2026 IRP

Dominion Energy South Carolina, Inc.
Integrated Resource Plan

March 31, 2026

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Introduction

Dominion Energy South Carolina, Inc. ("DESC" or the "Company") is a vertically integrated utility that operates generation, transmission, and distribution systems that serve approximately 820,000 electric customers and 500,000 natural gas customers in South Carolina. The Company's mission is to provide its customers and their families with reliable, affordable and increasingly clean energy to power their homes and businesses every day. DESC has a proven record of succeeding at this mission, providing customers with uninterrupted power more than 99.99% of the time, maintaining an impressive storm recovery record, and earning excellent safety results.

This report (the "2026 IRP") is the third comprehensive integrated resource plan ("IRP") that DESC has filed with the Public Service Commission of South Carolina (the "Commission") under the IRP Statute as revised in 2019 (the "IRP Statute").[1] It requires utilities to prepare and submit a comprehensive IRP every three years.

In 2026, DESC finds itself at a critical juncture in implementing its plan to meet the future electricity needs of its customers while supporting the remarkable level of economic and population growth that the state is experiencing. Today, South Carolina is among the fastest growing states in the nation, and DESC's electric demand is forecasted to increase 25% by 2044. This represents a 1.4% compound annual growth rate ("CAGR") over the 25-year planning horizon, which is approximately 50% higher than the growth rate forecasted in the 2023 IRPg. DESC, as a regulated electric utility, has an obligation to reliably serve all customers who request service within its service territory. This means that the Company must have sufficient resources and reserves to be able to instantaneously respond to hourly, daily, and seasonal spikes in customer demand against the backdrop of a steadily growing energy need in the Company's service territory. Serving this demand and creating the ability to retire older generating units will require an "all of the above" approach that includes investment in a diverse mix of energy sources.

Against this backdrop, the General Assembly of South Carolina adopted the Energy Security Act of 2025 ("Act 41"), which recognizes the state's critical need for new energy supplies, streamlines the permitting of energy infrastructure projects and allows the South Carolina Public Service Authority ("Santee Cooper") to partner with DESC to construct a 2,180 MW advanced class combined cycle generation station in Canadys, South Carolina (the "Canadys Station"). When completed, Canadys Station is expected to be the most fuel efficient and lowest emitting natural gas facility on both utilities' systems. DESC has signed agreements to reserve major equipment and to provide natural gas transmission capacity for the project, and Canadys Station is now a committed resource for generation planning purposes.

As the IRP Statute requires, DESC has renewed its comprehensive IRP to reflect updated forecasts and multiple market scenarios. The strategies and options evaluated in the 2026 IRP support DESC's continued ability to provide safe, reliable, affordable and increasingly clean electricity to its South Carolina customers.

1 Section 58-37-40(A)

Executive Summary

Modeling and Methodology

In preparing this 2026 IRP, DESC created and evaluated a total of fourteen build plans and has measured them against multiple forecasts of future customer demand, fuel costs, CO_2 costs and limitations, and potential coal plant retirement scenarios. The 2026 IRP incorporates findings from new or refreshed evaluations prepared by outside experts concerning demand side management ("DSM") potential, the reserve margin required to reliably serve customers, the effective load carrying capability ("ELCC") for solar and battery electric storage system resources ("BESS"), and the potential contribution to customer demands from electric vehicles ("EVs") and building electrification. The 2026 IRP's analysis focuses on three ***Core Build Plans***, the 2026 Reference Build Plan, the High Fossil Fuel Prices Build Plan, and the Medium Carbon Cost Build Plans, modeled under three ***Core Market Scenarios***, the Reference Market Scenario, the High Fossil Fuel Prices Market Scenario, and the Medium Carbon Cost Market Scenario, each of which represents a reasonably likely forecast of future conditions.

While DESC was performing the modeling for this 2026 IRP, the United States Environmental Protection Agency ("USEPA") was completing the final steps in its review of proposed changes to the rules that it issued in 2024 under Section 111 of the Clean Air Act concerning CO_2 emissions from fossil fuel-fired power stations (the "GHG Rules"). On June 17, 2025, USEPA published a proposed rule that would repeal all GHG emissions standards for fossil fuel-fired power stations. In addition, USEPA included an alternative proposal to repeal specific portions of the GHG Rules, and to revise the best system of emission reduction ("BSER") for existing coal-fired steam generating units and new base load combustion units. The proposal eliminates Carbon Capture Sequestration ("CCS") as a BSER for these units, and all CCS standards from the 2024 rules. In addition, on February 18, 2026, USEPA published a final rule rescinding its earlier endangerment finding under the Clean Air Act which served as the legal foundation for the GHG Rules and other carbon reduction mandates under the Clean Air Act. The three Core Build Plans assume that USEPA will rescind the GHG Rules in 2026 as USEPA has indicated.

DESC has also modeled three alternative core build plans to assess its generation strategy if the current GHG Rules were to be retained or reimposed in the future (the ***"Alternative Core Build Plans"***). DESC evaluated the three Core Build Plans and the three Alternative Core Build Plans under the three Core Market Scenarios, resulting in nine core and nine alternative cases (the ***"Core Cases"*** and the ***"Alternative Core Cases"***).

More details about the withdrawal of the GHG Rules is discussed below in *"Status of GHG Rules and Impact on Modeling Requirement."*

The Core Build Plans assume that DESC retires its remaining coal-only units at Wateree Station and Arthur M. Williams Station ("Wateree" and "Williams") by December 31, 2034, while the Alternative Core Build Plans assume retirement of these units by December 31, 2032. The GHG Rules would require DESC to retire these units by December 31, 2031, but considering the lack of available short term supply alternatives, in the Alternative Core Cases DESC instructed the model to assume that the retirement dates for these units can be delayed by one year to match the commercial operation date of Canadys Station. Should the GHG Rules remain in effect, DESC would work with regulators, policymakers, and other utilities in the state to develop an approach to continue running these units for an additional year to ensure reliable service to customers. As noted in previous IRPs and IRP updates, the ability of the Company to retire these units depends on sufficient replacement generation being in place to meet customers' current and forecasted demands at the time that the retirement decisions are made.

In addition to the Core and Alternative Build Plans, DESC developed five other build plans as sensitivity cases (the ***"Sensitivity Cases"***) to assess how generation planning might vary under alternative market scenarios and to satisfy specific statutory and regulatory requirements. The five Sensitivity Cases are the Near-Term Load Growth Build Plan, the Energy Conservation Build Plan, the Aggressive Regulation Build Plan, the High DSM Build Plan, and the Low DSM Build Plan.

DESC also modeled three supplemental cases (the ***"Supplemental Cases"***) resulting in three supplemental build plans (the ***"Supplemental Build Plans"***). They are the Optimized Retirements – Reference Build Plan, the Optimized Retirements – High Load Build Plan and the Deep Decarbonization Build Plan. DESC prepared the first two Supplemental Build Plans as requested by ORS and adopted by the Commission to perform an optimal retirement analysis of the Wateree and Williams units.[2] The Optimized Retirements – Reference Build Plan is based on the reference load growth forecast and retires Wateree on December 31, 2032, and Williams on December 31, 2046. The Optimized Retirements – High Load Build Plan is based on the high load growth forecast and retires Wateree on December 31, 2044, and Williams on December 31, 2046. The third Supplemental Build Plan, the Deep Decarbonization Build Plan, evaluates a build plan to reduce DESC's CO_2 emissions from its 2005 baseline by 85%. It requires extensive and costly investment in renewables, storage, and nuclear resources to manage intermittency and support system reliability.

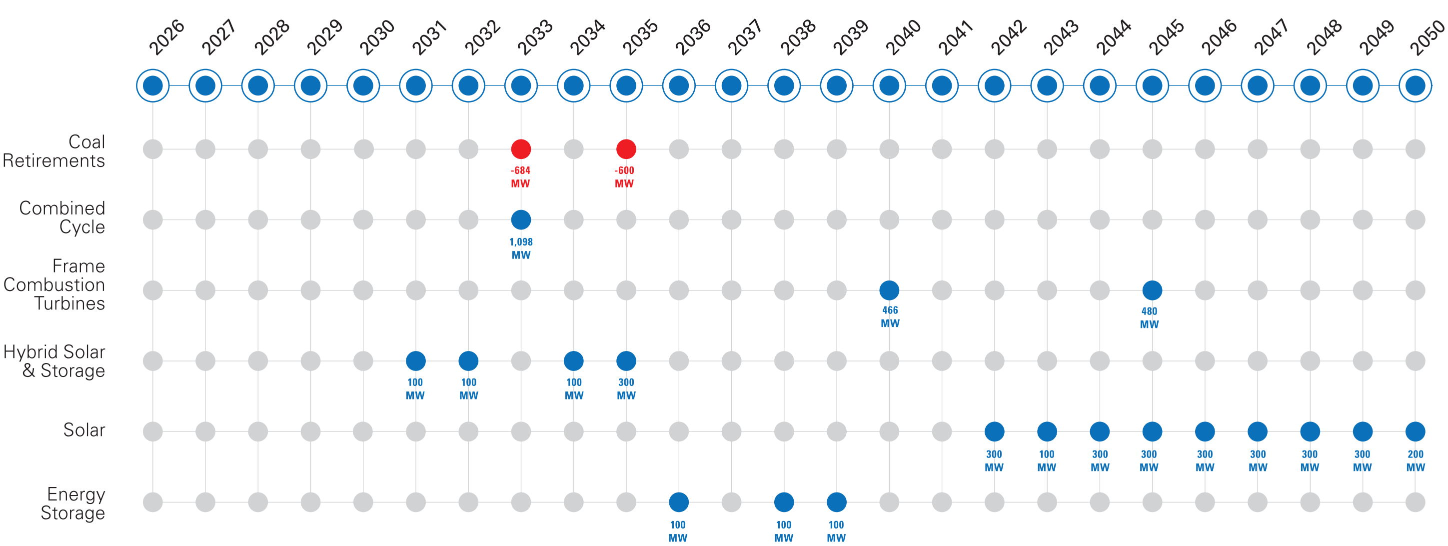
2 *The requirements were suggested by the South Carolina Office of Regulatory Staff and included by the Commission in Order No. 2025-660.*

Results of the Modeling and Resource Additions under the 2026 Preferred Plan

The modeling performed for this 2026 IRP shows that the 2026 Reference Build Plan is the preferred build plan which reflects the most likely market scenario and is resilient under the twenty-six Core, Alternative, Sensitivity and Supplemental Cases. Furthermore, in the initial years of the study period the generation resources added under the 2026 Reference Build Plan are sufficiently comparable to those that would be added under the other thirteen build plans to allow DESC to pivot to an alternative plan at any time during which this 2026 IRP is in effect.

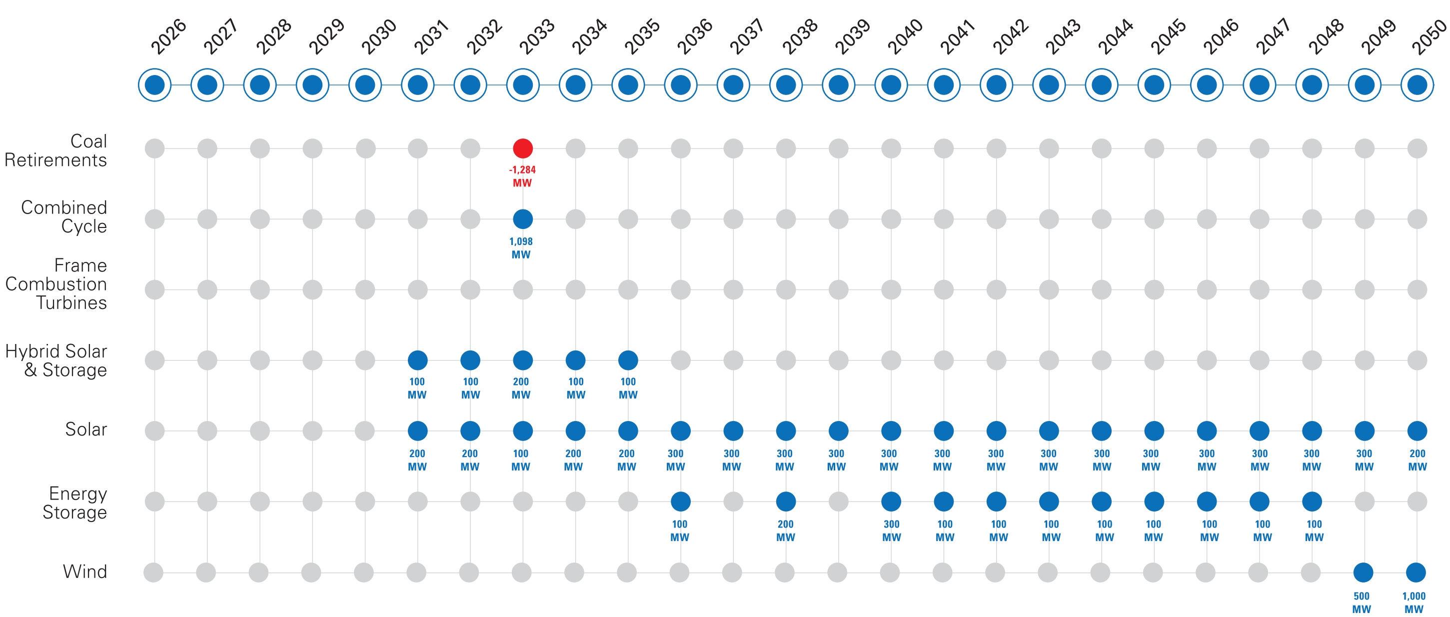
As shown in Figure 1, the 2026 Reference Build Plan builds a total of 5,344 MW of new generating resources over the planning horizon of which 2,400 MW are new photovoltaic solar generation ("Solar"), 300 MW are new battery energy storage ("Battery"), and 600 MW are new solar with associated battery storage ("Hybrid Solar & Storage"). The 2026 Reference Build Plan replaces Wateree on December 31, 2032, and Williams on December 31, 2034, with Canadys Station and Hybrid Solar & Storage resources. Additionally, to ensure reliability and affordability, the 2026 Reference Build Plan adds a 466 MW advanced class frame combustion turbine ("Frame CT") in 2040 and two large Frame CTs totaling 480 MW in 2045.

Figure 1. Resource Additions under the Preferred Plan – the 2026 Reference Build Plan



The GHG Reference Build Plan adds 5,300 MW of new Solar, 1,400 MW of new Battery, 600 MW of new Hybrid Solar & Storage, and 1,500 MW of Offshore Wind ("OSW") to meet customer demands with the GHG Rules in place. The model selects OSW to come on-line in 2049 and 2050. The 2026 Reference Build Plan and GHG Reference Build Plan build similar resources with the main divergence being that the GHG Reference Build Plan builds significantly more resources in total (9,898 MW compared to 5,344 MW) largely by adding Solar and Battery capacity and OSW with additional gas resources needed to support reliability. However, the GHG Reference Build Plan does not build the three Frame CTs modeled in the 2026 Reference Build Plan.

Figure 2. Resource Additions under the GHG Reference Build Plan



The Supplemental Build Plans show that in a high load growth environment delaying the retirement of Wateree and Williams to dates as late as December 31, 2044, and December 31, 2046, respectively, could be economically feasible; however, the 2026 Reference Build Plan and the GHG Reference Build Plan retire both plants by 2034.

These 2044 and 2046 retirement date assumptions are based on DESC's currently approved depreciation study which identified those dates as the end of the economically useful lives of those units. As stated in multiple prior IRPs and IRP updates, in all cases the retirement of these units depends on DESC having sufficient generation to serve actual and forecasted load at the time that the decision is made to retire them. DESC will continue to evaluate the appropriate date for retiring these units as conditions on its electric system evolve.

Based on these modeling results, and a careful review of the current needs of the electric system, DESC has selected the 2026 Reference Build Plan as its preferred plan to guide its planning decisions at the present time.

The South Carolina Energy Security Act – Act 41 of 2025

Last year, the South Carolina General Assembly passed Act 41 with bipartisan supermajorities in both chambers. It did so in response to warnings from the South Carolina Department of Commerce, ORS and others that absent new electric generation, the reliability of the electric grid and the State's ability to sustain economic development would be compromised. Act 41 states the legislative finding that "[g]iven the importance of sufficient, reliable, safe, and economical energy to the health, safety, and well-being of the citizens of South Carolina and to the state's economic development and prosperity…the prompt siting, permitting, and completion of energy infrastructure projects, energy corridor projects, and brownfield electrical generation projects are crucial to the welfare of the State."

In Act 41, the General Assembly authorized Santee Cooper to jointly own "one or more natural gas-fired generation facilities, and related transmission facilities, to be constructed on a site at or near Dominion Energy South Carolina, Inc.'s former Canadys coal-fired generation station in Colleton County." S.C. Code Ann. § 58-31-205(A). The Canadys site is located approximately forty miles north of Charleston, South Carolina, and was home to three coal fired units, the last of which was retired in late 2013. Act 41 encourages DESC and Santee Cooper to complete their evaluation of the project, which is both an energy infrastructure and brownfield electric generation project under the terms of Act 41.

Canadys Station

On December 15, 2025, DESC and Santee Cooper filed a Joint Application for a Certificate of Environmental Compatibility and Public Convenience and Necessity for Canadys Station under S.C. Code Ann. § 58-33-110, the Siting Act. The application is currently under review in Docket No. 2025-323-E with a final order expected in June 2026. More details about Canadys Station are discussed below in *"Canadys Station Update."*

Electric transmission system upgrades to deliver power from Canadys Station to DESC and Santee Cooper's respective systems' customers will be the subject of future Siting Act filings. The scope of the upgrades required on the DESC system is well understood based on prior Transmission Impact Analyses ("TIAs") and general knowledge of transmission operating constraints in the Charleston area. The majority of the upgrades for Canadys Station will involve modernizing existing electric transmission assets including older wood frame circuits in the Lowcountry that DESC will replace with modern, reliable, storm resilient steel monopoles and high-capacity bundled conductors.

Wateree and Williams Replacements

DESC's current plan is to retire Wateree during 2032 and Williams during 2034 following the commercial availability of Canadys Station.[3] Williams represents approximately 80% of DESC's generating capacity in the Charleston area and the retirement of Williams will only be possible when Canadys Station is in service along with the transmission facilities needed to ensure reliability is maintained in the greater Charleston area. From an engineering standpoint, Wateree and Williams can continue to provide generating capacity until the end of their useful lives which are currently forecasted to occur in the mid-2040s. Two of the Supplemental Build Plans have optimized the retirement of both units based on their current forecasted end of useful life. However, DESC's current plan retires both facilities before that time.

Canadys Station Site; Colleton County, SC

Wateree Station; Richland County, SC

Williams Station; Goose Creek, SC

3 The accepted convention in generation planning is that an addition or retirement of a generating unit is recognized in the year following the event. Therefore, a retirement taking place in 2032 would be recognized in 2033.

Overview of the Build Plans, Market Scenarios, and Cases

In its 2026 IRP, DESC has evaluated a total of fourteen build plans, each of which reflects a unique balance of affordability, generation diversity, carbon emissions reductions, and environmental compliance assumptions. Collectively the fourteen build plans represent a broad range of available options to serve DESC's approximately 820,000 electric customers in South Carolina safely, reliably, and cost effectively under a diverse set of potential future market conditions and approaches to carbon reduction. All fourteen Build Plans envision an "all of the above" strategy which includes the expansion of Solar, Battery, and Hybrid Solar & Storage, while adding the dispatchable and non-energy limited generation resources needed to ensure that the reliability of the grid is protected. DESC has analyzed the fourteen Build Plans across twenty-six individual cases to evaluate how well each performs under a range of different assumptions concerning fuel costs, environmental costs and restrictions, customer loads, and other market conditions.

The Twenty-Six Cases

DESC modeled the three Core and three Alternative Core Build Plans across the three most likely Market Scenarios, resulting in nine Core and nine Alternative Core Cases. The five Sensitivity Cases assess how build plans might vary under alternative market conditions and satisfy specific statutory and regulatory requirements. Two of the three Supplemental Cases evaluate the optimum retirement dates for Wateree and Williams under medium and high load forecasts. The third Supplemental Case assesses the types and levels of resources required for DESC to achieve a reduction in CO_2 emissions of 85% from a 2005 baseline by 2050.

Table 1: The 8 Market Scenarios, 14 Build Plans, and 26 Cases

Market Scenarios (8)	Build Plans (14)	Cases (26)	
Core Cases			
Reference	2026 Reference Build Plan	**Three Core Build Plans combined with Three Market Scenarios = 9 Core Cases**	**9**
High Fossil Fuel Prices	High Fossil Fuel Prices Build Plan		
Medium Carbon Cost	Medium Carbon Cost Build Plan		
Sensitivity Cases			
Near-Term Load Growth	Near-Term Load Growth Build Plan	**Five Sensitivity Cases**	**5**
Energy Conservation	Energy Conservation Build Plan		
Aggressive Regulation	Aggressive Regulation Build Plan		
Low DSM	High DSM Build Plan		
High DSM	Low DSM Build Plan		
Supplemental Cases			
Reference	Optimized Retirements – Reference Build Plan	**Three Supplemental Cases**	**3**
High Load	Optimized Retirements - High Load Build Plan		
Reference	Deep Decarbonization Build Plan		
Alternative Core Cases			
Reference	GHG Reference Build Plan	**Three Alternative Core Build Plans combined with Three Market Scenarios = 9 Alternative Core Cases**	**9**
High Fossil Fuel Prices	GHG High Fossil Fuel Prices Build Plan		
Medium Carbon Cost	GHG Medium Carbon Cost Build Plan		
		TOTAL	**26**

Each of the three Core Build Plans is optimized to achieve the lowest cost for customers across different market conditions and assumptions, while protecting reliability and supporting CO_2 emissions reductions. The Core Cases show how those plans respond under a broad range of conditions.

- The 2026 Reference Build Plan is optimized under the most reasonable and likely future market conditions.
- The High Fossil Fuel Prices Build Plan assumes high fossil fuel costs in an environment where public policy discourages investment in fossil fuels production and delivery systems, and through the resulting increases in fossil fuel prices, achieves policy objectives without the need to impose separate CO_2 costs.
- The Medium Carbon Cost Build Plan assumes policies towards fossil fuels are neutral or favorable resulting in moderate fuel costs and medium CO_2 costs.

Table 2 presents twenty-six cases, with the nine Core Cases in blue, the five Sensitivity Cases in orange, the three Supplemental Cases in green, and the nine Alternative Core Cases in grey.

Table 2: The Twenty-Six Cases

Case	Fuel	CO_2 Price	Load Forecast	DSM	Wateree Retirement (12/31/__)	Williams Retirement (12/31/__)
Core and Non-Core Cases						
Reference Market Scenario						
2026 Reference Build Plan	Medium	Low	Reference	Medium	2032	2034
High Fossil Fuel Prices Build Plan	Medium	Low	Reference	Medium	2032	2034
Medium Carbon Cost Build Plan	Medium	Low	Reference	Medium	2032	2034
High Fossil Fuel Prices Market Scenario						
2026 Reference Build Plan	High	Low	Reference	Medium	2032	2034
High Fossil Fuel Prices Build Plan	High	Low	Reference	Medium	2032	2034
Medium Carbon Cost Build Plan	High	Low	Reference	Medium	2032	2034
Medium Carbon Cost Market Scenario						
2026 Reference Build Plan	Medium	Medium	Reference	Medium	2032	2034
High Fossil Fuel Prices Build Plan	Medium	Medium	Reference	Medium	2032	2034
Medium Carbon Cost Build Plan	Medium	Medium	Reference	Medium	2032	2034
Sensitivity Cases						
Near-Term Load Growth Build Plan	Low	Low	High	Medium	2034	2034
Energy Conservation Build Plan	High	Medium	Low	Medium	2032	2034
Aggressive Regulation Build Plan	High	High	High	Medium	2034	2034
High DSM Build Plan	Medium	Low	Reference	High	2032	2034
Low DSM Build Plan	Medium	Low	Reference	Low	2032	2034
Supplemental Cases						
Optimized Retirements – Reference Build Plan	Medium	Low	Reference	Medium	2032	2046
Optimized Retirements - High Load Build Plan	Medium	Low	High	Medium	2044	2046
Deep Decarbonization Build Plan	Medium	Low	Reference	Medium	2032	2034

Case	Fuel	CO_2 Price	Load Forecast	DSM	Wateree Retirement (12/31/__)	Williams Retirement (12/31/__)
Alternative Core Cases						
Reference Market Scenario						
GHG Reference Build Plan	Medium	Low	Reference	Medium	2032	2032
GHG High Fossil Fuel Prices Build Plan	Medium	Low	Reference	Medium	2032	2032
GHG Medium Carbon Cost Build Plan	Medium	Low	Reference	Medium	2032	2032
High Fossil Fuel Prices Market Scenario						
GHG Reference Build Plan	High	Low	Reference	Medium	2032	2032
GHG High Fossil Fuel Prices Build Plan	High	Low	Reference	Medium	2032	2032
GHG Medium Carbon Cost Build Plan	High	Low	Reference	Medium	2032	2032
Medium Carbon Cost Market Scenario						
GHG Reference Build Plan	Medium	Medium	Reference	Medium	2032	2032
GHG High Fossil Fuel Prices Build Plan	Medium	Medium	Reference	Medium	2032	2032
GHG Medium Carbon Cost Build Plan	Medium	Medium	Reference	Medium	2032	2032

The Core Analysis

The Core Analysis compared the results of the three Core Build Plans across the three Core Market Scenarios for a total of nine Core Cases. The three Core Build Plans and three Core Market Scenarios are all based on the Reference load projection so that all results show the costs and CO_2 emissions from meeting the same level of customer demand and therefore can be compared on a comparable basis.

The Company also conducted a similar analysis of the relative performance of the three Alternative Core Build Plans against the Core Market Scenarios to gauge their relative performance in an environment involving regulations comparable to the 2024 GHG Rules.

Table 3: The Nine Core Cases

Market Scenario	Case	Build Plan
Reference	**1**	2026 Reference Build Plan
	2	High Fossil Fuel Prices Build Plan
	3	Medium Carbon Cost Build Plan
High Fossil Fuel Prices	**4**	2026 Reference Build Plan
	5	High Fossil Fuel Prices Build Plan
	6	Medium Carbon Cost Build Plan
Medium Carbon Cost	**7**	2026 Reference Build Plan
	8	High Fossil Fuel Prices Build Plan
	9	Medium Carbon Cost Build Plan

Summary of Build Plan Scoring

Scoring the Core Build Plans on Cost and CO_2 Emissions Reduction

The 2026 Reference Build Plan had the lowest cost to customers expressed as the levelized net present value ("LNPV") cost per year for generation supply across all nine Core Cases. The 2026 Reference Build Plan has a materially lower cost than the two other Core Build Plans, specifically the High Fossil Fuel Prices Build Plan and the Medium Carbon Cost Build Plan. The differences in cost between the latter two build plans were relatively small, between 0.7% and 2.2%.

The High Fossil Fuel Prices Build Plan had the highest LNPV cost across all three Core Market Scenarios, with an annual LNPV cost between $20 million and $121 million more than the lowest cost plan under each Market Scenario. The difference between the 2026 Reference Build Plan and the High Fossil Fuel Prices Build Plan for each Market Scenario was difference in costs to customers between -0.1% and 5.1%.

The Core Build Plans resulted in DESC reducing its CO_2 emissions between 58.3% and 70.0% compared to emissions in 2005. The High Fossil Fuel Prices Build Plan achieved the greatest CO_2 emissions reduction of the Core Build Plans producing a 70.0% reduction in CO_2 emissions from 2005 levels. CO_2 emissions reductions among the remaining two Core Build Plans vary between 58.3% and 68.4%, with the 2026 Reference Build Plan having the lowest reduction of 58.3%.

Scoring the Core Build Plans on Rate Impacts

The 2026 Reference Build Plan has the lowest CAGR for a typical residential customer's bill (*i.e.*, typical 1,000 kWh/month usage) over a 15-year period planning horizon under all three Core Market Scenarios with a CAGR between 3.33% and 4.26%. The Medium Carbon Build Plan is second lowest in all Market Scenarios, with a CAGR between 3.60% and 4.31%. The High Fuel Build Plan has the highest CAGR in all Market Scenarios with annual growth in a typical residential customer's bill between 3.71% and 4.35%. The residential customers' CAGR scoring differs from the system's LNPV score because the difference in usage patterns and rate designs between residential customers and other customer classes results in a different allocation of costs between residential customers and the system generally.

These CAGR figures represent only the change in customers' bills under the three Core Build Plans due to forecasted changes in generation supply costs and the application of general inflation indices to other cost categories. They are provided as a comparative measure for the build plans and not as a comprehensive forecast of future customer rates.

Scoring the Core Build Plans on Technologies Selected

Solar, Battery, and Hybrid Solar & Storage emerged as major contributors in each of the Core Build Plans with renewable generation from Solar and Hybrid Solar & Storage representing between 56% and 73% (3,000 MW and 6,800 MW) of the resources added (on a nameplate basis) and storage from Battery and Hybrid Solar & Storage representing between 16% and 18% (900 MW and 1,500 MW) of those resources. While each of the Core Build Plans adds at least 62% of non-emitting resources (on a nameplate basis), each also adds at least 1,578 MW of natural gas-fired generation to support system reliability, demonstrating that dispatchable, non-energy limited generation remains critically important to grid reliability and generation efficiency.

Scoring the Core Build Plans on Generation Diversity

All Core Build Plans envision that Solar will account for at least 56% of generation added over the planning horizon from both Solar and Hybrid Solar & Storage, and all Core Build Plans include the eventual elimination of coal as a fuel for electric generation. Because the build plans strongly favor Solar, generation diversity is inversely proportional to the Solar resources added. Of the Core Build Plans, the 2026 Reference Build Plan had the greatest generation diversity, the Medium Carbon Build Plan was second, and the High Fossil Fuel Prices Build Plan was third.

Scoring the Core Build Plans on Reliability

The reliability metric measures the diversity of generation sources added by the individual build plans. Among the Core Build Plans, the High Fossil Fuel Prices Build Plan and the Medium Carbon Build Plan scored highest under the reliability metric principally due to the relatively high amount of Battery and natural gas capacity added to the system under those plans, which contributed to the high cost of that build plan. The 2026 Reference Build Plan scored approximately the same as the other two Core Build Plans, within 7%.

The Five Sensitivity Cases and Three Supplemental Cases

In addition to the Core Analysis, DESC modeled five Sensitivity Cases to evaluate the potential effects on DESC's generation plans of changes in fuel cost, CO_2 costs, load growth, and DSM effectiveness. DESC also modeled three Supplemental Cases to optimize the retirements of Wateree and Williams under different load forecast conditions, and to assess the types and levels of resources, based on the Reference Market Scenario, to achieve a reduction in CO_2 emissions of 85% by 2050 to be accomplished in stages beginning in 2031. These eight Non-Core Build Plans confirm the representative nature of the Core Build Plans and the value of the planning insights they provided.

DESC presents the detailed composition and scoring of the build plans beginning with *"The Core Build Plan Analysis."*

Table 4: The Non-Core Build Plans

Build Plan	Market Scenario Used for Optimization	Additional Constraints	Notes
1. Near-Term Load Growth Build Plan	**Near-Term Load Growth Market Scenario**	None	PLEXOS optimized this Build Plan under the Near-Term Load Growth Market Scenario, which assumes higher, near-term load growth while keeping fossil fuel costs low and CO_2 costs at zero.
2. Energy Conservation Build Plan	**Energy Conservation Market Scenario**	None	PLEXOS optimized this Build Plan under the Energy Conservation Market Scenario, which assumes future policies disfavor reliance on fossil fuel through constraints on production of fossil fuels and gas pipelines, but efficiency displaces load growth due to electrification and electric load growth is low.
3. Aggressive Regulation Build Plan	**Aggressive Regulation Market Scenario**	None	The Aggressive Regulation Market Scenario is the basis for this build plan and assumes high fossil fuel costs, high CO_2 costs, and high load growth rates. This creates strong cost pressures on fossil fuel resources while load growth puts a premium on capacity and capacity additions.
4. High DSM Build Plan	**Reference Market Scenario**	DSM Programs attain the Maximum Achievable Potential	This build plan assumes DSM programs are able to achieve their Maximum Achievable Potential as shown in the 2026 DSM Refresh, not the expected level assumed in the Reference Market Scenario. It is otherwise optimized under the Reference Market Scenario.
5. Low DSM Build Plan	**Reference Market Scenario**	DSM Programs Do Not Achieve the Achievable Potential	This build plan assumes that DSM programs are only able to achieve 84% of their Achievable Potential as Shown in the 2026 DSM Refresh but is otherwise optimized under the Reference Market Scenario.
6. Optimized Retirements – Reference Build Plan	**Reference Market Scenario**	None	PLEXOS optimized the retirements of Wateree and Williams in this build plan under the Reference Market Scenario.
7. Optimized Retirements – High Load Build Plan	**Reference Market Scenario**	Assumes a High Load Forecast	PLEXOS optimized the retirements of Wateree and Williams in this build plan assuming higher, near-term load growth.
8. Deep Decarbonization Build Plan	**Reference Market Scenario**	Reduction of Carbon Emissions of approximately 85% by 2050	This build plan is also based on the Reference Market Scenario but requires DESC to achieve a reduction in CO_2 emissions of 85% by 2050 to be accomplished in stages beginning in 2031.

Balancing the Statutory Factors

In evaluating resource plans, the IRP Statute requires the Commission to consider whether the IRP balances multiple factors, including resource adequacy, least cost to customers, environmental compliance, reliability, exposure to commodity price risk, and diversity of generation and fuel supply. DESC's 2026 IRP presents build plans showing how this balance can be achieved and provides a sound basis for the Company to plan for providing safe, reliable, affordable, and increasingly clean energy to its customers in future years. **Appendix K** cross-references the sections of this 2026 IRP to the requirements of the IRP Statute and other regulatory requirements.

The Role of an IRP

IRPs are snapshots in time based on current forecasts of customers' future energy needs, future environmental constraints, future fuel prices and availability, and the cost or availability of rapidly evolving generation resources and technologies. The modeling done in IRPs is based on assumed costs and configurations of available generation technologies, in most cases without information concerning project or location-specific costs or site-specific transmission system upgrade costs. Accordingly, an IRP provides a critically important roadmap and framework for monitoring and assessing the impacts of changes in customer demands, environmental policies, fuel, and technology costs to inform future decision making. The IRP and IRP updates do not supplant the Commission's role in reviewing applications under the Siting Act for authorization to proceed to build a specific project, and committed resources aside, nothing in this 2026 IRP reflects a fixed decision by DESC to pursue any specific action or project.

Based on this 2026 IRP, DESC will continue to analyze and define the most reasonable path for it to add increasingly clean generation resources as it pursues the modernization of its generation fleet and the eventual retirement and replacement Wateree and Williams, all while meeting customers' energy needs safely, reliably and affordably, today and in the future. DESC will continue to meet with the South Carolina Office of Regulatory Staff ("ORS") and IRP stakeholders ("Stakeholders") on a regular basis to receive comments on the methodology and inputs used in future IRPs and IRP updates. DESC has carefully reviewed and considered the comments and suggestions received on this 2026 IRP and will continue to do so in the future.

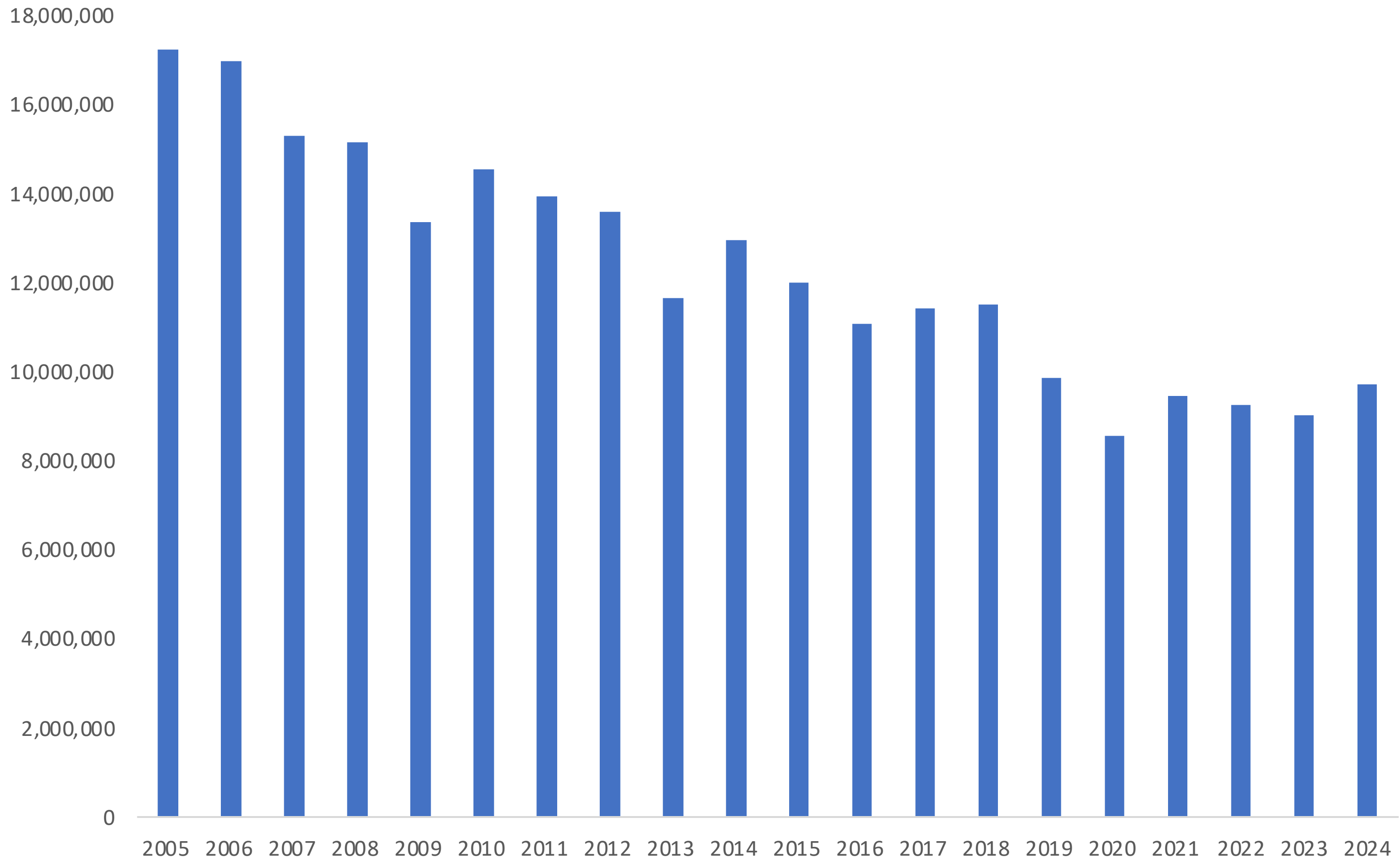
The Dynamic Nature of Resource Planning

Resource planning is conducted throughout the year by the Company for multiple planning and resource procurement purposes. When future procurement or retirement decisions are considered, DESC updates its resource plans to reflect current needs and conditions on its system and in the industry. Given the pace of change in environmental policies, generation technologies, and the expectations of customers and other stakeholders, it is important that the Company remains flexible with respect to build plans and the asset procurements and retirements they reflect. The fact that DESC modeled the selection or retirement of any resource in this 2026 IRP does not mean that DESC has made the decision to procure or retire any such resource or that such a decision has been approved by the Commission where such approval is required. DESC will present these decisions to the Commission as appropriate at the time they are made or proposed, in accordance with the Siting Act and other regulatory requirements.

DESC's Commitment to Reducing Carbon Emissions

For nearly two decades, DESC has been steadily reducing the environmental impacts and air emissions from its electric generation fleet by retiring or repowering coal plants, integrating third-party owned and operated solar, and adding modern, high-efficiency natural gas generation while remaining focused on reliability and affordability for its customers. Since 2000, DESC has either retired or converted eight coal units to natural gas operation, and from 2005 through 2024, carbon emissions have fallen by approximately 44% despite robust growth in energy consumption on its system.

Figure 3: DESC's Historical Annual CO_2 Emissions 2005-2024 MT



DESC's selection of the 2026 Reference Build Plan as its preferred plan to guide its planning decisions at the present time is consistent with its commitment to reducing carbon emissions. The preferred plan adds significant renewables and storage related resources including Solar, Battery and Hybrid Solar & Storage, while also pursuing the eventual retirement of Wateree and Williams by investing in modern, efficient generating capacity that can assist in those retirements. As market dynamics, public policy and technologies evolve, DESC will continue to evaluate plans reflecting further carbon reductions consistent with DESC's mission of providing its customers with reliable, affordable, and increasingly clean energy.

Canadys Station Update

Canadys Station Combined Cycle Conceptual Rendering

Canadys Station and Long-Term Generation Needs

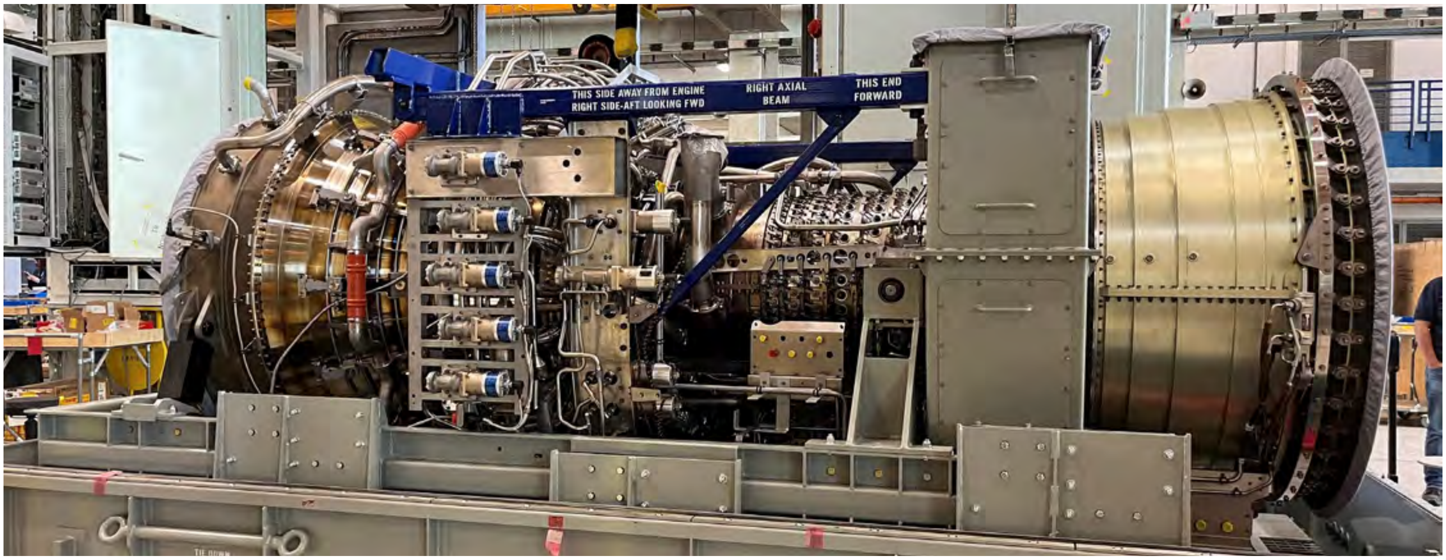
Since 2020, the Company's triennial IRPs and annual IRP updates have consistently identified the need for new, efficient natural gas-fired generation to support its customers' long-term generation needs. While as would be expected, the exact size and configuration of the natural gas resources have varied across IRPs and annual IRP updates, each analysis has shown that a single project consisting of several hundred megawatts of new natural gas generation is necessary to reliably serve customer load, sustain economic development, and support the Company's planning reserve margin. Growing customer demand in the South Carolina Lowcountry (the greater Charleston metropolitan region along with Jasper, Beaufort, and Colleton counties), coupled with the potential future retirement of Wateree and Williams presents a challenge in ensuring that there are sufficient generating resources to reliably serve the Company's customers and to meet their existing and future energy needs.

