

Duke Energy - What Evidence Should Accompany a Resource Plan?

Internal ID: S&F-STR-201

Topic: Customer Strategy, Corporate Strategy, Growth Strategy

Industry: Electric Utilities

Source: Strategy & Finance

Publication date: 5 October 2026

License: Not specified

Decision date and information cutoff: October 1, 2025, close of day ET

Decision scope: Proposed evidence gates, process safeguards, and customer protections as DEC and DEP present their filing

Case convention: This is an author-created exercise. The strategy-team role is hypothetical. Company statements are attributed; no private deliberations or later outcomes are represented.

The assignment

Duke Energy Carolinas (DEC) and Duke Energy Progress (DEP) filed a new Carolinas resource plan on October 1, 2025. Assume you are advising a hypothetical joint DEC/DEP strategy team preparing to present the filing to regulators and customers. Recommend what additional evidence gates, process safeguards, and customer protections the team should propose alongside its presentation. Explain how each recommendation would work, what evidence would trigger action, who would verify it, and how customers would be protected if forecasts or project schedules change.

Use only information available by October 1, 2025, close of day Eastern Time. This is the latest intended public-information day for the exercise, not an assertion that all filing attachments were publicly accessible by that time. The research team could verify the filing identity and read Duke's public summary, but could not retrieve the full petition, testimony, or technical appendices. That access boundary is not evidence that the materials were unavailable to regulators or the historical decision makers.

The public summary cannot independently validate the portfolio. Do not choose or rank its resource mix, validate its model, quantify adequacy, costs, or customer bills, or claim that a particular gate, sensitivity, or safeguard exists in the filed plan. Your task concerns the evidence and protections you would propose, not a judgment about the technical merits of undisclosed model results.

A plan under uncertainty

Duke says energy needs across the Carolinas over the next 15 years are expected to grow at eight times the growth rate of the prior 15 years, and that its new forecast is more than twice the growth forecast in its initially filed 2023 plan. Duke attributes the change to economic development. These are company forecast statements. "Eight times" describes a comparison of growth rates; it does not mean peak demand or total energy use will be eight times larger. The public summary does not show forecast scenarios, customer-level commitments, ramp schedules, or the evidence behind projected load. Duke's annual filing separately identifies lower-than-forecast load, including data-center use, as a business risk. [S1-S2]

The October 1 summary describes a proposal combining new gas generation, solar, batteries, potential nuclear, uprates and hydro upgrades, and possible extensions for selected coal units. It also delays the second Bad Creek pumped-storage power block and says wind is not economically viable through 2040, subject to reassessment. Duke projects average customer-bill impacts of 2.1% annually over the next decade. The summary does not disclose the underlying assumptions, customer-class bill calculations, dependable-capacity contributions, unit economics, or comparative portfolio results. Treat each item as Duke’s description of its proposal, not as an independently verified result. [S1]

Exhibit 1. Selected statements in Duke’s public summary

Topic	Duke’s October 1, 2025 summary	What the summary does not establish
Energy outlook	Energy needs are expected to grow at eight times the rate of the previous 15 years; the forecast is more than twice the growth forecast in the initial 2023 plan	Peak demand, scenario probabilities, signed-load share, ramp timing, or forecast accuracy
Proposed resources	Five combined-cycle units, seven combustion turbines, up to 4,000 MW of solar and a 5,600 MW battery target by 2034; potential nuclear operation in 2037; uprates and hydro upgrades	Equivalent dependable capacity, dispatch, duration, cost, transmission needs, or plan-wide adequacy
Existing resources and timing	Possible two-to-four-year extensions for selected dual-fuel coal units; delayed Bad Creek II target; wind characterized as uneconomic through 2040	Unit-level performance, comparative economics, emissions, retirement necessity, or the model sensitivity behind each choice
Customer impact	An average 2.1% annual bill impact over the next decade, described by Duke as below inflation	Baseline, customer class, usage assumptions, inflation measure, cost allocation, or independent validation

Source: Duke Energy, October 1, 2025 release [S1]. Figures and characterizations are attributed to Duke. MW targets are not interchangeable measures of energy, dependable capacity, or cost.

The review setting

The North Carolina Utilities Commission (NCUC) reviewed the preceding North Carolina Carbon Plan and Integrated Resource Plan in 2024. Its public summary says the Commission accepted modeling as a planning tool rather than selecting one definitive generator portfolio. It directed near-term actions and emphasized affordable reliable service, flexibility, and updates every two years. This is a North Carolina baseline; it does not establish the process or authority for South Carolina. DEC and DEP operate across state lines, but state planning and customer-cost questions must remain distinct. Duke’s October 1 release said a South Carolina update would be filed later. [S3]

The October 2025 plan was pending at the cutoff. Docket metadata identify a preliminary base portfolio, 30 sensitivities, a near-term action plan, and a recommended portfolio. The technical contents were not available to this case team. The docket notice is evidence of what the filing reportedly contains, not evidence of the results or assumptions in those materials. [S4]

