

A Responsible Energy Future for North Carolina

An Alternative to the Duke Energy-Progress Energy Plans for the Crucial Years 2013–2032



SUMMARY

Each year, the North Carolina Utilities Commission (NCUC) reviews the annual Integrated Resource Plans filed by the electric utilities. In their IRPs, Duke Energy and subsidiary Progress project how they would deal with supply and demand of electricity for the next 20 and 15 years, respectively.

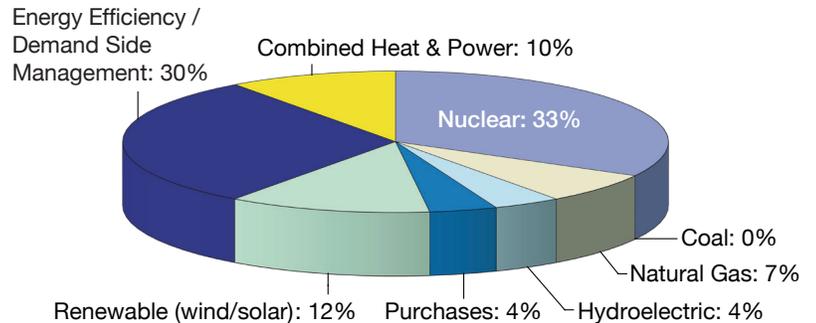
By law, the NCUC's standard is to find the "least cost mix of generation and demand-reduction measures which is achievable."

The IRPs submitted by the now-merged Duke Energy Carolinas and Progress Energy Carolinas fall far short of that standard. NC WARN is presenting the NCUC with an alternative that is far less expensive and takes a huge step forward in addressing the critical issue of climate change.

Under the Duke and Progress plans, North Carolina would still be deriving large amounts of energy from coal, natural gas and nuclear power indefinitely. The utilities plan only minimal amounts of renewable energy or energy efficiency. Their substitution of natural gas for coal would lock in a losing path for global warming, since the methane released by fracking is an even more potent greenhouse gas than the carbon dioxide emitted by coal-fired power plants. Both utilities plan to add new nuclear units despite severe problems with other utilities' nuclear construction projects underway in the southeastern United States and elsewhere around the world.

These plans are grossly irresponsible both economically and in terms of climate impact.

In NC WARN's Responsible Energy Future, we describe a combination of cleaner, lower-cost alternatives that are available to meet North Carolina's energy needs. The utilities are using their monopoly status in our state



A realistic and vastly more responsible approach to powering North Carolina in 2032.

to suppress these alternatives even as they insist on continuing to build polluting fossil fuel plants and extremely costly nuclear plants — and raising our rates repeatedly to do so.

Our plan would allow for the phasing out of all coal-fired plants in the Carolinas by the mid-2020s if not sooner, building no additional natural gas or nuclear plants, and reducing the amount of generation from existing natural gas-burning plants. Instead, we advocate an aggressive but achievable increase in energy efficiency and truly renewable energies.

Weatherization and other energy-saving programs can create thousands of jobs statewide while reducing energy demand up to 30% over the planning period. Efficiency measures, which reduce the need to generate electricity in the first place, are cheaper than any other means of meeting our energy needs. Efficiency programs that have proven successful in other states could eliminate the need for costly new power plants, leaving customers with more money in their pockets.

Solar and coastal wind energy are abundant in North Carolina and can provide large amounts of electricity with no fuel costs. Solar photovoltaic is already cheaper than

new nuclear power could ever be, and will soon be cheaper than the average kilowatt now coming from the grid. Just a fraction of the wind energy off our coast would help the state meet 20% of its electricity needs and could generate up to 20,000 manufacturing jobs.

Combined heat and power (CHP), also known as cogeneration, is a well-developed and economic way to capture and use large amounts of energy that are otherwise simply emitted as waste heat from industrial, commercial and institutional facilities. On average, CHP electricity is less expensive than current grid power. This is a tremendous untapped resource that could allow thousands of facilities such as manufacturing plants, schools, hospitals and hotels to decrease their annual energy bills by 30% or more. North Carolina's technical CHP capacity is the equivalent of around ten nuclear power plants — or more than 40% of all electricity requirements.

Each of those four technologies, individually, could replace the need for at least several large power plants. Together, they would lead to a decentralized electricity grid less controlled by the Duke-Progress monopoly and less subject to outages.

Energy storage is another grossly underutilized resource. Duke Energy owns two very large pumped-storage hydro plants in South Carolina. These plants operate as enormous batteries to capture the over-generation of nuclear power that occurs on most nights in the Duke-Progress system. They would be ideal for helping to smooth out the variability of widespread solar and wind power.

At a minimum, Duke Energy's business plan will cause rates to double from 2009 levels by 2019, with increases of another 50% in the subsequent decade. Instead of spending tens of billions of dollars for highly questionable nuclear construction projects, we propose spending a fraction of that sum on energy efficiency, solar, wind and CHP. This would be far less expensive for North Carolina ratepayers, would create thousands of jobs and could fuel a rapid transition to a climate-protecting energy mix.

The Responsible Energy Future would result in 2032 CO₂ emissions 86% lower than the energy mix proposed by Duke Energy's IRP and 2027 emissions 83% lower than the mix proposed by Progress.

We as a state should no longer have to bear the economic, environmental and health costs of generating fossil fuel-based electricity, and we certainly do not need the crippling expense and near-permanent hazards of new nuclear plants.

We can no longer allow the electric utilities and overly cooperative regulators to control our energy and economic future.

In order for North Carolina to do its part to prevent climate change from reaching global tipping points, we must be engaged and insistent that the time has come to aggressively replace hazardous electricity generation with proven — and economically superior — clean-energy technologies.