The 2023 IRP selected a new combined cycle plant as the next major increment of capacity in all build plans. The resource identified at that time was either a 50% ownership share of a combined cycle plant providing DESC with 662 MW of new capacity, or under certain market scenarios, a 100% share of a 1,325 MW combined cycle plant. The 2024 IRP Update determined that a large combined cycle resource in either the 662 MW or 1,325 MW configuration was the optimal resource to add under a broad range of market scenarios including the two most highly carbon-constrained scenarios[4] and the scenario that assumed the highest future commodity cost of natural gas.[5] The 2025 IRP Update assumed Canadys Station would be a larger combined cycle configuration with DESC's 50% ownership share providing 998 MW of capacity.

The combined cycle plants that DESC modeled in 2023 IRP and the 2024 and 2025 IRP Updates reflected sizes that were based on then-current information concerning the standard or most commonly available offerings of combined cycle resources. In moving forward with the Canadys Station project, DESC and Santee Cooper refined this sizing based on specific engineering data, operational considerations, pricing, and other information provided in response to requests for information from equipment suppliers and others.

Based on this information, DESC and Santee Cooper determined that the most cost effective and operationally sound configuration of Canadys Station is one consisting of three independent blocks of highly efficient and low emitting advanced class one-on-one ("1x1") combined cycle units providing approximately 2,180 MW of total capacity in winter. In this configuration, Canadys Station will provide Santee Cooper and DESC with modern, reliable, and operationally flexible generation resources to meet customers' current and future energy needs.

4 The 2024 Proposed GHG Rule Build Plan and 85% CO_2 Reduction Build Plan.
5 The 2024 High Fossil Fuel Prices Build Plan.



Canadys Station will be an advanced class[6] combined cycle natural gas facility consisting of three, independent, multi-shaft[7] 1x1 combined cycle generating blocks. Each 1x1 generating block will consist of one approximately 450 MW combustion turbine-generator ("CTG") paired with one approximately 280 MW steam turbine-generator ("STG"). Each STG primarily generates electricity from heat recovered from the exhaust of its associated CTG through heat recovery steam generators ("HRSG"). Canadys Station will have three CTGs, STGs and HRSGs. Each STG will exhaust its residual steam into an air-cooled condenser ("ACC"), where the steam will be cooled, condensed into water, and recirculated for reuse in the HRSG and STG steam cycle in a closed loop that limits evaporative losses and requires little makeup water. The makeup water for the plant's steam cycle, diluent injection for emissions control when the CTGs are operating on liquid fuel, and cooling water for the combustion turbine inlet chilling system will principally come from deep groundwater wells but may at times be supplemented with surface water withdrawal from the Edisto River to support conjunctive water usage.

For its primary fuel, Canadys Station will use pipeline-quality natural gas delivered to the site under long-term firm transportation ("FT") agreements with interstate natural gas pipelines subject to FERC jurisdiction. The pipeline expansion project that will connect directly to Canadys Station is an extension of the Kinder Morgan-affiliated Elba Express Company, LLC pipeline (the "Bridge Project"). Canadys Station will also be designed with the ability to fire liquid fuel and will maintain a reserve of ultra-low sulfur fuel or heating oil, delivered by truck, and stored on site as a backup fuel in the unlikely event of a disruption in FT service. The facility will have sufficient on-site storage for approximately 72 hours of operation on fuel oil.

Canadys Station's three advanced class combustion turbines will be equipped with combustion turbine inlet chilling equipment to maximize the output of the plant during hot weather. The plant design will also incorporate supplementary firing of natural gas in the HRSGs (commonly referred to as "duct firing"). Supplementary firing equipment consists of natural gas-fired burners located in the HRSGs downstream of the CTGs. Duct firing increases the output capability from the STGs by facilitating additional steam production from the HRSGs. This provides additional year-round generating output capacity at a relatively low incremental capital cost.

The multiple 1x1 combined cycle generating block configuration maximizes operational flexibility, reliability, and resiliency and mitigates "single point" contingencies that could impact a significant amount of generation on both the DESC and Santee Cooper systems. DESC and Santee Cooper anticipate a phased approach to the commercial operation of the Canadys Station generating blocks, with the full output of the facility entering commercial operation in 2033 but with individual 1x1 combined cycle units coming online as they are completed. In keeping with generation planning conventions, the full output of Canadys Station is assumed in the IRP model to become available on January 1, 2033, as a single new increment of capacity. As modeled in the 2026 IRP, on that date Canadys Station will begin providing DESC with approximately 1,098 MW of fully dispatchable, highly responsive, and highly efficient baseload-capable capacity that can be used to support the replacement of existing coal fired generation and to meet increasing customer demands over the ensuing decades.

6 "Advanced class" refers to latest generation of large combustion turbine generator technology for units with higher power density, firing temperatures, and overall thermal efficiency (i.e., "G-," "H-" or "J-class" units depending on the manufacturer).

7 "Multi-shaft" refers to the combustion turbine-generator and steam turbine-generator each operating in a separate physical drivetrain, each with its own electrical generator.

The operational flexibility of three 1x1 combined cycle units will improve grid reliability at all times, especially during extreme weather while supporting the integration of increasing levels of intermittent, non-emitting, solar generation. Canadys Station will provide generation and electric transmission support for the Charleston area and will represent an important step towards the eventual retirement of Williams.

DESC will lead the overall development, construction, and eventual operation of Canadys Station with oversight and in close collaboration with Santee Cooper as its project partner. Construction of the facility will be subject to monitoring by an independent construction analyst retained by ORS under the requirements of Act 41. DESC executed an equipment reservation agreement with the selected supplier of the combustion and steam turbine-generators and heat recovery steam generator equipment and has procured the large power transformers for the project. DESC and Santee Cooper intend to select the Engineering, Procurement and Construction ("EPC") contractor later in 2026. The in-service date for the entire Canadys Station facility is modeled for the purposes of the 2026 IRP to occur on January 1, 2033, but it is anticipated that individual 1x1 combined cycle generating blocks will come online in phases prior to completion of all three.

The focus on the Canadys site was due to multiple factors—land use considerations, proximity to load, access to water supplies, proximity to electric transmission infrastructure, and the feasibility of expanding natural gas transportation services to the site. All of these considerations are foundational when siting a natural gas-fired generation resource.

DESC and Santee Cooper have completed the joint evaluation as prescribed by Act 41 and selected the Canadys site as the best site for the project. As a brownfield site, the Canadys site is environmentally well-characterized and offers robust electric transmission interconnectivity from rights of way that radiate from the site toward major load centers including the greater Charleston area forty miles to the east. The site also sits near existing and planned Santee Cooper electric transmission lines. The site was used for large scale electric generating activities for decades. It offers robust electric transmission interconnectivity through multiple rights of way radiating out from the site, including key corridors leading toward major load centers and transmission hubs in coastal South Carolina. Additionally, Santee Cooper has existing, near-term plans to construct a new 230 kV transmission pathway along the Interstate 95 corridor, close to the Canadys site, which will simplify Santee Cooper's interconnection of Canadys Station into their balancing area. Further, the site is well-positioned for supporting the expansion of natural gas transportation infrastructure to supply fuel for new generation. By pursuing the project jointly, DESC and Santee Cooper are creating economies of scale in generation plant construction and operation and natural gas pipeline and electric transmission expansion. The benefits and savings achieved through their collaboration ultimately will flow to the customers of both utilities.

The Fueling Strategy for Canadys Station

Canadys Station will also anchor a major expansion of natural gas pipeline capacity into South Carolina, which will serve the South Carolina Lowcountry where economic development is increasingly limited by lack of access to firm natural gas transportation service. To fuel Canadys Station, DESC has executed three precedent agreements ("PAs") supporting pipeline expansion projects that will provide FT service from robust hubs of natural gas production and supply to the Canadys site. DESC is not the only customer for the two largest of these expansion projects; it is participating in these expansion projects alongside other rapidly growing utilities in the Southeastern United States.

Fueling Canadys Station requires DESC and Santee Cooper to hold FT capacity linking the facility to commercial natural gas trading hubs where sufficient supply is available to ensure a liquid market. DESC entered into two PAs for long-haul interstate natural gas transportation back to major trading hubs. These two PAs are for participation in the South System Expansion 4 ("SSE4") and the Mississippi Crossing ("MSX") pipeline expansion projects. DESC is not the sole customer for these projects—both SSE4 and MSX have elicited considerable interest from other shippers that have signed on to these expansion projects. DESC is participating in these projects as an "anchor shipper" which provides important price and contractual protections. Regulatory approvals for the SSE4 and MSX expansion projects are pending at the Federal Energy Regulatory Commission ("FERC") under Section 7(c) of the Natural Gas Act.

In March of 2025, DESC executed a third and final Precedent Agreement for an expansion project to secure firm natural gas transportation from the terminus of the SSE4 expansion project near the Georgia-South Carolina border to the Canadys site. This expansion project will complete the route to Canadys while also providing access for additional firm gas transportation for other customers in South Carolina to support and sustain economic development in this region of the State. The timing and availability of additional natural gas transportation capacity to the site is subject to federal approvals by FERC and therefore is outside of the direct control of DESC, Santee Cooper, and South Carolina policymakers. Receiving these approvals in a timely manner is a key scheduling consideration for Canadys Station. All indications remain that sufficient additional capacity can be provided in a timely way to support construction of the facility.

While Canadys Station is the foundational customer to support this expansion of natural gas availability in South Carolina, other customers stand to benefit from this expansion including prospective and existing industrial customers looking to secure firm natural gas transportation service, and local natural gas distribution systems including DESC's local gas distribution system which will acquire 35,000 DT/day of FT on this pipeline expansion. The lack of incremental FT service on natural gas systems has become an increasingly important limitation on the economic development potential in parts of South Carolina; and Canadys Station will provide an opportunity to overcome that limitation.

Electric Transmission Planning

In August 2024, DESC submitted interconnection requests for Canadys Station into the 2024 Definitive Interconnection System Impact Study ("DISIS") cluster study process which DESC conducts annually under its FERC-regulated Open Access Transmission Tariff ("OATT"). Through this process, DESC's transmission planning group is identifying a definitive list of electric transmission upgrades and associated cost allocations and construction schedules required to interconnect the facility with DESC's transmission system. Future reports from the DISIS cluster study process and affected system studies conducted with Santee Cooper and other neighboring utilities will inform future filings under the Siting Act for network electric transmission upgrades associated with Canadys Station. However, the nature and scope of the required upgrades on DESC's system are well understood based on prior TIA analyses conducted to identify the upgrades necessary to connect a large combined cycle natural gas facility unit at the Canadys site to the grid, and DESC's operational knowledge of the transmission facilities in the area that are stressed or limited in times of high demand or when Williams is not online.

The TIAs prepared to date through the IRP process indicate that one of the principal schedule drivers for being able to utilize the full output of Canadys Station on a firm basis will be the time required to complete the requisite generation interconnection studies and then design, siting, procurement, and construction of the electric transmission assets needed for the replacement generation resources, particularly as other generating projects participate and withdraw in the DISIS cluster study process. This process is well underway and DESC and Santee Cooper are working in close collaboration to ensure that the requisite electric transmission upgrade projects will be completed to support the construction and operation of the facility.

Existing Canadys 230KV/115KV Substation located on the Canadys brownfield site

Canadys Station as a Potential Replacement for Wateree and Williams

When the 2023 IRP was filed, the preferred plan modeled the replacement of the 684 MW of Wateree capacity with 400 MW of Battery at the Wateree site while relying on existing capacity reserves to supply the balance of the required capacity. Since 2023, economic development projects have added approximately 256 MW of demand to DESC's load forecast making the prior plan impractical and creating a capacity need large enough to justify coordinating the potential retirement of Wateree with the construction of the larger, more efficient and lower emitting combined cycle generating resource at Canadys. The 2026 IRP shows that completion of Canadys Station is required to maintain system reliability when DESC retires Wateree Station.

The potential future retirement of Williams Station will require DESC to add major generating resources in addition to Canadys Station, but Canadys Station's physical location and the associated electric transmission upgrades that will integrate it into the DESC system will play a key role in maintaining reliability in the Charleston area when Williams retires. The transmission system that serves the Charleston area is under increasing stress as loads in the area increase. While capacity from Canadys Station will not be sufficient to fully retire Wateree and Williams on a one-for-one basis, the facility will provide locally available capacity in the Charleston area and regional support for the transmission system that will be of primary importance when DESC retires Williams. DESC will continue to study and evaluate the eventual retirement of Williams, along with the retirement of Wateree as conditions on its system developg.

Key Developments Since the 2025 IRP Update

Key developments related to DESC's generation planning include the passage of Act 41 by the South Carolina General Assembly, continued progress on the design, procurement and permitting of Canadys Station, USEPA's steps toward withdrawing the GHG Rules, recent revisions to the ELG Rules, and USEPA's on-going review of the ELG and MATS rules, and PM2.5 regulations. The analysis of these developments is found in both "*Executive Summary"* above, and below.

Peaking Generation Replacements

In March 2021, DESC applied to the Commission for rulings to allow the Company to proceed with its plan to retire thirteen end-of-life and increasingly difficult to maintain natural gas-fired combustion turbine ("CT") units and one natural gas-fired steam unit. Despite their age and condition, these older units have played an important role in maintaining grid reliability by providing DESC with the ability to respond to changes in load and intermittent generation and, if needed, through black start capabilities to restart the grid after blackouts. In November 2021, the Company entered into a Partial Settlement, which allowed for the retirement and replacement of most of these units to proceed. The exception was the retirement and replacement of several units at Urquhart Station, which the Partial Settlement required to be the subject of an all-sources request for proposal (the "Urquhart RFP") for replacement capacity. The Commission approved the Partial Settlement in Order No. 2022-27.

The Hardeeville, Bushy Park, Parr, and Coit Retirements and the Bushy Park and Parr Replacements

Upon Commission approval of the Partial Settlement, DESC proceeded with the retirement of seven CT units at four sites, one unit at Hardeeville, two units at Bushy Park, and four units at Parr, and to construct three modern aeroderivative combustion turbine ("Aero CTs") units as replacements with one unit at Bushy Park and two at Parr. DESC retired the Hardeeville unit effective March 31, 2022, the Bushy Park units effective September 30, 2022, and the Parr units effective March 31, 2023. Dismantling and demolition activities were completed at Hardeeville and Bushy Park in 2022 and at Parr in 2023. DESC subsequently retired the two Coit CT units, which it did not otherwise replace, following commercial availability of the new Parr units at the end of 2025. Dismantling and demolition activities of the Coit CT units are anticipated to be substantially completed in 2026.

The replacement Bushy Park unit ("Bushy Park CT #1") entered commercial operation on November 1, 2024, and has contributed to system operations since. Construction of the replacement Parr Station units ("Parr CT #1" and "Parr CT #2") was completed in the summer of 2025 and these units entered commercial operation on December 1, 2025.

Bushy Park CT #1 Unit (In Commercial Operation)

Parr Station CT #1 and CT #2 Units (In Commercial Operation)

Urquhart Replacements

Under the Partial Settlement, DESC agreed to conduct an all-sources RFP to replace the four existing CTs and one natural gas-fired conventional steam unit at the Urquhart Station site. DESC completed the all-sources RFP process in 2024 and received final approval from the Commission in Order No. 2025-69 to construct a single, frame-type simple-cycle CT unit at the Urquhart site ("Urquhart CT #7"). The major contracts for the replacement unit at Urquhart have been executed and DESC anticipates the replacement unit entering commercial operation by the end of 2028.

Figure 4: Location of Proposed Combustion Turbine Retirements and Replacements

Replacement Units

Parr
Replaces 4 CTs (73 MW) with 2 new CTs (104 MW)
Commercial Operation Achieved – December 2025

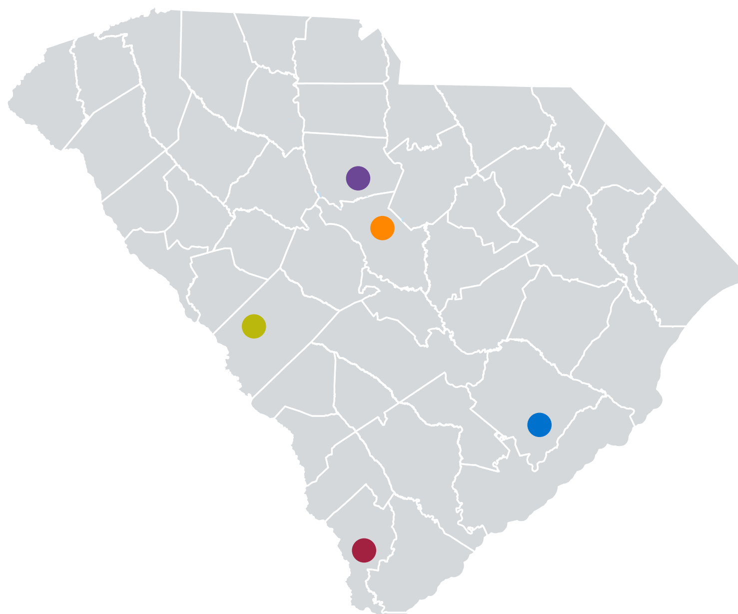
Urquhart
Replaces 4 CTs and 1 Boiler (193 MW)
with 1 new CT (199 MW)
Anticipated Commercial Operation – End of 2028

Bushy Park
Replace 2 CTs (52 MW) with 1 new CT (52 MW)
Commercial Operation Achieved – November 2024

Retiring Units

Coit
Retire 2 CTs (36 MW)
Units Retired – December 2025

Hardeeville
Retire 1 CT (9 MW)
Unit Retired – March 2022



Federal Legislative Developments

On July 4, 2025, House Bill No. 1, known as the "One Big Beautiful Bill Act," ("OBBBA") was signed into law. Among many other impacts, the OBBBA significantly revises the Inflation Reduction Act's long-term tax credits for wind and solar projects by eliminating them for facilities that do not begin substantial construction by July 5, 2026, or are not placed in service until after December 31, 2027. The legislation includes safe harbor provisions for certain near-term projects.

The OBBBA ties federal incentives and participation in federally funded energy projects to compliance with the Tariffs and Foreign Entity of Concern Act ("FEOC") which restricts access and use of critical materials and components sourced from certain foreign suppliers, increasing costs and limiting availability. The FEOC restrictions are of particular concern for solar and energy storage projects. As developers navigate these trade and compliance barriers, project timelines will be extended and procurement strategies will be restructured, adding uncertainty and complexity to an already strained supply chain environment.

Status of GHG Rules and Impact on Modeling Requirements

In April 2024, the USEPA issued the current GHG Rules under Section 111 of the Clean Air Act to regulate CO_2 emissions from existing and modified fossil fuel-fired steam generating units and new and reconstructed fossil fuel-fired combustion turbines. These rules require existing coal units to either retire by January 1, 2032, transition to 40% natural gas co-firing by January 1, 2030, or implement CCS technology by January 1, 2032. Standards for new, reconstructed and modified units also require significant CO_2 reductions through the utilization of CCS or similar technologies or by annual capacity factor limitations.

On March 12, 2025, the USEPA announced that it would reconsider both the 2024 GHG Rules as well as the 2009 Endangerment Finding which provides the legal foundation for the federal 2024 GHG Rules, which includes the Section 111(b) and (d) rules. On that same date, USEPA announced a review of other rules and regulations that may affect generation plant operations and planning including revisions to the Mercury and Air Toxics Standards ("MATS") that were finalized in 2024, recent changes to the PM2.5 National Ambient Air Quality Standards ("NAAQS"), and revisions to the Effluent Limitation Guidelines and Standards for the Steam Electric Power Generating Category (the "ELG Rules") that were finalized in 2024.

On June 17, 2025, the USEPA published proposed revisions to the GHG Rules. The primary proposal is a full repeal of GHG emission standards for existing and new sources based on the finding that GHG emissions from power plants "do not contribute significantly to dangerous air pollution" as that term is used in Section 111 of the Clean Air Act, a finding which, if finalized, could preclude the USEPA from regulating GHG emissions from these plants under that act.

On February 18, 2026, the USEPA published a final rule rescinding its 2009 Endangerment Finding for GHGs under the Clean Air Act. By withdrawing this finding, USEPA eliminated the statutory basis for federal greenhouse gas regulation, including emission standards for new motor vehicles and engines which can influence the pace of electrification of transportation and other sectors. The repeal is anticipated to have broader implications on federal GHG regulations affecting the power sector through future rulemakings.

The recission of the 2009 Endangerment Finding and related regulations creates uncertainty about the extent to which the Clean Air Act preempts actions by non-federal actors. The uncertainty may result in litigation addressing issues of displacement and preemption. Following the repeal, environmental and public health organizations filed a petition for review in the U.S. Court of Appeals for the D.C. Circuit challenging the rescission rule.

ELG Compliance

As indicated in previous IRP filings, DESC has implemented system upgrades at the Wateree and Williams stations to comply with the 2020 ELG Rule which USEPA issued under the authority of the Clean Water Act. These upgrades were placed into service at the end of 2025 as required under the rule. On May 9, 2024, USEPA revised the 2020 ELG rules to further eliminate most discharges by the end of 2029. Alternatively, a facility could file a Notice of Plan Participation ("NOPP") no later than December 31, 2025, to cease burning coal by the end of 2034. If a facility filed a NOPP, no additional system upgrades are required beyond those implemented to comply with the 2020 ELG Rule.

On December 31, 2025, USEPA issued a rule extending ELG compliance deadlines by up to five years to the end of 2034. The 2025 ELG Rule revisions also provide increased flexibility to extend compliance deadlines for reliability and other site-specific considerations.

The recent changes in the ELG Rules are part of a larger USEPA initiative announced on March 12, 2025, to comprehensively reevaluate the ELG program with the stated purpose of making changes that moderate the electricity price impacts of regulation and allow generators to meet rapidly growing national electric demand. This new, comprehensive, ELG Rules review is in its initial phase, and its full scope of changes has not been determined.

The 2026 DSM Refresh

In 2025, DESC retained the third-party DSM consultant, ICF, to update the primary assumptions used in the 2023 DSM Potential Study[8] (the "2023 DSM Study") based on data concerning customer counts and usage, avoided costs, inflation assumptions, and modifications to programs approved by the Commission in 2024 among other things (the "2026 DSM Refresh"). The refresh encompassed revising the financial, economic, and programmatic assumptions within the ICF model, in addition to updating the initial years of the DSM forecast to reflect the approved 5-year program plans. The results of the 2026 DSM Refresh have been reviewed with both the Energy Efficiency Advisory Group and the IRP Stakeholder Advisory Groupg. The next full potential study will be conducted on a schedule to support the development of DESC's 2029 comprehensive IRPg.

8 Order No. 2024-814.

The 2026 DSM Refresh generally showed higher portfolio cost-effectiveness, with the Total Resource Cost ("TRC") ratio for the full DSM portfolio increasing from 1.28 in the 2023 Study to 1.41 in the 2026 DSM Refresh. This improvement is primarily driven by updated avoided costs, lower inflation rates, and updated net to gross savings ("NTG") ratios. The inclusion of 5-year program plan revisions led to higher near-term savings than in the 2023 DSM Study, though these increases did not materially change long-term achievable potential. Total DSM savings identified in the 2026 DSM Refresh increased by 1.9% compared to the 2023 forecast.

The 2026 DSM Refresh for demand response ("DR") programs, used the same measures and assumptions from the 2023 DSM Study reflecting DESC's rollout of Advanced Metering Infrastructure ("AMI") and updating DR cost-effectiveness screening. Compared with the 2023 DSM Study, achievable winter demand savings potential is lower in early years due to shifting select DR programs to a 2030 start date to align with the approved PY15–PY19 Plan. Cost-effectiveness screening shows several DR programs remain cost effective and are included in the achievable potential DR portfolio.

The results of the 2026 DSM Refresh are included in the load forecasts for Low, Reference, and High DSM Scenarios that are discussed in detail in *"The DSM Build Plans."*

The 2026 Electrification Study

DESC retained the Guidehouse consulting firm to refresh its Spring 2024 study of the effect of electrification on DESC's demand and capacity forecasts. The new study (the "2026 Electrification Study") forecasts impacts from electrification on annual energy sales, winter and summer coincident peaks, and localized distribution needs. The study evaluated these impacts in three end-use categories:

1) On-road transportation (*i.e.*, light-, medium-, and heavy-duty individual and fleet owned vehicles);

2) Off-road transportation (*i.e.*, forklifts, seaport cargo handling equipment, and airport ground support equipment); and

3) Buildings (*i.e.*, residential and commercial space heating, water heating, cooking and laundry).

The study concludes that by 2050, electrification will add approximately 3.0 million MWh of energy demand in DESC's service territory of which on-road EVs will contribute approximately 2.3 million MWh, building electrification approximately 0.6 million MWh, and off-road EVs approximately 0.13 million MWh. Compared to the 2024 study, the 2026 Electrification Study forecasts lower 2025–2026 EV market penetration due to: (1) reduced federal support (e.g., accelerated phase-out of EV and building credits; changes to Corporate Average Fuel Economy ("CAFE") penalties), (2) reduced investment by vehicle manufacturers in EVs and affordability headwinds, and (3) added tariffs and increased supply-chain costs. These factors moderate near-term EV adoption while medium to long-term EV demand remains robust.

DESC has integrated all three electrification components into its 2026 load forecasts. While the total anticipated demand from EVs and building electrification are lower than the 2023 forecast, they still represent substantial incremental energy and winter and summer peak capacity demands.

The 2026 Reserve Margin Study and Effective Load Carrying Capability Determination

DESC retained PowerGEM (formally Astrapé Consulting) to refresh its 2023 Reserve Margin Study and Effective Load Carrying Capacity Determination to inform the 2026 IRPg. PowerGEM used the Strategic Energy Risk Valuation Model ("SERVM") modeling software along with a SERVM database to represent the DESC system and its neighbors. To quantify variability in weather patterns in DESC's service territory, PowerGEM analyzed DESC's customer demands for the period January 2020 to May 2025 and correlated those demands to weather patterns using 45 years of historical weather data for Charleston and Columbia. PowerGEM then incorporated historical forced and scheduled outage rates for DESC's generation assets and ELCC rates for Solar and BESS assets and performed a Monte Carlo analysis to identify outage risk during peak demand periods. Using NREL's solar irradiance database and historical data from DESC, PowerGEM modeled the capacity and energy production of the solar fleet across the 45 weather years. To develop its hydro capacity and energy production, PowerGEM used available hydro energy data from 1980 to 2024 as shown on DESC's Energy Information Agency Form 923 filings and actual hourly hydro data for the years 2020 to 2024. Using publicly available data, PowerGEM also modeled the Southeastern United States grid to assess the likelihood that DESC could import power from neighboring utilities in times of capacity shortfalls.

Based on this modeling, PowerGEM determined that:

1. For DESC to meet its long-standing reliability standard of one loss of load event ("LOLE") (*i.e.*, generation-related inability to serve firm load) every ten years, it would need to maintain a minimum winter planning reserve margin of 20%. From a reliability perspective, DESC is a winter peaking system which means when the planning reserve requirements are met for the winter season, they will also be met for the summer season. The summer reserve margin acts as a secondary constraint requiring that DESC not allow its summer planning reserve margin to fall below 13%. For the 2023 study, the planning reserve margin needed was 20.1% in winter and 15% in summer. DESC used the new planning reserve margins as inputs in the 2026 IRP modeling.

2. By modeling DESC's system with and without the possibility of assistance from other utilities in times of emergency, PowerGEM showed that DESC would need a 35.5% winter planning reserve margin to meet reliability standards if DESC's system operated in isolation from neighboring systems. Such market assistance is principally valuable in meeting capacity requirements in the shoulder months, when major generating units are offline for planned maintenance, and in the evening hours of summer months after solar generation ceases to produce. During such times, neighboring utilities often have resources available to provide external market assistance for DESC's system, assuming seasonable weather conditions and available transmission capacity.

The study provides fully distributed outputs concerning LOLE, Loss of Load Hours ("LOLH"), Expected Unserved Energy ("EUE"), and interruption calls under DR programs for multiple potential reserve margins in addition to the reserve margin producing the LOLE of one event every ten years. PowerGEM also prepared sensitivity studies to gauge the effect on resource adequacy due to extreme weather conditions, variations in forced outage rates, and penetration of renewable resources.

PowerGEM used the base case established in the reserve margin study to calculate an ELCC for Solar and BESS resources for use in DESC's PLEXOS modeling. Unlike Solar and BESS, more traditional generation sources have historical data about forced outages which is used in modeling in place of ELCC calculations. Because the winter peak occurs outside of the hours when solar is generating electricity, any additional solar resources added to DESC's system above current amounts will have an ELCC of only 0.5% of rated capacity.

Battery facilities are typically configured to support a 4-hour duration of discharge, and their capacity is rated at that discharge level. Given the probable duration of extreme weather events or other capacity emergencies on DESC's system, the next 400 MW of four-hour duration Battery facilities that are installed on DESC's system will provide an ELCC of 94.3% of rated capacity. That figure then drops to 85.8% for the next 400 MW and then to 77.1% for the next 400 MW. These figures assume that the Battery resource is operating in a typical energy shifting mode (*i.e.*, storing power when it is available at low cost and returning it to the systems during higher cost periods).

Stakeholder Process Update

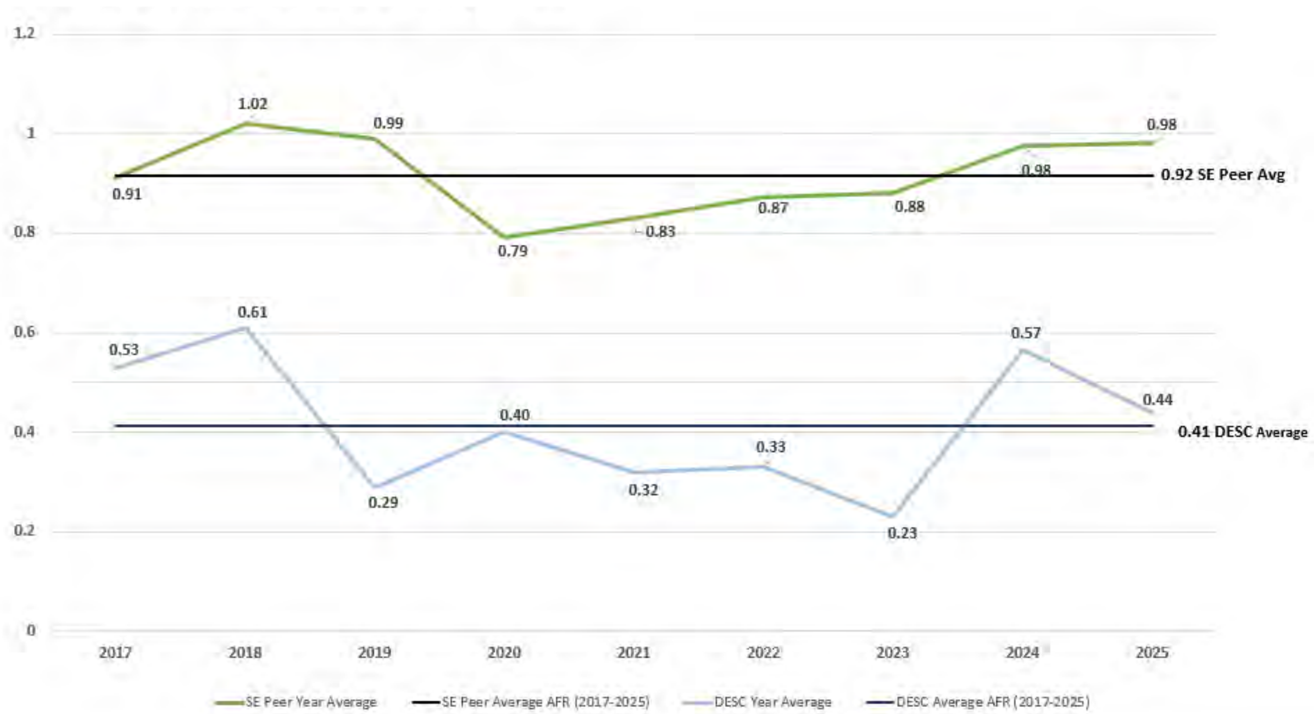
The IRP Stakeholder Advisory Group has met twenty-two times since it first convened in 2020 and has provided the opportunity for a meaningful exchange of views among Stakeholders, ORS and the Company to inform the IRP process. DESC has previously reported to the Commission on Stakeholder Sessions I-XIX and has filed the agendas, presentation materials, minutes, and follow-up responses to prior Stakeholder sessions in Docket No. 2019-226-E or in the previous triennial IRP docket, Docket No. 2023-9-E.

As in prior years, an outside consulting group facilitates the stakeholder process, participation is open to all interested parties, Stakeholders are invited to ask questions or raise concerns in meetings or through a dedicated electronic messaging board that is available at all times, and DESC posts written responses along with meeting minutes and presentation materials on that message board. The facilitating consultant sets the agenda for each meeting in consultation with Stakeholders, ORS and DESC and considering the topics that the Commission asks DESC to review with Stakeholders. The stakeholder process has been well attended by participants that include ORS, the Sierra Club, the Coastal Conservation League and others. As with past IRPs and IRP updates, the methodologies and inputs used in generating this 2026 IRP have been reviewed with the Stakeholders prior to filing. DESC will continue to convene Stakeholder sessions and to encourage parties to raise questions and issues that they believe are important or relevant to the development of future IRPs and IRP updates.

Safety

Safety, which is the Company's primary core value, is measured through the accident frequency rate ("AFR"). DESC's electric system average AFR for 2016-2025 is less than half the average for the same years of the Southeastern Electric Exchange ("SEE"):

Figure 5: Accident Frequency Rate ("AFR")



In 2025, DESC's OSHA recordable incident rate was 0.44. Its days away from work rate ("DART") rate[9] was 0.05, and its DART severity rate[10] was 4.45. These are excellent safety results, but the Company strives for zero reportable accidents and invests in training and safety upgrades and equipment in pursuit of this goal.

9 DART is the rate of incidents involving days away from work, restricted work activities or job transfers.
10 DART severity rate is equal to (the number of workdays lost + light duty days lost) x 200,000 / total hours worked.

Distribution and Transmission Operating Report Update

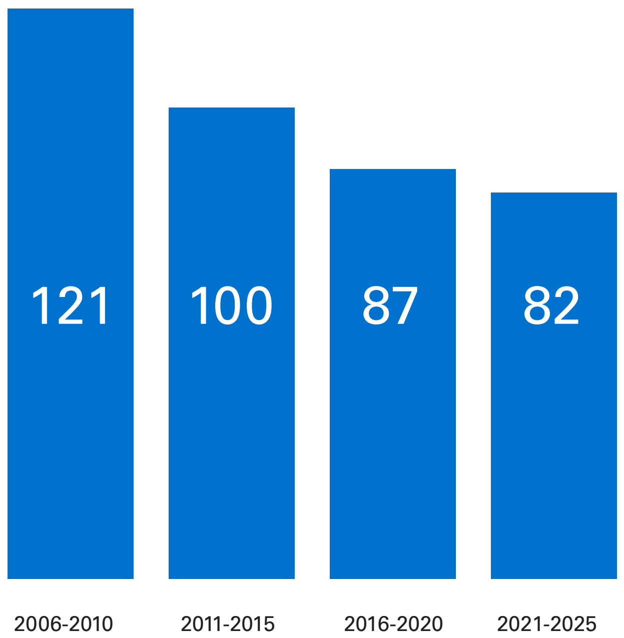
Outages and Reliability

As a vertically integrated utility, DESC operates the generation, transmission, and distribution systems needed to provide electric utility service to the customers in its service area. The Company must plan and operate each of these systems effectively to ensure safe, reliable, and affordable service to its customers.

Maintaining the reliability of the bulk power system depends on many factors, and many of the most important of them are the subject of the North American Electric Reliability Corporation ("NERC") Reliability Standards (the "Reliability Standards"). These are mandatory standards backed by FERC enforcement powers and require DESC to implement appropriate transmission planning processes, maintain regularly updated power flow models, conduct transmission planning analyses in coordination with other utilities, implement effective inspection, maintenance, and replacement processes for transmission assets in the field (including rights of way maintenance), and ensure that it has the necessary operating protocols to respond promptly to reasonably anticipated contingencies and conditions on its system and that its transmission system operators are well trained in those protocols. Carefully implementing these standards is foundational to DESC's ability to provide a transmission system that delivers the energy that customers need and expect to reliably power their homes and businesses.

Distribution reliability entails many of the same planning, maintenance and operations functions that are listed above but at the more localized distribution level. DESC's goal is to prevent local power outages whenever possible and restore power quickly when it is not. The industry benchmark for measuring operational effectiveness in transmission and distribution operations is the number of minutes on average a customer is without power, which is the System Average Interruption Duration Index, or SAIDI score. DESC's 2025 SAIDI was 81.15 minutes, compared to the 2025 average SAIDI of the investor-owned utilities in the State of South Carolina of 110.38 minutes. A lower SAIDI score indicates more reliable transmission and distribution systems. DESC's score reflects both the Company's strengths as an operator of power transmission and distribution assets and the Company's investments in the reliability of its transmission and distribution systems.

Figure 6: System Average Interruption Duration Index – average minutes for each 5-year period



VCS1 - Killian 230KV and Blythewood Switching Station – Killian 115KV Transmission Lines

Storms and Storm Response

Two storms qualified as major storm events, defined as named storms and storms that qualified as Major Event Days ("MEDs") for SAIDI calculation, impacted DESC's service territory in 2025. In all cases, the system performed well, and service was restored in a timely manner.

A thunderstorm occurred on June 7, 2025, beginning at approximately 7:30 pg.m. The storm impacted a total of 63,891 customers. The peak outage occurred at 9:25 pg.m. on June 7, 2025, with 48,348 customers without power. Restoration of power was largely complete within 24 hours.

A thunderstorm occurred on June 25, 2025, beginning at approximately 7:30 pg.m. The storm impacted a total of 87,982 customers. The peak outage occurred at 8:37 pg.m. on June 25, 2025, with 49,883 customers without power. Restoration of power was largely complete within 24 hours.

Transmission Plans and Planning

DESC continuously analyzes its transmission system to ensure the continued safe, reliable, and economical delivery of power to customers and follows the Reliability Standards for Transmission Planning. As those standards require, DESC regularly updates its power flow models to incorporate planned additions and modifications of its transmission and generation system, changes to models from adjacent systems, changes in levels of forecasted demand growth and specific changes in loads from major new residential developments and commercial, industrial, or wholesale customers.

In 2025, the Company participated in multiple near- and longer-term reliability studies under the aegis of the Southeastern Reliability Council ("SERC"), the Carolinas Transmission Coordination Arrangement, and the South Carolina Regional Transmission Planning ("SCRTP") FERC Order 1000 planning region. In 2025, DESC continued working with the sponsors of Southeastern Regional Transmission Planning ("SERTP") to join that larger regional transmission planning group and it and the other members of SCRTP will retire it upon making the required filings at FERC.

DESC employs a comprehensive and integrated local and regional transmission planning process which incorporates DESC's long term planning criteria, the NERC Reliability Standards, and the provisions of DESC's FERC OATT. This planning process is fully described in Attachment K of the OATT. In addition to other planning activities, the Company annually assesses its transmission system over the long term and determines what transmission projects are needed to ensure the continued reliability of its bulk electric system and to comply with all applicable regulatory requirements. DESC combines this process with its on-going assessment of the age and reliability of its transmission infrastructure to identify transmission assets that need to be retired either because they have specific reliability problems or have reached the end of their useful life and need to be replaced for that reason. Based on this assessment, DESC plans, sequences and schedules transmission improvement projects over a multi-year planning horizon. The most recent set of projects resulting from this process is shown in ***Appendix B.***

Table 5: Major Storm Outages and Restoration 2016-2025

Event	Dates	Total Customers Impacted	Days to Restore Service
Hurricane Matthew	10/7/16-10/16/16	313,300	9
Hurricane Irma	9/11/17-9/14/17	173,300	3
Hurricane Florence	9/14/2018	7,500	1
Hurricane Michael	10/11/18-10/12/18	68,800	2
Hurricane Dorian	9/4/19-9/8/19	186,400	4
April 2020 Tornados	4/13/2020	208,620	1
Tropical Storm Elsa	7/7/21-7/8/21	51,644	1
Winter Storm	1/3/22-1/4/22	128,230	1
2022 Winter Storm Izzy	1/16/22-1/18/22	31,321	2
Hurricane Ian	9/30/22-10/2/22	206,176	2
Winter Storm Elliott	12/23/22	49,895	1
Tropical Storm Idalia	8/30/23-8/31/23	69,987	1
Nor'easter Winter Storm	12/17/23	17,536	1
Winter Storm Finn	1/9/24-1/10/24	106,214	2
Summerville Microburst	6/10/24-6/11/24	21,849	1
Columbia Microburst	8/4/24-8/5/24	16,750	1
Tropical Storm Debby	8/5/24-8/9/24	123,280	3
Hurricane Helene	9/26/24-10/8/24	446,987	12
Thunderstorm	6/7/25-6/8/25	63,891	1
Thunderstorm	6/25/25-6/26/25	87,982	1

Dominion Energy

Act 41 requires utilities in their IRPs to describe how they evaluate non-wires alternatives to wires-based transmission projects in their transmission planning process. Such evaluations have been an integral part of DESC's transmission planning process for years, and the Company has a long history of evaluating and utilizing a range of non-wires transmission technologies to address reliability issues on its system. Specifically, the Company began installing Dynamic Line Rating ("DLR") devices on transmission lines in the early 2000s to maximize the real-time capability of those lines considering temperature and other weather conditions at any given time. The Company has long utilized series reactors on its transmission lines to give it the ability to redirect power flow to avoid potential overloads in situations where these devices can be installed at less cost and more quickly than rebuilding existing transmission lines or constructing new ones. DESC also has synchronous condensing capabilities in the Fairfield Pump Storage units and in the new combustion turbines constructed at Bushy Park and Parr such that they can generate or absorb purely reactive power to control transmission system voltages in the surrounding areas without needing to produce real power and to provide voltage support during the startup of other units. DESC determined that Bushy Park and Parr were strategic locations for deploying this technology, and that capability was built into the design of those turbines.

The generation planning process that is the focus of an IRP creates build plans assuming the availability of standard generation resources that are not tied to specific locations. On the other hand, the transmission system improvements required to add new generation to the grid depend greatly on where generation is being added. Because transmission needs are locationally dependent, the Company's evaluates alternative transmission solutions when specific generation sources are identified as being needed in the near term and their potential locations are specified.

