessment	11
II. E. Resource Options	12
II. F. Fuel Procurement and Risk Management Plan	14
II. G. Action Plan	14
II. H. Requests for Proposals	14
II. I. Modeling Methodology and Assumptions	14
II. J. Transmission System Adequacy	14
II. K. Resource Plan Assessment	15
II. L. Proposed Resource Plan Analysis	15
II. M. Physical and Financial Hedging	15
III. Appendices	17



List of Acronyms

Acronym	Phrase Represented	Reference
ACAP	Accredited Capacity	SPP
APSC	Arkansas Public Service Commission	Agency
CO ₂	Carbon Dioxide	Environmental
CC	Combined Cycle electricity generating unit	Technology
CT	Combustion Turbine electricity generating unit	Technology
DSM	Demand Side Management	Industry
EGU	Electricity Generating Unit	Technology
ELCC	Effective Load Carrying Capacity	SPP
EPA	U.S. Environmental Protection Agency	Agency
FERC	Federal Energy Regulatory Commission	Agency
FIP	Federal Implementation Plan	Environmental
IM	Integrated Marketplace	SPP
GHG	Greenhouse Gas	Environmental
ITP	Integrated Transmission Planning	SPP
IRP	Integrated Resource Plan	Industry
LRE	Load Responsible Entity	SPP
NPVCC	Net Present Value of Customer Cost	OG&E
NREL	National Renewable Energy Laboratory	Agency
O&M	Operations & Maintenance	General
OCC	Oklahoma Corporation Commission	Agency
OG&E	Oklahoma Gas & Electric	Agency
PBA	Performance Based Accreditation	SPP
PPA	Power Purchase Agreement	Industry
PRM	Planning Reserve Margin	SPP
RAR	Resource Adequacy Requirement	SPP
RFP	Request for Proposal	General
RSC	Regional State Committee	SPP
SIP	State Implementation Plan	Environmental
SPP	Southwest Power Pool	SPP
STEP	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 July 2025, FERC approved² 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, will apply beginning Summer 2026. 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 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 (ACAP) PRM value will

²FERC. (2025). Further Order – ELCC, PBA, and Fuel Assurance Policy (ER24-1317 and ER24-2953). SPP. https://www.spp.org/documents/74361/20250718 further%20order%20-%20elcc%20pba%20and%20fuel%20assurance%20policy er24-1317%20and%20er24-2953.pdf



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 volatily 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 FERC³ 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, which is a reduction to expected peak load, but instead accounting for them as resources.

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

³ FERC. (2025). *Order – Winter Season Resource Adequacy Requirement (RR 605 RR 549).* SPP. https://www.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 GHG litigation is being held in abeyance while EPA conducts a new notice-and-comment rulemaking process to reassess the challenged rule.

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 CO₂ with a compliance deadline of January 1, 2032.

Although the 2024 GHG regulation for EGUs is in effect and includes requirements for certain classes of new and existing units, on June 17, 2025, EPA proposed to repeal all GHG emission standards for fossil fuel-fired power plants. EPA also included an alternative proposal to repeal specific portions of the 2024 rule based on revised determinations of the best system of emission reduction ("BSER") for existing coal-fired



steam generating units and new base load combustion turbines. EPA has indicated it intends to finalize changes by December 2025⁴.

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 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, it is not possible to know whether or when these regulations will affect Resource Planning.

⁴ EPA. (2025). Greenhouse Gas Standards and Guidelines for Fossil Fuel-Fired Power Plants. EPA. https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-

fuel-fired-power



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.

9.100 8,900 8,700 8,500 8,300 8,100 7,900 ≥ 7,700 ≥ 7,500 7,700 7,300 7,100 6,900 6,700 6,500 6,300 6,100 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 OGE DSM Programs Historical Program Demand Reduction Demand Forecast **Net Demand Forecast**

OG&E DSM Impact on Demand Forecast

Annual Energy Sales Forecast (GWh)

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Energy Forecast⁵	41,300	44,649	46,968	49,140	51,653	52,995	54,088	55,053	56,117	57,198
OG&E DSM ⁶	490	641	764	910	1,012	1,168	1,307	1,451	1,595	1,347
Net Energy	40,810	44,007	46,205	48,229	50,641	51,827	52,781	53,602	54,522	55,851

⁵ Includes SmartHours and Historical Energy Efficiency programs.

