A CLEANER, MORE EFFICIENT POWER SECTOR IN NORTH CAROLINA

We have a moral obligation to leave our children a planet that's not polluted or damaged. By taking action now to combat climate change, including developing homegrown clean energy and cutting energy waste, we can help protect our kids' health, cut carbon pollution, and begin to slow the effects of climate change so we leave a cleaner, safer environment for future generations.

We are already feeling the dangerous and costly effects of a changing climate across the nation. In the past three decades, the percentage of Americans with asthma has more than doubled, and climate change is putting those Americans at greater risk of landing in the hospital. And extreme weather events – from more severe droughts and wildfires in the west to more powerful hurricanes and record heat waves – are affecting communities across the country. Now is the time to act. We have already made progress by moving to cleaner sources of energy and improving the energy efficiency of our cars, trucks, and buildings. The Clean Power Plan, a key part of the President's Climate Action Plan, cuts harmful carbon pollution from the power sector that's fueling climate change, while protecting public health and welfare.

The Clean Power Plan, a key part of the President's Climate Action Plan, cuts harmful carbon pollution from the power sector that's fueling climate change. By setting the first-ever national standards to limit carbon pollution from power plants, the largest single source of U.S. carbon pollution, it will improve the health of Americans across the country, create clean energy jobs, and help households and businesses save on their energy bills. The final plan takes into account the more than 4 million comments received from states and stakeholders across the country, creating strong but achievable standards for power plants that provide flexibility and choices for states and utilities on how to achieve their clean energy future.

The Clean Power Plan Will Improve the Health of North Carolina Residents

We know climate change will put vulnerable populations at greater risk – including the elderly, our kids, and people already suffering from burdensome allergies, asthma, and other illnesses. According to the Centers for Disease Control and Prevention, 8.4 percent of North Carolina's adult population suffers from asthma. The sooner we act, by taking responsible steps to cut carbon pollution from existing power plants, the more we can do to prevent impacts that affect all Americans – especially the most vulnerable.

In 2013, 57 million metric tons of carbon pollution were emitted from power plants in North Carolina — equal to the yearly pollution from almost 12 million cars. In addition to reducing a portion of this carbon pollution, EPA's guidelines will also cut other forms of air pollution like soot and smog. Overall, these reductions will provide significant health benefits.

Since the Clean Air Act was implemented more than 40 years ago, the EPA has continued to protect the health of communities, in particular those vulnerable to the impacts of harmful pollution, while growing the economy. In fact, since 1970, air pollution has decreased by nearly 70 percent while the economy has tripled in size. The Clean Power Plan builds on this progress, while providing states the flexibility to have clean, reliable, and affordable electricity.

Reducing Carbon Pollution Lowers Risks and Costs for North Carolina

North Carolina is part of the U.S. National Climate Assessment's Southeast Region. The findings in the National Climate Assessment underscore the need for urgent action to combat the threats from climate change, protect American citizens and communities today, and build a sustainable future for our kids and

grandkids. According to the third U.S. National Climate Assessment Highlights report, regional and state-specific impacts include:

- *Sea Level Rise:* Large numbers of cities, roads, railways, ports, airports, oil and gas facilities, and water supplies are at low elevations and potentially vulnerable to the impacts of sea level rise. The cumulative costs to the national economy of responding to sea level rise and flooding events alone could be as high as $325 billion by 2100 for 4 feet of sea level rise, with $88 billion in the North Atlantic region. The projected costs associated with one foot of sea level rise by 2100 nationally are roughly $200 billion. Flooding and sea water intrusion from sea level rise and increasing storm surge threaten eastern coastal cities, including Wilmington and many other coastal cities.

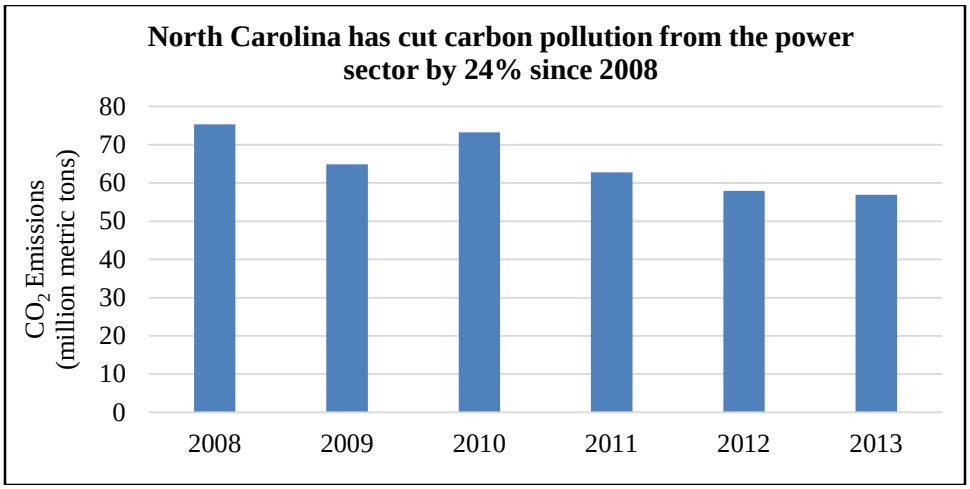
- *Extreme Heat:* Temperatures across the region are expected to increase in the future. Major consequences include significant increases in the number of hot days (95°F or above) and decreases in freezing events. Higher temperatures contribute to the formation of harmful air pollutants and allergens. Climate change is expected to increase harmful blooms of algae and several disease-causing agents in inland and coastal waters. The number of Category 4 and 5 hurricanes in the North Atlantic and the amount of rain falling in very heavy precipitation events have increased over recent decades, and further increases are projected.