DESC's FERC approved Open Access Same-Time Information System ("OASIS") states in detail how DESC considers a range of alternative transmission technologies in its planning and interconnection studies. Among the principal technologies that the Company considers are:

> **Static Synchronous Compensators:** A static synchronous compensator ("STACOM") is a power electronics device designed to regulate voltage and improve stability by injecting or absorbing reactive power during a transient event. This device functions by generating a voltage waveform that is in phase with the system voltage where the STACOM is connected. By controlling the STATCOM voltage magnitude, the STATCOM can produce or absorb reactive power to regulate the voltage, consequently, stabilizing the transmission system after a transient event. STATCOMs have a high initial cost, are complicated to install, and add complexity to system protection and ongoing maintenance. In planning transmission improvements, DESC evaluates the ability of STATCOMs to mitigate constraints associated with voltage or stability concerns.

Static VAR Compensators: A static VAR compensator ("SVC") is an interfaced power electronics device that largely consists of large passive components (e.g., shunt reactor banks, and harmonic filter banks) whose primary function is to provide dynamic reactive power compensation and voltage regulation. Like STATCOMs, SVCs have a high initial cost, add complexity to protection systems and require complex maintenance. They have limited overload capacity compared to other devices like synchronous condensers. In planning transmission improvements, DESC evaluates the ability of SVCs to mitigate constraints associated with voltage or stability concerns.

Synchronous Condensers: Synchronous condensers provide reactive power compensation, voltage regulation and stability during grid transients. Like STATCOMs and SVCs, synchronous condensers have a high initial cost and have special maintenance requirements. In planning its transmission system, DESC evaluates the ability of synchronous condensers to mitigate constraints associated with voltage or stability concerns.

Advanced Power Flow Control Devices: An advanced power flow control device dynamically adjusts system parameters such aws voltage, current, and phase angle to mitigate congestion and constraints. In planning transmission improvements, DESC evaluates the ability of advanced power flow control devices to mitigate constraints associated with thermal and/or voltage constraints, or stability concerns.

Transmission Switching: Transmission switching is a manual or automated action to mitigate or avoid a system constraint to reconfigure the transmission network to avoid or reduce the constraint. Manual switching is done using operational guides that are followed by transmission system operators. Automatic switching is done using automated remedial action schemes ("RAS"). Both approaches add increased operational complexity to the system and may be effective only during specific system conditions or generation dispatch scenarios. DESC uses operational guides and RASs as temporary solutions when a long-term solution has been identified and is being implemented, which may take several years to complete. NERC allows operational guides and RASs to mitigate constraints for specific types of contingencies. Where appropriate, DESC evaluates the ability of transmission switching and RASs to mitigate of thermal or voltage constraints on a temporary basis.

Advanced Conductors: Advanced conductors are conductors that have a higher current-carrying capacity for a given size as compared to the standard copper or aluminum conductor steel reinforced ("ACSR") conductors typically used by DESC. When reconductoring existing transmission infrastructure, DESC evaluates the ability of advanced conductors to mitigate system constraints by achieving a thermal rating using existing transmission structures where doing so would otherwise require building new structures and installing larger and heavier conductors. Advanced conductors are more costly than DESC's standard conductors and the returns from installing them diminish the longer the length of conductor required. Advanced conductors also require specialized design standards, specialized connectors and conductor support equipment, and maintaining specialized spare inventory and have specialized installation requirements. For retrofits of existing lines with advanced conductors, DESC typically considers lines of less than five miles with concrete or steel structures that have been in service less than 20 years.

Tower Lifting: Tower lifting raises the height of existing transmission towers or adds intermediate structures to increase line clearance and capacity when the capacity of a single transmission line is limited due to clearance issues that only affect a limited number of structures. Evaluation of tower lifting requires a detailed design and engineering evaluation and is only beneficial in limited situations.

Table 6 shows applicability of alternative transmission technologies to given constraints:

Table 6: Alternative Transmission Technologies

Alternative Transmission Technology	Powerflow - Thermal <= 115 kV	Powerflow - Thermal 230 kV	Powerflow-Voltage	Short Circuit	Stability
Advanced Conductors	YES[1,2]	YES[1,2]	N/A	YES[1,2]	YES[1,2]
Advanced Power Flow Control	YES[6,7]	YES[6,7]	N/A	N/A	N/A
Transmission Switching	YES[4,5]	YES[4,5]	N/A	N/A	YES[4,5]
Voltage Source Converters	N/A	N/A	N/A	N/A	N/A
Static Synchronous Compensators	N/A	N/A	YES[6,7]	YES[6,7]	YES[6,7]
Static VAR Compensators	N/A	N/A	YES	YES	YES
Synchronous Condensers	N/A	N/A	YES	YES	YES
Tower Lifting	YES[1,2,3]	YES[1,2,3]	N/A	N/A	N/A

NOTE 1: May be considered for lines or branches < 5 miles

NOTE 2: May be considered for existing steel or concrete structures that are < 20 years old

NOTE 3: May be considered for ACSR lines that cannot achieve a 100°C/212°F ('B' Rating) or a 125°C/257°F ('C' Rating) max temperature rating due to ground clearance

NOTE 4: Remedial Action Schemes may be considered as interim solutions for upgrades that require > 3 years from proposed COD to implement

NOTE 5: Remedial Action Schemes may be considered for NERC P3, P4, P5, P6, P7 constraints and not result in the loss of firm load or the loss of >100 MW of generation under study and no loss of higher priority queued generation

NOTE 6: May be considered for 115 kV or 230 kV parallel paths to a large load center or neighboring system tie lines

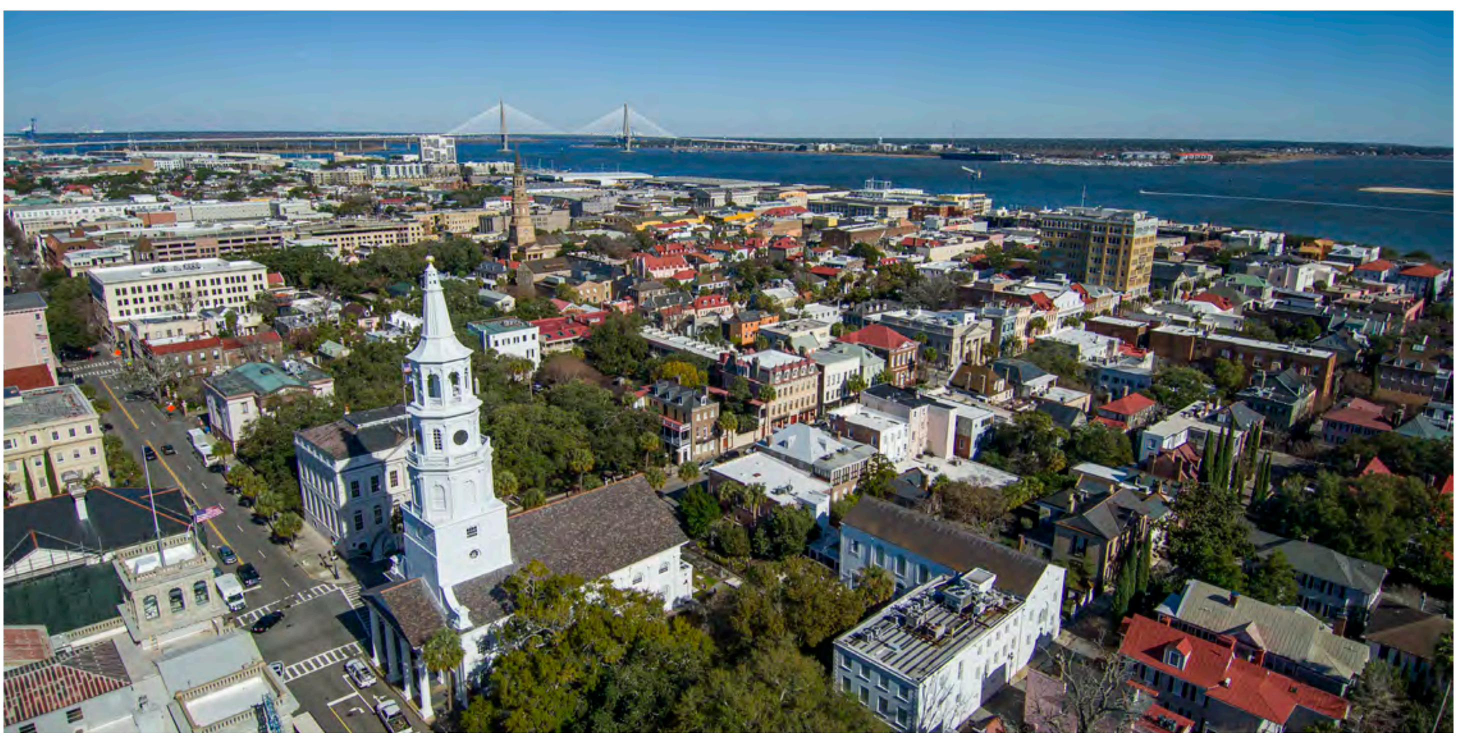
NOTE 7: May require increased cost and extended lead time for First of a Kind application on DESC System until piloted and fully tested by DESC

Act 41 also requires utilities to provide in their IRPs "a description of how transmission factored into the utility's evaluation of the range of future scenarios included in the fifteen-year time period of the utility's resource plan, including significant continued economic growth and the retirement of the utility's coal generation," as well as "a discussion of transmission considerations for facilities included in the utility's preferred resource plan for which there are particular sites specified."

IRPs create build plans through the comparative evaluation of competing generation technologies and how they can be combined to best contribute to system reliability and economy. In this modeling, DESC assumes that with limited exceptions competing generation technologies can be built at similarly favorable locations on the transmission system and so each will incur transmission system upgrade costs that are comparable to other competing generation sources on a MW basis. This approach places all generation resources on an equal footing.

DESC specifies a resource's location in IRP modeling only in infrequent cases. In its 2026 IRP, DESC has modeled two brownfield sites where it believes it may be advantageous to locate generation. The brownfield sites considered are Urquhart Station in Aiken, South Carolina, where DESC has modeled the potential placement of a second large frame CT (assumed to be constructed following the construction of Urquhart CT #7), and Bushy Park where DESC has modeled the potential placement of a second smaller aeroderivative CT (alongside the existing Bushy Park CT #1 unit). In modeling these resources, DESC assumed transmission integration costs and system improvement costs that were comparable to those of a greenfield unit. In the case of both the Urquhart and Bushy Park CTs, DESC's modeling was informed by site-specific cost estimates that have been prepared for these potential projects. Where appropriate and useful, DESC performs TIAs to assess alternative technologies and alternative sites but only at such time as it has identified those technologies as options to be considered in detail.

A key factor in considering the impact of future load growth and coal unit retirements on transmission planning is the fact that DESC's system includes two major load centers: the Greater Columbia area and the greater Charleston area. Over time, generating resources have become heavily concentrated in the northwestern part of the Company's service territory near the greater Columbia area while the amount of generating resources located near the greater Charleston area have decreased with the only major generating facility remaining in the area being Williams. Load is now growing quickly in the greater Charleston area, and DESC is pursuing a plan to expand transmission capacity into that area along with the construction of Canadys Station. The transmission upgrades associated with Canadys Station will dramatically improve the ability of DESC to deliver power into the Charleston area and so will support the eventual retirement of Williams while opening up opportunities to construct additional generation capacity to support coal plant retirements in locations other than the South Carolina Low Country.



Transmission Projects

During 2025, DESC invested a total of $230 million in capital additions and improvements to its transmission system and completed eight major transmission projects representing $47 million of that amount. As a result of its annual and ongoing transmission reliability assessments, DESC has identified twenty-eight major electrical transmission projects that are either ongoing or planned within the next five years. A listing of these and other major transmission projects are found in ***Appendix B.***

The following eight major transmission projects were completed in 2025. In all cases of rebuilds of existing lines, the wooden structures were replaced with galvanized steel structures meeting all modern electric codes and providing increased reliability and resiliency.

Williams – Goose Creek 230KV/115KV, Williams – Faber Place 230KV Transmission Line Rebuild through the Goose Creek Reservoir *(Completed and In Service December 2025).* DESC rebuilt these line sections to replace aging infrastructure.

Dawson 230KV Substation and 230KV Transmission Line Fold-ins Construction, Phase I *(Completed and In Service October 2025).* DESC built a new substation and associated transmission line to serve a new customer.

Batesburg – Saluda County 115KV Transmission Line

Williams – Goose Creek 230KV/115KV, Williams – Faber Place 230KV Transmission Lines

Grove Street 115KV Substation, Add 37.3MVA Transformer and Associated Equipment *(Completed and In Service September 2025).* DESC made these upgrades in the existing substation to support growth in the Charleston Peninsula area and improve reliability and redundancy.

Williams Street 230KV Substation, Replace Switchhouse and Three Breakers *(Completed and In Service August 2025).* DESC completed this project to replace aging infrastructure.

Hopkins – CIP 230KV Rebuild a Section of the Transmission Line *(Completed and In Service September 2025).* DESC rebuilt this line to replace aging infrastructure.

Okatie - Bluffton 115KV Rebuild Transmission Line *(Completed and In Service May 2025).* DESC rebuilt this line to replace aging infrastructure.

Burton – Saint Helena 115KV Rebuild the Burton Transmission to Frogmore Section of the Transmission Line *(Completed and In Service March 2025).* DESC rebuilt this line to replace aging infrastructure.

Ridgeville Commerce Park 115-23KV Substation and 115KV Transmission Line Tap Construction *(Completed and In Service August 2025).* DESC built a new substation to serve a new commercial distribution center and to serve growing distribution load.

Generation Operating Report Update

DESC's Current Generation

For power generation, reliability requires sufficient generation resources and resource diversity to avoid over-reliance on any one energy source, along with dependable fuel supplies. The generation portfolio must be able to meet both real-time demand for electricity and reserve requirements (*i.e.*, the need to have sufficient generation on standby). DESC operates a diverse portfolio of resources to serve customers' energy. DESC supplements capacity and energy needs with market purchases where available and cost effective, but the ability to purchase and deliver power into the DESC system are finite, and over-reliance on market purchases creates risks to both reliability and affordability.

As of December 31, 2025, DESC operated 61 hydro and fossil generating units with a dependable net winter generating capacity of approximately 5,345 MW and a single unit nuclear station with a net dependable winter generating capacity of approximately 666 MW (DESC's two-thirds share). These resources are supplemented by approximately 1,187 MW of utility-scale solar generation purchased from third parties under long-term power purchase agreements ("PPAs") and approximately 168.4 MW of additional customer-scale solar. DESC also benefits from a 2 MW allocation of power from the Southeastern Power Administration ("SEPA"), which operates hydro resources on the upper Savannah River. DESC's updated table of generation assets for 2025 is as follows:

Table 7: DESC's Existing Supply-Side Resources

	In-Service Date	Probable Retirement[1] Date	Summer 2025 (MW)	Winter 2025 (MW)
Combined Cycle:[4]				
Jasper Combined Cycle – Jasper, SC	2004	2044	902	1000
CEC Combined Cycle – Columbia, SC	2004	2044	522	601
Urquhart Combined Cycle – Beech Island, SC	2002	2042	458	484
Total Combined Cycle Capacity			1882	2085
Gas-Fired Steam:				
McMeekin – Irmo, SC	1958	2038	250	250
Urquhart 3 – Beech Island, SC5	1954	2027	95	96
Total Gas-Fired Steam Capacity			345	346
Coal-Fired Steam:				
Wateree – Eastover, SC	1970	2045	684	684
Williams – Goose Creek, SC[2]	1973	2048	595	600
Cope - Cope, SC[4]	1996	2071	415	415
Total Coal-Fired Steam Capacity			1694	1699

	In-Service Date	Probable Retirement[1] Date	Summer 2025 (MW)	Winter 2025 (MW)
Simple Cycle Combustion Turbines:[4]				
Urquhart 1,2,3 – Beech Island, SC[5]	1969	2027	39	48
Urquhart 4 – Beech Island, SC[5]	1999	2027	48	49
Urquhart 7 – Beech Island, SC (201 MW)[5]	2029	2089	0	0
Coit - Columbia, SC[6]	1969	2025	26	36
Parr 1 and 2, – Parr, SC	1969	2065	84	104
Bushy Park – Goose Creek, SC	2024	2064	42	52
Hagood 4 – Charleston, SC	1991	2041	80	95
Hagood 5 – Charleston, SC	2010	2060	18	21
Hagood 6 – Charleston, SC	2010	2060	20	21
Total Simple Cycle CT Capacity			357	426
Nuclear:				
V. C. Summer - Parr, SC	1982	2062	651	666
Hydro:				
Neal Shoals – Carlisle, SC	1905	2055	3	4
Parr Shoals – Parr, SC	1914	2064	7	8
Stevens Creek - Near Martinez, GA	1929	2079	8	9
Saluda - Irmo, SC	1932	2082	190	192
Fairfield Pumped Storage - Parr, SC	1978	2078	576	576
Total Hydro Capacity			784	789
Other:				
Southeastern Power Administration (SEPA)			2	2
Total Firm Capacity:			5715	6013
Solar:[3]				
PPA DER Program	2015-2019	2039	64	0
PPA Non-DER Program	2017-2024	2040	1123	0

Notes:

1. Probable retirement dates are based on the 2024 Depreciation Study. See Note 5 below regarding certain planned retirements.

2. Williams Station is owned by South Carolina Generation Company ("GENCO"), a wholly-owned subsidiary of SCANA Corporation which is a wholly-owned subsidiary of Dominion Energy, Inc. GENCO's sells to DESC the total capacity and the entire output of Williams Station under a Unit Power Sales Agreement approved by the Federal Energy Regulatory Commission.

3. Solar MW are nameplate values and do not represent the contribution to peak demand.

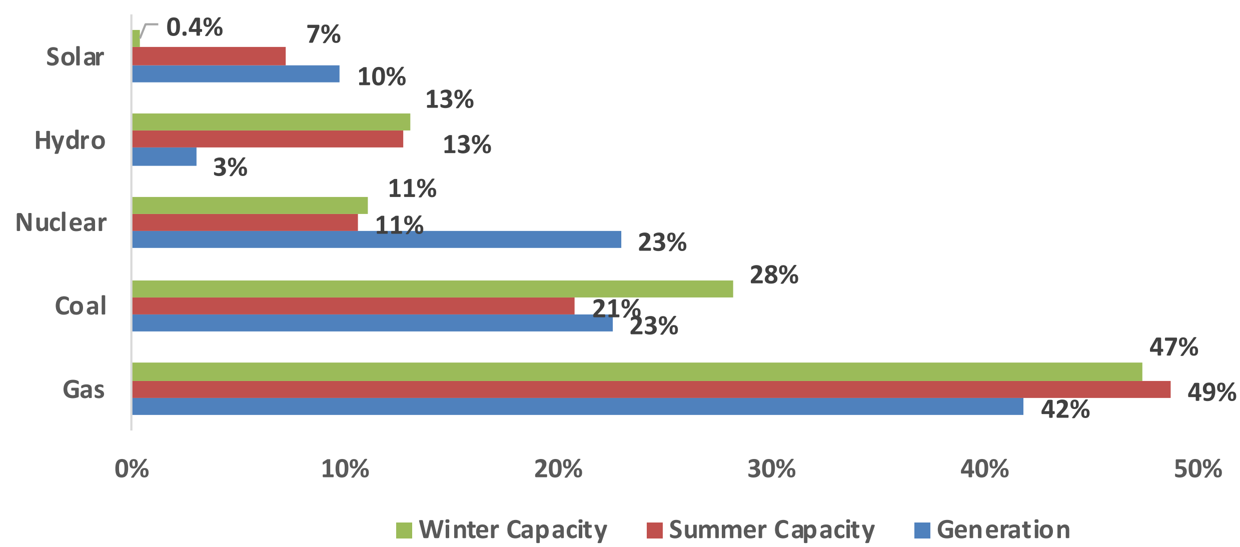
4.Cope Station operates with coal as its primary fuel source but is also capable of operation on natural gas. All simple cycle CTs and combined cycle CTs can operate on either natural gas or ultra low sulfur fuel oil.

5. Urquhart Steam Unit 3 and CT Units #1-4 are anticipated to retire no later than December 31, 2028 as required under the Urquhart Replacements All Sources Request for Proposals for their replacements.

6. As part of the CT Replacement Project, the Coit turbines were retired from service on December 31, 2025.

In 2025, the five major classes of generation contributed to DESC's safe, reliable and efficient electric service to customers in the following percentages:

Figure 7: DESC'S 2025 Resource Contribution to Energy Supply



Solar and Other Renewable Generation

At the end of 2025, Solar and other renewable generation represented 1,357 MW-AC of installed nameplate capacity interconnected to the DESC system and produced approximately 10% of DESC's energy needs as non-carbon emitting energy. At the end of 2025, DESC had two Hybrid Solar & Storage projects contracted under PPA arrangements in operation on its system.

Nuclear Operating Report Update

In 2025, V.C. Summer Station produced approximately 5,390 GWh of non-carbon emitting base-load energy for DESC, representing approximately 22.9% of DESC's energy needs. Energy produced by V.C. Summer Station during 2025 displaced approximately 7.8 million tons of CO_2 that would have been emitted if replaced by fossil resources. The 2025 100% (undivided) generation output from V.C. Summer Station was approximately 8,085 GWh.

In 2025, V.C. Summer Station met or exceeded all Nuclear Regulatory Commission ("NRC") safety and environmental requirements and has received favorable ratings from the Institute of Nuclear Power Operations ("INPO") operational standards assessment. For 2025, INPO rated V.C. Summer's overall performance as exemplary from January 1, 2025, to December 5, 2025, and strong for the remainder of the year. An exemplary rating is the highest achievable rating from INPO with strong being the second highest of four ratings.

In 2025, V.C. Summer Station's net capacity factor, based on reasonable excludable nuclear system reductions, computed under the provisions of S.C. Code Ann. § 58-27-865, was 95.5%, indicating a high degree of reliability. During 2025, V.C. Summer conducted no refueling outage and had two maintenance outages in 2025, one in February and another in October. On August 17, 2023, the Company filed an application for license extension with the NRC. On June 30, 2025, the NRC approved the Company's application for an extension of V.C. Summer's operating license and has now authorized V.C. Summer to operate through August 6, 2062.

Update of the Combined Cycle Generating Plants Operating Report

In 2025, DESC's natural gas-fired combined cycle units produced approximately 35% of DESC's energy needs providing 1,882 MW of capacity in the summer and 2,085 MW of capacity in the winter. These ratings are inclusive of the completed advanced gas path ("AGP") upgrades on the three Jasper Station units and the two Columbia Energy Center units. In 2025, DESC's combined cycle units' forced outage factor was only 0.42%.

Update of the Simple Cycle Combustion Turbines Operating Report

As of December 31, 2025, DESC's CT units were rated to provide 331 MW of capacity in the summer and 390 MW in the winter. In 2025, simple cycle CT units produced limited energy (0.39% of DESC's energy needs) but provided critical quick-start reserve capacity and black start capabilities necessary to ensure system reliability.

On December 1, 2025, the replacement Parr CT units (Fairfield County) entered commercial operation. The Company retired the Coit CT units (downtown Columbia) at the beginning of 2026.

Fossil-Steam Units Operating Report

In 2025, DESC's fossil steam units provided approximately 29% of DESC's energy needs and provided 2,039 MW of summer capacity and 2,045 MW of winter capacity. The 2025 Forced Outage Factors for DESC fossil coal units and fossil gas units were approximately 0.75% and 2.0%, respectively. Detailed operating results for DESC's fossil steam units are provided in ***Appendix J,*** Generator Level Performance Data.

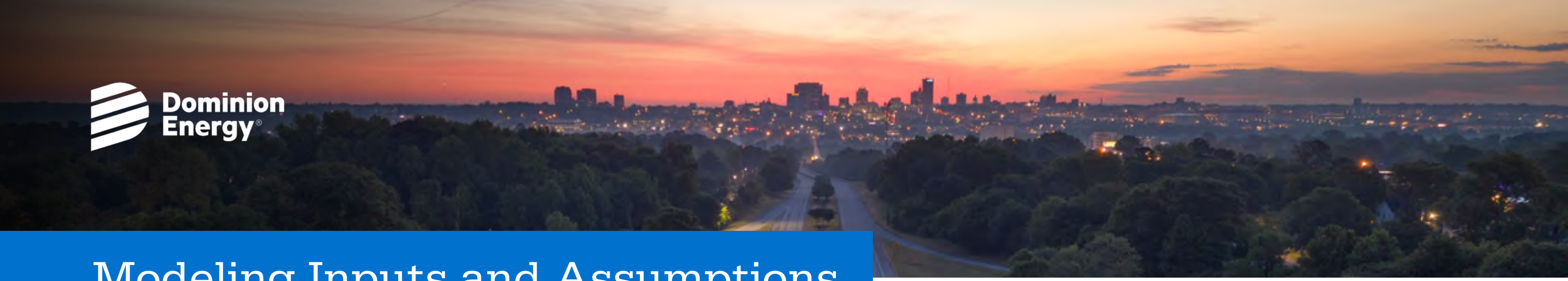
Hydroelectric-Power Operating Report

In 2025, Fairfield Pumped Storage returned to the system over 478 GWh of stored energy and provided 576 MW of capacity in both summer and winter. The remaining hydro units provided 205 MW of capacity in the summer and 213 MW of capacity in the winter. In 2025, DESC's hydroelectric plants provided approximately 3% of DESC's energy needs. In 2025, the Fairfield Pumped Storage Forced Outage Factor was 0.16%.

Hydro Relicensing. In July of 2009, DESC entered into a Comprehensive Settlement Agreement with the parties to its FERC proceeding to relicense the Saluda Hydro Project. DESC continues to await FERC's decision on the application. The relicensing of the Stevens Creek Project is under active review by FERC staff.

Saluda Hydro Upgrades. The Company is completing a major project to replace the penstock headgate assemblies on all five Saluda Hydro units. Additionally, the Company is beginning major upgrades on two of the Saluda Hydro units to ensure continued availability and reliable service. These upgrades are expected to include rewinds and upgrades of the generators, replacement of the turbine runners, and replacement of generator excitation and control systems. The generator step-up transformers for all five units have been replaced, and the new transformers are sized to accommodate future planned generator upgrades.

Parr Hydro. As part of the renewed license received in late 2020 for the Parr Hydro Project, the Company plans to upgrade all six of the generating units at the Parr Shoals Hydro facility over the next ten years. Completing these upgrades will enhance the reliability and availability of these units, which have been in service for over a century, and will reduce their impact on the aquatic environment. Replacing or rewinding the generators and replacing the turbine runners are expected to increase the generating capacity of this facility but will not materially affect the capacity available to the system given the intermittent nature of run of river hydro resources.



Modeling Inputs and Assumptions

Load Growth Forecast

As its reference load forecast, the 2026 IRP incorporates the Company's 2026 annual Base Load Forecast of customers' future energy and demand needs across the planning horizon and incorporates updated findings from new and refreshed evaluations of DSM potential and the potential demand for building and transportation electrification, prepared by third party experts. See *"Key Developments Since the 2025 IRP Update"* for more details about the 2026 DSM Refresh and the 2026 Electrification Study. The compound annual rate of growth in summer and winter demand over the twenty-year planning horizon in the 2026 IRP Reference forecast are 1.06% and 1.40%, respectively. Compared to the 2025 demand growth forecast, the 2026 demand growth forecast is lower by 0.32 percentage points in summer and higher by 0.25 percentage points in winter. Winter demand currently drives capacity needs on DESC's system.

Table 8: 2026 Annual Energy and Peak Forecast

	Energy Forecast	Peak Forecast	
Year	Sales GWh	Summer MW	Winter MW
2026	23555	4742	4710
2027	24117	4805	4832
2028	25011	4935	4980
2029	25490	5005	5094
2030	25939	5072	5190
2031	26435	5143	5290
2032	26804	5217	5388
2033	27005	5265	5439
2034	27214	5305	5509
2035	27447	5348	5569
2036	27673	5386	5626
2037	27872	5424	5679
2038	28088	5465	5718
2039	28292	5499	5769
2040	28487	5534	5832
2041	28771	5589	5899
2042	29039	5643	5970
2043	29319	5694	6034
2044	29581	5747	6078
2045	29826	5796	6137

To the right is the 2026 summer and winter peak demand forecast.

Figure 8: Summer Peak Forecast (MW)

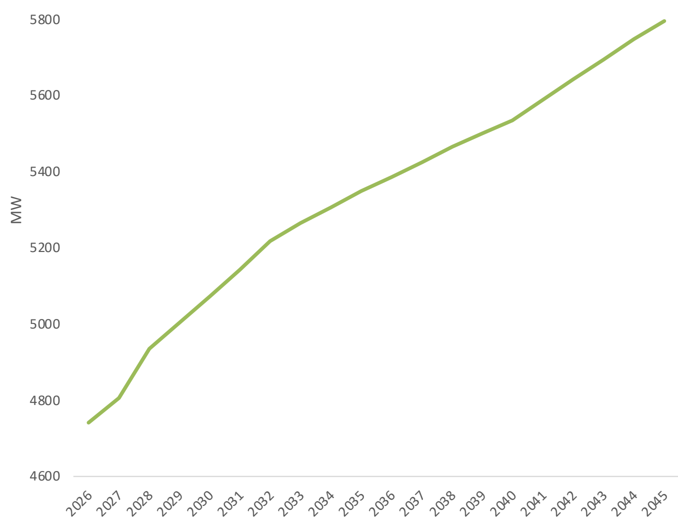
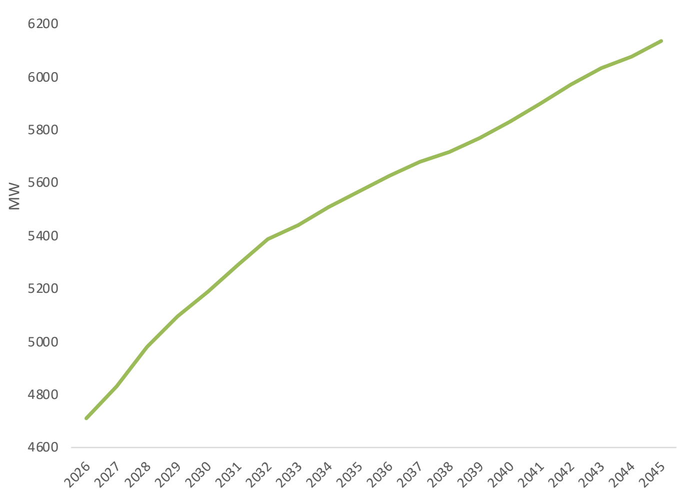


Figure 9: Winter Peak Forecast (MW)

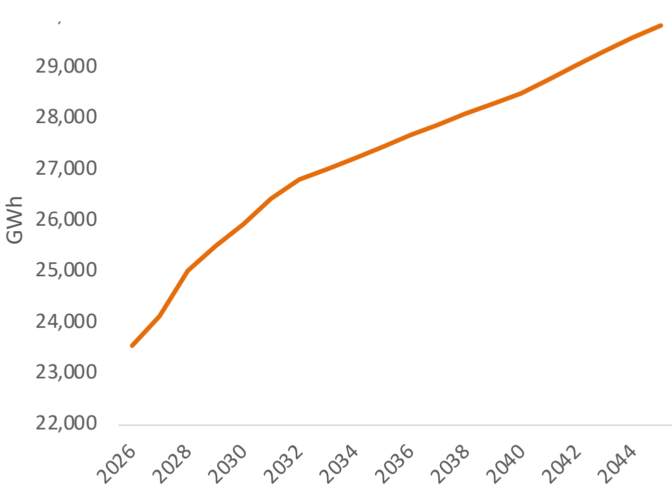


The 2026 winter peak demand forecast is generally higher than the similar forecast for 2025, primarily due to increases in demand from building electrification and industrial sales, and lower assumed levels of demand reductions achievable through Company-sponsored DSM programs. These increases in demand forecasts compared to the 2025 forecast are partially offset by lower demand forecasts from EVs and from commercial and residential sales. The factors contributing to the difference in winter peak demand forecasts for 2040 are shown in Figure 10 below.

Figure 10: Winter 2040 Peak Demand Changes by Driver

The 2026 compound annual rate of growth energy demand over the twenty-year planning horizon is forecasted at 1.25 %, which is lower than the comparable 2025 forecast by 0.56 percentage points.

Figure 11: Energy Forecast (GWh)



Analysis of Load Growth Rates under Alternative Economic Scenarios

As required by S.C. Code Ann. § 58-37-40(B)(1)(a), DESC created high and low growth rate scenarios to assess its generation planning under alternative economic scenarios. For its high load growth scenario, DESC incorporated the addition of near-term load growth from its analysis of potential but not yet committed economic development prospects. Consistent with its 2025 IRP Update, DESC created its low load growth scenario by decreasing the reference forecast of annual demand growth by 0.5% percentage points. Over 20 years, these high and low load growth sensitivities create a band around the reference electrical demand forecast of 6,137 MW in 2045 and that band is 626 MW lower in the low case and 1,011 MW higher in the high case, or -10.0% less and 16.5% more than the reference load growth forecast, respectively. The band around the reference energy forecast of 29,826 GWh in 2045 is between minus 2,412 GWh in the low load case and 6,759 GWh in the high load case, or 8.1% and 22.7% of the reference forecast, respectively. For resource planning purposes, this is a reasonably broad band for testing build plans against potential load growth variations.

Figure 12: Low, Reference and High Demand Forecasts

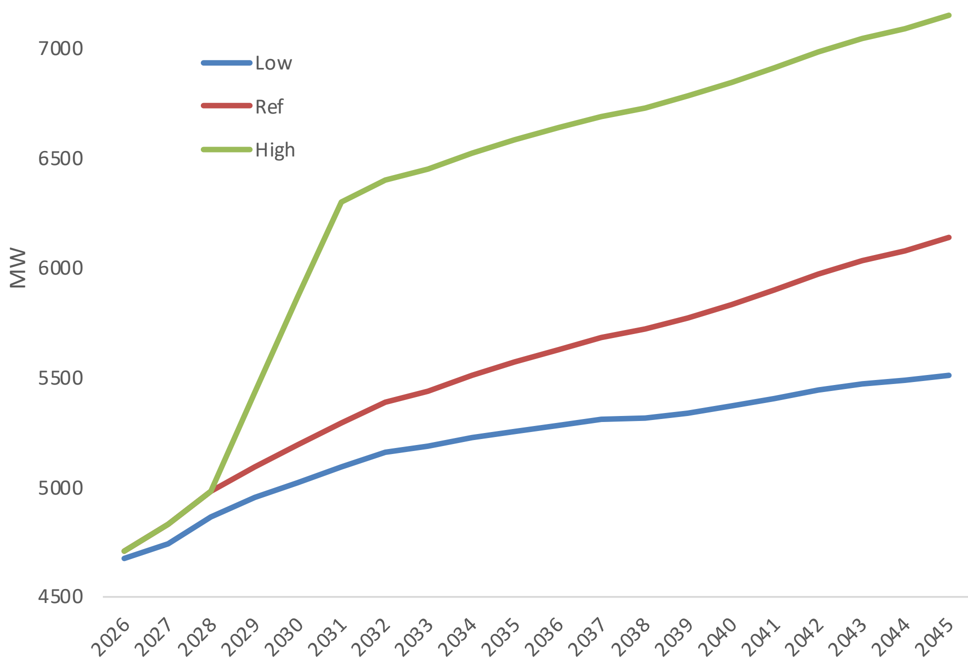
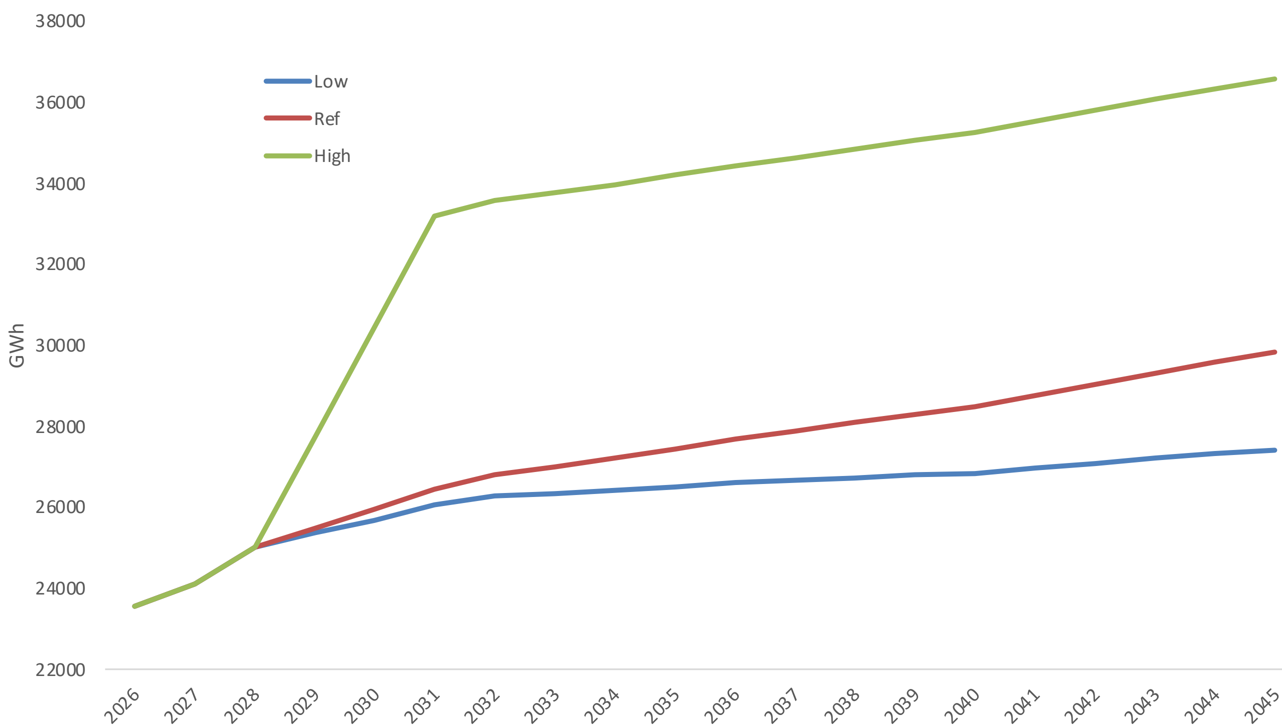


Figure 13: Low, Reference and High Energy Forecasts



Wholesale Sales

Long-term wholesale customer sales currently represent approximately 0.3% of the Company's sales as reflected in the 2026 IRPg.

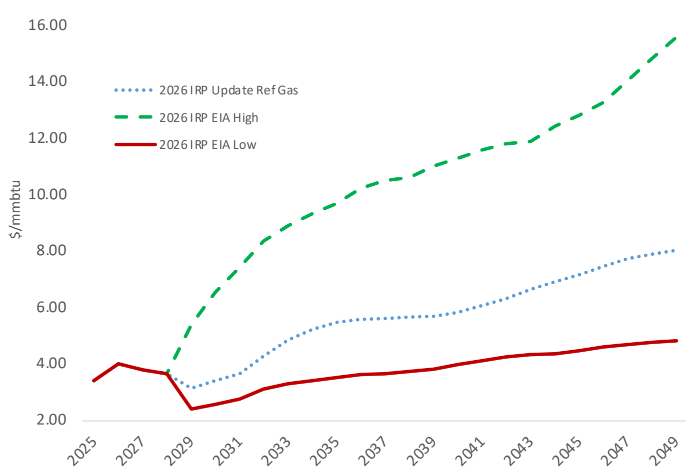
DSM Assumptions

DESC has modeled High DSM, Medium DSM and Low DSM cases based on the results of the 2026 DSM Refresh. The High DSM case assumes that DESC achieves a reduction in annual forecasted load growth (excluding opt-out customers) of 0.69% of gross 2024 energy sales, the Medium DSM case assumes that DESC can achieve a 0.52% gross energy sales reduction and the Low DSM case assumes that DESC is only able to achieve 83% of the energy reductions assumed under the Medium DSM case, or 0.43%. All DESC's energy and demand values include marginal line losses for DSM and the forecasted benefits of the demand response programs.

Natural Gas Price Forecasts

The base natural gas price forecast for the first three years of the planning horizon reflects the prices of publicly traded NYMEX Henry Hub contracts and for the following years reflects the natural gas price forecast from the EIA Annual Energy Outlook, which provides the Low, Reference and High forecasts needed to model various fuel cost levels. These costs have been updated to reflect current data.

Figure 14. Gas Prices (Henry Hub)



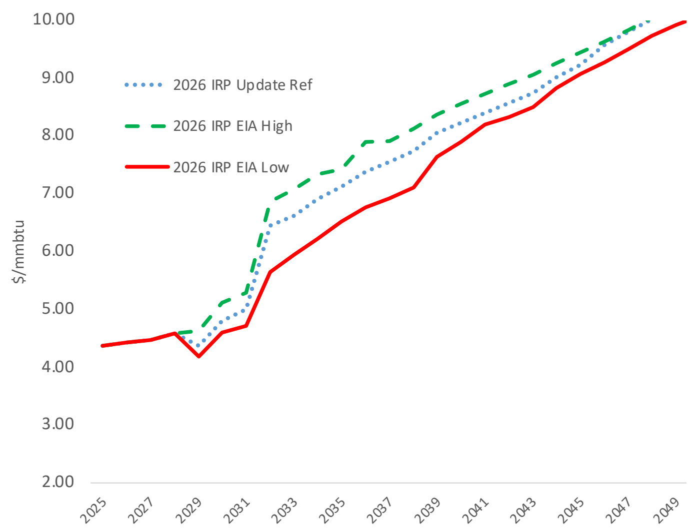
Low GHG Hydrogen

Low GHG hydrogen is an emerging fuel which USEPA has defined as a hydrogen derived fuel that is produced through a process that results in a well-to-gate GHG emission rate of less than 0.45 kilograms of CO_2 equivalent per kilogram of hydrogen produced. Hydrogen is a versatile energy carrier that can store and transport energy, supporting the decarbonization of hard-to-abate sectors of the economy. Opportunities exist in the production, transportation, and utilization of hydrogen to foster a clean energy future, particularly when produced from low- or no-carbon sources. Currently, DESC is not aware of any single authoritative forecast of low GHG hydrogen prices. DESC observed that most published sources are providing targets or goals instead of a fundamentals-based forecast with annual or monthly values. DESC intends to continue monitoring developments around hydrogen; however, it did not model hydrogen as a selectable resource in its 2026 IRPg.

Coal Price Forecasts

As was the case in the 2025 IRP Update, DESC's forecasted coal prices are based on the Company's direct knowledge of Appalachian coal contract prices for the upcoming three years and EIA forecasts for later years. High and low coal price forecasts were based on the high or low-price forecast provided by the EIA in its Annual Energy Outlook, all as updated with current data.