⁶ Represents estimates for incremental Energy Efficiency programs in Oklahoma and Arkansas, incremental growth of SmartHours, the Load Reduction Program, and Business Demand Response.



Summer Peak Demand Forecast (MW)

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Demand Forecast ⁷	7,166	7,499	7,749	7,963	8,260	8,418	8,514	8,610	8,687	8,778
OG&E DSM ⁸	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

Includes SmartHours and Historical Energy Efficiency programs.
 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)		
	Horseshoe Lake 8	1969	377		
	Seminole 1	1971	500		
Gas Fired Steam	Seminole 2	1973	513		
(2,888 MW)	Seminole 3	1975	509		
	Muskogee 4	1977	498		
	Muskogee 5	1978	491		
0 0 -	Frontier	1989	126		
Combined Cycle (1,120 MW)	McClain ⁹	2001	375		
(1,120 11111)	Redbud ⁸	2002	619		
	Tinker (Mustang) 5A	1971	33		
	Tinker (Mustang) 5B	1971	31		
	Horseshoe Lake 9	2000	45		
	Horseshoe Lake 10	2000	46		
0	Mustang 6	2018	57		
Combustion Turbine (553 MW)	Mustang 7	2018	56		
Tarbine (000 mm)	Mustang 8	2018	58		
	Mustang 9	2018	57		
	Mustang 10	2018	55		
	Mustang 11	2018	58		
	Mustang 12	2018	57		
	Sooner 1	1979	519		
Coal Fired Steam	Sooner 2	1980	519		
(1,880 MW)	Muskogee 6	1984	521		
	River Valley ¹⁰	1990	321		

⁹ Represents OG&E owned interest: 77% of McClain and 51% of Redbud.

¹⁰ 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)
	Centennial	2006	120	22
Wind (81 MW)	OU Spirit	2009	101	14
	Crossroads	2012	228	45
	Mustang	2015	2.5	2
	Covington	2018	9.7	7
Solor (24 MVA)	Chickasaw Nation	2020	5	4
Solar (24 MW)	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)
Dower	Keenan	2010	152	29
Power Purchase	Taloga	2011	130	18
(69 MW)	Blackwell	2012	60	15
(09 IVIVV)	Southwestern Power Administration	1979	7	7

OG&E Existing Capacity Purchase Contracts

Agreement Type	Name	Contract Year	Summer Capability (MW)
Capacity Purchase	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. The existing Tinker 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 approximately 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 to the grid 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 complete. OG&E has filed Cause No. 2025-000038 in Oklahoma for pre-approval of selected resources after contracts were finalized. The resources included in the Oklahoma pre-approval filing include Horseshoe Lake 13 and 14 combusion turbines, a 20-year Capacity Purchase Agreement with Black Kettle BESS and a 5-year CPA with Tenaska Kiamichi combined cycle. OG&E will also be submitting the appropriate filings for approval of these resources in Arkansas in a timely manner.

II. C. <u>Transmission Capability and Needs</u>

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 Plan¹¹ (STEP) which provides a comprehensive listing a 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 website¹². SPP also provides a comprehensive

 $\frac{https://www.spp.org/Documents/56611/2025\%20SPP\%20Transmission\%20Expansion\%20Plan\%20Report.zip}{rt.zip}$

¹¹ SPP. (2025). 2025 SPP Transmission Expansion Plan Report. SPP.

¹² SPP. *Integrated Transmission Planning*. ITP reports: https://www.spp.org/engineering/transmission-planning/



tracking spreadsheet for all projects¹¹. The projects located on the OG&E system are provided in Schedule J.

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
	Owned Capacity	5,632	5,452	5,452	5,452	5,452	5,071	5,048	4,608	4,608	4,131
Capacity	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
	Demand Forecast	7,166	7,499	7,749	7,963	8,260	8,418	8,514	8,610	8,687	8,778
Demand	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
Base	PRM	16%	16%	16%	17%	17%	17%	17%	17%	17%	17%
ACAF	PRM	6.4%	6.4%	6.4%	7.6%	7.6%	7.6%	7.6%	7.6%	7.6%	7.6%
Margin	Reserve Margin ¹³	3%	2%	-10%	-12%	-16%	-23%	-24%	-31%	-31%	-38%
Needs	Needed Capacity	221	267	1,083	1,349	1,647	2,223	2,323	2,851	2,906	3,459

11

¹³ Reserve Margin % = ((Total Net Capacity) - (Net System Demand)) / Net System Demand



