NC WARN

Building people power for climate & energy justice

A Responsible Energy Future for North Carolina

Updated March 2015

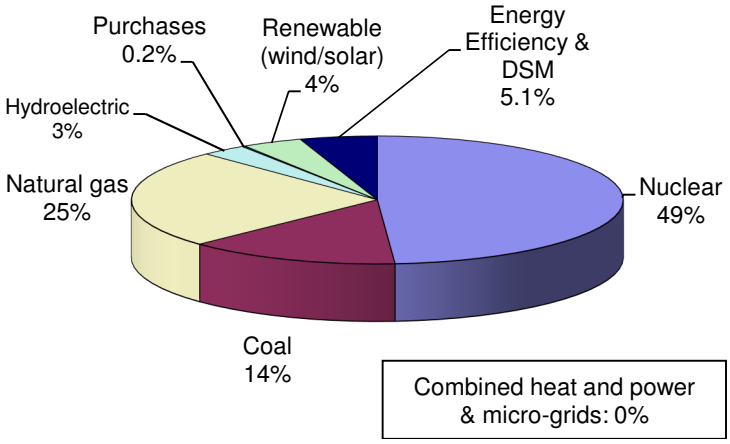
Each year Duke Energy must file a 15-year plan for meeting electricity demand in North Carolina – where it has monopoly control. In reviewing these integrated resource plans or IRPs, the NC Utilities Commission is required to ensure the "least cost mix" of generation and energy saving measures that is achievable – and the NC Supreme Court has specified that the IRPs are intended to prevent the costly overbuilding of new power plants.

Duke Energy's business model in its monopoly states is to prevent competition, build new power plants that are not needed, and force customers to pay for them through increased rates. In its latest IRP, Duke Energy continues to ignore rapid and profound changes in the electricity marketplace, and excludes the external costs of its economic choices, such as carbon emissions, health and crop damage, depletion of groundwater, and coal ash in our rivers.

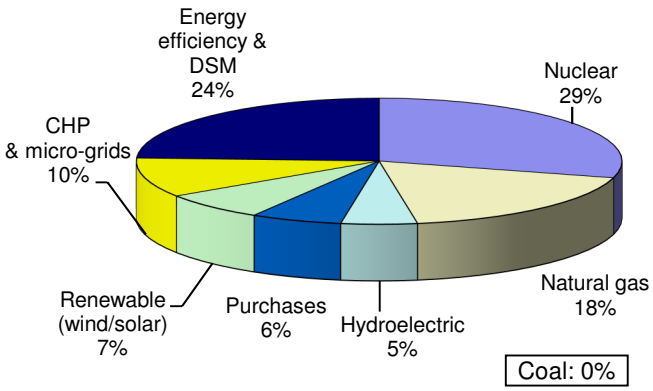
If the Commission approves Duke's latest 15-year plan, filed last October, it approves a status quo threatening to bankrupt North Carolina's economy and continue polluting our air and water.

NC WARN proposes an alternative, responsible energy plan that would phase out all existing coal-burning power plants and eliminate the need for new power plants, replacing them with energy efficiency, solar energy, combined heat and power (CHP), and other forms of distributed generation, along with strategic purchases from other utilities in the Southeast. This summary covers Duke Energy's service area in North and South Carolina and is based on our most recent filing with the Commission in the IRP docket.*

Duke Energy 2029 Plan



Responsible Energy Future



EXAGGERATED GROWTH OF ELECTRICITY SALES

In the Carolinas, Duke's two utilities base their 15-year plans on the projection that electricity usage will increase 1.4% each year. Thus Duke Energy Carolinas and Duke Energy Progress plan 6,673 megawatts of new power generation capacity – the equivalent of eight large power plants.

NC WARN's Responsible Energy Future forecasts zero growth in usage, an assumption supported by data from the US Energy Information Administration and the American Council for an Energy Efficient Economy (ACEEE), among others – and by actual growth for the past decade.

The difference between Duke's aggressive growth forecast and a zero growth scenario is over $25 billion in costs to North and South Carolina customers over the 15-year planning period.

A GLUT OF CAPACITY IN THE SOUTHEAST

Despite huge amounts of excess power generation capacity (dozens of large plants sit idle most of the year), Duke and other southeastern utilities keep building more plants instead of buying power from each other as federal regulators have urged. In December 2014 NC WARN filed a complaint with those regulators, arguing that electricity customers are being gouged by billions in unwarranted rate increases because Duke Energy and others are protected monopolies that thwart competition and wield undue influence over state regulators.

There are no justifiable reasons why Duke Energy and the others should continue building power plants while choosing not to share power between them.