Figure 15: Coal Price Forecasts

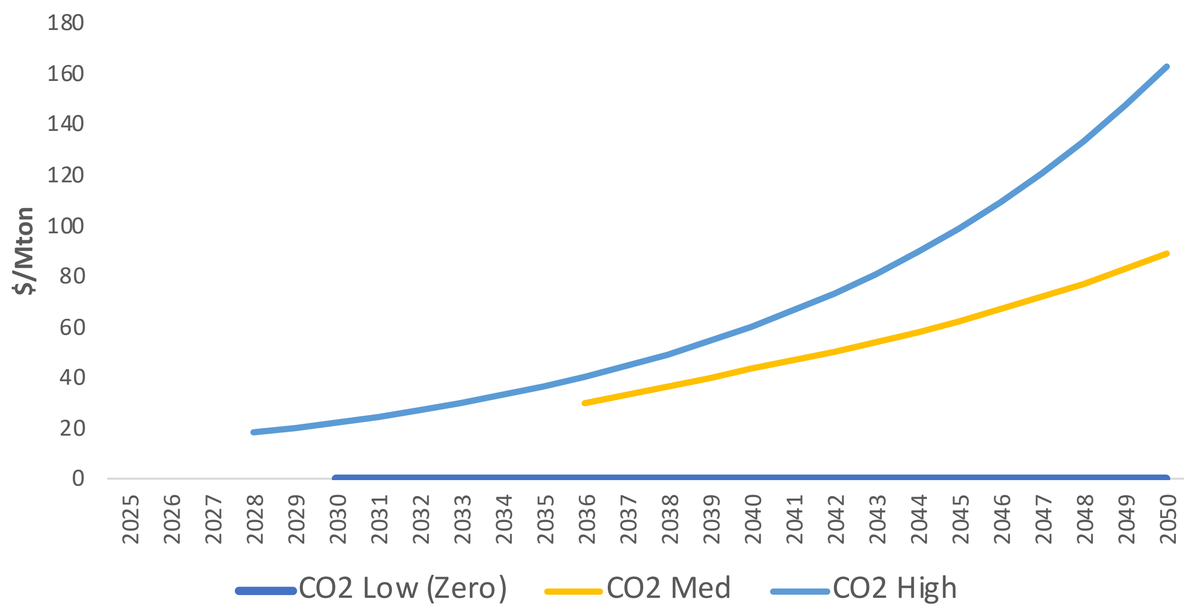


CO_2 Price Forecasts

DESC based its medium CO_2 price forecast on the IHS "US Power Sector" forecast, which increases from $29.52/Mton in 2036 to more than $88.85/Mton by 2050. DESC assumes that a CO_2 price is imposed beginning in 2036.

For the high view of CO_2 prices, DESC assumed that CO_2 prices would be 150% of the medium CO_2 price forecast starting in 2028. The price escalates to $162.81/Mton by 2050. The low view of CO_2 prices assumes that they remain at zero. This is a reasonable band to assess build plans under varying assumptions concerning CO_2 costs.

Figure 16: CO_2 Price Forecasts



Reserve Margin Requirements

Based on the 2026 Planning Reserve Margin Study and Effective Load Carrying Capability Determination, the PLEXOS model maintained a single integrated minimum 20.0% winter reserve margin which also allowed the system to meet the minimum 13% summer reserve margin.

Recently Added or Upgraded Generation Resources

In addition to Canadys Station and the new Urquhart CT #7 unit that is under construction, the PLEXOS model includes as existing generation resources all binding solar PPAs whether already in place or contracted to enter service during the time the IRP was being modeled. These PPAs total 1,187 MWs of nameplate generating capacity and include one recent contract for a solar PPA representing 75 MW of Solar.

DESC has also received a number of Notice of Commitment to Sell forms from developers of Solar and Hybrid Solar & Storage facilities with a total Solar nameplate of 535 MW and Battery nameplate of 400 MW.

Future Generation Resources Available to PLEXOS and Their Capital and Operating Costs

In consultation with Stakeholders, DESC identified fifteen generating resources for PLEXOS to call on in this 2026 IRP when optimizing generation plans to meet future demand. The fifteen resources included stand-alone Battery, stand-alone Solar, Hybrid Solar & Storage, CT units, natural gas-fired combined cycle units, OSW, and small modular reactors ("SMRs"). Solar resources are modeled as PPA resources in addition to utility-owned resources.

The cost attributes of each of the fifteen resources available for selection by PLEXOS are listed in the table below. For candidate resources, the capital costs of the resources modeled in each plan have been escalated to the year that the generator is installed.

Table 9: Generation Supply Technology Costs, Escalation and Capacity Units and Supply Technology Characteristics

Available Resources	Capital Cost 2026 IRP Update ($/kW)	Escalation Rate	Capacity (MW)	Source Of Data
New 1x1 CC Greenfield	2,958	2.01%	732	Dominion Energy Project Construction Group
New (3) 1x1 Combined Cycle 50% Shared Brownfield	2,660	2.01%	1090	Dominion Energy Project Construction Group
New 1x0 Adv-Class Frame CT Greenfield	1,999	2.01%	466	Dominion Energy Project Construction Group
New 2x0 F-Class CT Greenfield	2,043	2.01%	480	Dominion Energy Project Construction Group
New 4x0 Aero CT Greenfield	3,375	2.01%	208	Dominion Energy Project Construction Group
New 2x0 Aero CT Greenfield	4,007	2.01%	104	Dominion Energy Project Construction Group
New 1x0 F-Class CT Urquhart CT #8 (Brownfield)	2,160	2.01%	201	Dominion Energy Project Construction Group
New 1x0 Aero CT Bushy Park CT #2 (Brownfield)	4,312	2.01%	52	Dominion Energy Project Construction Group
New Small Modular Reactor	19,151	2.01%	324	Dominion Energy Project Construction Group
New Solar *	1,659	2.50%	100	NREL 2024 ATB
New Solar PPA *	1,659	2.50%	100	NREL 2024 ATB
New Solar Plus Storage *	3,182	2.50%	100	NREL 2024 ATB
New Battery 4 hour *	1,733	2.50%	100	NREL 2024 ATB
New Battery 8 hour *	3,071	2.50%	100	NREL 2024 ATB
New OffShore Wind *	8,312	2.50%	100	NREL 2024 ATB

* Includes Grid Interconnection Cost

In the 2026 IRP, DESC has continued to use the National Renewable Energy Laboratory ("NREL") cost data for forecasting the cost of renewables. All prices for renewables are from the NREL 2024 Annual Technology Baseline ("ATB"). The Solar Production Tax Credits ("PTCs") were discontinued after 2027. Battery Storage Investment Tax Credits ("ITCs") were continued until 2036.

The Core Build Plan Analysis

DESC quantified the costs, CO_2 emissions, and other impacts of the Core Build Plans by creating nine Core Cases to evaluate alternatives for meeting customers' energy needs reliably, affordably, and responsibly.

The Three Core Build Plans

DESC selected three Core Build Plans for detailed analysis. They are the 2026 Reference Build Plan, the High Fossil Fuel Prices Build Plan, and the Medium Carbon Cost Build Plan. DESC used its PLEXOS® modeling software to optimize each build plan under its respective Market Scenario.

Table 10: The Three Core Build Plans

Build Plan	Market Scenario Used for Optimization	Additional Constraints	Notes
1. 2026 Reference Build Plan	Reference Market Scenario	None	PLEXOS crafted this Build Plan to perform best under the Reference Market Scenario, which generally reflects a middle-of-the-road outlook for key market drivers and is the expected market scenario for the 2026 IRPg.
2. High Fossil Fuel Prices Build Plan	High Fossil Fuel Prices Market Scenario	None	PLEXOS crafted Build Plan using the High Fossil Fuel Prices Market Scenario, which assumes high fossil fuel prices, moderate levels of electric demand growth, and no CO_2 costs.
3. Medium Carbon Cost Build Plan	Medium Carbon Cost Market Scenario	None	PLEXOS crafted this Build Plan using the Medium Carbon Cost Market Scenario, which assumes future policy makers prioritize decarbonizing the energy sector. CO_2 and fossil fuel prices are moderate, and electrification does not significantly increase load growth.

The Percentage of Renewable Resources Selected in Core Build Plans

The Core Build Plans add renewable or other non-emitting resources that equal between 62% and 83% of generation additions over the planning horizon. The High Fossil Fuel Prices Build Plan adds the most non-emitting resources, 7,700 MW or 83% while the 2026 Reference Build Plan adds the least, 3,300 MW or 62%. The other Core Build Plan, the Medium Carbon Cost Build Plan, adds 6,600 MW or 81%.

MWs Added by the Core Build Plans

The Core Build Plans are based on the same reference load growth assumptions which allows the levelized costs and CO_2 emissions of each Core Build Plan to be compared directly to the others. Of the three Core Build Plans, the High Fossil Fuels Build Plan adds the greatest amount of generating resources by nameplate capacity (9,278 MW) and non-emitting resources (7,700 MW). The 2026 Reference Build Plan adds the least amount of generating resources (5,344 MW) and non-emitting resources (3,300 MW). The other Core Build Plan, the Medium Carbon Cost Build Plan, adds 8,178 MW of generating resources and 6,600 MW of non-emitting resources.

Natural Gas Resources Added by the Core Build Plans

Adding dispatchable natural gas-fired generation remains a cost-effective solution to maintain system reliability under each of the Core Build Plans. The 2026 Reference Build Plan added the most natural gas-fired generation (2,044 MW). In comparison, both remaining Core Build Plans provide an identical amount of natural gas-fired generation (1,578 MW) which is lower than the amount added in the 2026 Reference Build Plan. The model selected very similar types of natural gas-fired generation for each of the three Core Build Plans when modeled under the same Market Scenario, but in different amounts. Furthermore, when modeled in high and low load scenarios, the Core Build Plans selected natural gas-fired generation that was proportional to load growth.

The 2026 Reference Build Plan adds 300 MW of Battery beginning in 2036, 600 MW of Hybrid Solar & Storage beginning in 2031, 466 MW of an advanced class frame combustion turbine ("Frame CT") in 2040, and 480 MW of large Frame CTs in 2045 to support system reliability. The other two Core Build Plans add 900 MW of Battery beginning in 2036, 600 MW of Hybrid Solar & Storage beginning in 2031, and 480 MW of large Frame CTs in 2040 to support system reliability.

The Specific Resources Added under Each Core Build Plan

The timing and nature of resource additions and the resulting capacities and winter reserve margins for each of the years of the model horizon for all Build Plans are set forth in full detail in the tables attached as **Appendix C** to this document.

The 2026 Reference Build Plan

The 2026 Reference Build Plan builds a total of 5,344 MW of capacity over the planning horizon which puts it at the lowest end of the range of new capacity constructed under the Core Build Plans. It adds 2,400 MW of new Solar supplemented by a total of 300 MW of new Battery storage and 600 MW of new Hybrid Solar & Storage. This Build Plan adds Solar on an annual basis beginning 2042 continuing through 2050. The 2026 Reference Build Plan replaces Wateree in 2033 and Williams in 2035 through the addition of Hybrid Solar & Storage and Canadys Station entering service. To ensure system reliability, it adds 466 MW of a new advanced class Frame CT in 2040 and 480 MW of large Frame CTs in 2045.

Table 11: The 2026 Reference Build Plan

2026 Reference Build Plan										
Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4710	6266	33.0	0	0	0	0	0	0	0
2027	4832	6270	29.8	0	0	0	0	0	0	0
2028	4980	6276	26.0	0	0	0	0	0	0	0
2029	5094	6294	23.6	0	0	0	0	0	0	0
2030	5190	6309	21.6	0	0	0	0	0	0	0
2031	5290	6427	21.5	0	0	0	100	0	0	0
2032	5388	6548	21.5	0	0	0	100	0	0	0
2033	5439	6983	28.4	1098	0	0	0	0	0	-684
2034	5509	7085	28.6	0	0	0	100	0	0	0
2035	5569	6709	20.5	0	0	0	300	0	0	-600
2036	5626	6814	21.1	0	0	100	0	0	0	0
2037	5679	6820	20.1	0	0	0	0	0	0	0
2038	5718	6909	20.8	0	0	100	0	0	0	0
2039	5769	6996	21.3	0	0	100	0	0	0	0
2040	5832	7328	25.7	466	0	0	0	0	0	0
2041	5899	7330	24.3	0	0	0	0	0	0	0
2042	5970	7332	22.8	0	300	0	0	0	0	0
2043	6034	7333	21.5	0	100	0	0	0	0	0
2044	6097	7335	20.3	0	300	0	0	0	0	0
2045	6161	7818	26.9	480	300	0	0	0	0	0
2046	6225	7821	25.6	0	300	0	0	0	0	0
2047	6290	7824	24.4	0	300	0	0	0	0	0
2048	6356	7826	23.1	0	300	0	0	0	0	0
2049	6422	7829	21.9	0	300	0	0	0	0	0
2050	6489	7831	20.7	0	200	0	0	0	0	0
Total				2044	2400	300	600	0	0	-1284

The High Fossil Fuel Prices Build Plan

The High Fossil Fuel Prices Build Plan adds a total of 9,278 MW of capacity over the planning horizon, including 6,200 MW of new Solar supported by a total of 900 MW of new Battery and 600 MW of new Hybrid Solar & Storage. This Build Plan adds Solar or Hybrid Solar & Storage on an annual basis beginning in 2028 and continuing through 2050. The High Fossil Fuel Prices Build Plan replaces Wateree in 2033 and Williams in 2035 through the addition of Hybrid Solar & Storage along with Canadys Station entering service. To ensure system reliability, it adds 480 MW of large Frame CTs in 2040.

Table 12: The High Fossil Fuel Prices Build Plan

High Fossil Fuel Prices Build Plan										
Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4710	6266	33.0	0	0	0	0	0	0	0
2027	4832	6270	29.8	0	0	0	0	0	0	0
2028	4980	6278	26.1	0	300	0	0	0	0	0
2029	5094	6297	23.6	0	300	0	0	0	0	0
2030	5190	6313	21.6	0	300	0	0	0	0	0
2031	5290	6432	21.6	0	200	0	100	0	0	0
2032	5388	6554	21.6	0	200	0	100	0	0	0
2033	5439	6991	28.5	1098	300	0	0	0	0	-684
2034	5509	7094	28.8	0	200	0	100	0	0	0
2035	5569	6718	20.6	0	0	0	300	0	0	-600
2036	5626	6825	21.3	0	300	200	0	0	0	0
2037	5679	6832	20.3	0	300	0	0	0	0	0
2038	5718	6923	21.1	0	300	0	0	0	0	0
2039	5769	6926	20.1	0	300	100	0	0	0	0
2040	5832	7273	24.7	480	300	0	0	0	0	0
2041	5899	7277	23.4	0	300	0	0	0	0	0
2042	5970	7279	21.9	0	300	0	0	0	0	0
2043	6034	7281	20.7	0	300	0	0	0	0	0
2044	6097	7368	20.9	0	300	0	0	0	0	0
2045	6161	7434	20.7	0	300	100	0	0	0	0
2046	6225	7510	20.6	0	300	100	0	0	0	0
2047	6290	7575	20.4	0	300	100	0	0	0	0
2048	6356	7650	20.4	0	300	100	0	0	0	0
2049	6422	7726	20.3	0	300	100	0	0	0	0
2050	6489	7801	20.2	0	200	100	0	0	0	0
Total				1578	6200	900	600	0	0	-1284

The Medium Carbon Cost Build Plan

The Medium Carbon Cost Build Plan adds 8,178 MW of capacity over the planning horizon including 5,100 MW of new Solar supported by a total of 900 MW of new Battery and 600 MW of new Hybrid Solar & Storage. This Build Plan adds Solar or Hybrid Solar & Storage on an annual basis beginning in 2031 and continuing through 2050. Similar to the High Fossil Fuel Prices Build Plan, the Medium Carbon Cost Build Plan replaces Wateree in 2033 and Williams in 2035 through the addition of Hybrid Solar & Storage and Canadys Station entering service. To ensure system reliability, it also adds 480 MW of large Frame CTs in 2040.

Table 13: The Medium Carbon Cost Build Plan

Medium Carbon Cost Build Plan										
Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4710	6266	33.0	0	0	0	0	0	0	0
2027	4832	6270	29.8	0	0	0	0	0	0	0
2028	4980	6276	26.0	0	0	0	0	0	0	0
2029	5094	6294	23.6	0	0	0	0	0	0	0
2030	5190	6309	21.6	0	0	0	0	0	0	0
2031	5290	6427	21.5	0	0	0	100	0	0	0
2032	5388	6549	21.5	0	200	0	100	0	0	0
2033	5439	6985	28.4	1098	300	0	0	0	0	-684
2034	5509	7089	28.7	0	200	0	100	0	0	0
2035	5569	6712	20.5	0	0	0	300	0	0	-600
2036	5626	6905	22.7	0	300	200	0	0	0	0
2037	5679	6912	21.7	0	300	0	0	0	0	0
2038	5718	6917	21.0	0	300	0	0	0	0	0
2039	5769	7006	21.4	0	300	100	0	0	0	0
2040	5832	7353	26.1	480	300	0	0	0	0	0
2041	5899	7356	24.7	0	300	0	0	0	0	0
2042	5970	7359	23.3	0	300	0	0	0	0	0
2043	6034	7360	22.0	0	300	0	0	0	0	0
2044	6097	7363	20.8	0	300	0	0	0	0	0
2045	6161	7428	20.6	0	300	100	0	0	0	0
2046	6225	7494	20.4	0	300	100	0	0	0	0
2047	6290	7570	20.3	0	300	100	0	0	0	0
2048	6356	7645	20.3	0	300	100	0	0	0	0
2049	6422	7720	20.2	0	300	100	0	0	0	0
2050	6489	7795	20.1	0	200	100	0	0	0	0
Total				1578	5100	900	600	0	0	-1284

The Core Analysis

Having established the three Core Build Plans under their respective Market Scenario, DESC modeled each of those build plans under the other two Core Market Scenarios to create nine Core Cases. To compare costs and emissions on an equal basis, all three Core Market Scenarios assume the same level of customer demand, specifically all assume Reference Load Growth and a medium level of cost-effective DSM. Fuel prices and CO_2 costs vary.

The Reference Market Scenario and the Medium Carbon Cost Market Scenario include medium expectations for fuel prices, while the High Fossil Fuel Prices Market Scenario assumes high fuel prices. The Reference Market Scenario and High Fossil Fuel Prices Market Scenario both assume zero prices for CO_2, while the Medium Carbon Cost Market Scenario assumes medium expectations for CO_2 prices (a price of $30 per metric ton imposed in 2036 and escalating at 8.2%).

DESC measured the results of the three Core Build Plans across the nine Core Cases to show their relative performance in levelized cost, CO_2 emissions, incorporation of clean energy, fuel cost resiliency, generation diversity, reliability factors, mini-max regret factors, and a cost range analysis.

Levelized Cost

The Levelized Cost metric measures the costs to customers of each of the Core Build Plans based on the thirty-year levelized net present value ("LNPV") of the incremental costs of each Build Plan. The Levelized Cost Comparison of all seventeen cases is attached as ***Appendix H.*** The following table shows the Levelized Cost Comparison of the Core Build Plans. The results are color coded: 1. Green = Least Cost, 2. Yellow = Second, and 3. Red = Highest Cost.

Table 14: Levelized Cost Comparison of the Core Build Plans (30-Year LNPV in Thousands of Dollars)

Core Build Plans — 30 Yr Level NPV ($M)			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	$2,389	$2,922	$2,572
High Fossil Fuel Prices Build Plan	$2,510	$2,926	$2,643
Medium Carbon Cost Build Plan	$2,455	$2,905	$2,597

The LNPV cost rankings of the Core Build Plans are generally consistent among the Core Market Scenarios. The 2026 Reference Build Plan is the most cost-effective Core Build Plan in two of the three Core Market Scenarios and the second most cost-effective Core Build Plan in the third. The High Fossil Fuel Prices Build Plan is consistently the highest cost plan across all Core Market Scenarios due to the selection and timing of candidate resources needed to respond to fuel cost pressures under the High Fossil Fuel Prices Market Scenario.

Table 15: Percentage Difference in LNPV from 2026 Reference Build Plan

Core Build Plans 2026 Reference Build Plan % Change			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	0.0%	0.0%	0.0%
High Fossil Fuel Prices Build Plan	5.1%	0.1%	2.8%
Medium Carbon Cost Build Plan	2.8%	-0.6%	1.0%

The following table summarizes the rankings of the Core Build Plans under the three Core Market Scenarios.

Table 16: Levelized Cost Ranking of the Core Build Plans

Core Build Plans — 30 Yr LNPV			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	1	2	1
High Fossil Fuel Prices Build Plan	3	3	3
Medium Carbon Cost Build Plan	2	1	2

CO_2 Emissions

As shown in the following table, the Core Build Plans resulted in DESC reducing its CO_2 emissions by between 58.3% and 70% compared to emissions in 2005. The High Fossil Fuel Prices Build Plan shows the greatest reduction in CO_2 emissions as the modeled high cost of fossil fuels drives increased reliance on renewable or non-emitting alternatives.

Table 17: 2050 CO_2 Reductions for the Core Build Plans Compared to 2005 Levels

Core Build Plans 2050 CO_2 Reductions Compared to 2005 Levels			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	58.3%	58.8%	58.3%
High Fossil Fuel Prices Build Plan	69.3%	70.0%	70.0%
Medium Carbon Cost Build Plan	68.0%	68.4%	68.4%

The following table provides annual CO_2 emissions in thousands of tons for the Core Build Plans as forecasted in 2050 at the end of the planning horizon:

Table 18: 2050 CO_2 Emissions (Ktons) of the Core Build Plans

Core Build Plans 2050 CO_2 Emissions (Ktons) of the Core Build Plans			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	7,906	7,827	7,906
High Fossil Fuel Prices Build Plan	5,817	5,695	5,690
Medium Carbon Cost Build Plan	6,074	5,988	6,005

The following table shows the percentage variation in CO_2 emissions of the Core Build Plans as forecasted at the end of 2050 using the 2026 Reference Build Plan as the point of comparison.

Table 19: 2050 CO_2 Emissions Variation in the Core Build Plans from the 2026 Reference Build Plan

Core Build Plans — 2050 CO_2 Emissions Variation from the Reference Case			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	0.0%	0.0%	0.0%
High Fossil Fuel Prices Build Plan	-26.4%	-27.2%	-28.0%
Medium Carbon Cost Build Plan	-23.2%	-23.5%	-24.0%

DESC also compared the cumulative CO_2 emissions under the Core Build Plans over the planning horizon (2026 to 2050). The lowest cumulative emissions come under the High Fossil Fuels Build Plan in the Medium Carbon Cost Market Scenario and the highest comes under the 2026 Reference Build Plan in the High Fossil Fuel Prices Market Scenario.

Table 20: Cumulative CO_2 Emissions (Ktons) of the Core Build Plans

Core Build Plans Cumulative CO_2 Emissions (Ktons)			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	211,541	225,931	210,424
High Fossil Fuel Prices Build Plan	169,559	180,602	168,398
Medium Carbon Cost Build Plan	183,846	197,142	182,648

Dominion Energy

Due to the timing of resource additions, the scope of the variation in cumulative emissions is less than the variation in 2050 emissions. The following table shows the percentage variation in cumulative emissions for each build plan compared to the 2026 Reference Build Plan. CO_2 emissions data for all seventeen cases is attached as ***Appendix I.***

Table 21: Cumulative CO_2 Emissions Variation in the Core Build Plans from the 2026 Reference Build Plan

Core Build Plans Cumulative CO_2 Variation from the Reference Case			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	0.0%	0.0%	0.0%
High Fossil Fuel Prices Build Plan	-19.8%	-20.1%	-20.0%
Medium Carbon Cost Build Plan	-13.1%	-12.7%	-13.2%

Clean Energy

The Clean Energy metric compares the Core Build Plans based on how much energy they produce from nuclear, wind, solar, and hydro facilities. The build plan with the largest modeled component of Clean Energy generation in 2050 is the High Fossil Fuel Prices Build Plan, at 59.2%, followed by the Medium Cost Carbon at 56.7%. The 2026 Reference Build Plan had the lowest modeled component of Clean Energy in 2050 at 41.6%.

Measuring cumulative Clean Energy generated over the planning horizon (2026-2050) shows a similar result, with the High Fossil Fuels Prices Build Plan having the highest levels of cumulative Clean Energy production during that period and the Medium Carbon Cost Build Plan taking second place.

Table 22: Clean Energy Produced by the Core Build Plans

Core Build Plans — Clean Energy					
Optimized Plans	2050 Clean Energy (GWh)	Percentage of 2050 Clean Energy	Cumulative Clean Energy (GWh)	Percentage of Cumulative Clean Energy	2050 Clean Energy Rank
2026 Reference Build Plan	12,901	41.6%	242,073	34.6%	3
High Fossil Fuel Prices Build Plan	18,338	59.2%	345,427	49.2%	1
Medium Carbon Cost Build Plan	17,543	56.7%	311,352	44.5%	2

Fuel Cost Resiliency

Each of the Core Build Plans will result in a different mix of generating assets and fuel costs over the planning horizon. Fuel costs are a major component of the costs evaluated in the Levelized Cost analysis, but the variation in the level of fuel costs between build plans can be a rough measure of the degree to which build plans are susceptible to potential fuel cost risks.

The High Fossil Fuel Prices Build Plan has the lowest modeled fuel cost in all three Core Market Scenarios. This is largely due to that build plan's reliance on renewables. The Medium Carbon Cost Build Plan had the second lowest modeled fuel cost. The 2026 Reference Build Plan has the highest modeled fuel cost in all three Market Scenarios reflecting the fact that the assumption of moderate and plentiful natural gas supplies on which that build plan is based results in higher levels of natural gas utilization compared to other build plans.

Table 23: Levelized Net Present Value of Fuel Costs

Core Build Plans Levelized Net Present Value of Fuel Costs ($M)			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Zero Carbon Cost
2026 Reference Build Plan	$744	$1,274	$744
High Fossil Fuel Prices Build Plan	$606	$1,018	$605
Medium Carbon Cost Build Plan	$655	$1,102	$653

Generation Diversity

Because all build plans concentrate at least 32.3% of system assets in Solar resources, the percentage of Solar added drives the diversity score and the higher the percentage of Solar, the lower the level of generation diversity. The High Fossil Fuel Prices Build Plan has the highest concentration of solar-related resources (49.0%) and the lowest diversity score. The 2026 Reference Build Plan had the lowest concentration of solar (32.3%) and the highest diversity score. The MW of each generation type added by year for each build plan is provided in ***Appendix D.***

Table 24: Generation Diversity (Diversity Score and Rank Order)

Core Build Plans — Generation Diversity				
Market Scenario	**Build Plan**	**Highest Concentration**	**Most Concentrated Type of Generation**	**Ranking**
Reference	**2026 Reference Build Plan**	32.3%	Solar	1
High Fossil Fuel Prices	**High Fossil Fuel Prices Build Plan**	49.0%	Solar	3
Medium Carbon Cost	**Medium Carbon Cost Build Plan**	45.0%	Solar	2

Reliability Analysis

The modeling software is configured to ensure that all build plans meet a common reliability standard and that the resources included in each build plan collectively meet the system's seasonal planning reserve margin requirement, including allowances for forced and scheduled outages and other reliability considerations. To provide an additional measure of reliability, and to support comparative evaluation of build plans, DESC has also devised a means of scoring the reliability contribution of each generation technology that is included in the build plans. To preclude double-counting, and in consultation with Stakeholders, DESC limited the reliability analysis to factors that are not otherwise considered in the generation and transmission models, specifically black start, fast start, geographic diversity, and proximity to load factors.

Table 25. Reliability Factors Considered in the Metric

Reliability Factor	Able to generate or become a load , shift energy, and complement renewables.
Fast Start	The unit can respond from an offline condition and serve load in less than 10 minutes.
Geographic Diversity	The unit can be located in diverse locations and is not restricted by fuel infrastructure.
Proximity to Load	The unit has a compact footprint and low impact outside of the fence. It can often be sited near load centers.
Black Start	A generating unit which has the ability to be started without support from the system or is designed to remain energized without connection to the remainder of the system, with the ability to energize a bus, meeting the transmission operator's restoration plan needs for real and reactive power capability, frequency and voltage control, and that has been included in the transmission operator's restoration plan.

Under this analysis, the reliability contribution of each generation resource is as follows:

Table 26: Reliability Contributions of Generation Technologies

Reliability Contributions of Generation Technologies									
Potential Reliability Attribute	CC	Aero CT	Frame CT	Solar	Battery	Hybrid Solar & Storage	SMR	Offshore Wind	Coal Units
Black Start	No	Yes	Yes	No	No	No	No	No	No
Fast Start	No	Yes	Yes	No	Yes	Yes	No	No	No
Geographic Diversity	No	No	No	No	Yes	Yes	No	No	No
Proximity to Load	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes

The results of the scoring show that each build plan makes a positive contribution to system reliability.

Table 27: Reliability Scores

Core Build Plans	Total Change in Reliability Factor (MW equivalent)	Rank
2026 Reference Build Plan	5436	3
High Fossil Fuel Prices Build Plan	5838	1.5
Medium Carbon Cost Build Plan	5838	1.5

Under this analysis, the High Fossil Fuel Prices Build Plan and the Medium Carbon Build Plan tied with the highest score.

Mini-Max Regret

The Mini-Max Regret metric assesses the potential under each Core Build Plan to incur higher costs than other Build Plans under the same Core Market Scenario. In this analysis, the 2026 Reference Build Plan received the best Mini-Max Regret score with zero regrets score under both the Reference and the Medium Carbon Cost Market Scenarios and received the second-best score under the High Fossil Fuel Prices Market Scenario.

Table 28: Mini-Max Regret Comparison, Core build plans in $ Millions

Core Build Plans — Mini-Max Regrets LNPV ($million)			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	$0	$16	$0
High Fossil Fuel Prices Build Plan	$121	$20	$71
Medium Carbon Cost Build Plan	$66	$0	$25

The 2026 Reference Build Plan is the lowest cost plan in two of the three Core Market Scenarios and, as expected, has the lowest regret score across the three Core Market Scenarios. The High Fossil Fuels Prices Build Plan presented the greatest financial risk to customers with the highest level of maximum regrets under each of the Core Market Scenarios. Its regret potential is an additional $121 million per year under the Reference Market Scenario and $71 million per year under the Medium Carbon Cost Market Scenario. The Medium Carbon Cost Build Plan had the second highest level of maximum regrets under one of the Core Market Scenarios with a regret potential of $66 million per year under the Reference Market Scenario. As shown in the tables, the Max Regret for the High Fossil Fuel Prices Build Plan is a $121 million annual increase in LNPV which is the highest Max Regret score by a wide margin.

Table 29: Comparison of the Regret Levels of the Core Build Plans

Core Build Plans — Mini-Max Regret Analysis			
Build Plans	Max Regret ($M)	Percent Greater than Reference 2026	Ranking
2026 Reference Build Plan	$16	0%	1
High Fossil Fuel Prices Build Plan	$121	641%	3
Medium Carbon Cost Build Plan	$66	305%	2

Table 30: Cost Range Analysis (Rank Order and Cost Spread, Minimum to Maximum)

Core Build Plans — Cost Range Analysis		
	Max Difference Between Scenarios ($M)	Ranking
2026 Reference Build Plan	533	3
High Fossil Fuel Prices Build Plan	415	1
Medium Carbon Cost Build Plan	450	2

Cost Range Analysis

The Cost Range Analysis calculates the spread between the lowest and highest cost for each build plan across the three Core Market Scenarios. It indicates the degree that a build plan is sensitive to changes in the assumptions that vary between each of the Core Market Scenarios. It does not compare build plans against each other and so does not indicate whether a build plan is either more or less cost effective or beneficial than any other. Of the three Core Build Plans, the 2026 Reference Build Plan has the highest cost range reflecting the fact that it is optimized to generate low costs when fuel costs are moderate and no CO_2 costs are imposed but incurs higher costs when these assumptions are changed.

Core Build Plans Ranked Across All Metrics

Ranking each of the Core Build Plans against all nine metrics shows that the 2026 Reference Build Plan scores quite well in metrics related to cost to customers, specifically it scores the lowest in the 30-Year LNPV of generation costs under all three Core Market Scenarios. It also scores first in the Mini-Max Regrets metric and first in Generation Diversity, indicating that it is resilient under divergent market conditions.

The High Fossil Fuels Build Plan scores well on measures related to environmental concerns, specifically 2050 CO_2 Emissions, Cumulative CO_2 Emissions, and 2050 Clean Energy due to a higher concentration of non-emitting resources.

Table 31: Rankings of the Core Build Plans Against all Nine Metrics

Core Build Plans— Rankings within All Metrics, Reference Case Where Applicable									
Core Build Plans	30-Year LNPV	2050 CO_2	Cum. CO_2	2050 Clean Energy	Fuel Cost	Gen. Diversity	Reliability	Mini-Max Regret	Cost Range
2026 Reference Build Plan	1	3	3	2	3	1	3	1	3
High Fossil Fuel Prices Build Plan	3	1	1	1	1	3	2	3	1
Medium Carbon Cost Build Plan	2	2	2	3	2	2	2	2	2

Although the High Fossil Fuels Prices Build Plan has the best ratings related to CO_2 emissions, clean energy, fuel cost, and reliability, it is also the highest cost Build Plan with an annual LNPV cost to customers that is between $20 million and $121 million more than the lowest cost plan under each Core Market Scenario.

Analysis of the Five Sensitivity Build Plans

The results of modeling the five Sensitivity Build Plans allow DESC's generation planners to identify the changes that would be required to respond effectively to Market Scenarios which are less likely or less representative of the range of possible conditions than the Core Market Scenarios. The 2026 Reference Build Plan is the suitable point of comparison for these Sensitivity Build Plans because it is optimized for the most likely set of future market conditions and it is the preferred plan as identified in this 2026 IRPg. As is the case in all build plans presented here, Canadys Station is included as a committed resource.

The Near-Term Load Growth Build Plan and Market Scenario

The Near-Term Load Growth Market Scenario is a sensitivity that measures the effect on costs and CO_2 emissions of higher near-term load growth from economic development which drives other end uses for energy while pro-growth policies allow fossil fuel supplies to expand without imposing CO_2 costs on electricity.

In total, the Near-Term Load Growth Build Plan adds 6,899 MW of new or replacement generation over the planning horizon which is 29% (1,555 MW) more than the amount added by the 2026 Reference Build Plan. As would be expected, the Near-Term Load Growth Build Plan favors new natural gas generation and adds 66% more gas-fired generation (1,355 MW) than the 2026 Reference Build Plan.

Energy from gas generation limits reliance on Solar under this build plan. The amount of Renewables added (2,200 MW) represents only 41% of the generation resources added under this build plan compared to 56% under the 2026 Reference Build Plan (3,000 MW). Both build plans add significant amounts of Battery and Hybrid Solar & Storage. The 2026 Reference Build Plan adds 900 MW and the Near-Term Load Growth Build Plan adds 44% more or 1,300 MW.

Table 32: The Near-Term Load Growth Build Plan and Market Scenario

Near-Term Load Growth Build Plan										
Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6305	26.6	0	300	0	0	0	0	0
2029	5431	6519	20.0	0	0	0	300	0	0	0
2030	5864	7037	20.0	201	100	100	200	0	0	0
2031	6301	7602	20.7	208	200	300	100	0	0	0
2032	6399	7698	20.3	0	300	200	0	0	0	0
2033	6450	8817	36.7	1098	0	0	0	0	0	0
2034	6521	8834	35.5	0	0	0	0	0	0	0
2035	6580	8027	22.0	466	0	0	0	0	0	-1284
2036	6638	8035	21.0	0	0	0	0	0	0	0
2037	6691	8041	20.2	0	0	0	0	0	0	0
2038	6730	8107	20.5	466	0	0	0	0	0	0
2039	6781	8180	20.6	0	0	0	0	0	0	0
2040	6844	8526	24.6	0	0	0	0	0	0	0
2041	6910	8528	23.4	0	0	0	0	0	0	0
2042	6982	8529	22.2	0	0	0	0	0	0	0
2043	7045	8529	21.1	0	0	100	0	0	0	0
2044	7107	8530	20.0	480	0	0	0	0	0	0
2045	7169	8801	22.8	0	200	0	0	0	0	0
2046	7232	8980	24.2	0	100	0	0	0	0	0
2047	7296	8908	22.1	480	300	0	0	0	0	0
2048	7360	8909	21.0	0	300	0	0	0	0	0
2049	7425	8910	20.0	0	200	0	0	0	0	0
2050	7490	8997	20.1	0	200	0	0	0	0	0
Total				3399	2200	700	600	0	0	-1284

In the near- to mid-term (2026-2033), the Near-Term Load Growth Build Plan adds Solar, Battery, Hybrid Solar & Storage and gas-fired generation as follows:

- The 2026 Reference Build Plan does not add Hybrid Solar & Storage until 2031 while the Near-Term Load Growth Build Plan begins adding Solar and Hybrid Solar & Storage PPA's in 2028 and adds 600 MW of Solar and 600 MW of Hybrid Solar & Storage by 2031, and

- The Near-Term Load Growth Build Plan adds 201 MW of a brownfield CT in 2030 (the sole suitable large Frame CT brownfield site on DESC's system is Urquhart Station on Beech Island, South Carolina near the terminus of the Southern Natural interstate gas pipeline), 208 MW of Aero CTs in 2031, the 1,098 MW Canadys Station in 2033 and 1,892 MW of Frame CT's beginning in 2035. The 2026 Reference Build Plan adds just 946 MW of Frame CT's beginning in 2040.

The differences in the two build plans emphasize the need for a coordinated approach to matching economic development growth to a cost-effective and reliable mix of additional gas-fired capacity, and Hybrid Solar & Storage projects. It is important to note that the 2026 Reference Build Plan resource additions are well-positioned to support both DESC's forecasted organic load growth as well as forecasted electrification efforts taken by its residential and commercial customers. DESC's load is monitored continuously, and its forecast is updated annually. This consistent monitoring and updating provides DESC with a clear line of sight into anticipated load growth and the opportunity to procure generation of resources that can cost-effectively supply that load.

The Near-Term Load Growth Build Plan shows that if future market and policy considerations shift from the 2026 Reference Build Plan to a Near-Term Load Growth Build Plan, DESC can do so with little disruption. DESC would immediately adjust its generation resource plan to add resources in the near, medium, and long-term, which could include short-term capacity purchases if both generating capacity and transmission transfer capability were available to support those purchases. DESC would also refrain from entering electric service agreement with new customers if it did not have sufficient capacity to serve their new load without jeopardizing reliability to existing customers. In addition, if necessary and justified by system economy, DESC could also delay the planned retirements of Wateree and Williams.

The Energy Conservation Build Plan and Market Scenario

DESC agreed to model the assumptions embedded in Energy Conservation Market Scenario as a concession to certain Stakeholders but does not believe those assumptions to be foreseeable or achievable. The Energy Conservation Market Scenario assumes that policy makers limit investments in new fossil fuel supplies and pipeline capacity in a way that significantly increases fuel prices, but without creating demand for electrification of transportation and building electrification at a level that would exceed the ability of conservation efforts to forestall load growth. The Energy Conservation Market Scenario is based on the lowest load growth projection of any Market Scenario and assumes levels of DSM savings levels specific to DESC's service territory that are many times greater than any that either the 2023 DSM Potential Study or the 2026 DSM Refresh determined to be obtainable. It also ignores the potential impact on demand of transportation and building electrification.

Under these assumptions, the Energy Conservation Build Plan adds 7,798 MW of capacity which is 46% more than the 2026 Reference Build Plan. Of this amount, 6,400 MW or 82% is renewable generation. The total amount of gas-fired generation added is 46% less than under the 2026 Reference Build Plan. Both Plans add the same amount of Battery and Hybrid Solar & Storage resources, but the Energy Conservation Build Plan adds significantly more Solar than the 2026 Reference Build Plan reflecting the higher fuel prices in that Market Scenario.

Table 33: The Energy Conservation Build Plan

Energy Conservation Build Plan										
Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4743	6295	32.7	0	0	0	0	0	0	0
2027	4864	6299	29.5	0	0	0	0	0	0	0
2028	4951	6307	27.4	0	300	0	0	0	0	0
2029	5020	6326	26.0	0	300	0	0	0	0	0
2030	5091	6342	24.6	0	300	0	0	0	0	0
2031	5160	6364	23.3	0	300	0	0	0	0	0
2032	5183	6388	23.2	0	300	0	0	0	0	0
2033	5224	6824	30.6	1098	300	0	0	0	0	-684
2034	5255	6842	30.2	0	300	0	0	0	0	0
2035	5282	6353	20.3	0	100	0	200	0	0	-600
2036	5306	6460	21.8	0	300	0	0	0	0	0
2037	5316	6467	21.7	0	300	0	0	0	0	0
2038	5336	6473	21.3	0	300	0	0	0	0	0
2039	5368	6476	20.6	0	300	0	0	0	0	0
2040	5403	6514	20.6	0	100	0	200	0	0	0
2041	5441	6580	20.9	0	200	0	100	0	0	0
2042	5472	6583	20.3	0	200	0	100	0	0	0
2043	5484	6584	20.1	0	300	0	0	0	0	0
2044	5512	6648	20.6	0	100	0	0	0	0	0
2045	5540	6649	20.0	0	100	100	0	0	0	0
2046	5569	6750	21.2	0	300	0	0	0	0	0
2047	5598	6752	20.6	0	300	0	0	0	0	0
2048	5627	6755	20.0	0	300	100	0	0	0	0
2049	5656	6843	21.0	0	300	0	0	0	0	0
2050	5685	6845	20.4	0	200	100	0	0	0	0
Total				1098	5800	300	600	0	0	-1284

Despite the differences referenced above, the two build plans both include Canadys Station. The Energy Conservation Build Plan begins adding renewables in 2028 and adds them in greater total amounts than the 2026 Reference Build Plan. From 2028 to 2033, the Energy Conservation Build Plan adds 1,800 MW of Solar, while the 2026 Reference Build Plan adds 200 MW Hybrid Solar & Storage.

The Aggressive Regulation Build Plan and Market Scenario

The Aggressive Regulation Build Plan assumes that policy makers move aggressively to reduce CO_2 emissions by limiting fossil fuel supplies and pipeline access while imposing high costs on electric CO_2 emissions. At the same time, electric loads experience high growth as the high cost of alternative energy sources and policy mandates drive electrification.

To maintain affordability and reliability in the face of high electric demand, high fossil fuel prices and high CO_2 emissions costs, the Aggressive Regulation Build Plan requires twice as much generation capacity (10,675 MW) to be added to the system than the 2026 Reference Build Plan (5,344 MW) and trails only the Deep Decarbonization Build Plan (10,922 MW) in this regard. Of the total generation added in the Aggressive Regulation Build Plan, 6,800 MW or 64% is renewable, which is 127% more than is added by the 2026 Reference Build Plan. However, integrating this level of renewables requires a significant amount of new natural gas generation to ensure grid reliability and the Aggressive Regulation Build Plan adds 3,275 MW of gas-fired generation, which is nearly equal to the build plans that include a high load forecast. It adds 600 MW of Battery and 600 MW of Hybrid Solar & Storage while the 2026 Reference Build Plan adds 300 MW of Battery and 600 MW of Hybrid Solar & Storage.

As a result of high fuel costs and high load growth, the Aggressive Regulation Build Plan has the second highest retail rate impact of any build plan with a CAGR in retail rates that is 38% higher than the 2026 Reference Build Plan (6.19% vs 4.48%).

But aggressive regulation results in only a marginal increase in clean energy generated over the planning horizon (43% vs 35%) and clean energy capacity added in 2050 is 7% higher (69% vs 62%) compared to the 2026 Reference Build Plan.

During the period 2026-2033, the construction program under Aggressive Regulation Build Plan diverges from the 2026 Reference Build Plan in all respects. During this period the Aggressive Regulation Build Plan adds 400 MW more Battery capacity, 1,200 MW more Solar, 400 MW more Hybrid Solar & Storage and 513 MW more gas-fired generation by 2033 than the 2026 Reference Build Plan.