OG&E Winter Capacity Position (MW unless noted)

		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
	Owned Capacity	4,793	4,859	4,889	4,893	4,821	4,475	4,458	4,082	4,082	3,610
Capacity	Planned Additions	479	479	479	479	479	479	479	479	479	479
	Purchase Contracts	67	67	67	67	67	19	19	7	7	7
	Total Capacity	5,340	5,406	5,435	5,439	5,367	4,973	4,957	4,568	4,568	4,096
	Demand Forecast	5,840	6,016	6,165	6,384	6,489	6,545	6,601	6,641	6,697	6,753
Demand	OG&E DSM	854	890	908	923	923	923	923	923	923	923
	Net Demand	4,986	5,125	5,257	5,461	5,566	5,622	5,678	5,718	5,774	5,830
Base	PRM	36%	36%	36%	38%	38%	38%	38%	38%	38%	38%
ACAF	PRM	12.7%	12.7%	12.7%	14.7%	14.7%	14.7%	14.7%	14.7%	14.7%	14.7%
Margin	Reserve Margin	7%	5%	3%	0%	-4%	-12%	-13%	-20%	-21%	-30%
Needs	Needed Capacity	280	371	490	825	1,017	1,476	1,556	1,991	2,056	2,592

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 identicial to Schedule E in OG&E 2024 IRP.



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
RICE	Reciprocating Engine 6x	110	\$1,420	110	\$15.10	\$4.60
	1x LM2500 SCGT	32	\$3,200	29	\$9.10	\$1.70
	12x LM2500 SCGT	389	\$2,660	352	\$9.20	\$1.70
CT Aero	1x LM6000 SCGT	54	\$2,190	50	\$5.60	\$1.40
C1 Aero	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
	1x "E" Class SCGT	86	\$2,030	78	\$7.50	\$7.50
CT Frame	1x "F" Class SCGT	221	\$1,130	211	\$3.30	\$2.10
	1x "G/H" Class SCGT	280	\$930	264	\$3.70	\$2.20
	1x1 J Class	531	\$1,180	503	\$4.10	\$1.50
	1x1 J Class Duct Fired	637	\$990	613	\$4.10	\$2.30
Combined	2x1 G/H Class Duct Fired	1001	\$870	944	\$2.90	\$2.30
Cycle (CC)	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 Project Тур Upgrade		Current Cost Estimate (\$M)	STEP Upgrade Type	Notice to Construct ID
2026	Osage 138 kV Terminal	Substation Upgrades	Fronomic		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 Regional Upgrades 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 assesses the need for additional resources to satisfy the capacity requirements established by state and federal laws and regulations.

II. L. <u>Proposed Resource Plan Analysis</u>

This 2025 IRP 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.



III. Appendices



Appendix A – Demand Forecast Range and Energy by Class



PEAK DEMAND FORECAST

OG&E's load forecasting framework relies on independently produced forecasts of service area economic and population growth, actual and normal weather data, and projections of OG&E electricity prices for price-sensitive customer classes. The peak demand forecast is based on an hourly econometric model of weather and economic effects on OG&E's hourly load responsibility series. A probabilistic range of outcomes is produced to show how often peak demands could reach each level. The *1 out of 2 years* or "expected" forecast shows the peak demand level given the 50th percentile of the load forecast distribution, using all available historical weather data. In this case, there is a 50% probability the peak load will reach this load level or higher. OG&E is required by SPP to plan for this 50% probability in the PRM calculation.

Peak Demand (MW) Forecasts by Weather Probability before OG&E DSM

Event of Occurrence	Occurrence Probability	2026	2027	2028	2029	2030	2031	2032	2033	2034
1 out of 30 Years	3%	7,761	8,111	8,379	8,602	8,916	9,078	9,180	9,279	9,349
1 out of 10 Years	10%	7,486	7,830	8,088	8,307	8,614	8,775	8,874	8,970	9,046
1 out of 4 Years	25%	7,307	7,641	7,897	8,113	8,413	8,570	8,669	8,769	8,839
1 out of 2 Years	50%	7,166	7,499	7,749	7,963	8,260	8,418	8,514	8,610	8,687
3 out of 4 Years	75%	7,026	7,354	7,600	7,813	8,105	8,261	8,357	8,453	8,530
9 out of 10 Years	90%	6,852	7,170	7,414	7,623	7,910	8,062	8,158	8,257	8,328
29 out of 30 Years	97%	6,736	7,050	7,291	7,498	7,781	7,932	8,027	8,126	8,198

ENERGY FORECAST

The energy forecast is generated from a regression analysis of historical energy, economic growth patterns and annual weather. OG&E's energy is divided into six market segments (Residential, Commercial, Industrial, Oil Field, Street Lighting and Public Authority). Within each segment, a variety of different models is prepared and tested against actual historical sales to determine which model provides the highest quality forecast for that market segment.

