



A Proposal for a Cleaner Energy Future

Our proposed Carolinas Carbon Plan is an important step toward 70% carbon reduction by 2030 and carbon neutrality by 2050, while providing multiple options that balance affordability and reliability for our customers. The plan will need to be approved by regulators in North Carolina and South Carolina and will be updated every two years.

At a Glance

- **A stakeholder-informed proposal** – with more public input to come
- **Two paths, four portfolios** – all meet 70% carbon reduction targets and carbon neutrality by 2050
- **An “all of the above” strategy** – to maintain reliability for our customers and communities
- **All coal retired by 2035** – enabled by diverse mix of carbon-free and dispatchable resources
- **Limited cost impacts in next two years** – and about 1.9% to 2.7% annually through 2035

Strengthened by Stakeholder Feedback

More than 500 individuals representing over 300 organizations from both North Carolina and South Carolina participated in the stakeholder process – their feedback informed the plan presented to the North Carolina Utilities Commission on May 16 for consideration. Plan revisions reflecting their input include:



Adding more solar plus storage options



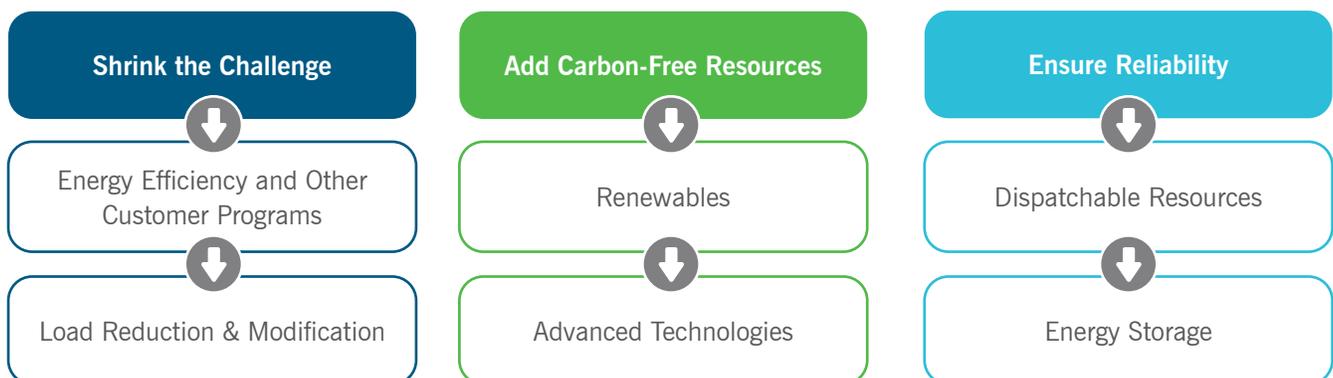
Doubling the assumed solar interconnection rate



Accelerating offshore wind availability to 2030

A Three-Pronged Approach to Planning

We approached the challenge of carbon reduction along three fronts: 1) reduce load; 2) grow carbon-free resources; 3) complement with dispatchable resources for reliability.



Two Paths to Carbon Reduction – via Four Portfolio Options (new resources by 2035)



Note 1: Gray blocks denote coal retirements, which are dependent on addition of resources shown.

Note 2: Remaining coal planned to be retired by year end 2035.

Note 3: New Solar includes solar + storage, excludes projects related to pre-existing programs such as HB 589 and Green Source Advantage.

Note 4: Capacities as of beginning of 2035.

Note 5: IVVC = Integrated Volt/Var Control.

Note 6: CPP = Critical Peak Pricing.

Note 7: Battery includes batteries paired with solar.

Note 8: Average bill impact with Appalachian fuel availability; estimated bill impact with alternative fuel supply is 2.1% to 2.7% annually.

The plan explores the benefits, challenges and costs of two paths for achieving the interim 70% reduction target – both reach carbon neutrality by 2050.

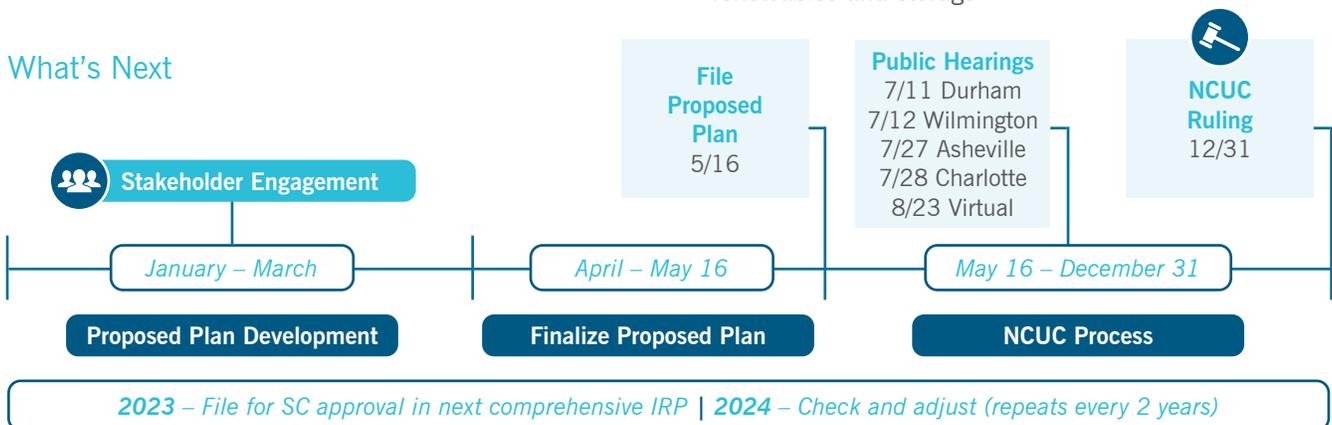
The first path achieves the 70% target by 2030. The second path offers three portfolios that achieve the 70% target by 2032 or 2034 through increased offshore wind and/or small modular nuclear generation.

Each portfolio has trade-offs in near-term and long-term cost and execution considerations for regulators to consider. All four replace coal with a diverse mix of solar, storage, wind, small modular nuclear and natural gas – this diversity is key to meeting least-cost and reliability mandates.

The plan also proposes prudent near-term procurement and development work supporting optionality for all portfolios, such as:

- 3,100 MW of **new solar** (with 600 MW of paired **storage**)
- 1,000 MW stand-alone **battery storage**
- 600 MW in **onshore wind**
- 2,000 MW of **hydrogen-capable natural gas**
- Early development work for **offshore wind** (800 MW), **small modular nuclear** (570 MW) and **pumped storage** (1,700 MW) – long lead-time resources for deployment in the early 2030s
- Grid enhancements to support interconnection of new renewables and storage

What's Next



The Carolinas Carbon Plan is a road map for reducing carbon emissions from power generation – we are committed to bringing our customers and communities affordable, reliable and clean carbon-free energy as quickly as possible.

We've made incredible progress, retiring two-thirds of the coal plants in North Carolina and South Carolina and reducing emissions by more than 40% since 2005. Our 4.4 million customers in North Carolina and South Carolina benefit from a diverse, reliable mix of resources and already receive more than half of their energy from nuclear, hydroelectric and solar, making Duke Energy a national leader in carbon-free generation.

For more detail, including the full carbon plan, visit duke-energy.com/CarolinasCarbonPlan.