Table 34: The Aggressive Regulation Build Plan

Aggressive Regulation Build Plan										
Year	**Peak (MW)**	**Firm Capacity (MW)**	**Winter Reserve Margin (%)**	**Gas (MW)**	**Solar (MW)**	**Battery (MW)**	**Hybrid Solar & Storage (MW)**	**OSW (MW)**	**SMR (MW)**	**Retirements (MW)**
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6307	26.6	0	300	0	0	0	0	0
2029	5431	6521	20.1	0	0	0	300	0	0	0
2030	5864	7039	20.0	104	0	200	300	0	0	0
2031	6301	7595	20.5	409	300	100	0	0	0	0
2032	6399	7692	20.2	0	300	100	0	0	0	0
2033	6450	8812	36.6	1098	300	0	0	0	0	0
2034	6521	8830	35.4	0	300	0	0	0	0	0
2035	6580	8026	22.0	466	300	0	0	0	0	-1284
2036	6638	8098	22.0	0	300	0	0	0	0	0
2037	6691	8104	21.1	0	300	0	0	0	0	0
2038	6730	8110	20.5	466	300	0	0	0	0	0
2039	6781	8160	20.3	0	300	0	0	0	0	0
2040	6844	8493	24.1	0	300	0	0	0	0	0
2041	6910	8497	23.0	0	300	0	0	0	0	0
2042	6982	8499	21.7	0	300	0	0	0	0	0
2043	7045	8501	20.7	0	300	100	0	0	0	0
2044	7107	8576	20.7	732	300	0	0	0	0	0
2045	7169	9053	26.3	0	300	0	0	0	0	0
2046	7232	9057	25.2	0	300	0	0	0	0	0
2047	7296	8987	23.2	0	300	0	0	0	0	0
2048	7360	8989	22.1	0	300	0	0	0	0	0
2049	7425	8992	21.1	0	300	100	0	0	0	0
2050	7490	8994	20.1	0	200	0	0	0	0	0
Total				3275	6200	600	600	0	0	-1284

The DSM Build Plans

DESC has modeled High DSM, Medium DSM and Low DSM cases based on the results of the 2026 DSM Refresh. The High DSM case assumes that DESC achieves a reduction in annual forecasted load growth (excluding opt-out customers) of 0.69% of gross 2024 energy sales, the Medium DSM case assumes that DESC can achieve a 0.52% gross energy sales reduction and the Low DSM case assumes that DESC is only able to achieve 83% of the energy reductions assumed under the Medium DSM case, or 0.43%.

The analysis shows that the 2026 Reference Build Plan has similar LNPV cost to the Low and High DSM Build Plan. The resulting difference in the CAGR in retail rates among the DSM Sensitivities is very small (a CAGR of 2.73% for the High DSM Build Plan and 2.83% for the Low DSM Build Plan compared to 2.75% for the 2025 Reference Build Plan).

Table 35: DSM Build Plan Sensitivities, LNPV of Costs and Retail CAGR Compared Under the Reference Market Scenario

DSM Sensitivities — LNPV ($M); CAGR %					
DSM Sensitivity Build Plans	30-Year LNPV	Difference in 30 Year LNPV	Percentage Difference	Retail CAGR over 15 Years	Percentage Difference
Medium DSM	$2,389	$0	0%	3.10%	0%
High DSM	$2,377	($12)	-1%	3.08%	-0.02%
Low DSM	$2,388	($1)	0%	3.09%	0.00%

The differences between the three DSM cases were too small to create meaningful results. The small increase in loads in the Low DSM case produced lower cumulative CO_2 emissions. While these results are not intuitive, they highlight the fact that very small changes in the model can produce unexpected results.

Table 36: DSM Sensitivities, Cumulative and 2050 CO_2 Emissions Compared Under the Reference Market Scenario

DSM Sensitivity Build Plans — (K short tons)					
DSM Sensitivity Build Plans	30-Year LNPV	Difference in 30 Year LNPV	Percentage Difference	Retail CAGR over 15 Years	Percentage Difference
Medium DSM	211,541	0	0	7,906	0
High DSM	202,941	-8,599	-4.07%	7,890	-0.20%
Low DSM	211,847	306	0.14%	7,902	-0.05%

The Low DSM Build Plan and the High DSM Build Plan build almost the same amount of solar and storage as the 2026 Reference Build Plan with the High DSM Build Plan adding just one less battery storage unit over the course of the planning period. All three Build Plans, including the 2026 Reference Build Plan, add the same amount of gas-fired resources (2,044 MW) and Solar and Hybrid Solar & Storage resources (3,000 MW). The analysis shows that reasonable but varied levels of DSM demand and energy savings over the planning horizon have quite similar impacts on costs, CO_2 emissions, and the mix and capacity of generation resources required to meet customers' demand.

The Supplemental Cases

The three Core Build Plans and five Sensitivity Cases assume retirement dates for Wateree and Williams in 2032 and 2034, respectively. DESC has also modeled two Supplemental Build Plans that optimize the retirement dates of Wateree and Williams under the Reference Market Scenario and the High Load Market Scenario. A third Supplemental Build Plan, the Deep Decarbonization Build Plan, models the generation strategy that would meet the goal of reducing DESC's CO_2 emissions by 85% compared to 2005 levels.

Table 37: Supplemental Cases, LNPV of Costs and Retail CAGR compared to the 2026 Reference Build Plan

Supplemental Cases					
Build Plans	30 Yr Level NPV ($M)	Reference 2026 % Diff	Cumulative CO_2 (Ktons)	2050 CO_2 (Ktons)	CO_2 Reduction From 2005 Levels %
2026 Reference Build Plan	2,389	0.00%	211,541	7,906	58%
Optimized Retirements – Reference Build Plan	2,350	-1.7%	215,992	8,014	58%
Optimized Retirements - High Load Build Plan	3,109	30.1%	261,799	9,220	51%
Deep Decarbonization Build Plan	2,963	24.0%	151,327	2,770	85%

Optimized Retirements — Reference Build Plan

The Optimized Retirements - Reference Build Plan, is modeled under the Reference Market Scenario making the results directly comparable to the 2026 Reference Build Plan and the other Core Build Plans but allows the model to pick the optimum dates for the Wateree and Williams retirements, which under that analysis are by 2033 and 2047, respectively. The 2047 date is the end of the current estimated useful life of Williams. The Optimized Retirements - Reference Build Plan builds 5,344 MW of capacity over the planning horizon, which is exactly the amount built in the 2026 Reference Build Plan but the delay of the Williams' retirement date shifts the timing of the Williams replacement resources and the timing of other Battery and Solar & Hybrid resources, which reduces the annualized NPV cost to customers of by 1.9%. This build plan includes the construction of 946 MW of Frame CTs starting in 2047, 2,400 MW of Solar, 300 MW of Battery and 600 MW of Hybrid Solar & Storage in addition to Canadys Station coming on line by 2033.

Table 38: The Optimized Retirements — Reference Build Plan

Optimized Retirements — Reference Build Plan										
Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6305	26.6	0	0	0	0	0	0	0
2029	5094	6323	24.1	0	0	0	0	0	0	0
2030	5190	6338	22.1	0	0	0	0	0	0	0
2031	5290	6358	20.2	0	0	0	100	0	0	0
2032	5388	6479	20.2	0	0	0	100	0	0	0
2033	5439	6914	27.1	1098	0	0	0	0	0	-684
2034	5509	6930	25.8	0	0	0	0	0	0	0
2035	5569	6942	24.7	0	0	0	0	0	0	0
2036	5626	6950	23.5	0	0	0	0	0	0	0
2037	5679	6955	22.5	0	0	0	0	0	0	0
2038	5718	6959	21.7	0	0	0	0	0	0	0
2039	5769	6961	20.7	0	0	0	0	0	0	0
2040	5832	7011	20.2	0	0	0	200	0	0	0
2041	5899	7099	20.3	0	0	100	0	0	0	0
2042	5970	7164	20.0	0	300	0	0	0	0	0
2043	6034	7262	20.3	0	300	100	0	0	0	0
2044	6097	7326	20.2	0	200	0	100	0	0	0
2045	6161	7413	20.3	0	300	100	0	0	0	0
2046	6225	7502	20.5	0	200	0	100	0	0	0
2047	6290	7850	24.8	946	300	0	0	0	0	-600
2048	6356	7853	23.6	0	300	0	0	0	0	0
2049	6422	7855	22.3	0	300	0	0	0	0	0
2050	6489	7857	21.1	0	200	0	0	0	0	0
Total				2044	2400	300	600	0	0	-1284

Optimized Retirements – High Load Build Plan

The Optimized Retirements – High Load Build Plan, optimizes the Wateree and Williams retirement dates under the High Load Market Scenario as 2045 and 2047 respectively, which will delay the need for replacement resources and resources needed to meet the higher forecasted loads. The Optimized Retirements – High Load Build Plan builds 7,889 MW of capacity over the planning horizon which includes the second highest amounts of gas-fired resources (3,289 MW). This Supplemental Case also builds more Solar and Hybrid Solar & Storage resources than the Near-Term Load Growth Build Plan.

Table 39: The Optimized Retirements – High Load Build Plan

Optimized Retirements — High Load Build Plan										
Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6305	26.6	0	300	0	0	0	0	0
2029	5431	6519	20.0	0	0	0	300	0	0	0
2030	5864	7037	20.0	104	0	200	300	0	0	0
2031	6301	7593	20.5	409	300	100	0	0	0	0
2032	6399	7679	20.0	0	300	100	0	0	0	0
2033	6450	8798	36.4	1098	0	0	0	0	0	0
2034	6521	8815	35.2	0	0	0	0	0	0	0
2035	6580	8826	34.1	0	0	0	0	0	0	0
2036	6638	8834	33.1	0	0	0	0	0	0	0
2037	6691	8840	32.1	0	0	0	0	0	0	0
2038	6730	8844	31.4	0	0	0	0	0	0	0
2039	6781	8845	30.4	0	0	0	0	0	0	0
2040	6844	8711	27.3	0	0	0	0	0	0	0
2041	6910	8715	26.1	0	100	0	0	0	0	0
2042	6982	8717	24.9	0	300	0	0	0	0	0
2043	7045	8719	23.8	0	300	0	0	0	0	0
2044	7107	8721	22.7	0	300	0	0	0	0	0
2045	7169	8761	22.2	946	300	0	0	0	0	-684
2046	7232	8679	20.0	0	300	0	0	0	0	0
2047	7296	8944	22.6	732	300	0	0	0	0	-600
2048	7360	9044	22.9	0	300	100	0	0	0	0
2049	7425	9047	21.8	0	300	0	0	0	0	0
2050	7490	9049	20.8	0	0	100	0	0	0	0
Total				3289	3400	600	600	0	0	-1284

Deep Decarbonization Build Plan

DESC modeled the Deep Decarbonization Build Plan under the Reference Market Scenario, making the results directly comparable to the 2026 Reference Build Plan. The Deep Decarbonization Build Plan builds 10,922 MW of capacity over the planning horizon making it the most construction-intensive of all build plans. From 2028 until 2040, it adds new Solar or Hybrid Solar & Storage each year for a total of 6,200 MW of Solar and 600 MW of Hybrid Solar and Storage by 2050. The Deep Decarbonization Build Plan replaces Wateree and Williams in 2033 and 2035 in part through 600 MW of Hybrid Solar & Storage, and 1,800 MW of Solar while also reflecting that Canadys Station will be in service by 2033 in its 1,098 MW configuration. It envisions adding no additional gas-fired generation after 2032 and instead envisions adding 1,500 MW of OSW beginning in 2040 and 324 MW of SMRs in 2047.

Table 40: Deep Decarbonization Build Plan

Deep Decarbonization Build Plan										
Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6307	26.6	0	300	0	0	0	0	0
2029	5094	6326	24.2	0	300	0	0	0	0	0
2030	5190	6342	22.2	0	300	0	0	0	0	0
2031	5290	6364	20.3	0	200	0	100	0	0	0
2032	5388	6486	20.4	0	200	0	100	0	0	0
2033	5439	6922	27.3	1098	300	0	0	0	0	-684
2034	5509	7038	27.8	0	200	0	100	0	0	0
2035	5569	6684	20.0	0	0	0	300	0	0	-600
2036	5626	6791	20.7	0	300	100	0	0	0	0
2037	5679	6861	20.8	0	300	0	0	0	0	0
2038	5718	6866	20.1	0	300	100	0	0	0	0
2039	5769	6955	20.6	0	300	0	0	0	0	0
2040	5832	7924	35.9	0	300	100	0	500	0	0
2041	5899	8252	39.9	0	300	200	0	0	0	0
2042	5970	8254	38.3	0	300	100	0	0	0	0
2043	6034	8402	39.2	0	300	100	0	0	0	0
2044	6097	8475	39.0	0	300	0	0	500	0	0
2045	6161	8621	39.9	0	300	100	0	0	0	0
2046	6225	8624	38.5	0	300	100	0	0	0	0
2047	6290	8627	37.2	0	300	0	0	0	324	0
2048	6356	8629	35.8	0	300	0	0	0	0	0
2049	6422	8632	34.4	0	300	0	0	500	0	0
2050	6489	8634	33.1	0	200	300	0	0	0	0
Total				1098	6200	1200	600	1500	324	-1284

The Alternative Core Build Plan Analysis

To perform a modeling analysis of scenarios with and without the Section 111 GHG Rules, DESC optimized three build plans under the three Core Market Scenarios with the assumption that the GHG Rules are either retained or reinstated (*i.e.*, the Alternative Core Build Plans) resulting in the following three build plans:

- The GHG Reference Build Plan
- The GHG High Fossil Fuel Prices Build Plan
- The GHG Medium Carbon Cost Build Plan

Each of the three Alternative Core Build Plans are then modeled across the three Core Market Scenarios, resulting in nine Alternative Core Cases.

The Alternative Core Build Plans

DESC modeled the three Alternative Core Build Plans for detailed analysis, based on updated inputs.

Table 41: The Three Alternative Core Build Plans

Build Plan	Market Scenario Used for Optimization	Additional Constraints	Notes
1. GHG Reference Build Plan	**Reference Market Scenario**	Limit capacity factors for new gas units: 40% (Advanced-Class CTs and CCs), 20% or less (F-Class CTs)	PLEXOS crafted this Build Plan to perform best under the Reference Market Scenario but assumes the Clean Air Act Section 111 Green House Gas Rule is not repealed.
2. GHG High Fossil Fuel Prices Build Plan	**High Fossil Fuel Prices Market Scenario**	Limit capacity factors for new gas units: 40% (Advanced-Class CTs and CCs), 20% or less (F-Class CTs)	PLEXOS crafted Build Plan using the High Fossil Fuel Prices Market Scenario but assumes the Clean Air Act Section 111 Green House Gas Rule is not repealed.
3. GHG Medium Carbon Cost Build Plan	**Medium Carbon Cost Market Scenario**	Limit capacity factors for new gas units: 40% (Advanced-Class CTs and CCs), 20% or less (F-Class CTs)	PLEXOS crafted this Build Plan using the Medium Carbon Cost Market Scenario but assumes the Clean Air Act Section 111 Green House Gas Rule is not repealed.

The Percentage of Renewable Resources Selected in Alternative Core Build Plans

In the updated evaluation, the Alternative Core Build Plans add similar levels of renewable or other non-emitting resources that equal between 89% and 90% of generation additions over the planning horizon. The GHG High Fossil Fuel Prices Build Plan adds the most non-emitting resources, 9,700 MW or 90%, while the GHG Reference Build Plan adds the least, 8,800 MW or 89%. The other Alternative Core Build Plan, the GHG Medium Carbon Cost Build Plan, adds 9,500 MW or 90%.

MWs Added by the Alternative Core Build Plans

For comparability purposes, the Alternative Core Build Plans also have the same load growth assumptions as the Core Build Plans which allows the levelized costs and CO_2 emissions of each Build Plan to be compared directly to the others. Of the three Alternative Core Build Plans, the GHG High Fossil Fuels Build Plan adds the greatest amount of generating resources by nameplate capacity (10,798 MW) and non-emitting resources (9,700 MW). The GHG Reference Build Plan adds the least amount of generating resources (9,898 MW) and non-emitting resources (8,800 MW). The other Alternative Core Build Plan, the GHG Medium Carbon Cost Build Plan, adds 10,598 MW of generating resources and 9,500 MW non-emitting resources.

Natural Gas Resources Added by the Alternative Core Build Plans

In all three Alternative Core Build Plans, Canadys Station, as a committed resource, is the only new natural gas-fired generation capacity included in the plans. All three Alternative Core Build Plans relied on Canadys Station to support the potential retirement of both Wateree and Williams on December 31, 2032.

Over the planning horizon, all three Alternative Core Build Plans build similar levels of Battery (1,400 MW beginning in 2036), Hybrid Solar & Storage (600 MW beginning in 2031), and OSW (1,500 MW beginning in 2049). The GHG High Fossil Fuel Prices Build Plan adds the most Solar (6,200 MW) while the GHG Medium Carbon Cost Build Plan and the GHG Reference Build Plan also adds significant levels of Solar at 6,000 MW and 5,300 MW, respectively.

The Specific Resources Added under Each Alternative Core Build Plan

The timing and nature of resource additions and the resulting capacities and winter reserve margins for each of the years of the model horizon for all build plans are set forth in full detail in the tables attached as ***Appendix C*** to this document.

The GHG Reference Build Plan

The GHG Reference Build Plan builds a total of 9,898 MW of capacity over the planning horizon which puts it at the lowest end of the range of new capacity constructed under the Alternative Core Build Plans. It adds 5,300 MW of new Solar supplemented by a total of 1,400 MW of new Battery storage, 600 MW of new Hybrid Solar & Storage, and 1,500 MW of OSW. This build plan adds Solar on an annual basis beginning 2031 continuing through 2050. The GHG Reference Build Plan replaces Wateree and Williams in 2033 through Canadys Station and through the addition of Hybrid Solar & Storage.

Table 42: The GHG Reference Build Plan

GHG Reference Build Plan										
Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4710	6266	33.0	0	0	0	0	0	0	0
2027	4832	6270	29.8	0	0	0	0	0	0	0
2028	4980	6276	26.0	0	0	0	0	0	0	0
2029	5094	6294	23.6	0	0	0	0	0	0	0
2030	5190	6309	21.6	0	0	0	0	0	0	0
2031	5290	6428	21.5	0	200	0	100	0	0	0
2032	5388	6550	21.6	0	200	0	100	0	0	0
2033	5439	6557	20.6	1098	100	0	200	0	0	-1284
2034	5509	6638	20.5	0	200	0	100	0	0	0
2035	5569	6713	20.5	0	200	0	100	0	0	0
2036	5626	6820	21.2	0	300	100	0	0	0	0
2037	5679	6827	20.2	0	300	0	0	0	0	0
2038	5718	7003	22.5	0	300	200	0	0	0	0
2039	5769	7007	21.5	0	300	0	0	0	0	0
2040	5832	7046	20.8	0	300	300	0	0	0	0
2041	5899	7122	20.7	0	300	100	0	0	0	0
2042	5970	7198	20.6	0	300	100	0	0	0	0
2043	6034	7272	20.5	0	300	100	0	0	0	0
2044	6097	7348	20.5	0	300	100	0	0	0	0
2045	6161	7421	20.5	0	300	100	0	0	0	0
2046	6225	7496	20.4	0	300	100	0	0	0	0
2047	6290	7570	20.4	0	300	100	0	0	0	0
2048	6356	7644	20.3	0	300	100	0	0	0	0
2049	6422	7772	21.0	0	300	0	0	500	0	0
2050	6489	8024	23.7	0	200	0	0	1000	0	0
Total				1098	5300	1400	600	1500	0	-1284

The GHG High Fossil Fuel Prices Build Plan

The GHG High Fossil Fuel Prices Build Plan adds a total of 10,798 MW over the planning horizon including 6,200 MW of new Solar supported by a total of 1,400 MW of new Battery, 600 MW of new Hybrid Solar & Storage, and 1,500 MW of OSW. This build plan adds Solar or Hybrid Solar & Storage on an annual basis beginning in 2028 and continuing through 2050. The GHG High Fossil Fuel Prices Build Plan replaces Wateree and Williams in 2033 through Canadys Station and through the addition of Hybrid Solar & Storage.

Table 43: The GHG High Fossil Fuel Prices Build Plan

GHG High Fossil Fuel Prices Build Plan										
Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4710	6266	33.0	0	0	0	0	0	0	0
2027	4832	6270	29.8	0	0	0	0	0	0	0
2028	4980	6278	26.1	0	300	0	0	0	0	0
2029	5094	6297	23.6	0	300	0	0	0	0	0
2030	5190	6313	21.6	0	300	0	0	0	0	0
2031	5290	6432	21.6	0	200	0	100	0	0	0
2032	5388	6554	21.6	0	200	0	100	0	0	0
2033	5439	6561	20.6	1098	100	0	200	0	0	-1284
2034	5509	6705	21.7	0	100	0	200	0	0	0
2035	5569	6718	20.6	0	300	0	0	0	0	0
2036	5626	6825	21.3	0	300	100	0	0	0	0
2037	5679	6832	20.3	0	300	0	0	0	0	0
2038	5718	6923	21.1	0	300	100	0	0	0	0
2039	5769	6926	20.1	0	300	0	0	0	0	0
2040	5832	7004	20.1	0	300	300	0	0	0	0
2041	5899	7080	20.0	0	300	100	0	0	0	0
2042	5970	7228	21.1	0	300	200	0	0	0	0
2043	6034	7303	21.0	0	300	100	0	0	0	0
2044	6097	7377	21.0	0	300	100	0	0	0	0
2045	6161	7451	20.9	0	300	100	0	0	0	0
2046	6225	7525	20.9	0	300	100	0	0	0	0
2047	6290	7599	20.8	0	300	100	0	0	0	0
2048	6356	7649	20.3	0	300	100	0	0	0	0
2049	6422	7776	21.1	0	300	0	0	500	0	0
2050	6489	8028	23.7	0	200	0	0	1000	0	0
Total				1098	6200	1400	600	1500	0	-1284

The GHG Medium Carbon Cost Build Plan

The GHG Medium Carbon Cost Build Plan builds 10,598 MW of capacity over the planning horizon including 6,000 MW of new Solar supported by a total of 1,400 MW of new Battery, 600 MW of new Hybrid Solar & Storage, and 1,500 MW of OSW. This build plan adds Solar or Hybrid Solar & Storage on an annual basis beginning in 2028 and continuing through 2050. Similar to the other two Alternative Core Build Plans, the GHG Medium Carbon Cost Build Plan replaces Wateree and Williams in 2033 through Canadys Station and through the addition of Hybrid Solar & Storage.

Table 44: The GHG Medium Carbon Cost Build Plan

GHG Medium Carbon Cost Build Plan										
Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4710	6266	33.0	0	0	0	0	0	0	0
2027	4832	6270	29.8	0	0	0	0	0	0	0
2028	4980	6277	26.0	0	200	0	0	0	0	0
2029	5094	6296	23.6	0	200	0	0	0	0	0
2030	5190	6312	21.6	0	300	0	0	0	0	0
2031	5290	6431	21.6	0	200	0	100	0	0	0
2032	5388	6553	21.6	0	200	0	100	0	0	0
2033	5439	6560	20.6	1098	100	0	200	0	0	-1284
2034	5509	6641	20.5	0	200	0	100	0	0	0
2035	5569	6717	20.6	0	200	0	100	0	0	0
2036	5626	6824	21.3	0	300	100	0	0	0	0
2037	5679	6831	20.3	0	300	0	0	0	0	0
2038	5718	6922	21.0	0	300	100	0	0	0	0
2039	5769	6925	20.0	0	300	0	0	0	0	0
2040	5832	7003	20.1	0	300	300	0	0	0	0
2041	5899	7079	20.0	0	300	100	0	0	0	0
2042	5970	7201	20.6	0	300	200	0	0	0	0
2043	6034	7276	20.6	0	300	100	0	0	0	0
2044	6097	7351	20.6	0	300	100	0	0	0	0
2045	6161	7425	20.5	0	300	100	0	0	0	0
2046	6225	7500	20.5	0	300	100	0	0	0	0
2047	6290	7574	20.4	0	300	100	0	0	0	0
2048	6356	7648	20.3	0	300	100	0	0	0	0
2049	6422	7775	21.1	0	300	0	0	500	0	0
2050	6489	8027	23.7	0	200	0	0	1000	0	0
Total				1098	6000	1400	600	1500	0	-1284

The Alternative Core Build Plan Analysis

DESC modeled the three Alternative Core Build Plans under the three Core Market Scenarios to create nine Alternative Core Cases. DESC has measured the results of the nine Alternative Core Cases along with the nine Core Cases to show their relative performance in levelized cost, CO_2 emissions, fuel cost resiliency, and mini-max regret factors.

Levelized Cost

The Levelized Cost metric measures the costs to customers of each of the Core Build Plans based on the thirty-year levelized net present value ("LNPV") of the incremental costs of each Build Plan. The following table shows the Levelized Cost Comparison of the Core and Alternative Core Build Plans. The results are color coded: 1. Green = Least Cost, 2. Light Green = Second, 3. Lighter Green = Third, 4. Orange = Fourth, 5. Light Red = Fifth, and 6. Red = Highest Cost.

Table 45: Levelized Cost Comparison of the Core and Alternative Core Build Plans (30-Year LNPV in Thousands of Dollars)

Core and Alternative Core Build Plans 30 Yr Level NPV ($M)			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	$2,389	$2,922	$2,572
High Fossil Fuel Prices Build Plan	$2,510	$2,926	$2,643
Medium Carbon Cost Build Plan	$2,455	$2,905	$2,597
GHG Reference Build Plan	$2,709	$3,136	$2,831
GHG High Fossil Fuel Prices Build Plan	$2,754	$3,150	$2,868
GHG Medium Carbon Cost Build Plan	$2,740	$3,141	$2,856

The Core Build Plans are the lowest cost in the LNPV cost rankings due to the assumed delayed retirement date for Williams as well as the absence of operating constraints imposed on new thermal units to comply with the GHG Rules. The GHG Reference Build Plan is the most cost-effective of the Alternative Core Build Plans in all three Core Market Scenarios.

Table 46: Percentage Difference in LNPV from 2026 Reference Build Plan

Core and Alternative Core Build Plans 2026 Reference Build Plan % Change			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	0.0%	0.0%	0.0%
High Fossil Fuel Prices Build Plan	5.1%	0.1%	2.8%
Medium Carbon Cost Build Plan	2.8%	-0.6%	1.0%
GHG Reference Build Plan	13.4%	7.3%	10.1%
GHG High Fossil Fuel Prices Build Plan	15.3%	7.8%	11.5%
GHG Medium Carbon Cost Build Plan	14.7%	7.5%	11.0%

The LNPV costs of the three optimized Core Build Plans are closely aligned when compared to the 2026 Reference Build Plan.

The following table summarizes the rankings of the Core and Alternative Core Build Plans under the three Core Market Scenarios.

Table 47: Levelized Cost Ranking of the Core Build Plans

Core and Alternative Core Build Plans 30 Yr LNPV			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	1	2	1
High Fossil Fuel Prices Build Plan	3	3	3
Medium Carbon Cost Build Plan	5	5	5
GHG Reference Build Plan	4	4	4
GHG High Fossil Fuel Prices Build Plan	6	6	6
GHG Medium Carbon Cost Build Plan	5	5	5

CO_2 Emissions

The Core and Alternative Core Build Plans resulted in DESC reducing its CO_2 emissions between 58.3% and 80.9% compared to emissions in 2005.

Table 48: 2050 CO_2 Reductions for the Core and Alternative Core Build Plans Compared to 2005 Levels

Core and Alternative Core Build Plans 2050 CO_2 Reductions Compared to 2005 Levels			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	58.3%	58.8%	58.3%
High Fossil Fuel Prices Build Plan	69.3%	70.0%	70.0%
Medium Carbon Cost Build Plan	68.0%	68.4%	68.4%
GHG Reference Build Plan	79.3%	79.8%	79.7%
GHG High Fossil Fuel Prices Build Plan	80.4%	80.9%	80.7%
GHG Medium Carbon Cost Build Plan	80.2%	80.6%	80.4%

The following table provides annual CO_2 emissions in thousands of tons for the Core and Alternative Core Build Plans as forecasted in 2050 at the end of the planning horizon:

Table 49: 2050 CO_2 Emissions (Ktons) of the Core and Alternative Core Build Plans

Core and Alternative Core Build Plans 2050 CO_2 Emissions (Ktons) of the Core Build Plans			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	7,906	7,827	7,906
High Fossil Fuel Prices Build Plan	5,817	5,695	5,690
Medium Carbon Cost Build Plan	6,074	5,988	6,005
GHG Reference Build Plan	3,933	3,838	3,856
GHG High Fossil Fuel Prices Build Plan	3,720	3,633	3,660
GHG Medium Carbon Cost Build Plan	3,764	3,683	3,711

The following table shows the percentage variation in CO_2 emissions of the Core and Alternative Core Build Plans as forecasted at the end of 2050 using the 2026 Reference Build Plan as the point of comparison.

Table 50: 2050 CO_2 Emissions Variation in the Core and Alternative Core Build Plans from the 2026 Reference Build Plan

Core and Alternative Core Build Plans 2050 CO_2 Emissions Variation from the Reference Case			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	0.0%	0.0%	0.0%
High Fossil Fuel Prices Build Plan	-26.4%	-27.2%	-28.0%
Medium Carbon Cost Build Plan	-23.2%	-23.5%	-24.0%
GHG Reference Build Plan	-50.3%	-51.0%	-51.2%
GHG High Fossil Fuel Prices Build Plan	-52.9%	-53.6%	-53.7%
GHG Medium Carbon Cost Build Plan	-52.4%	-52.9%	-53.1%

DESC also compared the cumulative CO_2 emissions under the Core and Alternative Core Build Plans over the planning horizon (2025 to 2050). The lowest cumulative emissions come under the GHG High Fossil Fuels Build Plan in the Medium Carbon Cost Market Scenario and the highest comes under the 2026 Reference Build Plan in the High Fossil Fuel Prices Market Scenario.

Table 51: Cumulative CO_2 Emissions (Ktons) of the Core and Alternative Core Build Plans

Core and Alternative Core Build Plans Cumulative CO_2 Emissions (Ktons)			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	211,541	225,931	210,424
High Fossil Fuel Prices Build Plan	169,559	180,602	168,398
Medium Carbon Cost Build Plan	183,846	197,142	182,648
GHG Reference Build Plan	177,153	184,424	176,676
GHG High Fossil Fuel Prices Build Plan	163,260	170,378	162,961
GHG Medium Carbon Cost Build Plan	166,277	173,228	165,925

The following table shows the percentage variation in cumulative emissions for each Build Plan compared to the 2026 Reference Build Plan.

Table 52: Cumulative CO_2 Emissions Variation in the Core and Alternative Core Build Plans from the 2026 Reference Build Plan

Core and Alternative Core Build Plans Cumulative CO_2 Variation from the Reference Case			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	0.0%	0.0%	0.0%
High Fossil Fuel Prices Build Plan	-19.8%	-20.1%	-20.0%
Medium Carbon Cost Build Plan	-13.1%	-12.7%	-13.2%
GHG Reference Build Plan	-16.3%	-18.4%	-16.0%
GHG High Fossil Fuel Prices Build Plan	-22.8%	-24.6%	-22.6%
GHG Medium Carbon Cost Build Plan	-21.4%	-23.3%	-21.1%

Fuel Cost Resiliency

Each of the Core and Alternative Core Build Plans will result in a different mix of generating assets and fuel costs over the planning horizon. Fuel costs are a major component of the costs evaluated in the Levelized Cost analysis, but the variation in the level of fuel costs between build plans can be a rough measure of the degree to which build plans are susceptible to potential fuel cost risks.

Table 53: Levelized Net Present Value of Fuel Costs

Core and Alternative Core Build Plans Levelized Net Present Value of Fuel Costs ($M)			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	$744	$1,274	$744
High Fossil Fuel Prices Build Plan	$606	$1,018	$605
Medium Carbon Cost Build Plan	$655	$1,102	$653
GHG Reference Build Plan	$620	$1,043	$619
GHG High Fossil Fuel Prices Build Plan	$573	$964	$573
GHG Medium Carbon Cost Build Plan	$585	$982	$584

The GHG High Fossil Fuel Prices Build Plan has the lowest modeled fuel cost in all three Core Market Scenarios. This is largely due to that build plan's reliance on renewables. The GHG Medium Carbon Cost Build Plan had the second lowest modeled fuel cost. The 2026 Reference Build Plan has the highest modeled fuel cost in all three Market Scenarios reflecting the fact that the assumption of moderate and plentiful natural gas supplies on which that build plan is based results in higher levels of natural gas utilization compared to other build plans.

Mini-Max Regret

The Mini-Max Regret metric assesses the potential under each Core and Alternative Core Build Plan to incur higher costs than other Build Plans under the same Core Market Scenario. In this analysis, the 2026 Reference Build Plan received the best Mini-Max Regret score with zero regrets score under both the Reference and the Medium Carbon Cost Market Scenarios and received the second-best score under the High Fossil Fuel Prices Market Scenario.

Table 54: Mini-Max Regret Comparison, Core Build Plans in $ Millions

Core and Alternative Core Build Plans Mini-Max Regrets LNPV ($million)			
	Market Scenario		
Build Plans	Reference	High Fossil Fuel Prices	Medium Carbon Cost
2026 Reference Build Plan	$0	$16	$0
High Fossil Fuel Prices Build Plan	$121	$20	$71
Medium Carbon Cost Build Plan	$66	$0	$25
GHG Reference Build Plan	$320	$230	$259
GHG High Fossil Fuel Prices Build Plan	$365	$244	$296
GHG Medium Carbon Cost Build Plan	$351	$235	$283

The 2026 Reference Build Plan is the lowest cost plan in two of the three Core Market Scenarios and, as expected, has the lowest regret score across two of three Core Market Scenarios. The GHG High Fossil Fuels Prices Build Plan presented the greatest potential financial risk to customers with the highest level of maximum regrets under two of three Core Market Scenarios. Its regret potential is an additional $365 million per year under the Reference Market Scenario and $296 million per year under the Medium Carbon Cost Market Scenario. The GHG Medium Carbon Cost Build Plan had the second highest level of maximum regrets under one of the Core Market Scenarios with a regret potential of $351 million per year under the Reference Market Scenario. As shown in the tables, the Max Regret for the GHG High Fossil Fuel Prices Build Plan is a $365 million annual increase in LNPV which is the highest Max Regret score by a wide margin.

Table 55: Comparison of the Regret Levels of the Core and Alternative Core Build Plans

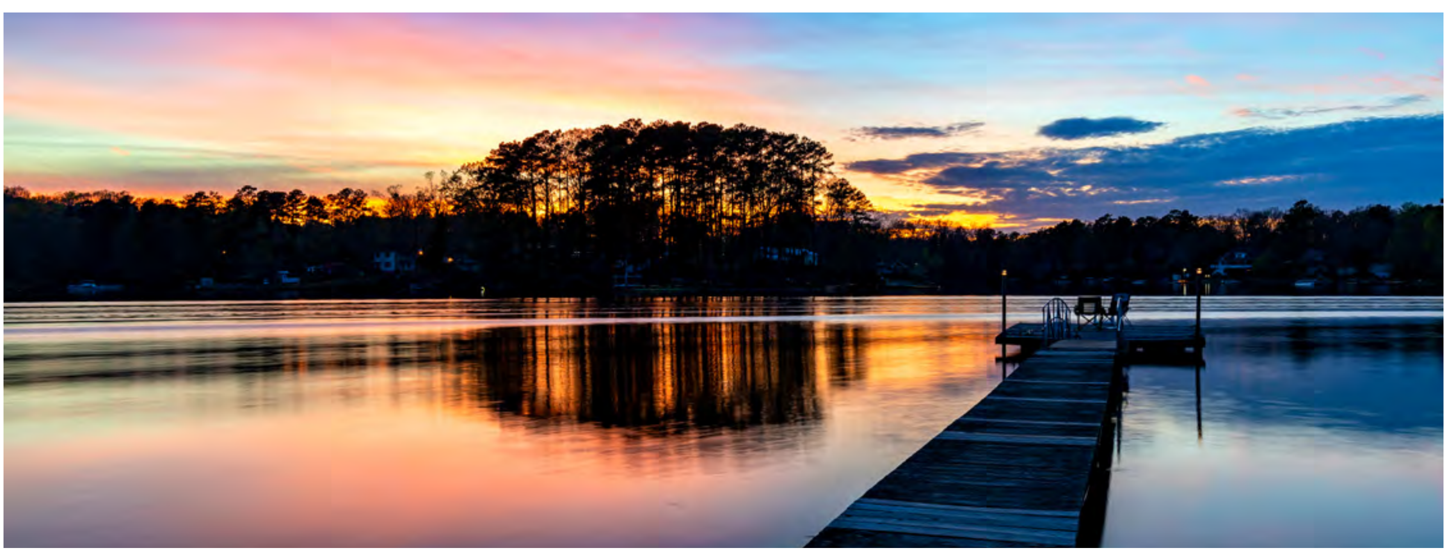
Core and Alternative Core Build Plans Mini-Max Regret Analysis			
Build Plans	Max Regret ($M)	Percent Greater than Reference 2026	Ranking
2026 Reference Build Plan	$16	0%	1
High Fossil Fuel Prices Build Plan	$121	641%	3
Medium Carbon Cost Build Plan	$66	305%	2
GHG Reference Build Plan	$320	1853%	4
GHG High Fossil Fuel Prices Build Plan	$365	2131%	6
GHG Medium Carbon Cost Build Plan	$351	2042%	5

Cost Range Analysis

The Cost Range Analysis calculates the spread between the lowest and highest cost for each build plan across the three Core Market Scenarios. It indicates the degree that a build plan is sensitive to changes in the assumptions that vary between each of the Core Market Scenarios. It does not compare build plans against each other and so does not indicate whether a build plan is either more or less cost effective or beneficial than any other build plan. Of the three Core Build Plans, the 2026 Reference Build Plan has the highest cost range reflecting the fact that it is optimized to generate low costs when fuel costs are moderate and no CO_2 costs are imposed but incurs higher costs when these assumptions are changed.

Table 56: Cost Range Analysis (Rank Order and Cost Spread, Minimum to Maximum)

Core and Alternative Core Build Plans Cost Range Analysis		
Build Plans	Max Difference Between Scenarios ($M)	Ranking
2026 Reference Build Plan	533	6
High Fossil Fuel Prices Build Plan	415	3
Medium Carbon Cost Build Plan	450	2
GHG Reference Build Plan	427	4
GHG High Fossil Fuel Prices Build Plan	396	1
GHG Medium Carbon Cost Build Plan	401	2



Evaluation of a Range of Demand Forecasts

The DSM analysis provides an important data point concerning how different assumptions about load growth affect the resulting build plans. In addition, the 2026 Reference Build Plan, the Near-Term Load Growth Build Plan and the Energy Conservation Build Plan provide three build plans incorporating the Reference, High and Low load growth forecasts. These build plans assume different levels of fuel costs and CO_2 costs in addition to different assumptions as to base load growth since these factors are not independent variables but reflect certain policy choices and economic conditions that are interrelated. As discussed in the sections concerning the Sensitivity, Supplemental and Alternate Core Build Plans, an analysis of these three build plans affirms that DESC's present approach to replacing the Wateree and Williams capacity, and other generation supply decisions, remains sound and appropriate under a range of load growth assumptions. The variation that they reflect in short to near-term build plans is fully considered in this analysis.

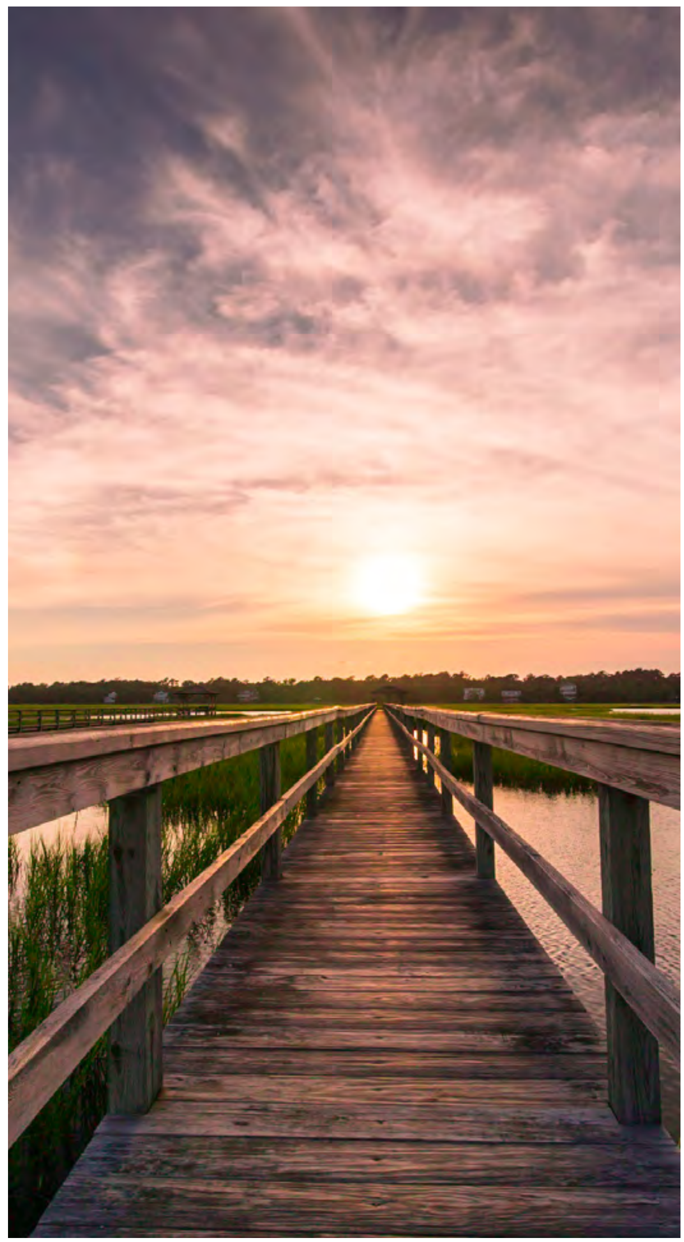
Because the 2026 IRP is a planning document based on a snapshot in time, DESC will continue to evaluate these decisions as timely information concerning load growth generally and the scope and effectiveness of DSM programs become available.

The Preferred Plan

Based on a careful review of the needs of the electric system, the modeling contained in this 2026 IRP, and consideration of the latest guidance available at the time the modeling was performed, DESC determined that the 2026 Reference Build Plan is the preferred plan to guide its resource planning decisions at this time. Over the planning horizon, the 2026 Reference Build Plan adds a total of 2,400 MW of Solar, 600 MW of Hybrid Solar & Storage, 300 MW of Battery, and an additional 946 MW of Frame CTs to ensure system reliability. The 2026 Reference Build Plan is the most economical option when compared across the three Core Market Scenarios, has the lowest Mini-Max Regrets score, and fares well in comparison to the Sensitivity Cases that assume markedly different future market conditions and policy choices.

If the GHG Rules are retained or reimposed in the future, DESC is well positioned to then adopt the GHG Reference Build Plan or a similar build plan to guide its planning going forward. In the near term, both the 2026 Reference Build Plan and the GHG Reference Build Plan produced similar results, and each performed best overall within its respective analytical framework across the three Core Market Scenarios. This indicates that both the 2026 Reference Build Plan and the GHG Reference Build Plan are robust and resilient plans that can protect customers' interests under a range of future market conditions.