Energy (GWH) Forecast by Customer Revenue Class before OG&E DSM

GWH	2026	2027	2028	2029	2030	2031	2032	2033	2034
Residential	9,909	10,051	10,207	10,359	10,515	10,680	10,856	11,043	11,242
Commercial	15,437	18,106	19,827	21,426	23,324	24,128	24,720	25,158	25,611
Industrial	4,250	4,295	4,328	4,356	4,385	4,416	4,450	4,487	4,527
Petroleum	4,643	4,779	4,922	5,058	5,195	5,339	5,489	5,649	5,816
Street Lighting	51	50	49	47	46	45	44	43	42
Public Authority	3,157	3,202	3,253	3,309	3,368	3,441	3,483	3,537	3,644
Total Retail Sales	37,446	40,483	42,586	44,554	46,833	48,050	49,041	49,916	50,881
Losses	3,854	4,166	4,383	4,585	4,820	4,945	5,047	5,137	5,236
Energy Forecast	41,300	44,649	46,968	49,140	51,653	52,995	54,088	55,053	56,117

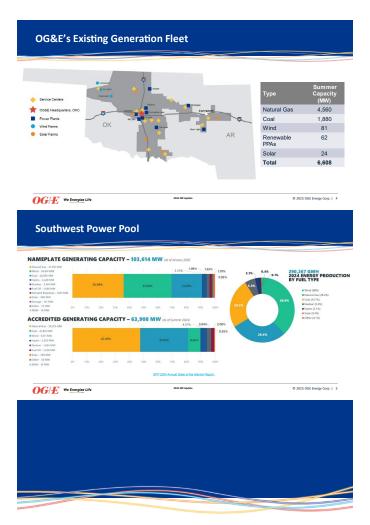


Appendix B – OG&E 2025 IRP Oklahoma Technical Conference

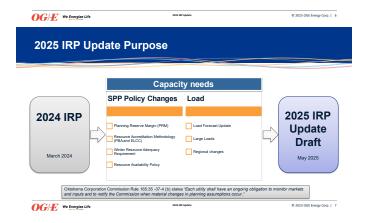




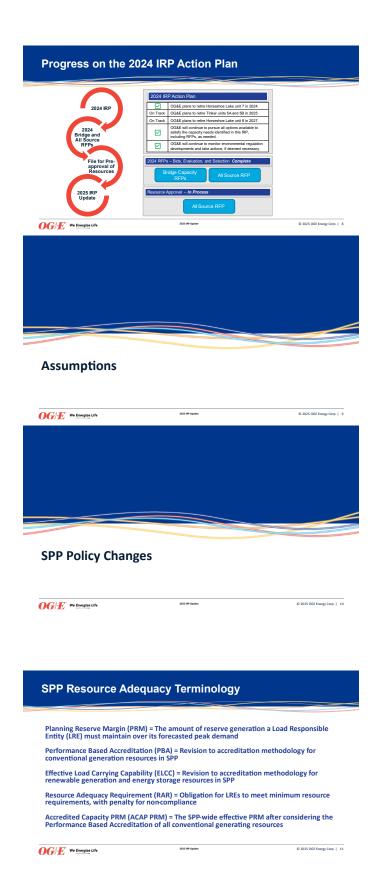




IRP Approach and Purpose



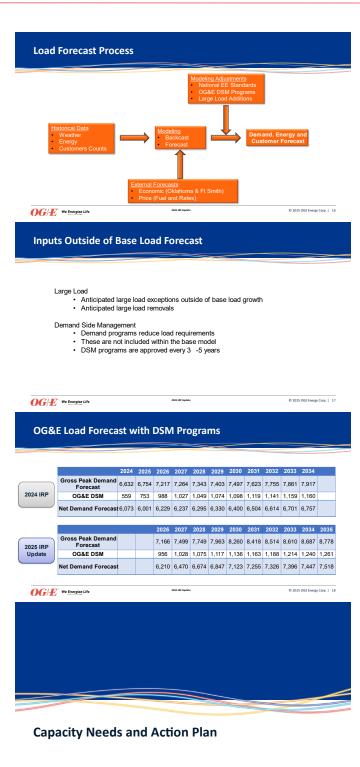






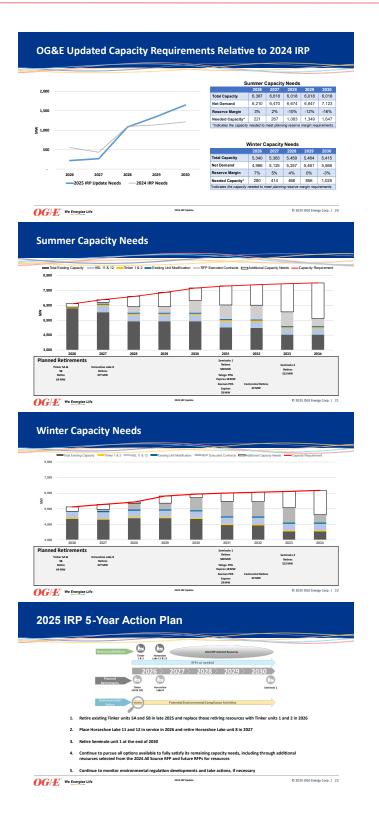




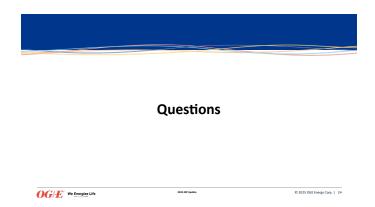














OG&E 2025 IRP – Oklahoma Technical Conference June 24, 2025 Meeting Minutes

The Oklahoma Technical Conference regarding OG&E's 2025 Integrated Resource Plan (IRP) was held on June 24, 2025, from 1:30 pm to 3:00 pm. The meeting was conducted as a webinar and included a presentation provided by several OG&E members.

Presenters:

Name	OG&E Role				
Kelly Riley	Director, Resource Planning				
Aaron Castleberry	Expert Resource Planner				
Jeremy Schwartz	Manager, Sales Support & Marketing Analytics				
Aadarsh Bhetuwal (Facilitator)	Resource Planner				

External Stakeholders:

Name	Organization
Lindsey Pever	A New Energy
Sarah Terry-Cobo	City of Oklahoma City
Fairo Mitchell	Oklahoma Corporation Commission (OCC)
Michael Ryan	Oklahoma Corporation Commission
Michael Velez	Oklahoma Corporation Commission
Nicole King	Oklahoma Corporation Commission
Jared Haines	Oklahoma Corporation Commission
Montelle Clark	Oklahoma Sustainability Network (OSN)
C Eric Davis	Phillips Murrah
Deborah Thompson	Thompson Tillotson

Aadarsh Bhetuwal began the meeting at 1:30 pm by explaining the meeting structure and process for asking questions in the virtual format.

Questions and Responses:

- Montelle Clark (OSN)
 - Question: The accredited capacity of Crossroads and Centennial compared to the nameplate capacity is significantly lower. Is the capacity being reduced by transmission congestion and curtailment?
 - Response: The current SPP resource accreditation methodology for wind resources is based on the actual historic hourly output of that resource. The two units have been in service for some time. Unit degradation, curtailment, and other causes could be among



the multiple reasons why the accredited capacity of the resources is lower than the nameplate capacity.

