

Please pay close attention to the testimony of Public Staff witnesses, as summarized by Jeff Thomas, and adopt their recommendations. Thomas provides an excellent summary of Duke's carbon plan, a report on Staff's overall investigation and findings, a deeper dive into the results of the Staff's independent modeling efforts, and a concluding summary of their recommendations. Then add other ideas from other witnesses to achieve an emissions goal of 2032 or 2030, not 2034.

The Public Staff engaged in a thorough investigation into the carbon plan, including a thorough review of the plan itself, numerous conversations with Duke, review of modeling inputs versus other sources, and independent modeling using the same simulation software as Duke. For the most part, Staff agrees with the near-term action plan (NTAP) proposed by Duke, but they conclude that the plan does not go far enough to prepare for a greater level of carbon emission reductions that they concluded is warranted. Duke's preferred plan has significantly higher cumulative carbon emissions than a plan compliant with HB951 would have, and the Staff preferred plan reduces those excess emissions somewhat.

Staff's preferred plan achieves the 70% emissions goal in 2034 without a plant in SC while Duke achieves a 2035 date only by including that "off the books" plant. The Staff's lower carbon result is achieved by more solar and storage, repowering of existing solar installations to produce more, more intermediate size solar facilities, more distributed energy with a bigger roll out of the Power Pair program, more use of the loans available through the IRA, stronger efforts to expand interconnection limits, and faster development work on wind and nuclear.

In addition to recommending that the NCUC should pursue a 2034 target with lower overall emissions, Staff found that: (1) the assumptions Duke used for a 2033 date (P2) were reasonable, (2) interconnection limits were binding in Duke's modeling – meaning that if you can interconnect more solar or wind the model will select it as a better alternative, (3) repowering older qualifying facility solar (QF) with greater capacity solar as the old contracts expire and adding solar at existing fossil unit sites are significant opportunities to add more solar in spite of the binding constraints, (4) at least some new gas is almost certain to be needed (but likely not as much as in Duke's plan), (5) more distributed energy (grid edge), including an expanded Power Pair program, saves money and reduces the amount of gas needed, (6) adding additional solar and storage at existing thermal generating plants could help get around the interconnection limits, (7) offshore wind can be a hedge against the uncertainty of nuclear, and vice versa, so both should be pursued, (8) onshore wind is economical even if there were no carbon caps and Duke should add more than they show, (9) full conversion of gas units to hydrogen in 2050 is uncertain and should not be assumed, (10) when hydrogen unavailability is modeled, it results in more solar, wind, and nuclear being added in the 2040's and (11) political/regulatory risks include proposed EPA regulations and earlier expiration of IRA tax credits.

In summary, Staff's analysis supports the idea that Duke's preferred plan doesn't go nearly far enough to treat the current situation as a crisis needing faster action. Duke needs to act creatively and quickly to resolve interconnection limits and other constraints keeping us from finding cheaper and lower cost alternatives to greater fossil fuel use. Staff's recommended actions are sufficient to advance the interim goal to 2034 without a gas plant in SC. With even more ideas, such as the ones proposed by AGO witness Burgess, Duke can likely meet a goal of 2032 or even 2030. They should be required to use these ideas and others to make it so.