Under the 2026 Reference Build Plan, the resource additions needed in the near to medium term are comparable to those that would be added under the other thirteen build plans. For this reason, if the future environment changes, the 2026 Reference Build Plan would provide an appropriate base for adapting to those changes. Of all build plans modeled, the 2026 Reference Build Plan is the preferable build plan to guide generation planning because it embodies the most likely, middle-of-the-road assumptions as to fuel costs and other inputs, meaning that it is the plan most closely aligned with current forecasts of future market conditions, and is compliant with most likely set of environmental requirements that are relevant at the time of the filing.

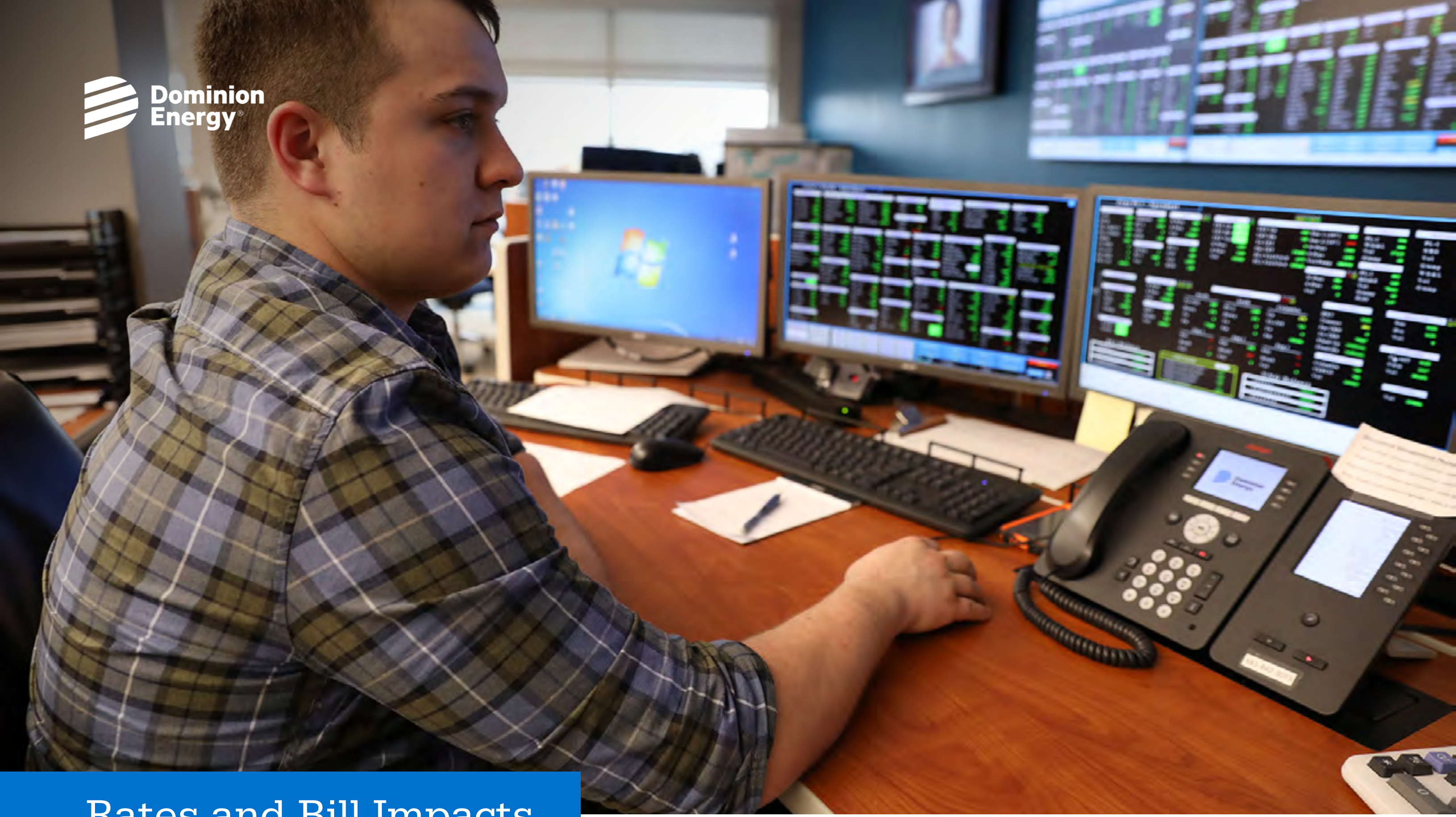


Forecast of Renewable Generation

All Core Build Plans include a significant amount of renewable energy - between 62% and 83% of total generation added by the end of the forecast period. The values in the table below show the total renewable generation by resource plan by five-year period under three market scenarios for the Core Build Plans. Similar data for the sensitivity and supplemental cases are provided in ***Appendix E.***

Table 57: Energy from Renewable Generation by Five-Year Period

Energy from Renewable Generation by Five-Year Period (GWh)						
Optimized Plan	**2026 - 2030**	**2031 - 2035**	**2036 - 2040**	**2041 - 2045**	**2046 - 2050**	**Total**
Reference Market Scenario						
2026 Reference Build Plan	13,232	16,419	20,082	25,541	38,243	113,518
High Fossil Fuel Prices Build Plan	17,291	32,969	46,667	55,339	63,937	216,203
Medium Carbon Cost Build Plan	13,232	21,184	37,658	50,270	59,995	182,340
High Fossil Fuel Prices Market Scenario						
2026 Reference Build Plan	13,234	16,418	20,092	25,551	38,296	113,591
High Fossil Fuel Prices Build Plan	17,291	32,946	46,796	55,600	64,240	216,872
Medium Carbon Cost Build Plan	13,233	21,182	37,693	50,447	60,201	182,756
Medium Carbon Cost Market Scenario						
2026 Reference Build Plan	13,227	16,425	20,088	25,563	38,292	113,595
High Fossil Fuel Prices Build Plan	17,295	32,890	46,821	55,473	64,275	216,754
Medium Carbon Cost Build Plan	13,224	21,186	37,649	50,496	60,228	182,783



Rates and Bill Impacts

To show the impact of changes in levelized cost on customers, DESC has calculated the levelized cost for each Core Build Plan and each Alternative Core Build Plan and combined it with rate data to show the resulting changes in retail rates ("Retail Rates"), and changes in the monthly bill of a typical residential customer ("Customer Bills"). The typical residential customer for DESC is a Rate 8 customer using 1,000 kWh per month.

This rate and bill impact analysis incorporates changes in fuel costs, including CO_2 and other emissions costs from burning fuel, and the capital and operating cost of generation assets. But it does not attempt to model other factors that would change Retail Rates or Customer Bills over time and so is not a forecast of future rates nor is it a comprehensive rate forecast. It covers a fifteen-year period and incorporates the annual costs of generation supply for each year of that period.

Fuel costs, CO_2 costs, and new generation projects are important drivers of both Retail Rates and Customer Bills. Build Plans often maintain similar or same relative positions across the Market Scenarios indicating that in most cases, the differences in fuel costs and required capital expenditures for new generation among the Market Scenarios drive Retail Rates and Customer Bills up or down in a consistent fashion. The factors that vary between Market Scenarios impact the cost to customers of build plans so strongly that comparing the cost of build plans that are modeled under different Market Scenarios does not provide meaningful information.

Table 58: Compound Annual Growth Rate and Total Change in a Typical Customers' Bill Under the Core Analysis

Typical Residential Bill @1000 kWh/month			
Market Scenario	**Optimized Plan**	**CAGR**	**Total Change**
Reference	2026 Reference Build Plan	3.33%	58.20%
Reference	High Fossil Fuel Prices Build Plan	3.71%	66.47%
Reference	Medium Carbon Cost Build Plan	3.60%	64.13%
High Fossil Fuel Prices	2026 Reference Build Plan	4.26%	79.22%
High Fossil Fuel Prices	High Fossil Fuel Prices Build Plan	4.35%	81.54%
High Fossil Fuel Prices	Medium Carbon Cost Build Plan	4.31%	80.53%
Medium Carbon Cost	2026 Reference Build Plan	3.72%	66.82%
Medium Carbon Cost	High Fossil Fuel Prices Build Plan	3.97%	72.38%
Medium Carbon Cost	Medium Carbon Cost Build Plan	3.92%	71.29%

Table 59: Compound Annual Growth Rate and Total Change in a Typical Customers' Bill Under the GHG Analysis

Market Scenario	Build Plan	CAGR	Total Change
GHG Reference	GHG Reference Build Plan	3.39%	59.6%
GHG Reference	GHG High Fossil Fuel Prices Build Plan	3.45%	60.8%
GHG Reference	GHG Medium Carbon Cost Build Plan	3.43%	60.2%
GHG High Fossil Fuel Prices	GHG Reference Build Plan	4.13%	76.2%
GHG High Fossil Fuel Prices	GHG High Fossil Fuel Prices Build Plan	4.13%	76.3%
GHG High Fossil Fuel Prices	GHG Medium Carbon Cost Build Plan	4.11%	75.8%
GHG Medium Carbon Cost	GHG Reference Build Plan	3.70%	66.4%
GHG Medium Carbon Cost	GHG High Fossil Fuel Prices Build Plan	3.73%	67.1%
GHG Medium Carbon Cost	GHG Medium Carbon Cost Build Plan	3.71%	66.5%

Under the Reference Market Scenario, the 2026 Reference Build Plan results in the lowest compound annual rate of growth in Customer Bills and the Medium Carbon Cost Build Plan ranked second. Under the other two Market Scenarios, the High Fossil Fuels Prices Market Scenario and the Medium Carbon Cost Market Scenario, the 2026 Reference Build Plan also ranked first. The High Fossil Fuel Prices Build Plan results in CAGRs that are between 0.10% and 0.38% higher than the 2026 Reference Build Plan depending on the Market Scenario under which it is modeled and the Medium Carbon Cost Build Plan results in CAGRs that are between 0.05% and 0.27% higher than the 2026 Reference Build Plan.

Table 60: Variation in Compound Annual Growth Rate in a Typical Customers' Bill Under the Core Analysis Comparing the Reference Build Plan and the Other Build Plans

CAGR and % Variation of the Typical Residential Bill @1000 kWh/month			
Market Scenario	Build Plan	CAGR Variation from the 2026 Reference Build Plan	Percentage Variation from the 2026 Reference Build Plan
Reference	2026 Reference Build Plan	0.00%	0.0%
Reference	High Fossil Fuel Prices Build Plan	0.38%	11.3%
Reference	Medium Carbon Cost Build Plan	0.27%	8.2%
High Fossil Fuel Prices	2026 Reference Build Plan	0.93%	27.8%
High Fossil Fuel Prices	High Fossil Fuel Prices Build Plan	1.02%	30.6%
High Fossil Fuel Prices	Medium Carbon Cost Build Plan	0.98%	29.4%
Medium Carbon Cost	2026 Reference Build Plan	0.39%	11.8%
Medium Carbon Cost	High Fossil Fuel Prices Build Plan	0.64%	19.1%
Medium Carbon Cost	Medium Carbon Cost Build Plan	0.59%	17.7%

Table 61: Variation in Compound Annual Growth Rate in a Typical Customers' Bill Under the GHG Analysis, Comparing the GHG Reference Build Plan and the Other Build Plans

CAGR and % Variation of the Typical Residential Bill @1000 kWh/month			
Market Scenario	**Build Plan**	**CAGR Variation from the GHG Reference Build Plan**	**Percentage Variation from the GHG Reference Build Plan**
GHG Reference	GHG Reference Build Plan	0.00%	0.0%
GHG Reference	GHG High Fossil Fuel Prices Build Plan	0.06%	1.7%
GHG Reference	GHG Medium Carbon Cost Build Plan	0.03%	0.9%
GHG High Fossil Fuel Prices	GHG Reference Build Plan	0.73%	21.6%
GHG High Fossil Fuel Prices	GHG High Fossil Fuel Prices Build Plan	0.74%	21.8%
GHG High Fossil Fuel Prices	GHG Medium Carbon Cost Build Plan	0.72%	21.2%
GHG Medium Carbon Cost	GHG Reference Build Plan	0.31%	9.1%
GHG Medium Carbon Cost	GHG High Fossil Fuel Prices Build Plan	0.34%	10.0%
GHG Medium Carbon Cost	GHG Medium Carbon Cost Build Plan	0.32%	9.3%

The corresponding figures for Retail Rates show a similar pattern but lower impact due to how costs are allocated between customer classes based on cost-of-service data. A principal driver of these allocations is contribution to system peak demand, which varies among customer classes. The Medium Carbon Cost Build Plan has the lowest retail rate impact under the High Fossil Fuels Prices Market Scenario. The 2026 Reference Build Plan is the lowest under the Medium Carbon Market Scenario. The High Fossil Fuel Prices Build Plan is lowest under the Reference Market Scenario.

Table 62: Compound Annual Growth Rate and Total Change in Retail Rates Under the Core Analysis

CAGR and % Change in the Retail Rate			
Market Scenario	**Build Plan**	**CAGR**	**Total Change**
Reference	2026 Reference Build Plan	3.10%	53.2%
Reference	High Fossil Fuel Prices Build Plan	2.83%	47.7%
Reference	Medium Carbon Cost Build Plan	3.28%	57.1%
High Fossil Fuel Prices	2026 Reference Build Plan	4.17%	77.2%
High Fossil Fuel Prices	High Fossil Fuel Prices Build Plan	4.13%	76.2%
High Fossil Fuel Prices	Medium Carbon Cost Build Plan	4.12%	75.9%
Medium Carbon Cost	2026 Reference Build Plan	3.54%	62.8%
Medium Carbon Cost	High Fossil Fuel Prices Build Plan	3.66%	65.4%
Medium Carbon Cost	Medium Carbon Cost Build Plan	3.65%	65.1%

Table 63: Compound Annual Growth Rate and Total Change in Retail Rates Under the GHG Analysis

CAGR and % Change in the Retail Rate			
Market Scenario	**Build Plan**	**CAGR**	**Total Change**
GHG Reference	GHG Reference Build Plan	3.10%	53.3%
GHG Reference	GHG High Fossil Fuel Prices Build Plan	3.14%	54.1%
GHG Reference	GHG Medium Carbon Cost Build Plan	3.12%	53.7%
GHG High Fossil Fuel Prices	GHG Reference Build Plan	3.97%	72.4%
GHG High Fossil Fuel Prices	GHG High Fossil Fuel Prices Build Plan	3.95%	71.9%
GHG High Fossil Fuel Prices	GHG Medium Carbon Cost Build Plan	3.93%	71.6%
GHG Medium Carbon Cost	GHG Reference Build Plan	3.45%	60.8%
GHG Medium Carbon Cost	GHG High Fossil Fuel Prices Build Plan	3.46%	61.0%
GHG Medium Carbon Cost	GHG Medium Carbon Cost Build Plan	3.44%	60.7%

Retail rate impacts of the Core Build Plans are provided in the table below in dollar terms. The retail rate impacts for the Non-Core Build Plans are provided in ***Appendix G.***

Table 64: Retail Rate Impact under Core Build Plans (Reference Market Scenario, dollars/kWh)

Retail Rate Impact (dollar/kWh)																
Market Scenario	**Optimized Plan**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
Reference	2026 Reference Build Plan	0.12830	0.12778	0.13121	0.13012	0.13033	0.13507	0.14357	0.16710	0.17098	0.17162	0.17482	0.17565	0.17876	0.18065	0.19660
Reference	High Fossil Fuel Prices Build Plan	0.12830	0.12777	0.13144	0.13142	0.13224	0.13560	0.14277	0.16294	0.16593	0.16677	0.16954	0.17101	0.17387	0.17474	0.18951
Reference	Medium Carbon Cost Build Plan	0.12830	0.12777	0.13121	0.13010	0.13032	0.13506	0.14372	0.16820	0.17185	0.17298	0.17805	0.17930	0.18142	0.18373	0.20157
High Fossil Fuel Prices	2026 Reference Build Plan	0.1283	0.12774	0.13111	0.14138	0.14557	0.153	0.16449	0.18921	0.19265	0.19444	0.20031	0.2027	0.20646	0.20969	0.22739
High Fossil Fuel Prices	High Fossil Fuel Prices Build Plan	0.1283	0.12773	0.13139	0.14196	0.14636	0.15251	0.1645	0.18937	0.19296	0.19439	0.19936	0.20179	0.20532	0.20696	0.22602
High Fossil Fuel Prices	Medium Carbon Cost Build Plan	0.1283	0.12773	0.13109	0.14135	0.14554	0.153	0.16424	0.18931	0.19228	0.19424	0.20087	0.20267	0.20459	0.20706	0.22572
Medium Carbon Cost	2026 Reference Build Plan	0.1283	0.12768	0.1309	0.12988	0.13089	0.13497	0.14359	0.16723	0.1704	0.17182	0.18218	0.18401	0.1882	0.1916	0.20888
Medium Carbon Cost	High Fossil Fuel Prices Build Plan	0.1283	0.12762	0.13150	0.13143	0.13277	0.13662	0.14580	0.17120	0.17433	0.17573	0.18527	0.18685	0.19153	0.19399	0.21225
Medium Carbon Cost	Medium Carbon Cost Build Plan	0.1283	0.12784	0.13097	0.13036	0.13101	0.13431	0.1442	0.16819	0.17168	0.17293	0.18494	0.18687	0.18909	0.19293	0.2118

Table 65: Retail Rate Impact under the GHG Build Plans (1,000 kWh/month)

Retail Rate Impact (dollar/kWh)																
Market Scenario	**Optimized Plan**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
GHG Reference	GHG Reference Build Plan	0.12830	0.12778	0.13121	0.13012	0.13508	0.14006	0.14870	0.17288	0.17650	0.17904	0.18237	0.18408	0.18920	0.18999	0.19668
GHG Reference	GHG High Fossil Fuel Prices Build Plan	0.12830	0.12778	0.13146	0.13143	0.13714	0.14146	0.15037	0.17501	0.17868	0.18091	0.18432	0.18618	0.18963	0.19083	0.19772
GHG Reference	GHG Medium Carbon Cost Build Plan	0.12830	0.12778	0.13142	0.13108	0.13675	0.14111	0.14986	0.17456	0.17785	0.18056	0.18391	0.18561	0.18912	0.19027	0.19716
GHG High Fossil Fuel Prices	GHG Reference Build Plan	0.1283	0.12775	0.13111	0.14136	0.15092	0.15878	0.16993	0.19478	0.19831	0.20109	0.20583	0.20829	0.21301	0.2147	0.22116
GHG High Fossil Fuel Prices	GHG High Fossil Fuel Prices Build Plan	0.1283	0.12775	0.1314	0.14198	0.15178	0.15831	0.17012	0.19481	0.19847	0.20095	0.20592	0.20863	0.21175	0.21374	0.22054
GHG High Fossil Fuel Prices	GHG Medium Carbon Cost Build Plan	0.1283	0.12775	0.13133	0.14192	0.15156	0.15813	0.16974	0.19481	0.19784	0.20117	0.20556	0.20824	0.21164	0.21359	0.22011
GHG Medium Carbon Cost	GHG Reference Build Plan	0.1283	0.12778	0.13121	0.13012	0.13507	0.14006	0.14869	0.17291	0.17651	0.17901	0.18898	0.19138	0.19697	0.19901	0.20637
GHG Medium Carbon Cost	GHG High Fossil Fuel Prices Build Plan	0.1283	0.12777	0.13144	0.13142	0.13713	0.14146	0.15036	0.17499	0.17867	0.18091	0.19037	0.19294	0.19683	0.19924	0.20662
GHG Medium Carbon Cost	GHG Medium Carbon Cost Build Plan	0.1283	0.12778	0.13143	0.13108	0.13672	0.14112	0.14987	0.17459	0.17788	0.18056	0.19003	0.19247	0.19637	0.19891	0.20613

Residential Customer Bill impacts of the Core Build Plans are provided in the table below in dollar terms for a typical residential Rate 8 customer using 1,000 kWh per month. The corresponding bill impacts for the Non-Core Build Plans are provided in ***Appendix F.***

Table 66: Typical Residential Bill under Core Build Plans (Reference Market Scenario, 1,000 kWh/month)

Typical Residential Bill @1000 kWh/month																
Market Scenario	**Optimized Plan**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
Reference	2026 Reference Build Plan	157.00	156.43	160.60	159.67	159.42	165.04	175.58	208.49	213.05	214.03	218.16	219.16	223.25	226.01	248.37
Reference	High Fossil Fuel Prices Build Plan	157.00	156.41	161.32	162.01	163.04	168.44	179.82	215.05	219.78	221.19	226.09	228.68	233.75	235.54	261.36
Reference	Medium Carbon Cost Build Plan	157.00	156.41	160.59	159.65	159.41	165.04	176.07	210.48	215.11	216.61	223.78	225.73	228.66	232.37	257.69
High Fossil Fuel Prices	2026 Reference Build Plan	157.00	156.38	160.49	171.55	175.52	184.03	197.79	231.98	236.07	238.28	245.35	248.06	252.86	257.09	281.38
High Fossil Fuel Prices	High Fossil Fuel Prices Build Plan	157.00	156.38	161.28	173.14	177.81	185.26	199.87	234.69	239.25	241.08	247.65	250.90	255.94	258.35	285.01
High Fossil Fuel Prices	Medium Carbon Cost Build Plan	157.00	156.37	160.47	171.52	175.49	184.03	197.83	232.87	236.77	239.16	248.05	250.61	253.33	257.21	283.43
Medium Carbon Cost	2026 Reference Build Plan	157.00	156.32	160.27	159.42	160.01	164.93	175.60	208.63	212.43	214.25	226.28	228.37	233.65	238.07	261.90
Medium Carbon Cost	High Fossil Fuel Prices Build Plan	157.00	156.26	161.39	162.03	163.46	168.45	180.04	215.44	219.52	221.31	232.92	235.24	241.55	244.86	270.64
Medium Carbon Cost	Medium Carbon Cost Build Plan	157.00	156.49	160.34	159.92	160.14	164.22	176.57	210.44	214.90	216.53	231.34	234.03	237.07	242.47	268.92

Table 67: Typical Residential Bill under Non-Core Build Plans (GHG Market Scenarios, 1,000 kWh/month)

Typical Residential Bill @1000 kWh/month																
Market Scenario	**Optimized Plan**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
GHG Reference	GHG Reference Build Plan	157.00	156.43	160.60	159.67	165.96	172.16	183.17	216.83	221.42	224.84	229.60	232.06	239.41	240.89	250.52
GHG Reference	GHG High Fossil Fuel Prices Build Plan	157.00	156.42	161.34	162.02	169.60	175.09	186.39	220.54	225.32	228.27	233.12	235.74	240.69	242.62	252.47
GHG Reference	GHG Medium Carbon Cost Build Plan	157.00	156.42	161.14	161.33	168.87	174.42	185.55	219.77	224.01	227.62	232.40	234.84	239.86	241.73	251.58
GHG High Fossil Fuel Prices	GHG Reference Build Plan	157.00	156.39	160.48	171.51	182.69	191.97	205.68	240.06	244.55	248.23	254.55	257.84	264.75	267.22	276.59
GHG High Fossil Fuel Prices	GHG High Fossil Fuel Prices Build Plan	157.00	156.39	161.28	173.15	185.06	192.92	207.33	241.53	246.30	249.52	256.10	259.65	264.24	267.04	276.79
GHG High Fossil Fuel Prices	GHG Medium Carbon Cost Build Plan	157.00	156.40	161.05	172.77	184.51	192.42	206.63	241.24	245.20	249.47	255.41	258.93	263.83	266.59	276.04
GHG Medium Carbon Cost	GHG Reference Build Plan	157.00	156.42	160.59	159.66	165.94	172.15	183.15	216.85	221.42	224.81	236.89	240.11	247.98	250.83	261.20
GHG Medium Carbon Cost	GHG High Fossil Fuel Prices Build Plan	157.00	156.42	161.33	162.02	169.60	175.11	186.40	220.54	225.33	228.30	239.82	243.22	248.66	251.92	262.31
GHG Medium Carbon Cost	GHG Medium Carbon Cost Build Plan	157.00	156.42	161.15	161.33	168.83	174.41	185.54	219.77	224.01	227.59	239.13	242.39	247.84	251.24	261.45

The Short-Term Action Plan

Canadys Station and Near-Term Coal Unit Operation

DESC's current generation reserves are sufficient to meet customers' demands through approximately 2030, but that calculus changes significantly in the next decade with the potential future retirements of Wateree and Williams and the resulting loss to the system of approximately 1,284 MW of fully dispatchable capacity. DESC can only retire Wateree and Williams when reliable and dispatchable replacement generation is available for service. This includes having the necessary electric transmission and fuel supply assets needed to support such generation available in order that firm customer demands can be fully met. The following steps will be taken to support the retirement planning for these units:

1. In future annual IRP updates and the next triennial IRP, DESC will continue to monitor and refine the schedule for the regulatory, procurement, and construction activities needed to acquire generation, transmission, and fuel resources to replace Wateree and Williams as required or influenced by the prevailing laws, regulations, and public policy.

2. DESC will continue to operate Wateree and Williams with the required ELG upgrades completed to maintain necessary generation reserves and monitor on-going environmental regulatory requirements to keep this generation available to serve customers' demands until suitable replacement generation is available.

3. DESC will continue, in partnership with Santee Cooper as its project partner, to complete the development, engineering, procurement, and construction activities associated with Canadys Station. This will include completing the necessary electric transmission interconnection studies and Affected System studies to identify the required electric transmission upgrades necessary to support the operation of Canadys Station, including future filings under the Siting Act, as required. This will also include coordinating with the FERC-jurisdictional interstate natural gas pipeline expansion projects that will provide the firm natural gas transportation to support the resilient fueling strategy of Canadys Station.

4. DESC will continue to monitor and evaluate the planned retirement dates for Wateree and Williams based on the outcome of the actions and evaluations listed above. The goal of this monitoring will be to determine a definitive retirement and replacement plan for Wateree and Williams. The ability of DESC to support this plan will be subject to Commission review in Siting Act proceedings for the required assets and updates to DESC's future IRPs.

5. The Company will also continue to monitor changes affecting generation cost and needs including natural gas prices, regulatory and legislative requirements regarding CO_2 emissions and other regulatory reviews by the USEPA and other agencies, the costs of renewable and energy storage technologies, access to fuel supplies and delivery options, governmental incentives, changing environmental policies and the emergence of novel generating technologies.

At the core of this short-term action plan is the Company's intention to monitor changing market conditions and state or federal environmental laws and regulations and update its planning to reflect those changes. DESC will continue to pursue regular and meaningful dialogues with ORS and Stakeholders to receive comments and information, and to work toward achieving as great a level of consensus around these matters as is possible given the sometimes-divergent interests and perspectives of the parties. As always, DESC's guiding commitment is to provide reliable, affordable and increasingly clean energy that powers its customers every day.

Peaking Modernization Program

In November 2021, the Company entered into a Partial Settlement Agreement in Docket 2021-93-E that allows for the retirement of nine CT units to proceed and for their replacements with three modern units at the Bushy Park and Parr sites. In accordance with the Partial Settlement, the Company conducted its Urquhart RFP, which included a collaborative stakeholder process to design the first-of-its-kind all-sources RFP process, filed its Request with the Commission for "Like Facility" Determination pursuant to S.C. Code Ann. § 58-33-110(1), and received Commission approval in January 2025 for a "Like Facility" determination regarding the construction of the proposed construction of a 200 MW Frame CT generating unit at Urquhart.

The specific short-term actions that the Company intends to take in 2026 to accomplish its peaking modernization goals are to:

1. Complete the decommissioning and demolition of the retired Coit CT units;

2. Continue with the engineering, procurement, and construction activities for the new Urquhart CT #7 Frame CT unit and provide updates to the Commission and ORS as required by Order No. 2025-69.

The 2023 DSM Potential Study and 2026 DSM Refresh

The specific short-term actions related to the 2023 DSM Potential Study results are to:

1. Continue to implement the Demand Side Management Portfolio based on the 2023 DSM Potential Study as identified within the Comprehensive DSM 5-year Program Plan for Program Years 15-19.

2. Incorporate the Comprehensive DSM 5-year Program Plan for Program Years 15-19 into the 2026 DSM Refresh,

3. Develop and share the timeline for the activities leading to the 2029 DSM Potential Study to align with the 2029 IRPg.

AMI Education and Residential Demand Response Program

The specific short-term actions that the Company intends to take to accomplish AMI education and Residential Demand Response (DR) include the following:

1. Continue to incorporate AMI data into DSM targeting, customer education and specific DSM programs, as appropriate, to expand customer knowledge and use of AMI data.

2. Continue to implement the Residential Demand Response Program as part of the DSM portfolio. Developed to primarily address DESC's winter system peak, the demand response (DR) program will provide residential customers with education and a variety of flexible offerings to manage the timing of their energy usage as follows:

    - **You Shift / You Save -** A tariff based behavioral offering designed to: recruit, educate, and enroll DESC residential customers in a Time-of-Use energy rate; and motivate current TOU customers to shift usage to off-peak hours, stagger their energy use, and achieve maximum bill savings.

    - **Reward Hours Thermostat Option -** A direct control offering in which the DESC can remotely control connected smart thermostats on event days to change the thermostat setpoint during certain periods.

    - **Reward Hours Home Option -** An event-based behavioral offering that provides incentives to customers based on reduction of usage (in kWh) during events. The incentives are paid as per the reduction measured based on a baseline non-event usage (using AMI data).

3. Continue to timely report to stakeholders the targeting of customers based on AMI data, education and access to AMI data within DSM programs and the activities of the residential DR program.

Continue the IRP Stakeholder Advisory Group Process

The specific short-term actions that the Company intends to take to accomplish its Stakeholder goals are to:

1. Review the results of the 2026 IRP with the IRP Stakeholder Advisory Group in the second half of 2026.

2. Conduct a minimum of two advisory group meetings annually to prepare for the future updates and triennial plans.

Conclusion

In this 2026 IRP, DESC has updated the modeling done in the 2025 IRP Update for current inputs and has modified build plans related to emerging issues. The 2026 IRP appropriately identifies the 2026 Reference Build Plan as the preferred plan to guide DESC's generation planning at present. It sets out a reasonable and prudent approach of planning for the next steps in the development of DESC's generation portfolio and the retirement of Wateree and Williams at the earliest time consistent with reliability and affordability.

DESC's fundamental objectives remain to protect safety, maintain reliability, and deliver affordable energy to its customers. Achieving these objectives, while providing increasingly clean energy to its customers, will require investment by the Company, support from the Commission, and coordination and consensus-building across all stakeholder groups. DESC submits that this 2026 IRP provides a sound and appropriate basis for this investment, regulatory decision making and public engagement.

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Appendix A: Glossary of Abbreviations and Table of Key Terms

Table of Abbreviations	
Abbreviation	**Name**
ACE	Affordable Clean Energy
AEO	Annual Energy Outlook
Aero	Aeroderivative Natural Gas-Fired Combustion Turbine Generating Unit
AFR	Accident Frequency Rate
AGP	Advanced Gas Path
AMI	Advance Metering Infrastructure
ACSR	Aluminum Conductor Steel Reinforced
ATB	Annual Technology Baseline
BAA	Balancing Authority Area
BOEM	Bureau of Ocean Energy Management
BESS	Battery Electric Storage System
BSER	Best System of Emission Reduction
CAA	Clean Air Act
CAGR	Compound Annual Growth Rate
CASAC	Chartered Clean Air Scientific Advisory Committee
CC	Combined Cycle Power Plant
CCS	Carbon Capture Sequestration
COD	Commercial Operation Date
CO_2	Carbon Dioxide
CPP	Clean Power Plan
CRA	Charles River Associates
CT	Combustion Turbine
CTG	Combustion Turbine Generator
CWA	Clean Water Act
DART	Days Away from Work Rate
DISIS	Definitive Interconnection System Impact Study

Table of Abbreviations	
Abbreviation	**Name**
DLR	Dynamic Line Rating
DR	Demand Response
DSM	Demand Side Management
EE	Energy Efficiency
EEAG	Energy Efficiency Advisory Group
EIA	Energy Information Administration
EIPC	Eastern Interconnection Planning Collaborative
ELCC	Effective Load Carrying Capacity
ELG	Effluent Limitation Guidelines
EM&V	Evaluation, Measurement, and Verification
EPC	Engineering, Procurement and Construction
ERO	Electric Reliability Organization
ESS	Energy Storage System
EUE	Expected Unserved Energy
EV	Electric Vehicle
FEOC	Foreign Entity of Concern Act
FERC	Federal Energy Regulatory Commission
FGD	Flue Gas Desulphurization
FOR	Forced Outage Rate
FT	Firm Transportation
GWh	Gigawatt Hour
GHG	Greenhouse Gas
HRSGs	Heat Recovery Steam Generators
ICT	Internal Combustion Turbine
IIJA	Infrastructure Investment and Jobs Act
INPO	Institute of Nuclear Power Operations

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Table of Abbreviations	
Abbreviation	**Name**
IRA	Inflation Reduction Act of 2022
ITC	Investment Tax Credits
Ktons	Thousand Tons
kV	Kilovolt
kW	Kilowatt
kWh	Kilowatt Hour
LNPV	Levelized Net Present Value
LOLE	Loss of Load Event
LOLH	Loss of Load Hours
MATS	Mercury and Air Toxics Standards
MEDs	Major Event Days
MGD	Million Gallons Per Day
MMBtu	Metric Million British Thermal Unit
Mton	Metric Ton
MW	Megawatt
MW-ac	Megawatt, Alternating Current
MWh	Megawatt Hour
MSX	Mississippi Crossing
NAAQS	National Ambient Air Quality Standards
NERC	North American Electric Reliability Corporation
NEPA	National Environmental Policy Act
NOPP	Notice of Plan Participation
NPV	Net Present Value
NRC	Nuclear Regulatory Commission
NREL	National Renewable Energy Laboratory
NSPS	New Source Performance Standards
NTG	Net Gross Savings

Table of Abbreviations	
Abbreviation	**Name**
OATT	Open Access Transmission Tariff
OASIS	Open Access Same-Time Information System
OBBA	One Big Beautiful Bill Act
O&M	Operation and Maintenance
ODC	Opinion Dynamics Corporation
OEM	Original Equipment Manufacturer
ORS	South Carolina Office of Regulatory Staff
OSW	Offshore Wind
PA	Precedent Agreement
PM2.5	Particulate Matter Two and One Half Microns or Less in Width
PPA	Power Purchase Agreement
PRM	Planning Reserve Margin
PSD	Prevention of Significant Deterioration
PTC	Production Tax Credit
PURPA	Public Utility Regulatory Policies Act of 1978
PV	Photovoltaic
RF	Reliability Factor
RFP	Request for Proposal
SAIDI	System Average Interruption Duration Index
SAM	System Advisor Model
SCPSC	South Carolina Public Service Commission
SCRTP	South Carolina Regional Transmission Planning
SEE	Southeastern Electric Exchange
SEEM	Southeast Energy Exchange Market
SEPA	Southeastern Power Administration
SERC	Southeastern Reliability Council
SERPT	Southeastern Regional Transmission Planning

Table of Abbreviations

Abbreviation	Name
SERVM	Strategic Energy & Risk Valuation Model
SLR	Subsequent License Renewal
SMR	Small Modular Reactor
SSE 4	South System Expansion 4
STAP	Short-Term Action Plan
STATCOM	Static Synchronous Compensator
STG	Steam Turbine Generator
SVC	Static VAR Compensator
TIA	Transmission Impact Analysis
ToU	Time of Use
TRC	Total Resource Cost
TWh	Terawatt hour
µ/m3	Micrograms Per Cubic Meter of Air
USEPA	United States Environmental Protection Agency
VACAR	Virginia-Carolinas Regional Reliability Group or Region
VIP	Voluntary Incentive Program

Table of Key Terms

Term	Definition
Build Plan	A collection of resources used to meet customers' future energy needs.
Market Scenario	An outlook and expected values for key market drivers.
Resource Optimization	PLEXOS' selection of resources to most efficiently meet a given customers' future energy needs under a specific Market Scenario or set of constraints.
Cases	Build Plans evaluated across one or more Market Scenarios.
Core Build Plans	A selection representing the three most likely or representative Build Plans.
Core Market Scenarios	The three most likely or representative Market Scenarios.
Green Hydrogen	Hydrogen produced using electrolysis powered by zero emissions energy.
Nine Core Cases	The three Core Build Plans modeled across the three most likely Market Scenarios.
Alternate Core Build Plans	Three alternative core build plans if the current GHG Rules were retained or reimposed in the future
Sensitivity Cases	The eight non-Core Build Plans modeled to fulfill requirements of the IRP Statute and Commission mandates.
Supplemental Cases	The three non-Core Build plans modeled to test assumptions regarding Wateree and Williams.