DUKE ENERGY'S PLAN IS TOO EXPENSIVE

Duke Energy continues planning to build two proposed units at the Lee Nuclear Station in South Carolina, even though they are by far the most expensive option, with estimates exceeding $24 billion. Similar projects underway in Georgia and SC suffer huge delays and cost overruns. These extremely risky plants are being pursued only because the utilities in those two states are allowed to automatically pass on construction costs to customers in advance.

Much of Duke's plan relies on increasing use of large natural gas-burning plants. These plants are also costly. The 750-megawatt combined cycle natural gas plant under construction near Anderson, South Carolina will cost in excess of $1 billion that will be charged to customers in both Carolinas. Additional disadvantages are the pollutants – particularly methane, a greenhouse gas 20 times more potent than carbon dioxide – and other externalized costs of the fracking, refining, transport, and combustion of natural gas.

Although Duke Energy boasts – deceptively – about closing some small, little-used coal-fired plants, coal is still a major component of Duke's long-range plans. The company sends more than $1.7 billion dollars out of the state each year to purchase coal for power generation in the Carolinas.

A BETTER PATH FORWARD: MORE ENERGY EFFICIENCY AND DISTRIBUTED GENERATION

Unlike Duke Energy's "build plants, raise rates" business model, the Responsible Energy Future NC WARN proposes is competition driven; the primary goal is to maximize efficiencies and thus minimize costs to ratepayers and curb carbon and other pollution. The most significant differences are outlined below:

- Increase energy efficiency and demand-side management programs (DSM) from 5.1% in the 15-year Duke Energy plan to 24% in NC WARN's Responsible Energy Future (REF) plan.
- CHP and microgrids are able to replace 10% of energy demand in the REF plan, while neither is included in Duke Energy's forecasts.
- Renewable wind and solar is increased to 7% of energy in the REF plan, far greater than the 4% of energy in the Duke Energy plan.
- Wholesale purchases in the REF plan make up 6% of energy sales compared to a negligible 0.2% in the Duke Energy plan.

The Responsible Energy Future allows for closure of all coal-fired power plants, eliminates the need for new centralized generating plants and, as a result, decreases rates and pollution. A recently released report by ACEEE shows that utility energy efficiency programs remain the best value for North Carolina's energy dollar.

Distributed renewable energy

A significant component of the Responsible Energy Future plan is for renewable energy to account for 24% of total electricity sales in North Carolina by 2029. In October Deutschebank reported that solar is now cost-competitive with traditional power plants in ten states, and will reach such "grid parity" in 36 states by 2016. Further development of storage technology is poised to bolster the rapid growth of distributed renewable energy such as wind and solar.

Combined heat and power & on-site generation

Up to 10 conventional power plants could be replaced by the development of CHP systems for commercial, industrial, and institutional customers, as well as publicly-owned facilities that use both heat and electricity.

In the US, CHP represents nearly 10% of total generating capacity and the Oak Ridge National Lab made the case for scaling up the use of CHP to 20% of US generating capacity by 2030. The limited amount of CHP capacity in the Carolinas is a result of private industry investments – not receiving any support from Duke. This represents a virtually untapped resource for North Carolina.

Gradually, the US market is moving toward on-site power generation by large customers – and soon, it appears, smaller customers – using "microgrid technologies" that put power generation where it is needed, using a combination of power sources and on-site storage.

WHAT DOES THIS MEAN FOR NORTH CAROLINA?

At a minimum, Duke Energy's business model will cause rates to double from 2009 to 2029. As rates increase under the Duke Energy plan, residential, small business, local government and other customers will face increasing financial burdens. For many low-income families, this may mean choosing between electricity and food or medicine. NC WARN's approach can save North and South Carolina electricity customers an estimated annual savings of more than $1.6 billion.

In addition to keeping rates lower, another advantage of the Responsible Energy Future plan is its positive economic benefit for North Carolina. A 2013 study by the NC Sustainable Energy Association showed that there are now 18,404 workers in clean energy in North Carolina, bringing in $3.6 billion in revenue.

North Carolina has the workforce, business infrastructure and public support in position to ramp up the use of renewable energy, energy efficiency and CHP, and move this state forward in the clean energy revolution. The Responsible Energy Future is a plan that promotes job creation, economic fairness, and a healthier place to live, all while helping to slow climate change.

*The IRP reviewed by the NC Utilities Commission is the 15-year plan for the combined Carolinas service area. About 70% of Duke Energy's service area is in North Carolina, while the remaining approximately 30% is in South Carolina. More information can be found on http://www.ncuc.commerce.state.nc.us/ by searching for docket number E100 Sub 141.

NC WARN is a member-based nonprofit tackling the accelerating crisis posed by climate change – along with the various risks of nuclear power – by watch-dogging Duke Energy practices and working for a swift North Carolina transition to energy efficiency and clean power generation. In partnership with other citizen groups, NC WARN uses sound scientific research to inform and involve the public in key decisions regarding climate and energy justice.