

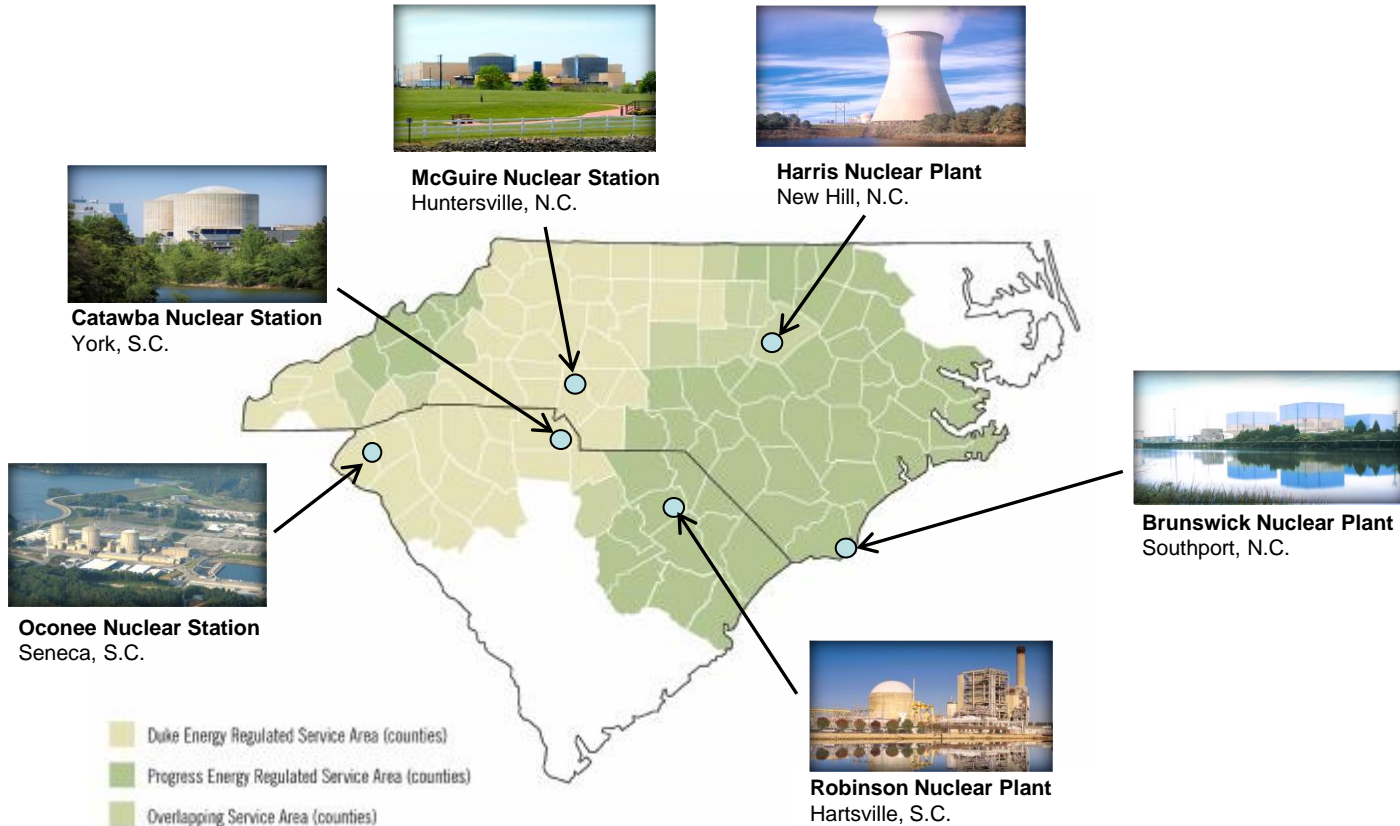
2023 Energy *Solutions* Annual Conference

Kelvin Henderson – Senior Vice President and Chief Nuclear Officer



BUILDING A *SMARTER* ENERGY FUTURE[®]