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Appendix B: Report on Completed, Deferred, and Cancelled Transmission Projects

Planned Project	Tentative Completion Date	Status Update	Explanation
Okatie – Bluffton 115kV: Rebuild	June-25	In Service May-25	
Burton – St Helena 115kV: Rebuild Burton – Frogmore Transmission Section	Dec-24	In Service Mar-25	
Burton – St Helena 115kV: Frogmore Distribution – St Helena	Dec-27	On Schedule	
Jasper – Okatie 230kV #2, Okatie – Riverport 230kV: Construct	Dec-26	On Schedule	
VCS1 – Denny Terrace 230kV: Rebuild Single Circuit Section	Dec-27	Delayed Completion to Dec-28	Delayed due to budget constraints
VCS1 – Pineland 230kV: Rebuild Single Circuit Section	Dec-27	Delayed Completion to Dec-28	Delayed due to budget constraints
Wateree – Hopkins 230kV Line #1: Rebuild	Dec-27	On Schedule	
Coit – Gills Creek 115kV Line: Construct	Dec-25	Delayed Completion to Jun-26	Delayed due to right-of-way issues
Union Pier 115–13.8kV Substation and 115kV Tap Construct	Dec-27	Delayed Completion to Dec-30	Delay due to developer timeline
Cainhoy – Hamlin 115kV: Rebuild Line and Cainhoy – Hamlin 115kV #2: Construct New 115kV Line	Dec-26	On Schedule	
Hopkins – CIP 230kV: Rebuild	Dec-25	In Service Sept-25	
Faber Place – Bayfront 115kV: Rebuild North Bridge Terrace to Bayfront Section	Dec-28	Delayed Completion to Dec-30	Delayed due to budget constraints
Wateree – Killian 230kV: Rebuild	Dec-29	On Schedule	
Canadys – Ritter 115kV: Rebuild as 230/115kV Double Circuit	Jun-28	Delayed Completion to Dec-29	Delayed due to changes in project scope
Ritter – Yemassee 230kV and 115kV Transmission System Expansion	Jun-27	On Schedule	Jun-27
Okatie 230–115kV Sub and the Jasper – Yemassee Fold In	Dec-26	On Schedule	
Clements Ferry 115–23kV Sub: Construct; Jack Primus–Cainhoy 115kV with Clements Ferry Tap Construct	Dec-28	Delayed Completion to Dec-30	Delayed due to budget constraints and delayed load demand
Ridgeville Commerce Park 115-23kV Substation and 115kV Line	Dec-25	In Service Aug-25	

Planned Project	Tentative Completion Date	Status Update	Explanation
Scout: Construct 230-23.9kV Substation and 230kV Transmission Lin	Mar-26	On Schedule	
Watson Hill 230/23/13.8kV Substation and Transmission Line Tap Construction	Dec-26	On Schedule	
Cedar Grove 115-23kV Substation and 115kV Transmission Line Tap Construction	June-25	Delayed Completion to Mar-26	Delayed due to Distribution upgrade scheduling
South Dorchester 115-23kV Substation and 115kV Transmission Line Tap Construction	Dec-25	Delayed Completion to Mar-26	Delayed due to specialized contractor constraints
Edenwood Substation: Replace Autobanks with new 336MVA Transformers	Mar-25	In Servie Feb-25	
Adams Run – Red House Road 46kV: Replace Dawhoo River Crossing and Additional Rebuild Phase 2	Dec-26	Delayed Completion to Dec-27	Delayed due to changes in project scope
Batesburg-Saluda County 115kV: Rebuild	Dec-25	Delayed Completion to Jun-26	Delayed due to substation equipment delivery schedule
Church Creek – Charleston Transmission 230kV and Associated Projects	May-27	On Schedule	
Dawson 230kV Substation and Transmission Line Fold-in Construction Phase 1	Oct-25	In Service Oct-25	
Dawson 230kV Substation and Transmission Line Fold-in Construction Phase 2	Oct-26	On Schedule	
Wagener 115-23kV Substation and Transmission Line Tap Construction	Dec-27	On Schedule	
Millrace 115kV Substation and Transmission Line Tap Construction, and Dunbar Road – Lyles 115kV Transmission Line Rebuild	Dec-28	On Schedule	
Winnsboro West 230kV Substation and Transmission Line Fold-in Construction	Jan-28	On Schedule	
St George – Sumter 230kV Tie Transmission Line Rebuild	Dec-27	On Schedule	
Jackson 115-12kV Distribution Substation and Transmission Line Tap Construction	Dec-27	On Schedule	
Atomic Road 115-12kV Substation and Transmission Line Tap Construction	Dec-28	On Schedule	

Appendix C: Timing and Nature of Resource Additions and Resulting Capacities and Reserve Margins

2026 Reference Build Plan										
Year	**Peak (MW)**	**Firm Capacity (MW)**	**Winter Reserve Margin (%)**	**Gas (MW)**	**Solar (MW)**	**Battery (MW)**	**Hybrid Solar & Storage (MW)**	**OSW (MW)**	**SMR (MW)**	**Retirements (MW)**
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6305	26.6	0	0	0	0	0	0	0
2029	5094	6323	24.1	0	0	0	0	0	0	0
2030	5190	6338	22.1	0	0	0	0	0	0	0
2031	5290	6358	20.2	0	0	0	100	0	0	0
2032	5388	6479	20.2	0	0	0	100	0	0	0
2033	5439	6914	27.1	1098	0	0	0	0	0	-684
2034	5509	7114	29.1	0	0	0	100	0	0	0
2035	5569	6738	21.0	0	0	0	300	0	0	-600
2036	5626	6843	21.6	0	0	100	0	0	0	0
2037	5679	6849	20.6	0	0	0	0	0	0	0
2038	5718	6938	21.3	0	0	100	0	0	0	0
2039	5769	6940	20.3	0	0	100	0	0	0	0
2040	5832	7272	24.7	466	0	0	0	0	0	0
2041	5899	7274	23.3	0	0	0	0	0	0	0
2042	5970	7275	21.9	0	300	0	0	0	0	0
2043	6034	7275	20.6	0	100	0	0	0	0	0
2044	6097	7362	20.8	0	300	0	0	0	0	0
2045	6161	7845	27.3	480	300	0	0	0	0	0
2046	6225	7848	26.1	0	300	0	0	0	0	0
2047	6290	7851	24.8	0	300	0	0	0	0	0
2048	6356	7853	23.6	0	300	0	0	0	0	0
2049	6422	7856	22.3	0	300	0	0	0	0	0
2050	6489	7858	21.1	0	200	0	0	0	0	0
Total				2044	2400	300	600	0	0	-1284

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Medium Carbon Cost Build Plan										
Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6305	26.6	0	0	0	0	0	0	0
2029	5094	6323	24.1	0	0	0	0	0	0	0
2030	5190	6338	22.1	0	0	0	0	0	0	0
2031	5290	6358	20.2	0	0	0	100	0	0	0
2032	5388	6479	20.2	0	200	0	100	0	0	0
2033	5439	6916	27.1	1098	300	0	0	0	0	-684
2034	5509	7117	29.2	0	200	0	100	0	0	0
2035	5569	6740	21.0	0	0	0	300	0	0	-600
2036	5626	6847	21.7	0	300	200	0	0	0	0
2037	5679	6854	20.7	0	300	0	0	0	0	0
2038	5718	6945	21.5	0	300	0	0	0	0	0
2039	5769	6948	20.4	0	300	100	0	0	0	0
2040	5832	7026	20.5	480	300	0	0	0	0	0
2041	5899	7103	20.4	0	300	0	0	0	0	0
2042	5970	7585	27.1	0	300	0	0	0	0	0
2043	6034	7587	25.7	0	300	0	0	0	0	0
2044	6097	7589	24.5	0	300	0	0	0	0	0
2045	6161	7592	23.2	0	300	100	0	0	0	0
2046	6225	7595	22.0	0	300	100	0	0	0	0
2047	6290	7598	20.8	0	300	100	0	0	0	0
2048	6356	7647	20.3	0	300	100	0	0	0	0
2049	6422	7722	20.2	0	300	100	0	0	0	0
2050	6489	7797	20.2	0	200	100	0	0	0	0
Total				1578	5100	900	600	0	0	-1284

High Fossil Fuel Prices Build Plan

Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6307	26.6	0	300	0	0	0	0	0
2029	5094	6326	24.2	0	300	0	0	0	0	0
2030	5190	6342	22.2	0	300	0	0	0	0	0
2031	5290	6364	20.3	0	200	0	100	0	0	0
2032	5388	6486	20.4	0	200	0	100	0	0	0
2033	5439	6922	27.3	1098	300	0	0	0	0	-684
2034	5509	7038	27.8	0	200	0	100	0	0	0
2035	5569	6684	20.0	0	0	0	300	0	0	-600
2036	5626	6791	20.7	0	300	200	0	0	0	0
2037	5679	6861	20.8	0	300	0	0	0	0	0
2038	5718	6866	20.1	0	300	0	0	0	0	0
2039	5769	6955	20.6	0	300	100	0	0	0	0
2040	5832	7033	20.6	480	300	0	0	0	0	0
2041	5899	7109	20.5	0	300	0	0	0	0	0
2042	5970	7184	20.3	0	300	0	0	0	0	0
2043	6034	7666	27.0	0	300	0	0	0	0	0
2044	6097	7668	25.8	0	300	0	0	0	0	0
2045	6161	7671	24.5	0	300	100	0	0	0	0
2046	6225	7674	23.3	0	300	100	0	0	0	0
2047	6290	7677	22.1	0	300	100	0	0	0	0
2048	6356	7679	20.8	0	300	100	0	0	0	0
2049	6422	7729	20.3	0	300	100	0	0	0	0
2050	6489	7804	20.3	0	200	100	0	0	0	0
Total				1578	6200	900	600	0	0	-1284

GHG Reference Build Plan										
Year	**Peak (MW)**	**Firm Capacity (MW)**	**Winter Reserve Margin (%)**	**Gas (MW)**	**Solar (MW)**	**Battery (MW)**	**Hybrid Solar & Storage (MW)**	**OSW (MW)**	**SMR (MW)**	**Retirements (MW)**
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6305	26.6	0	0	0	0	0	0	0
2029	5094	6323	24.1	0	0	0	0	0	0	0
2030	5190	6338	22.1	0	0	0	0	0	0	0
2031	5290	6358	20.2	0	200	0	100	0	0	0
2032	5388	6479	20.2	0	200	0	100	0	0	0
2033	5439	6583	21.0	1098	100	0	200	0	0	-1284
2034	5509	6664	21.0	0	200	0	100	0	0	0
2035	5569	6739	21.0	0	200	0	100	0	0	0
2036	5626	6932	23.2	0	300	100	0	0	0	0
2037	5679	6939	22.2	0	300	0	0	0	0	0
2038	5718	6944	21.4	0	300	200	0	0	0	0
2039	5769	6947	20.4	0	300	0	0	0	0	0
2040	5832	7025	20.5	0	300	300	0	0	0	0
2041	5899	7102	20.4	0	300	100	0	0	0	0
2042	5970	7177	20.2	0	300	100	0	0	0	0
2043	6034	7251	20.2	0	300	100	0	0	0	0
2044	6097	7327	20.2	0	300	100	0	0	0	0
2045	6161	7401	20.1	0	300	100	0	0	0	0
2046	6225	7476	20.1	0	300	100	0	0	0	0
2047	6290	7549	20.0	0	300	100	0	0	0	0
2048	6356	7670	20.7	0	300	100	0	0	0	0
2049	6422	7798	21.4	0	300	0	0	500	0	0
2050	6489	8050	24.1	0	200	0	0	1000	0	0
Total				1098	5300	1400	600	1500	0	-1284

GHG Medium Carbon Cost Build Plan										
Year	**Peak (MW)**	**Firm Capacity (MW)**	**Winter Reserve Margin (%)**	**Gas (MW)**	**Solar (MW)**	**Battery (MW)**	**Hybrid Solar & Storage (MW)**	**OSW (MW)**	**SMR (MW)**	**Retirements (MW)**
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6305	26.6	0	200	0	0	0	0	0
2029	5094	6323	24.1	0	200	0	0	0	0	0
2030	5190	6338	22.1	0	300	0	0	0	0	0
2031	5290	6359	20.2	0	200	0	100	0	0	0
2032	5388	6481	20.3	0	200	0	100	0	0	0
2033	5439	6586	21.1	1098	100	0	200	0	0	-1284
2034	5509	6667	21.0	0	200	0	100	0	0	0
2035	5569	6742	21.1	0	200	0	100	0	0	0
2036	5626	6849	21.7	0	300	100	0	0	0	0
2037	5679	6856	20.7	0	300	0	0	0	0	0
2038	5718	6862	20.0	0	300	100	0	0	0	0
2039	5769	6950	20.5	0	300	0	0	0	0	0
2040	5832	7028	20.5	0	300	300	0	0	0	0
2041	5899	7105	20.4	0	300	100	0	0	0	0
2042	5970	7180	20.3	0	300	200	0	0	0	0
2043	6034	7254	20.2	0	300	100	0	0	0	0
2044	6097	7330	20.2	0	300	100	0	0	0	0
2045	6161	7404	20.2	0	300	100	0	0	0	0
2046	6225	7479	20.1	0	300	100	0	0	0	0
2047	6290	7552	20.1	0	300	100	0	0	0	0
2048	6356	7727	21.6	0	300	100	0	0	0	0
2049	6422	7729	20.4	0	300	0	0	500	0	0
2050	6489	7981	23.0	0	200	0	0	1000	0	0
Total				1098	6000	1400	600	1500	0	-1284

Dominion Energy

GHG High Fossil Fuel Prices Build Plan										
Year	**Peak (MW)**	**Firm Capacity (MW)**	**Winter Reserve Margin (%)**	**Gas (MW)**	**Solar (MW)**	**Battery (MW)**	**Hybrid Solar & Storage (MW)**	**OSW (MW)**	**SMR (MW)**	**Retirements (MW)**
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6307	26.6	0	300	0	0	0	0	0
2029	5094	6326	24.2	0	300	0	0	0	0	0
2030	5190	6342	22.2	0	300	0	0	0	0	0
2031	5290	6364	20.3	0	200	0	100	0	0	0
2032	5388	6486	20.4	0	200	0	100	0	0	0
2033	5439	6590	21.2	1098	100	0	200	0	0	-1284
2034	5509	6671	21.1	0	100	0	200	0	0	0
2035	5569	6684	20.0	0	300	0	0	0	0	0
2036	5626	6791	20.7	0	300	100	0	0	0	0
2037	5679	6861	20.8	0	300	0	0	0	0	0
2038	5718	6866	20.1	0	300	100	0	0	0	0
2039	5769	6955	20.6	0	300	0	0	0	0	0
2040	5832	7033	20.6	0	300	300	0	0	0	0
2041	5899	7109	20.5	0	300	100	0	0	0	0
2042	5970	7184	20.3	0	300	200	0	0	0	0
2043	6034	7259	20.3	0	300	100	0	0	0	0
2044	6097	7334	20.3	0	300	100	0	0	0	0
2045	6161	7408	20.2	0	300	100	0	0	0	0
2046	6225	7483	20.2	0	300	100	0	0	0	0
2047	6290	7557	20.1	0	300	100	0	0	0	0
2048	6356	7684	20.9	0	300	100	0	0	0	0
2049	6422	7811	21.6	0	300	0	0	500	0	0
2050	6489	7938	22.3	0	200	0	0	1000	0	0
Total				1098	6200	1400	600	1500	0	-1284

Near-Term Load Growth Build Plan										
Year	**Peak (MW)**	**Firm Capacity (MW)**	**Winter Reserve Margin (%)**	**Gas (MW)**	**Solar (MW)**	**Battery (MW)**	**Hybrid Solar & Storage (MW)**	**OSW (MW)**	**SMR (MW)**	**Retirements (MW)**
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6305	26.6	0	300	0	0	0	0	0
2029	5431	6519	20.0	0	0	0	300	0	0	0
2030	5864	7037	20.0	201	100	100	200	0	0	0
2031	6301	7602	20.7	208	200	300	100	0	0	0
2032	6399	7698	20.3	0	300	200	0	0	0	0
2033	6450	8817	36.7	1098	0	0	0	0	0	0
2034	6521	8834	35.5	0	0	0	0	0	0	0
2035	6580	8027	22.0	466	0	0	0	0	0	-1284
2036	6638	8035	21.0	0	0	0	0	0	0	0
2037	6691	8041	20.2	0	0	0	0	0	0	0
2038	6730	8107	20.5	466	0	0	0	0	0	0
2039	6781	8180	20.6	0	0	0	0	0	0	0
2040	6844	8526	24.6	0	0	0	0	0	0	0
2041	6910	8528	23.4	0	0	0	0	0	0	0
2042	6982	8529	22.2	0	0	0	0	0	0	0
2043	7045	8529	21.1	0	0	100	0	0	0	0
2044	7107	8530	20.0	480	0	0	0	0	0	0
2045	7169	8801	22.8	0	200	0	0	0	0	0
2046	7232	8980	24.2	0	100	0	0	0	0	0
2047	7296	8908	22.1	480	300	0	0	0	0	0
2048	7360	8909	21.0	0	300	0	0	0	0	0
2049	7425	8910	20.0	0	200	0	0	0	0	0
2050	7490	8997	20.1	0	200	0	0	0	0	0
Total				3399	2200	700	600	0	0	-1284

Energy Conservation Build Plan										
Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4743	6295	32.7	0	0	0	0	0	0	0
2027	4864	6299	29.5	0	0	0	0	0	0	0
2028	4951	6307	27.4	0	300	0	0	0	0	0
2029	5020	6326	26.0	0	300	0	0	0	0	0
2030	5091	6342	24.6	0	300	0	0	0	0	0
2031	5160	6364	23.3	0	300	0	0	0	0	0
2032	5183	6388	23.2	0	300	0	0	0	0	0
2033	5224	6824	30.6	1098	300	0	0	0	0	-684
2034	5255	6842	30.2	0	300	0	0	0	0	0
2035	5282	6353	20.3	0	100	0	200	0	0	-600
2036	5306	6460	21.8	0	300	0	0	0	0	0
2037	5316	6467	21.7	0	300	0	0	0	0	0
2038	5336	6473	21.3	0	300	0	0	0	0	0
2039	5368	6476	20.6	0	300	0	0	0	0	0
2040	5403	6514	20.6	0	100	0	200	0	0	0
2041	5441	6580	20.9	0	200	0	100	0	0	0
2042	5472	6583	20.3	0	200	0	100	0	0	0
2043	5484	6584	20.1	0	300	0	0	0	0	0
2044	5512	6648	20.6	0	100	0	0	0	0	0
2045	5540	6649	20.0	0	100	100	0	0	0	0
2046	5569	6750	21.2	0	300	0	0	0	0	0
2047	5598	6752	20.6	0	300	0	0	0	0	0
2048	5627	6755	20.0	0	300	100	0	0	0	0
2049	5656	6843	21.0	0	300	0	0	0	0	0
2050	5685	6845	20.4	0	200	100	0	0	0	0
Total				1098	5800	300	600	0	0	-1284

Dominion Energy

Aggressive Regulation Build Plan										
Year	**Peak (MW)**	**Firm Capacity (MW)**	**Winter Reserve Margin (%)**	**Gas (MW)**	**Solar (MW)**	**Battery (MW)**	**Hybrid Solar & Storage (MW)**	**OSW (MW)**	**SMR (MW)**	**Retirements (MW)**
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6307	26.6	0	300	0	0	0	0	0
2029	5431	6521	20.1	0	0	0	300	0	0	0
2030	5864	7039	20.0	104	0	200	300	0	0	0
2031	6301	7595	20.5	409	300	100	0	0	0	0
2032	6399	7692	20.2	0	300	100	0	0	0	0
2033	6450	8812	36.6	1098	300	0	0	0	0	0
2034	6521	8830	35.4	0	300	0	0	0	0	0
2035	6580	8026	22.0	466	300	0	0	0	0	-1284
2036	6638	8098	22.0	0	300	0	0	0	0	0
2037	6691	8104	21.1	0	300	0	0	0	0	0
2038	6730	8110	20.5	466	300	0	0	0	0	0
2039	6781	8160	20.3	0	300	0	0	0	0	0
2040	6844	8493	24.1	0	300	0	0	0	0	0
2041	6910	8497	23.0	0	300	0	0	0	0	0
2042	6982	8499	21.7	0	300	0	0	0	0	0
2043	7045	8501	20.7	0	300	100	0	0	0	0
2044	7107	8576	20.7	732	300	0	0	0	0	0
2045	7169	9053	26.3	0	300	0	0	0	0	0
2046	7232	9057	25.2	0	300	0	0	0	0	0
2047	7296	8987	23.2	0	300	0	0	0	0	0
2048	7360	8989	22.1	0	300	0	0	0	0	0
2049	7425	8992	21.1	0	300	100	0	0	0	0
2050	7490	8994	20.1	0	200	0	0	0	0	0
Total				3275	6200	600	600	0	0	-1284

High DSM Build Plan										
Year	**Peak (MW)**	**Firm Capacity (MW)**	**Winter Reserve Margin (%)**	**Gas (MW)**	**Solar (MW)**	**Battery (MW)**	**Hybrid Solar & Storage (MW)**	**OSW (MW)**	**SMR (MW)**	**Retirements (MW)**
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6305	26.6	0	0	0	0	0	0	0
2029	5094	6323	24.1	0	0	0	0	0	0	0
2030	5185	6338	22.2	0	0	0	0	0	0	0
2031	5280	6358	20.4	0	0	0	100	0	0	0
2032	5374	6479	20.6	0	0	0	0	0	0	0
2033	5421	6914	27.5	1098	0	0	0	0	0	-684
2034	5486	7028	28.1	0	0	0	200	0	0	0
2035	5543	6675	20.4	0	0	0	300	0	0	-600
2036	5594	6780	21.2	0	0	100	0	0	0	0
2037	5643	6786	20.2	0	0	0	0	0	0	0
2038	5677	6875	21.1	0	200	0	0	0	0	0
2039	5722	6877	20.2	0	300	100	0	0	0	0
2040	5783	6954	20.3	466	300	0	0	0	0	0
2041	5850	7020	20.0	0	300	0	0	0	0	0
2042	5921	7501	26.7	0	300	0	0	0	0	0
2043	5985	7501	25.3	0	300	0	0	0	0	0
2044	6047	7502	24.1	0	300	0	0	0	0	0
2045	6110	7505	22.8	480	0	0	0	0	0	0
2046	6174	7508	21.6	0	0	0	0	0	0	0
2047	6238	7511	20.4	0	0	0	0	0	0	0
2048	6303	7721	22.5	0	0	0	0	0	0	0
2049	6369	7724	21.3	0	200	0	0	0	0	0
2050	6435	7725	20.0	0	200	0	0	0	0	0
Total				2044	2400	200	600	0	0	-1284

Low DSM Build Plan

Year	Peak (MW)	Firm Capacity (MW)	Winter Reserve Margin (%)	Gas (MW)	Solar (MW)	Battery (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	SMR (MW)	Retirements (MW)
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6305	26.6	0	0	0	0	0	0	0
2029	5094	6323	24.1	0	0	0	0	0	0	0
2030	5192	6338	22.1	0	0	0	0	0	0	0
2031	5292	6358	20.1	0	0	0	100	0	0	0
2032	5390	6479	20.2	0	0	0	100	0	0	0
2033	5443	6914	27.0	1098	0	0	0	0	0	-684
2034	5512	7114	29.1	0	0	0	100	0	0	0
2035	5573	6738	20.9	0	0	0	300	0	0	-600
2036	5631	6843	21.5	0	0	200	0	0	0	0
2037	5684	6849	20.5	0	0	0	0	0	0	0
2038	5722	6938	21.3	0	0	0	0	0	0	0
2039	5773	6940	20.2	0	0	100	0	0	0	0
2040	5837	7272	24.6	466	0	0	0	0	0	0
2041	5904	7274	23.2	0	0	0	0	0	0	0
2042	5975	7275	21.8	0	100	0	0	0	0	0
2043	6039	7275	20.5	0	300	0	0	0	0	0
2044	6102	7362	20.7	0	300	0	0	0	0	0
2045	6166	7845	27.2	480	300	0	0	0	0	0
2046	6230	7848	26.0	0	300	0	0	0	0	0
2047	6295	7851	24.7	0	300	0	0	0	0	0
2048	6361	7853	23.5	0	300	0	0	0	0	0
2049	6427	7856	22.2	0	300	0	0	0	0	0
2050	6494	7858	21.0	0	200	0	0	0	0	0
Total				2044	2400	300	600	0	0	-1284

Dominion Energy

Optimized Retirements - Reference Build Plan										
Year	**Peak (MW)**	**Firm Capacity (MW)**	**Winter Reserve Margin (%)**	**Gas (MW)**	**Solar (MW)**	**Battery (MW)**	**Hybrid Solar & Storage (MW)**	**OSW (MW)**	**SMR (MW)**	**Retirements (MW)**
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6305	26.6	0	0	0	0	0	0	0
2029	5094	6323	24.1	0	0	0	0	0	0	0
2030	5190	6338	22.1	0	0	0	0	0	0	0
2031	5290	6358	20.2	0	0	0	100	0	0	0
2032	5388	6479	20.2	0	0	0	100	0	0	0
2033	5439	6914	27.1	1098	0	0	0	0	0	-684
2034	5509	6930	25.8	0	0	0	0	0	0	0
2035	5569	6942	24.7	0	0	0	0	0	0	0
2036	5626	6950	23.5	0	0	0	0	0	0	0
2037	5679	6955	22.5	0	0	0	0	0	0	0
2038	5718	6959	21.7	0	0	0	0	0	0	0
2039	5769	6961	20.7	0	0	0	0	0	0	0
2040	5832	7011	20.2	0	0	0	200	0	0	0
2041	5899	7099	20.3	0	0	100	0	0	0	0
2042	5970	7164	20.0	0	300	0	0	0	0	0
2043	6034	7262	20.3	0	300	100	0	0	0	0
2044	6097	7326	20.2	0	200	0	100	0	0	0
2045	6161	7413	20.3	0	300	100	0	0	0	0
2046	6225	7502	20.5	0	200	0	100	0	0	0
2047	6290	7850	24.8	946	300	0	0	0	0	-600
2048	6356	7853	23.6	0	300	0	0	0	0	0
2049	6422	7855	22.3	0	300	0	0	0	0	0
2050	6489	7857	21.1	0	200	0	0	0	0	0
Total				2044	2400	300	600	0	0	-1284

Dominion Energy

Optimized Retirements - High Load Build Plan										
Year	**Peak (MW)**	**Firm Capacity (MW)**	**Winter Reserve Margin (%)**	**Gas (MW)**	**Solar (MW)**	**Battery (MW)**	**Hybrid Solar & Storage (MW)**	**OSW (MW)**	**SMR (MW)**	**Retirements (MW)**
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6305	26.6	0	300	0	0	0	0	0
2029	5431	6519	20.0	0	0	0	300	0	0	0
2030	5864	7037	20.0	104	0	200	300	0	0	0
2031	6301	7593	20.5	409	300	100	0	0	0	0
2032	6399	7679	20.0	0	300	100	0	0	0	0
2033	6450	8798	36.4	1098	0	0	0	0	0	0
2034	6521	8815	35.2	0	0	0	0	0	0	0
2035	6580	8826	34.1	0	0	0	0	0	0	0
2036	6638	8834	33.1	0	0	0	0	0	0	0
2037	6691	8840	32.1	0	0	0	0	0	0	0
2038	6730	8844	31.4	0	0	0	0	0	0	0
2039	6781	8845	30.4	0	0	0	0	0	0	0
2040	6844	8711	27.3	0	0	0	0	0	0	0
2041	6910	8715	26.1	0	100	0	0	0	0	0
2042	6982	8717	24.9	0	300	0	0	0	0	0
2043	7045	8719	23.8	0	300	0	0	0	0	0
2044	7107	8721	22.7	0	300	0	0	0	0	0
2045	7169	8761	22.2	946	300	0	0	0	0	-684
2046	7232	8679	20.0	0	300	0	0	0	0	0
2047	7296	8944	22.6	732	300	0	0	0	0	-600
2048	7360	9044	22.9	0	300	100	0	0	0	0
2049	7425	9047	21.8	0	300	0	0	0	0	0
2050	7490	9049	20.8	0	0	100	0	0	0	0
Total				3289	3400	600	600	0	0	-1284

Dominion Energy

Deep Decarbonization Build Plan										
Year	**Peak (MW)**	**Firm Capacity (MW)**	**Winter Reserve Margin (%)**	**Gas (MW)**	**Solar (MW)**	**Battery (MW)**	**Hybrid Solar & Storage (MW)**	**OSW (MW)**	**SMR (MW)**	**Retirements (MW)**
2026	4710	6295	33.7	0	0	0	0	0	0	0
2027	4832	6299	30.4	0	0	0	0	0	0	0
2028	4980	6307	26.6	0	300	0	0	0	0	0
2029	5094	6326	24.2	0	300	0	0	0	0	0
2030	5190	6342	22.2	0	300	0	0	0	0	0
2031	5290	6364	20.3	0	200	0	100	0	0	0
2032	5388	6486	20.4	0	200	0	100	0	0	0
2033	5439	6922	27.3	1098	300	0	0	0	0	-684
2034	5509	7038	27.8	0	200	0	100	0	0	0
2035	5569	6684	20.0	0	0	0	300	0	0	-600
2036	5626	6791	20.7	0	300	100	0	0	0	0
2037	5679	6861	20.8	0	300	0	0	0	0	0
2038	5718	6866	20.1	0	300	100	0	0	0	0
2039	5769	6955	20.6	0	300	0	0	0	0	0
2040	5832	7924	35.9	0	300	100	0	500	0	0
2041	5899	8252	39.9	0	300	200	0	0	0	0
2042	5970	8254	38.3	0	300	100	0	0	0	0
2043	6034	8402	39.2	0	300	100	0	0	0	0
2044	6097	8475	39.0	0	300	0	0	500	0	0
2045	6161	8621	39.9	0	300	100	0	0	0	0
2046	6225	8624	38.5	0	300	100	0	0	0	0
2047	6290	8627	37.2	0	300	0	0	0	324	0
2048	6356	8629	35.8	0	300	0	0	0	0	0
2049	6422	8632	34.4	0	300	0	0	500	0	0
2050	6489	8634	33.1	0	200	300	0	0	0	0
Total				1098	6200	1200	600	1500	324	-1284

Appendix D: Generation Added by Type

2026 Reference Build Plan										
Year	CC 50% Shared (MW)	Other CC (MW)	CT Aero (MW)	CT Frame (MW)	SMR (MW)	Solar (MW)	Solar PPA (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	Battery (MW)
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	100	-	-
2032	-	-	-	-	-	-	-	100	-	-
2033	1,098	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	100	-	-
2035	-	-	-	-	-	-	-	300	-	-
2036	-	-	-	-	-	-	-	-	-	100
2037	-	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-	100
2039	-	-	-	-	-	-	-	-	-	100
2040	-	-	-	466	-	-	-	-	-	-
2041	-	-	-	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	300	-	-	-
2043	-	-	-	-	-	-	100	-	-	-
2044	-	-	-	-	-	-	300	-	-	-
2045	-	-	-	480	-	-	300	-	-	-
2046	-	-	-	-	-	-	300	-	-	-
2047	-	-	-	-	-	-	300	-	-	-
2048	-	-	-	-	-	-	300	-	-	-
2049	-	-	-	-	-	-	300	-	-	-
2050	-	-	-	-	-	-	200	-	-	-
Total MW	1,098	-	-	946	-	-	2,400	600	-	300

High Fossil Fuel Prices Build Plan										
Year	CC 50% Shared (MW)	Other CC (MW)	CT Aero (MW)	CT Frame (MW)	SMR (MW)	Solar (MW)	Solar PPA (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	Battery (MW)
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	300	-	-	-
2029	-	-	-	-	-	-	300	-	-	-
2030	-	-	-	-	-	-	300	-	-	-
2031	-	-	-	-	-	-	200	100	-	-
2032	-	-	-	-	-	-	200	100	-	-
2033	1,098	-	-	-	-	-	300	-	-	-
2034	-	-	-	-	-	-	200	100	-	-
2035	-	-	-	-	-	-	-	300	-	-
2036	-	-	-	-	-	-	300	-	-	200
2037	-	-	-	-	-	-	300	-	-	-
2038	-	-	-	-	-	-	300	-	-	-
2039	-	-	-	-	-	-	300	-	-	100
2040	-	-	-	480	-	-	300	-	-	-
2041	-	-	-	-	-	-	300	-	-	-
2042	-	-	-	-	-	-	300	-	-	-
2043	-	-	-	-	-	-	300	-	-	-
2044	-	-	-	-	-	-	300	-	-	-
2045	-	-	-	-	-	-	300	-	-	100
2046	-	-	-	-	-	-	300	-	-	100
2047	-	-	-	-	-	-	300	-	-	100
2048	-	-	-	-	-	-	300	-	-	100
2049	-	-	-	-	-	-	300	-	-	100
2050	-	-	-	-	-	-	200	-	-	100
Total MW	1,098	-	-	480	-	-	6,200	600	-	900

Medium Carbon Cost Build Plan

Year	CC 50% Shared (MW)	Other CC (MW)	CT Aero (MW)	CT Frame (MW)	SMR (MW)	Solar (MW)	Solar PPA (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	Battery (MW)
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	100	-	-
2032	-	-	-	-	-	-	200	100	-	-
2033	1,098	-	-	-	-	-	300	-	-	-
2034	-	-	-	-	-	-	200	100	-	-
2035	-	-	-	-	-	-	-	300	-	-
2036	-	-	-	-	-	-	300	-	-	200
2037	-	-	-	-	-	-	300	-	-	-
2038	-	-	-	-	-	-	300	-	-	-
2039	-	-	-	-	-	-	300	-	-	100
2040	-	-	-	480	-	-	300	-	-	-
2041	-	-	-	-	-	-	300	-	-	-
2042	-	-	-	-	-	-	300	-	-	-
2043	-	-	-	-	-	-	300	-	-	-
2044	-	-	-	-	-	-	300	-	-	-
2045	-	-	-	-	-	-	300	-	-	100
2046	-	-	-	-	-	-	300	-	-	100
2047	-	-	-	-	-	-	300	-	-	100
2048	-	-	-	-	-	-	300	-	-	100
2049	-	-	-	-	-	-	300	-	-	100
2050	-	-	-	-	-	-	200	-	-	100
Total MW	1,098	-	-	480	-	-	5,100	600	-	900

GHG Reference Build Plan										
Year	CC 50% Shared (MW)	Other CC (MW)	CT Aero (MW)	CT Frame (MW)	SMR (MW)	Solar (MW)	Solar PPA (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	Battery (MW)
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	200	100	-	-
2032	-	-	-	-	-	-	200	100	-	-
2033	1,098	-	-	-	-	-	100	200	-	-
2034	-	-	-	-	-	-	200	100	-	-
2035	-	-	-	-	-	-	200	100	-	-
2036	-	-	-	-	-	-	300	-	-	100
2037	-	-	-	-	-	-	300	-	-	-
2038	-	-	-	-	-	-	300	-	-	200
2039	-	-	-	-	-	-	300	-	-	-
2040	-	-	-	-	-	-	300	-	-	300
2041	-	-	-	-	-	-	300	-	-	100
2042	-	-	-	-	-	-	300	-	-	100
2043	-	-	-	-	-	-	300	-	-	100
2044	-	-	-	-	-	-	300	-	-	100
2045	-	-	-	-	-	-	300	-	-	100
2046	-	-	-	-	-	-	300	-	-	100
2047	-	-	-	-	-	-	300	-	-	100
2048	-	-	-	-	-	-	300	-	-	100
2049	-	-	-	-	-	-	300	-	500	-
2050	-	-	-	-	-	-	200	-	1,000	-
Total MW	1,098	-	-	-	-	-	5,300	600	1,500	1,400

GHG High Fossil Fuel Prices Build Plan										
Year	CC 50% Shared (MW)	Other CC (MW)	CT Aero (MW)	CT Frame (MW)	SMR (MW)	Solar (MW)	Solar PPA (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	Battery (MW)
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	300	-	-	-
2029	-	-	-	-	-	-	300	-	-	-
2030	-	-	-	-	-	-	300	-	-	-
2031	-	-	-	-	-	-	200	100	-	-
2032	-	-	-	-	-	-	200	100	-	-
2033	1,098	-	-	-	-	-	100	200	-	-
2034	-	-	-	-	-	-	100	200	-	-
2035	-	-	-	-	-	-	300	-	-	-
2036	-	-	-	-	-	-	300	-	-	100
2037	-	-	-	-	-	-	300	-	-	-
2038	-	-	-	-	-	-	300	-	-	100
2039	-	-	-	-	-	-	300	-	-	-
2040	-	-	-	-	-	-	300	-	-	300
2041	-	-	-	-	-	-	300	-	-	100
2042	-	-	-	-	-	-	300	-	-	200
2043	-	-	-	-	-	-	300	-	-	100
2044	-	-	-	-	-	-	300	-	-	100
2045	-	-	-	-	-	-	300	-	-	100
2046	-	-	-	-	-	-	300	-	-	100
2047	-	-	-	-	-	-	300	-	-	100
2048	-	-	-	-	-	-	300	-	-	100
2049	-	-	-	-	-	-	300	-	500	-
2050	-	-	-	-	-	-	200	-	1,000	-
Total MW	1,098	-	-	-	-	-	6,200	600	1,500	1,400

GHG Medium Carbon Cost Build Plan										
Year	CC 50% Shared (MW)	Other CC (MW)	CT Aero (MW)	CT Frame (MW)	SMR (MW)	Solar (MW)	Solar PPA (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	Battery (MW)
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	200	-	-	-
2029	-	-	-	-	-	-	200	-	-	-
2030	-	-	-	-	-	-	300	-	-	-
2031	-	-	-	-	-	-	200	100	-	-
2032	-	-	-	-	-	-	200	100	-	-
2033	1,098	-	-	-	-	-	100	200	-	-
2034	-	-	-	-	-	-	200	100	-	-
2035	-	-	-	-	-	-	200	100	-	-
2036	-	-	-	-	-	-	300	-	-	100
2037	-	-	-	-	-	-	300	-	-	-
2038	-	-	-	-	-	-	300	-	-	100
2039	-	-	-	-	-	-	300	-	-	-
2040	-	-	-	-	-	-	300	-	-	300
2041	-	-	-	-	-	-	300	-	-	100
2042	-	-	-	-	-	-	300	-	-	200
2043	-	-	-	-	-	-	300	-	-	100
2044	-	-	-	-	-	-	300	-	-	100
2045	-	-	-	-	-	-	300	-	-	100
2046	-	-	-	-	-	-	300	-	-	100
2047	-	-	-	-	-	-	300	-	-	100
2048	-	-	-	-	-	-	300	-	-	100
2049	-	-	-	-	-	-	300	-	500	-
2050	-	-	-	-	-	-	200	-	1,000	-
Total MW	1,098	-	-	-	-	-	6,000	600	1,500	1,400

Near-Term Load Growth Build Plan

Year	CC 50% Shared (MW)	Other CC (MW)	CT Aero (MW)	CT Frame (MW)	SMR (MW)	Solar (MW)	Solar PPA (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	Battery (MW)
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	300	-	-	-
2029	-	-	-	-	-	-	-	300	-	-
2030	-	-	-	201	-	-	100	200	-	100
2031	-	-	208	-	-	-	200	100	-	300
2032	-	-	-	-	-	-	300	-	-	200
2033	1,098	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-	-
2035	-	-	-	466	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-	-	-	-
2038	-	-	-	466	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	-	-	-	-
2043	-	-	-	-	-	-	-	-	-	100
2044	-	-	-	480	-	-	-	-	-	-
2045	-	-	-	-	-	-	200	-	-	-
2046	-	-	-	-	-	-	100	-	-	-
2047	-	-	-	480	-	-	300	-	-	-
2048	-	-	-	-	-	-	300	-	-	-
2049	-	-	-	-	-	-	200	-	-	-
2050	-	-	-	-	-	-	200	-	-	-
Total MW	1,098	-	208	2,093	-	-	2,200	600	-	700

Energy Conservation Build Plan

Year	CC 50% Shared (MW)	Other CC (MW)	CT Aero (MW)	CT Frame (MW)	SMR (MW)	Solar (MW)	Solar PPA (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	Battery (MW)
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	300	-	-	-
2029	-	-	-	-	-	-	300	-	-	-
2030	-	-	-	-	-	-	300	-	-	-
2031	-	-	-	-	-	-	300	-	-	-
2032	-	-	-	-	-	-	300	-	-	-
2033	1,098	-	-	-	-	-	300	-	-	-
2034	-	-	-	-	-	-	300	-	-	-
2035	-	-	-	-	-	-	100	200	-	-
2036	-	-	-	-	-	-	300	-	-	-
2037	-	-	-	-	-	-	300	-	-	-
2038	-	-	-	-	-	-	300	-	-	-
2039	-	-	-	-	-	-	300	-	-	-
2040	-	-	-	-	-	-	100	200	-	-
2041	-	-	-	-	-	-	200	100	-	-
2042	-	-	-	-	-	-	200	100	-	-
2043	-	-	-	-	-	-	300	-	-	-
2044	-	-	-	-	-	-	100	-	-	-
2045	-	-	-	-	-	-	100	-	-	100
2046	-	-	-	-	-	-	300	-	-	-
2047	-	-	-	-	-	-	300	-	-	-
2048	-	-	-	-	-	-	300	-	-	100
2049	-	-	-	-	-	-	300	-	-	-
2050	-	-	-	-	-	-	200	-	-	100
Total MW	1,098	-	-	-	-	-	5,800	600	-	300

Aggressive Regulation Build Plan										
Year	CC 50% Shared (MW)	Other CC (MW)	CT Aero (MW)	CT Frame (MW)	SMR (MW)	Solar (MW)	Solar PPA (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	Battery (MW)
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	300	-	-	-
2029	-	-	-	-	-	-	-	300	-	-
2030	-	-	104	-	-	-	-	300	-	200
2031	-	-	208	201	-	-	300	-	-	100
2032	-	-	-	-	-	-	300	-	-	100
2033	1,098	-	-	-	-	-	300	-	-	-
2034	-	-	-	-	-	-	300	-	-	-
2035	-	-	-	466	-	-	300	-	-	-
2036	-	-	-	-	-	-	300	-	-	-
2037	-	-	-	-	-	-	300	-	-	-
2038	-	-	-	466	-	-	300	-	-	-
2039	-	-	-	-	-	-	300	-	-	-
2040	-	-	-	-	-	-	300	-	-	-
2041	-	-	-	-	-	-	300	-	-	-
2042	-	-	-	-	-	-	300	-	-	-
2043	-	-	-	-	-	-	300	-	-	100
2044	-	732	-	-	-	-	300	-	-	-
2045	-	-	-	-	-	-	300	-	-	-
2046	-	-	-	-	-	-	300	-	-	-
2047	-	-	-	-	-	-	300	-	-	-
2048	-	-	-	-	-	-	300	-	-	-
2049	-	-	-	-	-	-	300	-	-	100
2050	-	-	-	-	-	-	200	-	-	-
Total MW	1,098	732	312	1,133	-	-	6,200	600	-	600

High DSM Build Plan										
Year	CC 50% Shared (MW)	Other CC (MW)	CT Aero (MW)	CT Frame (MW)	SMR (MW)	Solar (MW)	Solar PPA (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	Battery (MW)
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	100	-	-
2032	-	-	-	-	-	-	-	-	-	-
2033	1,098	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	200	-	-
2035	-	-	-	-	-	-	-	300	-	-
2036	-	-	-	-	-	-	-	-	-	100
2037	-	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	200	-	-	-
2039	-	-	-	-	-	-	300	-	-	100
2040	-	-	-	466	-	-	300	-	-	-
2041	-	-	-	-	-	-	300	-	-	-
2042	-	-	-	-	-	-	300	-	-	-
2043	-	-	-	-	-	-	300	-	-	-
2044	-	-	-	-	-	-	300	-	-	-
2045	-	-	-	480	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-	-	-
2048	-	-	-	-	-	-	-	-	-	-
2049	-	-	-	-	-	-	200	-	-	-
2050	-	-	-	-	-	-	200	-	-	-
Total MW	1,098	-	-	946	-	-	2,400	600	-	200

Low DSM Build Plan										
Year	CC 50% Shared (MW)	Other CC (MW)	CT Aero (MW)	CT Frame (MW)	SMR (MW)	Solar (MW)	Solar PPA (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	Battery (MW)
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	100	-	-
2032	-	-	-	-	-	-	-	100	-	-
2033	1,098	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	100	-	-
2035	-	-	-	-	-	-	-	300	-	-
2036	-	-	-	-	-	-	-	-	-	200
2037	-	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-	100
2040	-	-	-	466	-	-	-	-	-	-
2041	-	-	-	-	-	-	-	-	-	-
2042	-	-	-	-	-	-	100	-	-	-
2043	-	-	-	-	-	-	300	-	-	-
2044	-	-	-	-	-	-	300	-	-	-
2045	-	-	-	480	-	-	300	-	-	-
2046	-	-	-	-	-	-	300	-	-	-
2047	-	-	-	-	-	-	300	-	-	-
2048	-	-	-	-	-	-	300	-	-	-
2049	-	-	-	-	-	-	300	-	-	-
2050	-	-	-	-	-	-	200	-	-	-
Total MW	1,098	-	-	946	-	-	2,400	600	-	300

Optimized Retirement - Reference Build Plan										
Year	CC 50% Shared (MW)	Other CC (MW)	CT Aero (MW)	CT Frame (MW)	SMR (MW)	Solar (MW)	Solar PPA (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	Battery (MW)
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	100	-	-
2032	-	-	-	-	-	-	-	100	-	-
2033	1,098	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	200	-	-
2041	-	-	-	-	-	-	-	-	-	100
2042	-	-	-	-	-	-	300	-	-	-
2043	-	-	-	-	-	-	300	-	-	100
2044	-	-	-	-	-	-	200	100	-	-
2045	-	-	-	-	-	-	300	-	-	100
2046	-	-	-	-	-	-	200	100	-	-
2047	-	-	-	946	-	-	300	-	-	-
2048	-	-	-	-	-	-	300	-	-	-
2049	-	-	-	-	-	-	300	-	-	-
2050	-	-	-	-	-	-	200	-	-	-
Total MW	1,098	-	-	946	-	-	2,400	600	-	300

Optimized Retirement - High Load Build Plan										
Year	CC 50% Shared (MW)	Other CC (MW)	CT Aero (MW)	CT Frame (MW)	SMR (MW)	Solar (MW)	Solar PPA (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	Battery (MW)
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	300	-	-	-
2029	-	-	-	-	-	-	-	300	-	-
2030	-	-	104	-	-	-	-	300	-	200
2031	-	-	208	201	-	-	300	-	-	100
2032	-	-	-	-	-	-	300	-	-	100
2033	1,098	-	-	-	-	-	-	-	-	-
2034	-	-	-	-	-	-	-	-	-	-
2035	-	-	-	-	-	-	-	-	-	-
2036	-	-	-	-	-	-	-	-	-	-
2037	-	-	-	-	-	-	-	-	-	-
2038	-	-	-	-	-	-	-	-	-	-
2039	-	-	-	-	-	-	-	-	-	-
2040	-	-	-	-	-	-	-	-	-	-
2041	-	-	-	-	-	-	100	-	-	-
2042	-	-	-	-	-	-	300	-	-	-
2043	-	-	-	-	-	-	300	-	-	-
2044	-	-	-	-	-	-	300	-	-	-
2045	-	-	-	946	-	-	300	-	-	-
2046	-	-	-	-	-	-	300	-	-	-
2047	-	732	-	-	-	-	300	-	-	-
2048	-	-	-	-	-	-	300	-	-	100
2049	-	-	-	-	-	-	300	-	-	-
2050	-	-	-	-	-	-	-	-	-	100
Total MW	1,098	732	312	1,147	-	-	3,400	600	-	600

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Deep Decarbonization Build Plan										
Year	CC 50% Shared (MW)	Other CC (MW)	CT Aero (MW)	CT Frame (MW)	SMR (MW)	Solar (MW)	Solar PPA (MW)	Hybrid Solar & Storage (MW)	OSW (MW)	Battery (MW)
2026	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	300	-	-	-
2029	-	-	-	-	-	-	300	-	-	-
2030	-	-	-	-	-	-	300	-	-	-
2031	-	-	-	-	-	-	200	100	-	-
2032	-	-	-	-	-	-	200	100	-	-
2033	1,098	-	-	-	-	-	300	-	-	-
2034	-	-	-	-	-	-	200	100	-	-
2035	-	-	-	-	-	-	-	300	-	-
2036	-	-	-	-	-	-	300	-	-	100
2037	-	-	-	-	-	-	300	-	-	-
2038	-	-	-	-	-	-	300	-	-	100
2039	-	-	-	-	-	-	300	-	-	-
2040	-	-	-	-	-	-	300	-	500	100
2041	-	-	-	-	-	-	300	-	-	200
2042	-	-	-	-	-	-	300	-	-	100
2043	-	-	-	-	-	-	300	-	-	100
2044	-	-	-	-	-	-	300	-	500	-
2045	-	-	-	-	-	-	300	-	-	100
2046	-	-	-	-	-	-	300	-	-	100
2047	-	-	-	-	324	-	300	-	-	-
2048	-	-	-	-	-	-	300	-	-	-
2049	-	-	-	-	-	-	300	-	500	-
2050	-	-	-	-	-	-	200	-	-	300
Total MW	1,098	-	-	-	324	-	6,200	600	1,500	1,200

