

HB 951: Modernize Energy Generation - Section-by-section/Main Provisions (Language in this section pulled from Committee staff bill summary and from the bill itself)	Recommendations made in "Review of Duke Energy 2020 Climate Report and Associated Duke Climate Strategy"	Do any of the provisions in HB 951 address a Climate Report Goal?	If so, by which of the provisions?	Analysis / Discussion
<p>Coal retirement & replacement</p> <p>Requires the retirement of five sub-critical coal-fired facilities by 2030 (leaving two to remain in operation). Such facilities are the least-used of all active coal-fired facilities. The bill directs the utility to securitize (maximum) \$200 million of the cost associated with the retirement of coal-fired plants.</p> <p>The criteria outlined for the replacement of these coal-fired plants effectively mandates the construction of natural gas plants. Duke is mandated to invest in <u>at least</u> 900 MW natural gas capacity.</p>	<p>1. Develop an alternative definition to that currently employed for least cost requirements for new generation planning being considered by decision makers.</p>	<input type="checkbox"/>	<p>Not addressed</p>	<p>By mandating additional procurement of renewable generation and reforming the process of ratemaking, HB 951 partially alters the currently employed least cost requirements for new generation planning (to the extent that the bill mandates construction of new natural gas and solar facilities). That said, the natural gas and solar capacity to be installed is virtually predetermined, and the bill makes little note of general planning requirements/criteria for competitive procurement of new generation. The majority of language throughout the bill focuses on ensuring the most "cost effective" or "low cost" transition without offering checks and balances that ensuring it happens. In short, if this is a bill intended to address climate change, the bill does not address the external costs of pollution.</p> <p>The Commission can authorize performance based ratemaking, including: decoupling of utility profit and per-customer consumption, one or more performance incentive mechanisms (PIM), and multi-year rate planning. Though PIMs can help align utility action with policy goals, the bill requires only a single PIM is a significant limitation, as it reduces the likelihood of a comprehensive incentive scheme that rewards utilities across a range of performance-related metrics. Furthermore, the language used in the bill states that the utility "may also include" (i.e., not required) metrics to gauge utility achievement; to ensure that PBR is effective and holds utilities accountable. Performance metrics should be mandatory— as such, this program is more of a nod to performance-based rate making than it is a solution designed to hold utilities accountable to desirable policy objectives/outcomes. Further cause for concern is the multi-year rate plan, which reduces the Commission's oversight by allowing utilities to set rates for multiple years at a time.</p>
<p>Competitive procurement of renewable generation</p> <p>Requires additional competitive procurement from renewable energy facilities in aggregate amount of 7.3 GW (~388 MW, biannually).</p> <p>Under the updated provisions, 55% of the total (MW) renewable energy facilities shall be acquired or sourced from third parties (and owned/operated by the public utility), and 45% of the total MW of renewable energy facilities scheduled to be procured shall be supplied by third-party <i>owned operated</i> facilities (that allow the utility rights to operate, control, and dispatch all solicited energy). In other words, 55% of the competitively procured capacity is to be owned by the utility, and 45% of the procured capacity is to be owned by independent power producers.</p>	<p>2. Create a timeline, with critical path elements, for deployment of offshore wind energy.</p>	<input type="checkbox"/>	<p>Not addressed</p>	<p>No mention of wind generation in HB 951.</p>
<p>Ratemaking "modernization"</p> <p>Section 4 would allow the Commission to authorize performance based ratemaking (PBR), which could/would include:</p> <p>1. Decoupling (i.e., breaking the link) of an electric public utility's revenue and the level of electricity consumption on a per customer basis by its residential customers</p> <p>2. One or more performance incentive mechanisms (PIMs), which would link the public utility's revenue or earning to the public utility's performance in certain areas, consistent with policy goals. In other words, this program would incentivize utilities to satisfy/meet desired outcomes in certain areas.</p> <p>3. Multi-year Rate Plan (MYRP), including an earnings sharing mechanism. Under the MYRP, the Commission can set a rate schedule for a three-year period, without the need for the public utility to submit a subsequent general rate application. Utilities will be compensated according to forecasted/expected costs, rather than the historical cost to provide service. The earnings sharing mechanism would be an annual mechanism that shares surplus earnings between the utility and its customers, over the frame of time of the MYRP.</p>	<p>3. Define and advocate for a detailed and stable carbon policy that employs the seven principles noted in the 2020 Climate Report.</p>	<input type="checkbox"/>	<p>Not addressed</p>	<p>The bill does not explicitly address any carbon policy or goals, it does forecast a 61% carbon emissions reduction by 2030 (over 2005 levels). No data is provided to substantiate this figure or ensure accountability that the state maintains progress on a stable emission reduction glide-path; this 61% emissions reduction is likely attributed to the replacement of sub-critical coal facilities.</p> <p>While the bill does require additional procurement of clean energy, incentivize energy efficiency measures, and create new user-friendly programs that the utility would maintain, it <u>could add up to as much as 3 GW</u> of natural gas capacity and leave rate payers with those stranded assets under a carbon constrained economy. Any fossil fuel asset jeopardizes climate goals, and coal retirement, while building new gas plants), is not stable climate policy.</p>
