Removing the interim target of the NC Carbon Plan could cost ratepayers up to $23 billion in added fuel expenses through 2050

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Higher Natural Gas Costs from Removing the Interim Target: When considering North Carolina Senate Bill 266, which eliminates the interim carbon emissions reduction target in the NC Carbon Plan, policymakers have cited potential cost savings as a key justification. However, our analysis finds that removing the interim target could expose ratepayers to significant financial risk, particularly if natural gas prices rise. Based on modeling by the Public Staff, eliminating the interim target would increase natural gas generation by nearly 40 percent between 2030 and 2050. If natural gas prices follow the "high" trajectory from the Carbon Plan docket, the shift would raise total natural gas costs paid by ratepayers by $23 billion, compared to a scenario that retains the interim target. (In present value terms, this equals approximately $13 billion, assuming a 5% discount rate.) These additional fuel costs are borne directly by customers. Maintaining the interim goal helps limit exposure to volatile fuel markets and protects ratepayers from sharp increases in electricity bills.

Why Natural Gas Prices May Rise: There are multiple factors that could lead to high natural gas prices in North Carolina. Rapid growth in electricity demand, driven in part by the expansion of data centers in the region, is increasing reliance on natural gas for marginal generation. At the same time, North Carolina lacks in-state production and depends on imported natural gas via interstate pipelines. Limited pipeline capacity further constrains natural gas supply options, while industrial growth across the Southeast is intensifying regional competition for natural gas. Nationally, supply disruptions caused by disasters such as hurricanes in the Gulf Coast or geopolitical conflict can quickly ripple through the market. Rising U.S. liquefied natural gas (LNG) exports could further tighten domestic supply, contributing to higher prices. Compounding these risks, utilities are currently facing long lead times to procure natural gas turbines due to supply chain constraints and manufacturer challenges, potentially delaying the construction of new gas plants needed to meet surging demand.

Methods for Estimating Ratepayer Risk: To assess the financial risks of removing the interim target, we developed a spreadsheet model to evaluate the two resource portfolios that were developed by the Public Staff: one that includes the interim target ("PS 2034 Base") and one that removes it ("NCGA – Base"). These scenarios provide internally consistent generation mixes through 2050 based on the Public Staff's assumptions about technologies, policy constraints, and electricity demand. To estimate natural gas consumption in each case, we first calculated total generation required to meet load and then subtracted generation from non-gas sources, including coal, nuclear, solar, wind, and hydro. The remaining generation was attributed to natural gas, which we then converted into total fuel use using assumed power plant heat rates. We applied natural gas price trajectories consistent with the fuel price forecasts considered in the Carbon Plan docket, allowing us to estimate total fuel expenditures for each scenario. Our analysis holds all other variables constant to isolate the effect of natural gas prices on system-wide cost. This approach provides a conservative estimate of the added financial risk to ratepayers if gas prices rise. By using the Public Staff's modeling results, we ensure that our findings are grounded in equivalent assumptions and consistent with current planning analyses.