Appendix E: Renewable Energy Summary

Energy from Renewable Generation by Five-Year Period (GWh)							
Market Scenario	**Build Plan**	**2026 - 2030**	**2031 - 2035**	**2036 - 2040**	**2041 - 2045**	**2046 - 2050**	**Total**
Reference	2026 Reference Build Plan	13,232	16,419	20,082	25,541	38,243	113,518
Reference	High Fossil Fuel Prices Build Plan	17,291	32,969	46,667	55,339	63,937	216,203
Reference	Medium Carbon Cost Build Plan	13,232	21,184	37,658	50,270	59,995	182,340
High Fossil Fuel Prices	2026 Reference Build Plan	13,234	16,418	20,092	25,551	38,296	113,591
High Fossil Fuel Prices	High Fossil Fuel Prices Build Plan	17,291	32,946	46,796	55,600	64,240	216,872
High Fossil Fuel Prices	Medium Carbon Cost Build Plan	13,233	21,182	37,693	50,447	60,201	182,756
Medium Carbon Cost	2026 Reference Build Plan	13,227	16,425	20,088	25,563	38,292	113,595
Medium Carbon Cost	High Fossil Fuel Prices Build Plan	17,295	32,890	46,821	55,473	64,275	216,754
Medium Carbon Cost	Medium Carbon Cost Build Plan	13,224	21,186	37,649	50,496	60,228	182,783
Near-Term Load Growth	Near-Term Load Growth Build Plan	17,344	29,735	30,391	30,823	36,932	145,225
Energy Conservation	Energy Conservation Build Plan	17,331	32,299	43,507	51,459	55,620	200,215
Aggressive Regulation	Aggressive Regulation Build Plan	17,367	33,803	49,566	61,429	65,980	228,145
High DSM	High DSM Build Plan	13,240	15,974	23,510	38,210	40,622	131,556
Low DSM	Low DSM Build Plan	13,221	16,428	20,083	25,092	38,343	113,167
Reference	Optimized Retirement - Reference Build Plan	13,232	15,278	15,965	24,609	38,207	107,291
High Load	Optimized Retirement - High Load Build Plan	17,332	29,729	30,372	38,231	49,961	165,625
Reference	Deep Decarbonization Build Plan	17,297	33,002	48,152	67,842	83,341	249,635
Reference	GHG Reference Build Plan	13,232	23,455	39,701	54,250	70,936	201,574
Reference	GHG High Fossil Fuel Prices Build Plan	17,291	33,128	46,929	59,673	74,935	231,955
Reference	GHG Medium Carbon Cost Build Plan	16,174	31,086	45,533	58,468	74,029	225,289
High Fossil Fuel Prices	GHG Reference Build Plan	13,234	23,457	39,792	54,373	71,071	201,928
High Fossil Fuel Prices	GHG High Fossil Fuel Prices Build Plan	17,291	33,187	47,078	59,841	75,096	232,492
High Fossil Fuel Prices	GHG Medium Carbon Cost Build Plan	16,172	31,117	45,680	58,648	74,191	225,808
Medium Carbon Cost	GHG Reference Build Plan	13,232	23,453	39,752	54,327	71,043	201,807
Medium Carbon Cost	GHG High Fossil Fuel Prices Build Plan	17,291	33,130	47,018	59,786	75,070	232,295
Medium Carbon Cost	GHG Medium Carbon Cost Build Plan	16,172	31,092	45,624	58,600	74,153	225,642

Appendix F: Residential Bill Impacts

Typical Residential Bill @1000 kWh/month under Reference Market Scenario

Build Plan	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
2026 Reference Build Plan	157.00	156.43	160.60	159.67	159.42	165.04	175.58	208.49	213.05	214.03	218.16	219.16	223.25	226.01	248.37
High Fossil Fuel Prices Build Plan	157.00	156.41	161.32	162.01	163.04	168.44	179.82	215.05	219.78	221.19	226.09	228.68	233.75	235.54	261.36
Medium Carbon Cost Build Plan	157.00	156.41	160.59	159.65	159.41	165.04	176.07	210.48	215.11	216.61	223.78	225.73	228.66	232.37	257.69

Typical Residential Bill @1000 kWh/month under High Fossil Fuel Market Scenario

Build Plan	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
2026 Reference Build Plan	157.00	156.38	160.49	171.55	175.52	184.03	197.79	231.98	236.07	238.28	245.35	248.06	252.86	257.09	281.38
High Fossil Fuel Prices Build Plan	157.00	156.38	161.28	173.14	177.81	185.26	199.87	234.69	239.25	241.08	247.65	250.90	255.94	258.35	285.01
Medium Carbon Cost Build Plan	157.00	156.37	160.47	171.52	175.49	184.03	197.83	232.87	236.77	239.16	248.05	250.61	253.33	257.21	283.43

Typical Residential Bill @1000 kWh/month under Medium Carbon Cost Market Scenario

Build Plan	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
2026 Reference Build Plan	157.00	156.32	160.27	159.42	160.01	164.93	175.60	208.63	212.43	214.25	226.28	228.37	233.65	238.07	261.90
High Fossil Fuel Prices Build Plan	157.00	156.26	161.39	162.03	163.46	168.45	180.04	215.44	219.52	221.31	232.92	235.24	241.55	244.86	270.64
Medium Carbon Cost Build Plan	157.00	156.49	160.34	159.92	160.14	164.22	176.57	210.44	214.90	216.53	231.34	234.03	237.07	242.47	268.92

Typical Residential Bill @1000 kWh/month under Sensitivity Cases

Build Plan	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Near-Term Load Growth	157.00	156.52	162.35	162.55	176.92	201.57	215.66	246.82	248.46	257.37	259.00	260.88	275.78	276.89	285.06
Energy Conservation Build Plan	157.00	157.85	162.24	172.98	178.08	183.98	197.73	232.31	236.12	236.70	247.20	250.89	253.93	257.47	268.57
Aggressive Regulation Build Plan	157.00	156.53	167.84	189.58	212.82	250.75	270.62	300.46	304.79	317.64	324.47	330.39	348.27	352.80	364.32
High DSM Build Plan	157.00	156.77	160.57	159.37	160.74	165.15	175.08	208.12	213.21	214.35	218.40	219.26	221.51	225.09	247.99
Low DSM Build Plan	157.00	156.47	160.86	159.43	160.22	164.46	176.11	208.78	212.56	214.56	220.27	221.58	223.57	225.78	248.20

Typical Residential Bill @1000 kWh/month under Supplemental Cases

Build Plan	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Optimized Retirements	157.00	156.43	160.59	159.66	159.41	165.03	175.57	208.47	212.15	214.69	217.01	218.13	219.31	220.07	230.18
Optimized Retirements	157.00	156.41	161.43	167.54	183.18	212.65	225.63	259.69	263.67	268.20	269.90	272.52	273.75	274.82	283.19
Deep Decarbonization	157.00	156.51	161.47	161.92	164.01	169.06	180.12	215.12	219.45	221.22	226.14	228.89	233.88	235.93	272.22

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Appendix F: Residential Bill Impacts - Alternate Core Cases

Typical Residential Bill @1000 kWh/month under GHG Reference Market Scenario															
Build Plan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
GHG Reference Build Plan	157.00	156.43	160.60	159.67	165.96	172.16	183.17	216.83	221.42	224.84	229.60	232.06	239.41	240.89	250.52
GHG High Fossil Fuel Prices Build Plan	157.00	156.42	161.34	162.02	169.60	175.09	186.39	220.54	225.32	228.27	233.12	235.74	240.69	242.62	252.47
GHG Medium Carbon Cost Build Plan	157.00	156.42	161.14	161.33	168.87	174.42	185.55	219.77	224.01	227.62	232.40	234.84	239.86	241.73	251.58

Typical Residential Bill @1000 kWh/month under GHG High Fossil Fuel Prices Market Scenario															
Build Plan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
GHG Reference Build Plan	157.00	156.39	160.48	171.51	182.69	191.97	205.68	240.06	244.55	248.23	254.55	257.84	264.75	267.22	276.59
GHG High Fossil Fuel Prices Build Plan	157.00	156.39	161.28	173.15	185.06	192.92	207.33	241.53	246.30	249.52	256.10	259.65	264.24	267.04	276.79
GHG Medium Carbon Cost Build Plan	157.00	156.40	161.05	172.77	184.51	192.42	206.63	241.24	245.20	249.47	255.41	258.93	263.83	266.59	276.04

Typical Residential Bill @1000 kWh/month under GHG Medium Carbon Cost Market Scenario															
Build Plan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
GHG Reference Build Plan	157.00	156.42	160.59	159.66	165.94	172.15	183.15	216.85	221.42	224.81	236.89	240.11	247.98	250.83	261.20
GHG High Fossil Fuel Prices Build Plan	157.00	156.42	161.33	162.02	169.60	175.11	186.40	220.54	225.33	228.30	239.82	243.22	248.66	251.92	262.31
GHG Medium Carbon Cost Build Plan	157.00	156.42	161.15	161.33	168.83	174.41	185.54	219.77	224.01	227.59	239.13	242.39	247.84	251.24	261.45

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Appendix G: Retail Rate Impacts

Retail Rate Impacts (dollars/kWh) under Reference Market Scenario															
Build Plan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
2026 Reference Build Plan	0.1283	0.1278	0.1312	0.1301	0.1303	0.1351	0.1436	0.1671	0.1710	0.1716	0.1748	0.1757	0.1788	0.1807	0.1966
High Fossil Fuel Prices Build Plan	0.1283	0.1278	0.1314	0.1314	0.1322	0.1356	0.1428	0.1629	0.1659	0.1668	0.1695	0.1710	0.1739	0.1747	0.1895
Medium Carbon Cost Build Plan	0.1283	0.1278	0.1312	0.1301	0.1303	0.1351	0.1437	0.1682	0.1719	0.1730	0.1781	0.1793	0.1814	0.1837	0.2016

Retail Rate Impacts (dollars/kWh) under High Fossil Fuel Market Scenario															
Build Plan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
2026 Reference Build Plan	0.1283	0.1277	0.1311	0.1414	0.1456	0.1530	0.1645	0.1892	0.1927	0.1944	0.2003	0.2027	0.2065	0.2097	0.2274
High Fossil Fuel Prices Build Plan	0.1283	0.1277	0.1314	0.1420	0.1464	0.1525	0.1645	0.1894	0.1930	0.1944	0.1994	0.2018	0.2053	0.2070	0.2260
Medium Carbon Cost Build Plan	0.1283	0.1277	0.1311	0.1414	0.1455	0.1530	0.1642	0.1893	0.1923	0.1942	0.2009	0.2027	0.2046	0.2071	0.2257

Retail Rate Impacts (dollars/kWh) under Medium Carbon Cost Market Scenario															
Build Plan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
2026 Reference Build Plan	0.1283	0.1277	0.1309	0.1299	0.1309	0.1350	0.1436	0.1672	0.1704	0.1718	0.1822	0.1840	0.1882	0.1916	0.2089
High Fossil Fuel Prices Build Plan	0.1283	0.1276	0.1315	0.1314	0.1328	0.1366	0.1458	0.1712	0.1743	0.1757	0.1853	0.1869	0.1915	0.1940	0.2123
Medium Carbon Cost Build Plan	0.1283	0.1278	0.1310	0.1304	0.1310	0.1343	0.1442	0.1682	0.1717	0.1729	0.1849	0.1869	0.1891	0.1929	0.2118

Retail Rate Impacts (dollars/kWh) under Sensitivity Cases															
Build Plan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
Near-Term Load Growth	0.1283	0.1279	0.1324	0.1316	0.1413	0.1567	0.1653	0.1823	0.1834	0.1887	0.1898	0.1911	0.1995	0.2002	0.2051
Energy Conservation Build Plan	0.1283	0.1292	0.1324	0.1419	0.1467	0.1515	0.1628	0.1875	0.1905	0.1909	0.1998	0.2027	0.2049	0.2075	0.2154
Aggressive Regulation Build Plan	0.1283	0.1279	0.1377	0.1556	0.1724	0.1971	0.2104	0.2260	0.2288	0.2367	0.2412	0.2451	0.2553	0.2582	0.2652
High DSM Build Plan	0.1283	0.1281	0.1312	0.1299	0.1316	0.1352	0.1434	0.1669	0.1710	0.1718	0.1750	0.1757	0.1774	0.1797	0.1961
Low DSM Build Plan	0.1283	0.1278	0.1315	0.1299	0.1311	0.1345	0.1441	0.1674	0.1705	0.1721	0.1763	0.1774	0.1792	0.1806	0.1966

Retail Rate Impacts (dollars/kWh) under Supplemental Cases															
Build Plan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
Optimized Retirements	0.1283	0.1278	0.1312	0.1301	0.1303	0.1351	0.1436	0.1671	0.1704	0.1725	0.1745	0.1754	0.1764	0.1769	0.1841
Optimized Retirements	0.1283	0.1278	0.1315	0.1359	0.1466	0.1650	0.1732	0.1923	0.1951	0.1981	0.1992	0.2010	0.2018	0.2025	0.2075
Deep Decarbonization	0.1283	0.1279	0.1316	0.1313	0.1333	0.1372	0.1459	0.1709	0.1743	0.1757	0.1791	0.1811	0.1846	0.1859	0.2109

Appendix G: Retail Rate Impacts - Alternate Core Cases

Retail Rate Impacts (dollars/kWh) under GHG Reference Market Scenario															
Build Plan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
GHG Reference Build Plan	0.1283	0.1278	0.1312	0.1301	0.1351	0.1401	0.1487	0.1729	0.1765	0.1790	0.1824	0.1841	0.1892	0.1900	0.1967
GHG High Fossil Fuel Prices Build Plan	0.1283	0.1278	0.1315	0.1314	0.1371	0.1415	0.1504	0.1750	0.1787	0.1809	0.1843	0.1862	0.1896	0.1908	0.1977
GHG Medium Carbon Cost Build Plan	0.1283	0.1278	0.1314	0.1311	0.1368	0.1411	0.1499	0.1746	0.1779	0.1806	0.1839	0.1856	0.1891	0.1903	0.1972

Retail Rate Impacts (dollars/kWh) under GHG High Fossil Fuel Supplemental Market Scenario															
Build Plan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
GHG Reference Build Plan	0.1283	0.1278	0.1311	0.1414	0.1509	0.1588	0.1699	0.1948	0.1983	0.2011	0.2058	0.2083	0.2130	0.2147	0.2212
GHG High Fossil Fuel Prices Build Plan	0.1283	0.1278	0.1314	0.1420	0.1518	0.1583	0.1701	0.1948	0.1985	0.2010	0.2059	0.2086	0.2118	0.2137	0.2205
GHG Medium Carbon Cost Build Plan	0.1283	0.1278	0.1313	0.1419	0.1516	0.1581	0.1697	0.1948	0.1978	0.2012	0.2056	0.2082	0.2116	0.2136	0.2201

Retail Rate Impacts (dollars/kWh) under GHG Medium Carbon Cost Market Scenario															
Build Plan	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
GHG Reference Build Plan	0.1283	0.1278	0.1312	0.1301	0.1351	0.1401	0.1487	0.1729	0.1765	0.1790	0.1890	0.1914	0.1970	0.1990	0.2064
GHG High Fossil Fuel Prices Build Plan	0.1283	0.1278	0.1314	0.1314	0.1371	0.1415	0.1504	0.1750	0.1787	0.1809	0.1904	0.1929	0.1968	0.1992	0.2066
GHG Medium Carbon Cost Build Plan	0.1283	0.1278	0.1314	0.1311	0.1367	0.1411	0.1499	0.1746	0.1779	0.1806	0.1900	0.1925	0.1964	0.1989	0.2061

Appendix H: Levelized Fuel and CO_2 Cost Comparisons

Market Scenario	Build Plan	Fuel ($000)	CO_2 ($000)	LNPV ($000)
Core Cases				
Reference	2026 Reference Build Plan	$744,422	$0	$2,389,074
Reference	High Fossil Fuel Prices Build Plan	$605,716	$0	$2,510,367
Reference	Medium Carbon Cost Build Plan	$654,652	$0	$2,455,332
High Fossil Fuel Prices	2026 Reference Build Plan	$1,274,099	$0	$2,921,866
High Fossil Fuel Prices	High Fossil Fuel Prices Build Plan	$1,017,792	$0	$2,925,752
High Fossil Fuel Prices	Medium Carbon Cost Build Plan	$1,102,325	$0	$2,905,494
Medium Carbon Cost	2026 Reference Build Plan	$744,334	$182,195	$2,572,079
Medium Carbon Cost	High Fossil Fuel Prices Build Plan	$604,564	$132,318	$2,642,823
Medium Carbon Cost	Medium Carbon Cost Build Plan	$653,324	$141,811	$2,597,007
Sensitivity Cases				
Near-Term Load Growth	Near-Term Load Growth Build Plan	$593,612	$0	$2,502,779
Energy Conservation	Energy Conservation Build Plan	$966,056	$119,329	$2,791,622
Aggressive Regulation	Aggressive Regulation Build Plan	$1,383,602	$416,478	$4,237,146
High DSM	High DSM Build Plan	$721,891	$0	$2,377,001
Low DSM	Low DSM Build Plan	$744,422	$0	$2,389,074
Supplemental Cases				
Reference	Optimized Retirements – Reference Build Plan	$758,264	$0	$2,349,640
High Load	Optimized Retirements - High Load Build Plan	$911,269	$0	$3,108,662
Reference	Deep Decarbonization Build Plan	$542,585	$0	$2,963,248
Alternative Core Cases				
GHG Reference	GHG Reference Build Plan	$620,051	$0	$2,708,895
GHG Reference	GHG High Fossil Fuel Prices Build Plan	$573,228	$0	$2,754,280
GHG Reference	GHG Medium Carbon Cost Build Plan	$584,646	$0	$2,739,720
GHG High Fossil Fuel Prices	GHG Reference Build Plan	$1,043,039	$0	$3,135,644
GHG High Fossil Fuel Prices	GHG High Fossil Fuel Prices Build Plan	$964,231	$0	$3,149,922
GHG High Fossil Fuel Prices	GHG Medium Carbon Cost Build Plan	$981,565	$0	$3,140,917
GHG Medium Carbon Cost	GHG Reference Build Plan	$618,809	$122,297	$2,831,202
GHG Medium Carbon Cost	GHG High Fossil Fuel Prices Build Plan	$572,560	$113,505	$2,868,446
GHG Medium Carbon Cost	GHG Medium Carbon Cost Build Plan	$583,687	$115,459	$2,855,535

Appendix I: Summary of CO_2 emissions (ktons)

Market Scenario	Build Plan	2050 CO_2 Emissions (ktons)	2050 Reduction from 2005 CO_2 (ktons)	2050 Cumulative CO_2
Core				
Reference	2026 Reference Build Plan	7,906	58.3%	211,541
Reference	High Fossil Fuel Prices Build Plan	5,817	69.3%	169,559
Reference	Medium Carbon Cost Build Plan	6,074	68.0%	183,846
High Fossil Fuel Prices	2026 Reference Build Plan	7,827	58.8%	225,931
High Fossil Fuel Prices	High Fossil Fuel Prices Build Plan	5,695	70.0%	180,602
High Fossil Fuel Prices	Medium Carbon Cost Build Plan	5,988	68.4%	197,142
Medium Carbon Cost	2026 Reference Build Plan	7,906	58.3%	210,424
Medium Carbon Cost	High Fossil Fuel Prices Build Plan	5,690	70.0%	168,398
Medium Carbon Cost	Medium Carbon Cost Build Plan	6,005	68.4%	182,648
Sensitivity Cases				
Near-Term Load Growth	Near-Term Load Growth Build Plan	10,829	42.9%	266,990
Energy Conservation	Energy Conservation Build Plan	5,011	73.6%	171,019
Aggressive Regulation	Aggressive Regulation Build Plan	7,708	59.4%	236,645
High DSM	High DSM Build Plan	7,890	58.4%	202,941
Low DSM	Low DSM Build Plan	7,902	58.4%	211,847
Supplemental Cases				
Reference	Optimized Retirements – Reference Build Plan	8,014	57.8%	215,992
High Load	Optimized Retirements - High Load Build Plan	9,220	51.4%	261,799
Reference	Deep Decarbonization	2,770	85.4%	151,327
Alternative Core Cases				
GHG Reference	GHG Reference Build Plan	3,933	79.3%	177,153
GHG Reference	GHG High Fossil Fuel Prices Build Plan	3,720	80.4%	163,260
GHG Reference	GHG Medium Carbon Cost Build Plan	3,764	80.2%	166,277
GHG High Fossil Fuel Prices	GHG Reference Build Plan	3,838	79.8%	184,424
GHG High Fossil Fuel Prices	GHG High Fossil Fuel Prices Build Plan	3,633	80.9%	170,378
GHG High Fossil Fuel Prices	GHG Medium Carbon Cost Build Plan	3,683	80.6%	173,228
GHG Medium Carbon Cost	GHG Reference Build Plan	3,856	79.7%	176,676
GHG Medium Carbon Cost	GHG High Fossil Fuel Prices Build Plan	3,660	80.7%	162,961
GHG Medium Carbon Cost	GHG Medium Carbon Cost Build Plan	3,711	80.4%	165,925

Dominion Energy

Appendix J: Generator Level Performance Data

Availability Factor					
Generator	2021	2022	2023	2024	2025
COLUMBIA CT1	86.2%	64.7%	76.6%	90.4%	87.0%
COLUMBIA CT2	72.9%	89.0%	61.0%	89.1%	87.9%
COLUMBIA ST1	88.6%	89.5%	77.2%	92.0%	88.2%
COPE STATION #1	92.5%	81.4%	72.3%	87.4%	92.6%
FAIRFIELD PS #1	98.7%	77.8%	97.5%	93.6%	99.8%
FAIRFIELD PS #2	98.8%	77.6%	97.4%	93.6%	99.9%
FAIRFIELD PS #3	99.5%	92.4%	95.8%	92.3%	98.5%
FAIRFIELD PS #4	99.4%	92.1%	95.7%	94.4%	98.5%
FAIRFIELD PS #5	94.2%	96.4%	88.9%	98.5%	17.9%
FAIRFIELD PS #6	94.3%	97.0%	88.9%	98.5%	17.5%
FAIRFIELD PS #7	92.4%	84.4%	88.9%	99.5%	94.3%
FAIRFIELD PS #8	91.7%	86.2%	88.7%	99.4%	94.3%
HAGOOD GT #4	97.4%	98.8%	95.5%	97.3%	98.9%
HAGOOD GT #5	80.8%	99.6%	99.0%	97.5%	95.2%
HAGOOD GT #6	98.8%	99.6%	97.0%	97.6%	99.6%
JASPER #1	86.3%	83.3%	90.9%	79.9%	66.6%
JASPER #2	81.7%	87.3%	92.9%	81.0%	65.8%
JASPER #3	78.6%	87.5%	91.9%	80.2%	65.4%
JASPER #4	88.3%	86.1%	94.6%	82.6%	66.2%
MCMEEKIN #1	82.6%	81.4%	82.4%	71.4%	50.8%
MCMEEKIN #2	87.9%	87.1%	84.9%	89.6%	57.5%
PARR GT #3	97.9%	97.9%	22.0%	n/a	n/a
PARR GT #4	97.0%	100.0%	24.6%	n/a	n/a
SALUDA HYDRO #1	98.8%	18.2%	93.7%	51.3%	63.7%
SALUDA HYDRO #2	100.0%	86.5%	98.8%	93.3%	52.4%
SALUDA HYDRO #3	100.0%	89.8%	99.2%	85.5%	44.3%
SALUDA HYDRO #4	94.5%	85.4%	90.6%	98.1%	61.7%
SALUDA HYDRO #5	91.3%	93.0%	99.9%	90.0%	84.8%
URQUHART #1	96.6%	88.8%	92.5%	0.0%	86.7%
URQUHART #2	81.2%	89.5%	95.6%	0.0%	64.4%
URQUHART #3	92.1%	98.6%	93.0%	95.1%	85.1%
URQUHART CC #5	96.7%	88.8%	92.5%	59.7%	86.9%
URQUHART CC #6	81.5%	89.8%	95.6%	88.2%	64.7%
URQUHART GT #4	89.8%	89.1%	28.5%	0.0%	69.1%
V.C. SUMMER #1	82.3%	100.0%	87.9%	86.9%	94.2%
WATEREE #1	81.5%	76.4%	37.5%	81.3%	73.2%
WATEREE #2	0.0%	58.3%	80.6%	73.4%	75.9%
WILLIAMS #1	72.2%	72.5%	75.1%	77.5%	81.7%
Bushy Park CT1	0.0%	0.0%	n/a	100.0%	96.5%
WILLIAMS GT #2	99.6%	66.3%	n/a	n/a	n/a

Annual Forced Outage Rate					
Generator	2021	2022	2023	2024	2025
COLUMBIA CT1	8.0%	2.6%	0.1%	0.4%	0.3%
COLUMBIA CT2	8.0%	0.8%	1.3%	0.3%	0.2%
COLUMBIA ST1	7.7%	0.4%	0.0%	0.0%	0.2%
COPE STATION #1	0.3%	10.2%	0.0%	0.2%	0.1%
FAIRFIELD PS #1	0.0%	0.0%	0.0%	0.3%	0.0%
FAIRFIELD PS #2	0.0%	0.0%	0.0%	0.3%	0.0%
FAIRFIELD PS #3	0.0%	0.0%	0.0%	0.0%	0.0%
FAIRFIELD PS #4	0.1%	0.0%	0.0%	0.0%	1.3%
FAIRFIELD PS #5	0.0%	0.1%	0.0%	0.2%	0.0%
FAIRFIELD PS #6	0.0%	0.1%	0.0%	0.2%	0.0%
FAIRFIELD PS #7	0.0%	0.1%	0.0%	0.2%	0.0%
FAIRFIELD PS #8	0.0%	0.1%	0.0%	0.2%	0.0%
HAGOOD GT #4	0.2%	0.1%	1.1%	1.9%	0.3%
HAGOOD GT #5	1.1%	0.0%	0.2%	0.1%	0.0%
HAGOOD GT #6	0.9%	0.0%	2.1%	0.0%	0.0%
JASPER #1	0.0%	0.2%	0.0%	0.0%	0.1%
JASPER #2	0.1%	0.0%	0.0%	0.2%	0.1%
JASPER #3	0.0%	0.5%	0.1%	0.2%	0.1%
JASPER #4	0.0%	1.8%	0.0%	0.0%	1.7%
MCMEEKIN #1	0.0%	3.7%	0.0%	0.0%	2.1%
MCMEEKIN #2	0.1%	0.9%	1.3%	0.0%	0.0%
PARR GT #3	0.0%	2.1%	2.6%	n/a	n/a
PARR GT #4	0.9%	0.0%	0.0%	n/a	n/a
SALUDA HYDRO #1	0.0%	0.0%	0.0%	0.0%	0.0%
SALUDA HYDRO #2	0.0%	0.0%	0.0%	0.0%	0.0%
SALUDA HYDRO #3	0.0%	0.0%	0.1%	0.0%	0.0%
SALUDA HYDRO #4	0.0%	0.0%	0.0%	0.0%	0.0%
SALUDA HYDRO #5	0.0%	2.5%	0.0%	0.0%	0.0%
URQUHART #1	0.8%	0.6%	0.1%	0.0%	0.1%
URQUHART #2	4.3%	1.4%	0.0%	0.0%	0.8%
URQUHART #3	0.0%	0.5%	1.1%	1.9%	0.6%
URQUHART CC #5	0.8%	0.6%	0.1%	0.2%	0.1%
URQUHART CC #6	4.1%	1.2%	0.0%	0.5%	0.8%
URQUHART GT #4	8.9%	9.9%	69.2%	100.0%	29.7%
V.C. SUMMER #1	7.5%	0.0%	3.9%	0.0%	5.8%
WATEREE #1	0.4%	2.5%	1.2%	0.2%	0.5%
WATEREE #2	100.0%	38.7%	1.6%	0.6%	0.0%
WILLIAMS #1	0.1%	0.5%	0.0%	9.3%	2.4%
Bushy Park CT1	0.0%	n/a	n/a	0.0%	1.1%
WILLIAMS GT #2	0.0%	0.2%	n/a	n/a	n/a

Dominion Energy

Annual Capacity Factor					
Generator	2021	2022	2023	2024	2025
COLUMBIA CT1	76.7%	60.0%	62.3%	64.7%	64.9%
COLUMBIA CT2	55.2%	77.1%	50.3%	70.8%	64.6%
COLUMBIA ST1	44.1%	44.9%	40.2%	58.9%	57.1%
COPE STATION #1	43.9%	47.4%	37.8%	46.0%	47.7%
FAIRFIELD PS #1	9.5%	3.2%	0.3%	0.4%	0.9%
FAIRFIELD PS #2	9.1%	8.9%	10.5%	13.1%	16.6%
FAIRFIELD PS #3	4.5%	10.3%	10.7%	13.0%	15.5%
FAIRFIELD PS #4	5.3%	10.4%	10.8%	12.4%	15.1%
FAIRFIELD PS #5	8.4%	11.9%	9.0%	14.0%	1.6%
FAIRFIELD PS #6	6.6%	8.2%	3.7%	8.3%	1.8%
FAIRFIELD PS #7	8.4%	7.6%	8.3%	1.4%	11.0%
FAIRFIELD PS #8	6.7%	8.3%	9.8%	12.0%	13.1%
HAGOOD GT #4	2.3%	2.5%	2.2%	1.8%	3.3%
HAGOOD GT #5	3.0%	2.6%	1.6%	0.8%	1.7%
HAGOOD GT #6	3.7%	2.9%	1.8%	1.0%	2.4%
JASPER #1	69.7%	68.6%	70.5%	55.9%	49.9%
JASPER #2	66.9%	71.8%	74.5%	56.0%	49.7%
JASPER #3	67.2%	70.3%	69.7%	59.9%	42.0%
JASPER #4	52.3%	54.1%	56.5%	44.0%	37.7%
MCMEEKIN #1	40.2%	35.0%	29.1%	26.5%	8.8%
MCMEEKIN #2	43.8%	34.1%	37.5%	48.2%	11.9%
PARR GT #3	0.6%	0.6%	0.0%	0.0%	0.0%
PARR GT #4	0.5%	1.0%	0.0%	0.0%	0.0%
SALUDA HYDRO #1	3.2%	3.8%	7.2%	3.1%	6.3%
SALUDA HYDRO #2	4.1%	2.2%	3.1%	6.6%	2.5%
SALUDA HYDRO #3	13.0%	10.5%	10.1%	8.8%	3.2%
SALUDA HYDRO #4	12.8%	4.5%	7.0%	8.4%	11.1%
SALUDA HYDRO #5	6.7%	9.9%	5.6%	11.3%	5.4%
URQUHART #1	63.7%	54.3%	53.8%	n/a	46.3%
URQUHART #2	52.4%	56.6%	53.4%	n/a	40.3%
URQUHART #3	11.2%	5.1%	11.3%	9.3%	10.7%
URQUHART CC #5	52.8%	45.5%	44.5%	24.8%	36.4%
URQUHART CC #6	43.6%	46.3%	43.0%	34.8%	31.2%
URQUHART GT #4	6.8%	4.6%	0.3%	0.0%	1.8%
V.C. SUMMER #1	82.7%	101.5%	88.8%	87.5%	95.3%
WATEREE #1	50.4%	34.6%	14.5%	47.6%	47.9%
WATEREE #2	0.0%	25.9%	43.7%	27.0%	31.8%
WILLIAMS #1	45.7%	32.7%	37.5%	36.0%	46.6%
Bushy Park CT1	0.0%	n/a	n/a	3.4%	4.7%
WILLIAMS GT #2	0.1%	0.0%	n/a	n/a	n/a

Appendix K: Cross Reference to the Requirements of the IRP Statute for a Triennial IRP and Response to Commission Order No. 2025-660

This section of Appendix K lists each of the specific statutory requirements for an annual IRPg. Material responsive to these requirements is provided throughout the 2026 IRP and is embedded in the modeling and analysis generally. This table cross references the sections of this 2026 IRP that most specifically correspond to those requirements:

IRP Statute 58-37-40	Requirement	2026 IRP Section
B(1)(a)	a long-term forecast of the utility's sales and peak demand under various reasonable scenarios	Load Growth Forecast (pg. 36)
B(1)(b)	the type of generation technology proposed for a generation facility contained in the plan and the proposed capacity of the generation facility, including fuel cost sensitivities under various reasonable scenarios	Future Generation Resources Available to PLEXOS and Their Capital and Operating Costs (pg.40); Natural Gas Price Forecasts (pg. 39); Coal Price Forecasts (pg. 39); CO_2 Price Forecasts (pg. 40)
B(1)(c)	projected energy purchased or produced by the utility from a renewable energy resource	Forecast of Renewable Generation (pg. 72)
B(1)(d)	a summary of the electrical transmission investments planned by the utility	Transmission Plans and Planning (pg. 27)
B(1)(e)	(e) several resource portfolios developed with the purpose of fairly evaluating the range of demand-side, supply-side, storage, and other technologies and services available to meet the utility's service obligations. Such portfolios and evaluations must include an evaluation of low, medium, and high cases for the adoption of renewable energy and cogeneration, energy efficiency, and demand response measures, including consideration of the following: (i) customer energy efficiency and demand response programs; (ii) facility retirement assumptions; and (iii) sensitivity analyses related to fuel costs, environmental regulations, and other uncertainties or risks	The Core Build Plan Analysis (pg. 42); Analysis of the Five Sensitivity Build Plans (pg. 52); The Supplemental Cases (pg. 58); The Alternative Core Build Plan Analysis (pg.62)
B(1)(f)	data regarding the utility's current generation portfolio, including the age, licensing status, and remaining estimated life of operation for each facility in the portfolio	DESC's Current Generation (pg. 32)
B(1)(g)	plans for meeting current and future capacity needs with the cost estimates for all proposed resource portfolios in the plan	The Core Build Plan Analysis (pg. 42); Analysis of the Five Sensitivity Build Plans (pg. 52); The Supplemental Cases (pg. 58); The Alternative Core Build Plan Analysis (pg.62); Levelized Cost (pg. 46); Rate and Bill Impacts (pg. 73); Appendix F; Appendix H.
B(1)(h)	an analysis of the cost and reliability impacts of all reasonable options available to meet projected energy and capacity needs	Levelized Cost (pg. 46); Reliability Analysis (pg. 49)
B(1)(i)	a forecast of the utility's peak demand, details regarding the amount of peak demand reduction the utility expects to achieve, and the actions the utility proposes to take in order to achieve that peak demand reduction	Load Growth Forecast (pg. 36); The Core Build Plan Analysis (pg. 42); Analysis of the Five Sensitivity Build Plans (pg. 52); The Supplemental Cases (pg. 58); The Alternative Core Build Plan Analysis (pg. 62); DSM Assumptions (pg. 39)

This section of Appendix K lists each of the specific statutory requirements for an annual IRPg. Material responsive to these requirements is provided throughout the 2026 IRP and is embedded in the modeling and analysis generally. This table cross references the sections of this 2026 IRP that most specifically correspond to those requirements:

IRP Statute 58-37-40	Requirement	2026 IRP Section
B(1)(j)	(j) a report addressing updates to the utility's transmission plan under the utility's open access transmission tariff pursuant to the federal jurisdictional planning process. In this report, the utility shall, when applicable, describe planned transmission improvements specific to siting of new resources expected to impact interconnection constraints or other operations of the systems. The utility shall also describe how it evaluated alternate transmission technologies when developing solutions for identified transmission needs for interconnecting resources. The utility's transmission report must include how the utility evaluates transmission investments, including: (i) a description of how the utility evaluated a range of transmission solutions, including non-wires alternatives, joint projects with neighboring and other regional utilities, other upgrades to existing facilities, and other best practices. Modeling may consider, as appropriate, grid-enhancing technologies and alternate transmission technologies such as static synchronous compensators, static Volt-Ampere Reactive (VAR) compensators, advanced power flow control devices, transmission switching, synchronous condensers, voltage source converters, advanced conductors, switchable reactors, and tower lifting in a manner consistent with common utility practice; (ii) a description of how transmission factored into the utility's evaluation of the range of future scenarios included in the fifteen-year time period of the utility's resource plan, including significant continued economic growth and the retirement of the utility's coal generation; (iii) a discussion of transmission considerations for facilities included in the utility's preferred resource plan for which there are particular sites specified; (iv) information such that intervenors and stakeholders can pursue participation in local transmission planning collaborative activities which are held pursuant to orders from the Federal Energy Regulatory Commission; and (v) any other information that the utility believes is relevant to its resource plan or future transmission investments.	Transmission Plans and Planning (pg. 27)
B(2)	An integrated resource plan may include distribution resource plans or integrated system operation plans	Not Included

In Order No. 2025-660 the Commission directed DESC to review and address the comments and recommendations of ORS as part of the Stakeholder Working Group or 2026 IRPg. This section provides a response to those items.		
Order No. 2025-660	**Requirement/ Recommendation and Commission Conclusion**	**Responses**
(pg. 41)	DESC shall address ORS's recommendations in the Stakeholder Working Group and/or the Company's 2026 Comprehensive IRP, consistent with the terms of this Order.	Each of ORS's recommendations have been addressed in either the IRP Stakeholder Advisory Group or 2026 IRP.
Reserve Margin (pg. 13)	ORS recommended key inputs to the 2026 Comprehensive IRP be vetted in the SWG prior to use in final modeling. Additionally, ORS recommended DESC discuss the methodology and the results of the most recent Reserve Margin Analysis in the SWG prior to the filing of the 2026 Comprehensive IRPg. DESC's Reply Comments indicated that the Company would support adding a discussion of the methodology and the results of the most recent Reserve Margin Analysis in the SWG. The Commission finds these recommendations and the Company's response are reasonable. The results of any discussions held in the SWG should be reported in the Company's Reserve Margin Report in the 2026 Comprehensive IRPg.	The agendas for IRP Stakeholder Advisory Group which is administered by the Charles River Associates consulting group are set in response to the issues prioritized by the participants. On ORS's recommendation, DESC will propose and support adding the topics suggested by ORS to future IRP Stakeholder Advisory Group agendas. The results of IRP Stakeholder Advisory Group discussions will be summarized and reported in Docket No. 2023-9-E, as required by Order No. 2020-832. *See* DESC Reply Comments to the 2025 IRP Update (pg. 7).
Energy and Demand Forecast (pg. 17)	ORS recommended DESC monitor, track, and file annual reports in future comprehensive IRPs and IRP Updates related to the forecasted versus actual load consumption for economic development loads. ORS also recommended DESC discuss the methodology for load forecasting, including economic development load in the SWG and report the results of any such discussions in the 2026 Comprehensive IRPg. The Commission finds ORS's recommendations, and DESC's responses thereto, are reasonable. The results of any discussions held in the SWG concerning the methodology for load forecasting, including economic development load, should be reported in the 2026 Comprehensive IRPg.	DESC monitors and tracks annually actual and forecasted annual load increases associated with economic development customers. No new economic development projects were contracted since the 2025 IRP Update. DESC evaluates the potential for new large load projects in the Analysis of Load Growth Rates under Alternative Economic Scenarios (pg. 37).
Commodity Forecast (pg. 20)	ORS recommended DESC continue to monitor hydrogen availability, including the possibility of blending and price forecast assumptions, and discuss any findings in the SWG. DESC agreed to this recommendation through its Reply Comments. As there is no disagreement between ORS and DESC on this recommendation, the Commission finds the recommendation and DESC's response to be reasonable. Consistent with ORS's recommendation, the results of any discussions held in the SWG should be reported in the Company's 2026 Comprehensive IRPg.	The agendas for IRP Stakeholder Advisory Group which is administered by the Charles River Associates consulting group are set in response to the issues prioritized by the participants. On ORS's recommendation, DESC will propose and support adding the topics suggested by ORS to future IRP Stakeholder Advisory Group agendas. The results of IRP Stakeholder Advisory Group discussions will be summarized and reported in Docket No. 2023-9-E, as required by Order No. 2020-832. *See* DESC Reply Comments to the 2025 IRP Update (pg. 7).
Renewable Energy Forecast and Federal Regulatory Change (pg. 24)	ORS recommended DESC include sensitivities to evaluate the impact of changes in Federal Tax Incentives in its 2026 Comprehensive IRP and continue to discuss impacts in the SWG. ORS also recommended DESC perform risk analysis of all scenarios with and without the Section 111 GHG Rules and other environmental regulatory considerations in the 2026 Comprehensive IRP filing. The Commission finds these recommendations to be reasonable.	DESC has continued to monitor the Federal Administration's progress toward rescinding the Section 111 GHG rules and has adjusted its model inputs accordingly and modeled build plans with and without the GHG Rules in The Core Build Plan Analysis (pg. 42) and The Alternative Core Build Plan Analysis (pg. 62) of the 2026 IRP.

In Order No. 2025-660 the Commission directed DESC to review and address the comments and recommendations of ORS as part of the Stakeholder Working Group or 2026 IRPg. This section provides a response to those items.

Order No. 2025-660	Requirement/ Recommendation and Commission Conclusion	Responses
Energy Efficiency and DSM Forecasts (pg. 26)	Pursuant to the provisions of S.C. Code Ann. 58,37,40(D), which govern annual IRP update proceedings, the utility must submit annual revisions that update base planning assumptions from the most recently accepted comprehensive IRP including those related to energy efficiency and demand-side management forecasts. Based on the evidence in the record, DESC met this requirement with its 2025 IRP Update.	DESC met this requirement with its 2025 IRP Update.
Changes to Projected Retirement Dates of Existing Units (pg. 37)	ORS recommends the Company perform an optimal retirement analysis of Wateree and Williams and evaluate alternative combined cycle configurations in support of Act 41 and the Joint Resource. The optimal retirement analysis results should be reported with and inform the Company's 2026 Comprehensive IRPg. The optimal retirement analyses should include consideration with and without Section 111 GHG Rule requirements or other environmental regulatory considerations relevant at the time of filing. The Commission finds this recommendation to be reasonable.	In this 2026 IRP, DESC included modeling concerning the optimal retirement of Williams and Wateree from an economic basis as shown in The Supplemental Cases (pg. 58).
Impact of Updated Planning Assumptions on Selected Resource Plan (pg. 38)	A utility must, in its annual IRP Update, submit revisions that update base planning assumptions from the most recently approved comprehensive IRPg. Moreover, utilities are required to describe the impact of the updated base planning assumptions on the selected resource plan. S.C. Code Ann. § 58-37-40(D), as amended by S.C. Act No. 41 of 2025. Based on the evidence in the record, the Commission finds DESC met this requirement with its 2025 IRP Update	DESC met this requirement with its 2025 IRP Update.
Compliance with Prior Commission Orders (pg. 39)	In addition to the statutory requirements governing IRP updates, DESC must comply with prior Commission orders, including Commission Order Nos. 2020-832 (2020 IRP), 2021-429 (2020 Modified IRP), 2022-713 (2021 IRP Update), 2023-289 (2022 IRP Update), 2023-860(A), and 2024-791 (2024 IRP Update). Based on the evidence in the record, the Commission finds DESC met this requirement with its 2025 IRP Update.	DESC met this requirement with its 2025 IRP Update.
Software Licenses (pg. 40)	It is in the public interest for intervenors to have software licenses used in modeling as such access provides transparency in data and full participation regarding complex modelling. Therefore, the Company shall facilitate such by the time of the 2026 Comprehensive IRP application consistent with the provisions of S.C. Code Ann. Section 58-37-40(E).	Pursuant to S.C. Code Ann. section 58-37-40(E) and Commission Order, DESC has made available software licenses to intervening parties in its this comprehensive IRP proceeding.

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