- *Agriculture*: Summer heat stress is projected to reduce crop productivity, especially when coupled with increased drought. A 2.2ºF increase in temperature would likely reduce overall productivity for corn, soybeans, rice, cotton, and peanuts across the South. Heat stress adversely affects dairy and livestock production. Optimal temperatures for milk production are between 40 degrees F and 75 degrees F, and additional heat stress could shift dairy production northward. A 10 percent decline in livestock yield is projected across the Southeast with a 9oF increase in temperatures (applied as an incremental uniform increase in temperature between 1990 and 2060), related mainly to warmer summers.

- *Forestry*: Forest disturbances caused by insects and pathogens are altered by climate changes due to factors such as increased tree stress, shifting phenology, and altered insect and pathogen lifecycles. The overall extent and virulence of some insects and pathogens have been on the rise (for example, Hemlock Woolly Adelgid in the Southern Appalachians). Due to southern forests' vast size and the high cost of management options, adaptation strategies are limited, except through post-epidemic management responses

North Carolina is Already Reducing Carbon Pollution and has Many Tools to Meet its Clean Power Plan Goals

North Carolina has already reduced its power sector carbon pollution by 24 percent since 2008. Mayors in 43 cities in North Carolina have joined the Mayors Climate Protection Agreement, committing to take action in their communities to reduce greenhouse gas emissions. In 2014, there were approximately 6, 600 people employed in the wind and solar industries in North Carolina.

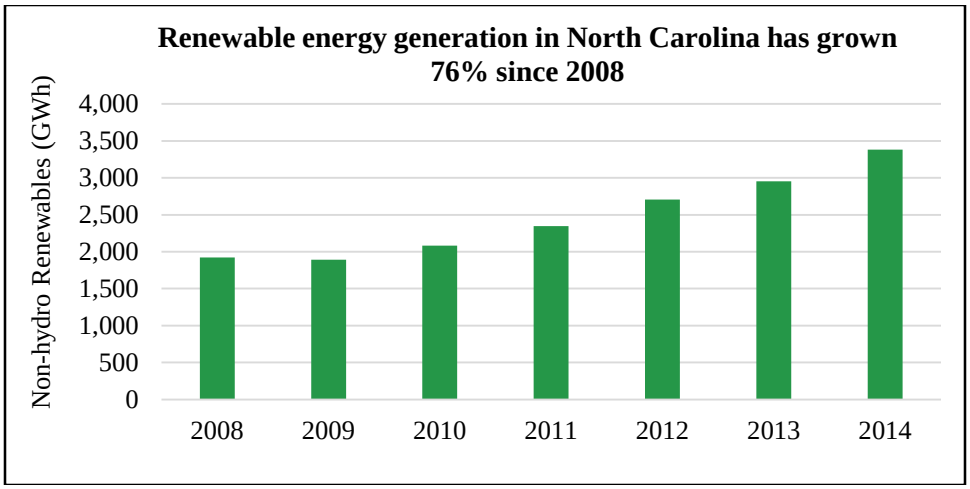


North Carolina, like all states, will have flexibility to meet EPA's goal by using the energy sources that work best for it and by cutting energy waste. To date, all 50 states have demand-side energy efficiency programs, 37 have implemented renewable portfolio standards or goals, and 10 have adopted market-based greenhouse gas emissions programs. North Carolina is no exception. The state has a goal to generate 12.5% of its electricity from renewable energy resources by 2021. EPA's rule builds on progress already underway in each state and provides guidelines for states to develop plans to meet their carbon pollution reduction goals. It lets states work alone to develop plans or work together with neighboring states to develop multi-state plans, creating thousands of good jobs for Americans who are making our electricity system cleaner and our homes and businesses more energy efficient.

Cutting Carbon Pollution and Saving on Energy Bills in North Carolina

Through the President's leadership, and the initiative of the state of North Carolina, local communities, and the private sector, a number of common sense measures to combat carbon pollution in North Carolina are already in place. EPA's flexible guidelines for power plants will continue driving cost-effective measures to reduce carbon pollution in North Carolina, building off of recent progress:

- ***Increasing the Deployment of Clean Energy***: Since President Obama took office, the United States has more than doubled its use of renewable energy from wind, solar, and geothermal sources, including tripling wind energy generation and increasing solar generation by more than twenty times. In North Carolina, renewable energy generation from these sources increased by 76 percent since 2008. The Administration has supported tens of thousands of renewable energy projects throughout the country, including 313 in North Carolina, generating enough energy to power nearly 80,000 homes. Furthermore, the U.S. produces more natural gas than ever before – and nearly everyone's energy bill is lower because of it.



- ***Improving Energy Efficiency****:* Using less energy to power our homes and businesses is critical to building a clean and secure energy future. President Obama has made essential investments in research and development to advance energy efficiency, and set new standards to make the things we use every day more efficient. Since October 2009, the Department of Energy and the Department of Housing and Urban Development have jointly completed energy upgrades for more than 1.5 million homes across the country, saving many families more than $400 on their heating and cooling bills in the first year alone. Already, local communities are taking initiative. Through the President's Better Buildings Challenge, the state of North Carolina has committed to reducing energy intensity 20 percent by 2020 in 130 million square feet of state-owned buildings.