- Question: Do you have any sense of whether the projects included in SPP's 2024 Integrated Transmission Planning (ITP) model could improve some of the capacity factors?
 - Response: As transmission build-out continues to expand, we are hopeful that can reduce the curtailment of wind resources. In the ELCC accreditation methodology to be implemented starting in 2026, SPP will add the curtailed hours as if the unit was operating, which will benefit the accreditation of the resources.
- Question: The 2021 IRP Action Plan included a Solar resource followed by Solar / CT. Similarly, the 2024 IRP Action Plan had Solar followed by Solar + CT. I am wondering why the plans around Solar have not materialized. States around Oklahoma are building hundreds, if not thousands of MWs of solar. We saw proposals to build CTs at Horseshoe Lake and now we are seeing more proposals to build more CTs at Horseshoe Lake. What has happened to the company's goals around solar?
 - Response: We do IRPs with a set of data and follow that with RFPs for solicitation of resources. We followed this process in 2021 and 2024. In 2021, after we issued the Solar RFP, we encountered unforeseen Antidumping and Countervailing Duties (AD/CVD) tariffs that had potentially significant cost risk exposure for OG&E's customers. In the more recent 2024 All Source RFP, we received a broad set of resources, and the Company has tried to make the best selections out of that. The Company has continued to add smaller community solar projects. The risks around numerous federal policies including federal import tariffs and tax policy legislation may impact near term solar investments. OG&E is trying to ensure that our customers do not bear all the risks that could come into play for these.
- Question: Are you using the same fuel assumptions as you did in the 2024 IRP?
 - Response: The 2025 IRP does not include any resource modeling, but the EIA recently issued a new set of fuel price projections in Spring 2025. We have looked at those and will be utilizing those going forward.
- Question: The new projected prices seem to be higher in comparison to the last forecast you used. How do you consider the difference in fuel projections to impact your action plan going forward?
 - Response: When OG&E performs long-term analyses, we include a variety of sensitivities and scenarios in addition to the base case to capture the range of risks.
- Michael Velez (OCC)



- Question: In your presentation to the commission a few days ago, you indicated that OG&E only anticipates a small percentage of load growth in comparison to what customers are requesting. Do you have any contractual dealings or fast ramping schedule or is OG&E including loads with just letters of authorization? What is the policy regarding adding a potential customer to the load forecast?
 - Response: OG&E's sales process includes customer who have an initial interest, making progress, then ready to sign a contract and contract signed. This can include engineering agreements, investment in long lead items such as transformers and substation equipment, etc. OG&E is seeing interests of large load, for example, 25-30GW but when we look at the needs shown in the IRP, the capacity needed is much lower. OG&E continues to do internal due diligence for realistic load projections.
- Question: Is there a written policy that OG&E can share with regards to that? My concern is that companies that may be shopping around in multiple areas of the state and the country may not be as serious about bringing their loads online.
 - Response: OG&E has a sales process that is our official practice which guides the process of what is included in the load forecast. As circumstances continue to evolve, there may be limited exceptions regarding the final stage of projects included in the load forecast.
- Montelle Clark (OSN)
 - Question: With regards to the passage of S.B. 480, how much of the demand does OG&E anticipate being met by behind the meter generation resource?
 - Response: We are engaging in conversations and negotiations with customers who all have varying level of interests. Some are not interested in running their systems, some want to partner with us, and some want to run it themselves. Unless we sign contracts with the customers, we are not able to fully understand the load requirements and their ramp schedule.
 - Question: The waitlist for interconnection used to be the topic of discussion in the past, but it seems like in the recent days, the lead times of acquiring combustion turbines has been gathering more headlines. Is that influencing your planning and analysis at all?
 - Response: Yes, the lead times of generation resources, regardless
 of technology types, has changed compared to the past. In the
 recent 2024 All Source RFP, we have seen elongated timelines for
 all equipment, including Generator Step-up Transformers (GSUs),
 which is critical for interconnection to the grid.
 - o Question: Is the Horseshoe Lake 11 and 12 project on schedule?
 - Response: Yes.



- Question: Do you anticipate any delays in the proposed Horseshoe Lake
 13 and 14 project?
 - Response: At present, we are not anticipating any delays with the Horseshoe Lake 13 and 14 project.
- Sara Terry-Cobo (City of Oklahoma City)
 - Comment: If I understand it correctly, OG&E does not plan for customers with whom contracts have not been signed. Can you confirm that?
 - Response: OG&E continues to have ongoing conversations with customers who have demonstrated interests to understand what their business plan is and how we can serve them while protecting the Company and our customers. However, if a customer wants to sign up for thousands of MWs without demonstrating their interests, we do not add those capacity to our needs.
- Montelle Clark (OSN)
 - Question: There's a discussion about how solar combined with 4-hour batteries (sized 25% nameplate capacity of solar) achieve something close to a near firm dispatchable resource. Do you agree with that? And if so, is that something that makes adding batteries a more viable resource for you?
 - Response: The SPP capacity accreditation method for co-located resources like the one in your example accredits solar and battery resources separately and will be capped at the limit of interconnection. In the ELCC methodology, each resource receives separate accreditation for the summer and winter seasons. All those factors are considered in the analyses. Co-located solar plus storage resources were analyzed in the 2024 IRP.