Designing a review protocol

Integrated resource planning must contend with uncertainty in demand and supply. The U.S. Department of Energy's planning guide emphasizes uncertainty, resource adequacy, and the distinction between peak and energy needs. It is practice guidance, not a finding about Duke's model. [S5]

Academic research offers mechanisms to consider, not a shortcut to a Duke forecast. Fabrizio, Rose, and Wolfram find generally modest plant input-efficiency changes in historical U.S. restructuring settings, with results depending on the comparison and input measure. Bushnell and Wolfram find heat-rate improvements around some divestitures, but similar gains at some incentive-regulated plants; their results point to operating incentives, not ownership alone. Neither study measures unutilized Duke capacity. Ishii and Yan find historical investment patterns consistent with waiting under regulatory uncertainty, while cautioning that their reduced-form results cannot isolate an option-value effect from policy changes. These studies concern earlier institutions and periods; none determines whether Duke should build, defer, retire, or extend a resource. [A1-A3]

The public summary and this case do not provide the underlying record needed to validate the resource proposal. Your task is to determine what information and process would make review credible, how recommendations would respond to new evidence, and how customers would be treated if forecasts or project plans change. Any mechanism you propose is a recommendation for the hypothetical team, not a description of Duke's filing or an assertion about current law.

Competing risks

Moving early can preserve options to secure long-lead equipment, complete transmission work, and meet load if economic development proceeds. But commitments made against uncertain or delayed load can leave customers paying for underused capacity. Waiting can protect customers from premature commitments and allow forecasts or bids to mature, but delay is not costless if reliability resources or infrastructure cannot be delivered in time.

The transition presents similar tensions. Extending existing thermal units could preserve dispatchable options; it could also bring operating, fuel, emissions, or retirement-cost exposure. Faster investment in lower-carbon resources could provide learning and resource diversity; it could also encounter interconnection, siting, supply-chain, and delivery constraints. The public summary alone cannot establish which risk dominates or which portfolio is superior.

Discussion questions

1. What evidence should DEC and DEP disclose so reviewers can distinguish durable load from an evolving development pipeline?
2. Propose two or three observable evidence gates for decisions that may be difficult to reverse. What would trigger each gate, and what reliability work should proceed while evidence develops?
3. What customer protections would address the risk that large-load forecasts or dedicated infrastructure costs are shifted to existing customers? Which protections require additional legal or tariff review?
4. How should the review protocol distinguish North Carolina and South Carolina jurisdiction, evidence, and cost allocation?
5. How do the academic studies inform the process design, and where does their transfer to a modern regulated utility stop?
6. What disclosure, independent review, and public reporting would let customers and regulators understand changes over time without pretending that a forecast is certain?

Sources and cutoff

All student information is limited to October 1, 2025, close of day ET. The case team selected that as the latest intended public-information day; it could not retrieve the full filed plan and does not infer the historical availability of its attachments from that access failure. Later testimony, filings, regulatory decisions, forecast updates, and outcomes are excluded.

- **[S1]** Duke Energy, “Duke Energy Files 2025 Carolinas Resource Plan, Continues Modernizing Energy Infrastructure to Support Future Growth,” October 1, 2025. [Company release](#)
- **[S2]** Duke Energy Corporation, 2024 Form 10-K, filed February 27, 2025, MD&A pp. 41-42 and Item 1A. [SEC filing](#)
- **[S3]** North Carolina Utilities Commission, 2024 Carbon Plan and Integrated Resource Plan order summary, Docket E-100 Sub 190, November 1, 2024. [NCUC summary](#)
- **[S4]** North Carolina Utilities Commission, Docket E-100 Sub 207, filing F-E-20251001-014, October 1, 2025. [Docket portal](#). The case team could verify docket metadata and the filing notice but not retrieve the petition or supporting technical materials; see research source register P4.
- **[S5]** U.S. Department of Energy, *Best Practices in Integrated Resource Planning*, November 2024, pp. 12-18 and 33-42. [Report](#)
- **[A1]** Kira R. Fabrizio, Nancy L. Rose, and Catherine D. Wolfram, “Do Markets Reduce Costs? Assessing the Impact of Regulatory Restructuring on US Electric Generation Efficiency,” *American Economic Review* 97(4), 1250-1277 (2007). [Article](#)
- **[A2]** James B. Bushnell and Catherine Wolfram, “Ownership Change, Incentives and Plant Efficiency: The Divestiture of U.S. Electric Generation Plants,” CSEM Working Paper 140 (2005). [Working paper](#)
- **[A3]** Jun Ishii and Jingming Yan, “Investment under Regulatory Uncertainty: U.S. Electricity Generation Investment Since 1996,” CSEM Working Paper 127 (2004). [Working paper](#)

The source register and evidence extraction in [site/research/duke-energy-corp/](#) provide access notes, detailed locators, and claim boundaries. Academic studies are used as conceptual evidence only, not as Duke-specific estimates.