<p>Advanced nuclear site permit & license renewal</p> <p>This provision would allow the utility to incur costs up to \$50 million to pursue an Early Site Permit (from the Nuclear Regulatory Commission) for an advanced nuclear modular facility in North Carolina. Also requires the utility to submit documentation that guarantees the current nuclear facilities permitted for a lifespan of 80 years.</p>	<p>4. Use the Integrated Resource Plan (IRP) scenario analysis tools to develop a case to maximize renewable energy expansion – including solar and wind energy and storage – in order to accelerate the reduction of fossil-fuel sources and minimize the need for new gas generation.</p>	<input type="checkbox"/>	<p>Not addressed</p>	<p>This bill does not attempt to maximize clean energy resources in North Carolina. It does add new renewable resources to the grid, and could possibly make the grid more energy efficient, but the bill effectively limits the state's clean energy market to existing companies and utilities while decreasing oversight by the NC Utilities Commission.</p>
<p>Estimated carbon emissions reduction of 61% over 2005 levels, by 2030, compared to Governor Cooper's target of a 70% reduction in that same time frame. According to the bill, such emissions reductions will follow the "[accelerated] retirement of certain coal-fired electric generating facilities in an orderly and disciplined manner" (no calculations or underlying data is provided to substantiate this figure).</p>	<p>5. Increase efforts to investigate and critically review Zero-emission Load Following Resource (ZELFR) technology development.</p>	<input checked="" type="checkbox"/>	<p>Partially addressed Advanced nuclear siting provision; ratemaking modernization</p>	<p>The utility is permitted to incur costs up to \$50 million to seek an early permit for advanced nuclear reactor siting in North Carolina; the company is allowed to seek extension of current nuclear facilities life-cycle. It does not mandate that any further research and development to occur to investigate the feasibility of other ZELFR sources or study the potential for existing nuclear to increase generation capacity.</p>

<p>Customer Programs</p> <p>Green Source Advantage Amends the Green Source Rider program enacted in House Bill 589—this program applies to large energy users (contract demand for 1 MW or more), the military, and the UNC school system, and allows these customers to establish long-term contracts with their utility (3-15 year term) for purchasing renewable-generated power at the standard retail rate, with no shift in cost for other ratepayers. The bill adjusts capacity limits for single generating facilities (80 MW), establishes bill-credit requirements, and makes other operational amendments to the program.</p> <p>Shared Solar/Community Solar Gardens Provides that a solar choice tariff, as would be enacted by section 7 of the PCS, constitutes an electric utility's net metering arrangements (for new customers). Requires any utility that serves more than 150,000 North Carolina retail customers to undergo a competitive procurement of solar resources totalling 750 MW (over a period of roughly three years); 70% of program volume would be allotted to large and small commercial and industrial customers, 20% to government customers, and the remaining 10% to residential customers. Replaces the community solar energy facility program from HB 589 (2017) with the community solar gardens program (Sections 6(c) and 6(d)). Requires that utilities serving more than 150,000 North Carolina retail customers competitively procure 50MW of new, <i>distribution-connected</i> solar generation (to be utility-owned). 35% of volume would go to small commercial and industrial customers, 30% of volume to government customers, and 35% to residential customers. All subscribers to the program (minimum 5) receive a bill credit proportional to their share of the utility's monthly levelized revenue requirement.</p> <p>Solar Choice Tariffs (Net Metering Reform) Requires that utilities file a "Solar Choice Tariff," which would become the exclusive option for customers that apply for net-metering services (applies to both owners of renewable generation, as well as those leasing renewable power. This approach is designed according to other successful state models, such as that in South Carolina, which have a track record of demonstrated energy efficiency and cost savings. Customers installing behind the meter generation with nameplate capacity of more than 100 kW must offer standby service.</p> <p>Establishes a maximum allowable amount of total installed solar capacity, and gives utility the right to refuse interconnection to customers that would result in exceeding this limit.</p>	<p>6. Investigate Duke Energy's potential role in a hydrogen infrastructure in the Southeastern U.S.</p>	<p><input type="checkbox"/></p>	<p>Not addressed</p>	<p>No mention of hydrogen. Nor does the bill discuss the potential for utilizing existing pipelines or other infrastructure for the use of hydrogen as a ZELFR.</p>
<p>Modification of existing PPAs with small power producers Allows small power producers the opportunity to extend their existing PPA by an additional ten years. Allows for stakeholder participation to re-negotiate rates paid by the electric utility, assuming such changes are just and reasonable and in the public interest.</p>	<p>7. Develop and communicate to stakeholders an integrated vision of smart grid and edge-of-grid technology and its contribution to CO2 emission reduction in Duke Energy's climate change strategy</p>	<p><input checked="" type="checkbox"/></p>	<p>Partially addressed Customer (solar) programs; ratemaking modernization</p>	<p>HB 951 allows a utility run community solar program to encourage increased behind the meter generation and standardizes the net-metering process, but there is no explicit focus on smart grid technologies or the importance of "edge of grid" development in the bill. A policy focused PIM aimed at efficiency could encourage EE resources to be added to the grid, or encourage demand-side management of resources, however, the utility is only required to submit one PIM proposal to the NCUC, which is shortsighted.</p>
	<p>8. Develop a larger set of status and performance metrics to be used for tracking progress and for determining the likelihood of success for Duke Energy's climate strategy, and to create a metrics and tracking dashboard.</p>	<p><input type="checkbox"/></p>	<p>Not addressed</p>	<p>This bill would reduce oversight of the utility by the Commission, and thereby decrease accountability. By giving utilities broader rate-setting powers and implementing multi-year rate-making, the utility faces less monitoring, oversight, and review. Performance incentive mechanisms and decoupling could help incentivize utilities to meet climate goals, but these provisions do not mandate the establishment of performance metrics to track progress toward policy goals and (again) only require that only one PIM be submitted.</p>