On June 2, 2014, as part of the President’s Climate Action Plan, the U.S. Environmental Protection Agency (EPA) proposed new carbon pollution standards for power plants. The standards create a strong framework that will enable states to move towards clean energy, and puts states in the driver’s seat to create a plan to limit carbon pollution. The carbon pollution standards present a huge opportunity to improve our environment, public health and the economy. The EPA estimates that, for every dollar of investment spurred by this proposal, there will be around seven dollars’ worth of health benefits in return.

Nationally, the Sierra Club will be working to strengthen the standard to more accurately reflect retirements of dirty power plants and the potential for even larger growth in the renewable energy and energy efficiency sectors. The Sierra Club will also be working to ensure that the most vulnerable communities are protected by the standards and consulted throughout the standard-setting and state plan development process, and that public resources are made available to help workers and affected communities make the transition to the clean-energy economy. Georgia is well on its way to meeting and exceeding the EPA proposed goal and the state can be a leader in making the transition to a clean, equitable energy future.

THE EPA’S PROPOSED GOAL FOR GEORGIA

To set state-specific goals, the EPA analyzed the strategies that states and utilities are already using to lower carbon pollution from the power sector. These include improving power plants’ operational efficiency through heat rate improvements, substituting generation from coal power plants with generation from natural gas power plants, expanding low-carbon and zero-emitting electricity generation and reducing emissions from power plants through demand-side energy efficiency. Together, these “building blocks” make up what the EPA has defined as the best system for reducing emissions from existing power plants. The EPA analyzed each of these strategies consistently across the country, but each state’s energy mix in 2012 ultimately leads to a different goal for 2030.

In 2012, Georgia power plants covered by the EPA’s proposal produced approximately 57 million metric tons of carbon dioxide. The amount of energy produced by coal, oil and gas-fired plants, and certain low or non-emitting plants was approximately 84 terawatt hours (TWh).* Thus, Georgia’s 2012 emission rate was 1,500 pounds/megawatt hours (lb/MWh).

*Includes existing non-hydro renewable energy generation and approximately 6% of nuclear generation. The 2012 emission rate shown here has not been adjusted for any incremental end-use energy efficiency improvements that states may make as part of their plans to reach these state goals.
Based on Georgia’s energy mix, the EPA is proposing that the state develop a plan to lower its carbon pollution to meet a proposed emission rate goal of 834 lb/MWh in 2030—a 44.4 percent reduction in emissions rate from 2012 levels. The EPA has assumed that possible strategies for Georgia to meet its goal could include a shift from coal to gas generation by ramping-up its under-utilized natural gas capacity. The EPA has also assumed that the new nuclear units at Plant Vogtle (units 3 and 4) will be constructed, incorporating the associated emissions reductions to the baseline to calculate the proposed goal. While these are possible pathways to meet the EPA goal, this standard does not in any way require Georgia to choose these reduction strategies.

**GEORGIA DECIDES HOW IT WILL MEET THE EPA GOAL**

Georgia will choose how to meet its goal through whatever combination of measures reflects its particular circumstances and policy objectives. The state goals are not requirements on individual electric generating units, and the EPA is not asking states to use the same combination of strategies the agency used to compute the proposed goals to comply with the standard.

For example, Georgia could choose to meet 100 percent of its goal through the expansion of renewable energy, energy efficiency and coal plant retirements. Because renewables and efficiency do not produce carbon pollution, these strategies can result in greater emission rate reductions than other options. Georgia may also choose to work alone or in cooperation with other states to comply with the proposed rule on a regional basis. The EPA estimates that states could achieve their goals more cost-effectively if they work with other states in the region.

**PROPOSED STATE IMPLEMENTATION PLAN DEADLINES**

- **June 30, 2016** – State Implementation Plan due, Draft Plan due for States with extension
- **June 30, 2017** – Final State Implementation Plan due for states with extension, Draft Multi-State Plan due
- **June 30, 2018** – Final Multi-State Plan due

**GA’S CLEAN ENERGY POTENTIAL IS FAR GREATER THAN THE EPA GOAL**

Georgia is off to a solid start, with our largest utility adding increasing amounts of wind and solar generation to its portfolio in recent years. By 2017, Georgia will already be producing approximately 900 megawatts of solar power and importing 250 megawatts of wind generation—enough to power around 173,000 homes annually, according to conservative estimates. While this is a great starting point, Georgia has significant potential to incorporate additional wind and solar resources into the energy mix for our state in amounts above and beyond what the EPA has proposed for the state.

