



achieving an economical clean energy future

Local Solar & Batteries can Rapidly Replace Fossil Fuel Electricity, Save \$10s of Billions, Create 1000s of Jobs Across North Carolina



A 2017 NC WARN report shows that recent leaps in battery technology, combined with falling solar power prices, mean North Carolina can replace all fossil fuels used for electricity by 2030, and half by 2025. The **NORTH CAROLINA CLEAN PATH 2025** approach is far cleaner, more reliable and far less costly than Duke Energy's plans to greatly expand the use of climate-wrecking fracked natural gas.

The author of the report, energy engineer Bill Powers, shows that all utility customers can benefit – and avoid having tens of billions of their dollars spent to build unneeded power plants, power lines and a fracked gas pipeline for the Carolinas.

NC WARN is matching the report with an Action Plan so local governments can work with residents to make real their pledges to help slow the climate crisis – by ramping up solar panels at homes, buildings, parking areas and on vacant urban land, combined with battery storage.

The foundation of NC CLEAN PATH 2025 is generating and storing electricity where it is used while saving energy with proven programs. This report envisions rapid expansion of local solar photovoltaic power and onsite storage to assure reliability and to benefit all North Carolina customers.

This is an opportunity to provide leadership in the urgent challenge to slow climate change. With global temperatures rising and weather extremes accelerating, NC WARN calls on all civic-minded North Carolinians across the political spectrum to help implement NC CLEAN PATH 2025.

There are no economic or technical barriers to implementing these measures. The only barrier is Duke Energy's longstanding control over state government and public debate, and its work with the Koch brothers to stifle the growth of renewables.

Read the report and learn more at NCWARN.ORG/CP25



Home battery storage, like the Tesla Powerwall, is now available from area solar installers.



NC CLEAN PATH 2025 will use available technology and proven programs to:

- Reduce coal- and gas-fired power 57% by 2025. By 2030, gas-fired plants will be used only for backup.
- Have 25% of homes and other buildings meet 100% of their electricity needs with solar and batteries by 2025 – rising to 50% by 2030.
- Boost energy-saving programs to reduce grid power demand 20% by 2025.

UNTAPPED POTENTIAL: North Carolina’s solar potential at homes, other buildings, parking areas and vacant urban land is nearly twice the amount needed to replace all coal- and gas-fired power generation.

ONSITE SOLAR: Solar panels can be mounted on rooftops and vacant lots, over parking areas or on the ground next to homes and buildings.

A CHEAPER PATH: Local solar generation is now less costly than the retail price of utility electricity. For commercial customers, solar – plus battery storage for daily use – is now far below the price of grid power.

STORING POWER: Local solar systems will be equipped with compact battery systems that store power for use when the sun isn’t shining and during grid outages. When excess power is generated by “net metered” solar customers, it flows to neighbors, who pay the utility for the kilowatts.

BATTERIES vs HIGH-COST PLANTS: When combined, thousands of customer-owned batteries can be tapped by the utility as a substitute for gas-fired power plants that are currently used to handle periods of high demand system-wide. This practice is already proving successful in other parts of the United States.

COST-EFFECTIVE BATTERIES: Onsite storage is even more cost-effective if customers are fairly compensated for making stored power available to utilities during periods of high customer usage – just as “peaking” gas-fired power plants are now paid to be available.

TAKE ACTION!

Call on Duke Energy CEO Lynn Good (ceo@duke-energy.com), other utilities and elected officials to join the effort.

JOB CREATION: In towns and cities across North Carolina, local solar, efficiency and manufacturing will rapidly create 50% more jobs than the Duke Energy plan to build power plants and transmission lines.

ALL CUSTOMERS SAVE FROM DAY ONE: On-bill financing programs allow customers to add solar, batteries and energy-saving tools at no upfront cost and with a net reduction in monthly bills. Customers unable to use solar at home can participate in community-based solar programs.

THE GRID IS READY: Existing power lines in North Carolina neighborhoods can transport the solar power targets in this report with only limited upgrades that cost about the same amount Duke Energy spends annually on grid maintenance.

ENERGY SAVING: Major reductions in peak power usage will be achieved through proven programs that use financial incentives for energy efficiency and demand response (reducing or shifting usage from high- to low-usage periods). Heating and cooling systems are particularly ripe for large reductions.

FAR CHEAPER: Duke Energy, which generates 90% of North Carolina’s electricity, plans to raise rates multiple times to cover at least \$18 billion in new gas-fired power plants and more transmission lines in the Carolinas. None of that is necessary under NC CLEAN PATH 2025.

MORE RELIABLE: Security for customers is enhanced by having an onsite power source and battery storage.

UTILITY COOPERATION: A number of public and corporate utilities have already begun relying on large amounts of local solar power with battery storage.

We’re reaching out to scientists, civic leaders, news media and the public to insist on an open discussion about moving quickly into the 21st century on energy and climate.



*Building People Power for
Climate & Energy Justice*

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