Duke Energy Nuclear Plants – 11 Reactors at 6 Sites



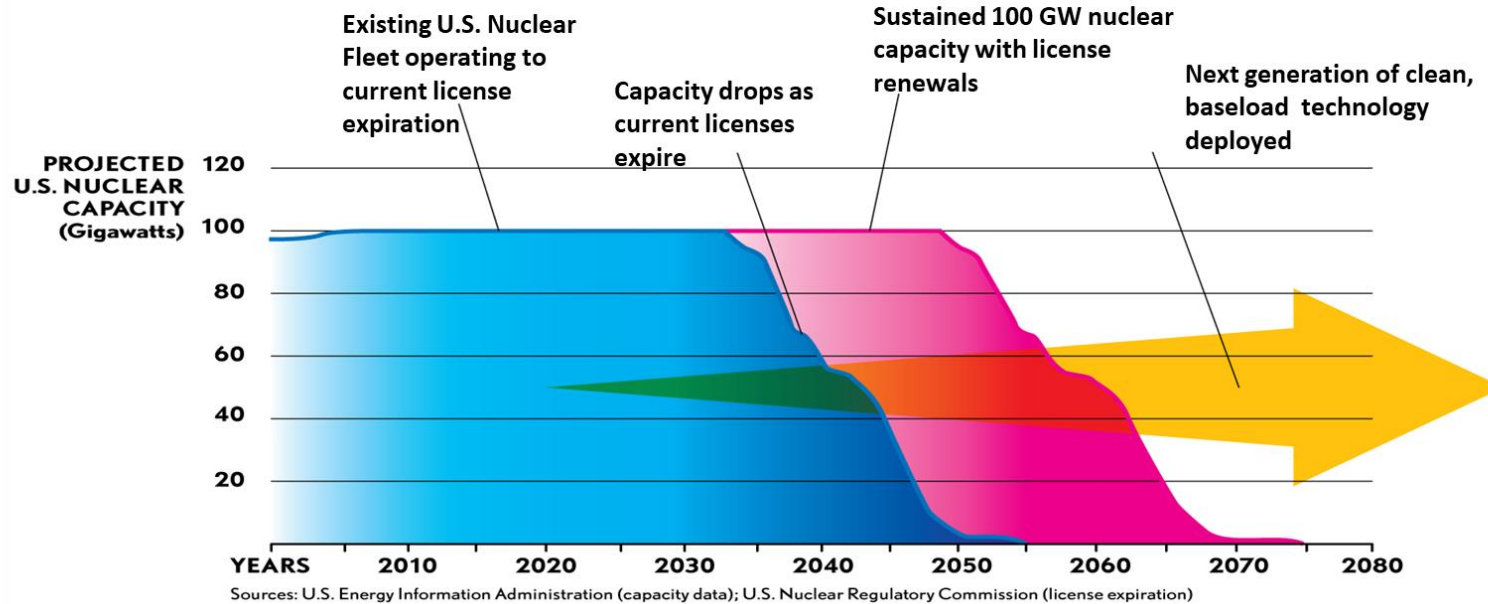
50% Carbon Reduction by 2030

- Early retirement of coal plants → Planning to fully exit coal by 2035 as part of the largest planned coal fleet retirement in the industry
- Additional deployment of renewables → Renewables projected to total 30,000 MW in our regulated utilities by 2035 (both utility-owned and under purchased-power agreements)
- Continued operation of existing Nuclear Fleet → Subsequent License Renewal (SLR) is critical to meet our goals
- Expansion of natural gas generation needed to reach this goal
- Results → We will achieve our 50% carbon emissions reduction goal early

N.C. House Bill 951

- Requires a **70% reduction** of CO₂ emissions by 2030 for the state of North Carolina
- All portfolios presented included a significant amount of new nuclear
 - 7,700 - 8,000 MWe in each portfolio by 2050
- Final Carbon Plan approved by the NCUC in December 2022

Subsequent License Renewal as Strategic Bridge for Clean Energy



Our Transformation to Achieve a Clean Energy Future

- Continued safe operation of our existing Nuclear Fleet
- Subsequent license renewal (SLR) of our entire Fleet
- Increasing deployment of variable renewables like wind and solar
- Reducing our dependence on coal and then gas
- **Adding new nuclear to ensure our energy security with dispatchable baseload power**



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