According to the National Renewable Energy Laboratory, Georgia has the potential to generate 13,079,729 megawatt hours (enough to power nearly one million homes annually) from renewable energy resources by 2030, under conservative estimates. That doesn’t count out-of-state renewable energy resources like Midwestern wind, or wind resources off the coast of Georgia.

In addition, Georgia has great untapped potential to save energy, lowering costs for consumers and avoiding or deferring the need for expensive new power plants. In
2013, Georgia Power saved around 0.38 percent (or 320 MWH) of annual energy sales through efficiency, while Georgia Power’s sister subsidiary in Florida, Gulf Power, helped customers save more than twice as much. There is no reason why Georgia cannot save as much and more rapidly and profitably. In fact, if Georgia is smart about using energy efficiency to comply with the Clean Power Plan, Georgians’ electric bills will decrease. EPA estimates that average electricity bills will decline by approximately 9 percent nationally by 2030.²

Shifting our energy mix to increased renewable generation and energy efficiency will also have a positive impact on Georgia’s economy. For example, our state already supports more than 10,000 jobs related to solar generation, wind generation and energy efficiency. This is in contrast to the approximately 3,000 jobs that the coal industry supported in Georgia when coal was more widely used to generate electricity than it is today; fewer Georgians work in the coal industry in 2014. If our state aggressively pursues renewable generation and energy efficiency, the number of clean energy jobs could increase dramatically, providing new employment opportunities statewide.

For all these reasons, it’s clear that the best option for Georgia to meet its carbon reduction goal is to incorporate more renewable and efficiency resources and further reduce reliance on energy sources that harm our people and environment.

WHAT IS THE ROLE OF RETIREMENTS?

Georgia can best achieve progress toward its goals by retiring coal plants and replacing that power with clean energy and energy efficiency.

There are a number of coal plants in Georgia that are rarely utilized. In 2013, many of Georgia Power’s coal plants ran at less than half of their potential, and at least two ran at less than 15 percent of their operational capacity: Plant McIntosh and Plant Hammond. Not only are these plants producing pollution impacting public health and the environment, but Georgia Power’s customers are paying high costs for very little operation. To meet its goals in a cost-effective manner, Georgia Power should phase out these plants.
Replacing retiring plants with wind and solar will create the most cost-effective reductions in carbon pollution. In fact, as shown in the graph, Georgia can achieve double its carbon dioxide reductions if it replaces coal with renewables rather than natural gas, and achieve significant air quality benefits above and beyond carbon pollution reductions. Given that Georgia’s state regulators have already stated that solar-powered generation does not increase rates and wind-powered generation puts downward pressure rates, it is clear that Georgia should move to quickly start replacing coal generation with clean energy.

**GEORGIA IS TAKING CLIMATE ACTION**

Georgia already has programs in place that could be part of its individual or regional plan to reduce carbon pollution, including:

- Demand-side energy efficiency programs (i.e., energy savings programs) certified by the Georgia Public Service Commission.
  - This includes five residential and two commercial programs that saved approximately 320 GWH in 2013 and are projected to save 2,822 GWH by 2020.
- Renewable energy programs (as discussed above):
  - Existing solar programs totaling approximately 900 MW;
  - Existing wind power purchase agreements totaling 250 MW.

**ADVOCATING FOR A STRONG AND JUST CLEAN POWER PLAN**

To rise to the challenge of climate disruption, and to ensure that the standard protects all communities, including low-income communities and communities of color, the Sierra Club is advocating for a strong and just clean power plan.

Sierra Club hopes to strengthen the EPA’s carbon standards for existing power plants to:

- Reduce power plant emissions by 35-40 percent from 2005 levels by 2020. This is necessary to meet the president’s goal of a 17 percent reduction in U.S. carbon emissions from 2005 levels by 2020.
- Ensure that pollution does not disproportionately affect the most vulnerable communities and that these communities are given the opportunity to speak for themselves.
- Invest public resources to ensure that workers and regions traditionally tied to the coal sector are able to make the transition to be part of the twenty-first century clean-energy economy with family-sustaining jobs.
- Promote energy efficiency and renewable energy and avoid incentivizing natural gas and other climate-disrupting energy sources.
- Ensure that EPA reviews the standard at least every eight years to achieve emissions levels demanded by climate science.

**ENDNOTES**
