**Duality: The State of Energy in North Carolina and the Fight Over the Clean Power Plan**

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## I. Introduction

The realities of global climate change demand action after years of cautious efforts by the United States and other global leaders to acknowledge and address the health of our earth. Global temperatures and sea levels continue to rise while fertile lands turn to desert and the earth's population continues climbing towards eight billion people. As nations throughout the world work to mitigate climate change's impacts, the United States has put forth its most recent effort to reduce its environmental footprint in the form of the Environmental Protection Agency's Clean Power Plan ("CPP"), which was finalized on August 3, 2015.

## II. The Clean Power Plan

The Clean Power Plan was devised as an effort to force states to curb power plant emissions and increase the use of sustainable energy sources. Announced on June 2, 2014 and published in the Federal Register on June 18, 2014, the CPP then entered a 165-day comment period, which closed on December 1, 2014.[1] During those 165 days, EPA received an estimated 4.3 million comments regarding the proposed plan.[2] Nine months later on August 3, 2015, EPA announced its final plan.

Through the Clean Power Plan, EPA intends to curb greenhouse gas emissions and significantly reduce atmospheric levels of greenhouse gases far below 2005 measurements. By 2030, EPA hopes to reduce carbon pollution generated by the power sector to 32% below 2005 levels, sulfur dioxide from power plants to 90% below 2005 levels, and nitrogen oxide levels

[1] *Fact Sheet: Overview of the Clean Power Plan*, U.S. ENVTL. PROT. AGENCY, http://www2.epa.gov/cleanpowerplan/fact-sheet-overview-clean-power-plan (last updated Aug. 6, 2015).
[2] *Id.*

72% below 2005 levels.[3] These levels are to be met by creating carbon dioxide ("$CO_2$") emission rate goals for power plants that will be measured on both an interim basis from 2022 through 2029 along with a final rate measurement in 2030.[4] The goals were created in accordance with Section 111(d) of the Clean Air Act, which considers technologies and measures that are already used to help establish the "best system of emissions reduction" ("BSER") for a pollutant and its sources.[5] For the Clean Power Plan, EPA seeks to reduce carbon emissions by using three building blocks to equal BSER: (1) enhance the efficiency of existing coal-fired power plants, (2) shift from coal-fired power plants to natural gas-fired power plants, and (3) increase electricity generation from renewable sources.[6] By comparing these building blocks to the current state of energy production in each state, EPA was able to create attainable goals for states to reach in reducing their $CO_2$ emissions.

By measuring power plants' $CO_2$ emissions incrementally, the CPP will allow EPA to monitor a state's compliance and allow states to create their own plans for meeting the CPP's goals. In order to foster this flexibility, states may meet their goals through three different ways of measuring: (1) a measurement in pounds (of $CO_2$) per megawatt hour, (2) a measurement in total short tons of $CO_2$, and/or (3) a goal with a new source complement measured in short tons of $CO_2$.[7] By crafting and implementing their own plans, states can more effectively ensure that their power plants are meeting the required incremental and final emissions goals.[8]

EPA's Clean Power Plan will help states and their power plants decrease their greenhouse gas emissions and foster an era of environmental stewardship that will not only

[3] *Id.*
[4] *Id.*
[5] *Id.*
[6] *Id.*
[7] *Id.*
[8] *Id.*

improve the health of our environment but be economically prudent as well. According to one estimate, the Clean Power Plan is expected to generate anywhere from $55 billion to $93 billion in climate and health benefits by 2030.[9] With a still relatively stagnant national economy, the Clean Power Plan can help cut costs and generate revenue for states and business that adopt innovative techniques and technologies to comply with the Plan's goals. With the contribution of all states, the United States can become a world leader in combating the disastrous effects of global climate change.

However, the CPP does face some obstacles. Although the Plan's approach to reducing greenhouse gas emissions from fossil fuel-fired power plants has been hailed as a flexible plan by some,[10] it is experiencing opposition from the energy sector as well as a number of state governments—including North Carolina's.

## III. North Carolina and the Clean Power Plan

For the 2030 goal, the Clean Power Plan requires that North Carolina reduce its $CO_2$ emissions rate by 32% from 2012 levels.[11] While 32% seems to be a substantially large number, EPA notes that North Carolina's rate is more moderate compared to many states.[12] At first glance, North Carolina appears to be in a good position to reduce its $CO_2$ emissions from power plants and increase its energy production via more sustainable and even renewable energy sources. Roughly 54% of North Carolina's energy production in 2013 came from a combination of natural gas and nuclear power generation.[13] Another 2.4% came from renewable sources

[9] *North Carolina's Clean Energy Future*, NATURAL RESOURCES DEFENSE COUNCIL, (Mar. 2015), http://www.nrdc.org/globalwarming/files/clean-power-plan-state-options-NC.pdf.
[10] Joe Romm, *George Bush's EPA Chief: Clean Power Plan is "Most Flexible Thing" the Agency has Done*, THINKPROGRESS (Oct. 16, 2015), http://thinkprogress.org/climate/2015/10/16/3695899/christine-whitman-epa-clean-power-plan/.
[11] *Clean Power Plan: State at a Glance*, U.S. ENVTL. PROT. AGENCY, http://www.epa.gov/cleanpowerplan (last updated Aug. 3, 2015).
[12] *Id*.
[13] *North Carolina's Clean Energy Future*, *supra* note 9.

(other than hydro-electricity) and 38% from coal.[14] While 2.4% coming from renewable sources seems low, it is worth noting that North Carolina is a national leader in solar energy production and ranks fourth nationally in cumulative solar capacity.[15]

North Carolina had 150 utility-scale solar facilities with plans to add another 377 as of December 2014.[16] The 377 new utility-scale solar facilities would create an additional 3,034 megawatts of energy to bring North Carolina's total output to 3,607 MW.[17] For a better understanding of the amount of energy this would produce, the United States Energy Information Administration states that net summer capacity[18] in North Carolina in 2013 was 30,048 megawatts.[19]

All of these statistics paint an encouraging picture for North Carolina's energy future. North Carolina already produces a majority of its energy with nuclear and natural gas-fired power plants—both of which fit two of the three BSER building blocks.[20] Combine nuclear and natural gas production with an increase in other renewable sources such as solar energy, and North Carolina could be well on its way to reducing its reliance on coal (all of which is imported into the state[21]) and leading the nation in sustainable energy production. However, North Carolina officials and legislators are not entirely on board with EPA's plan.

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[14] *Clean Power Plan: State at a Glance*, *supra* note 11.
[15] *Solar Industry Data*, SOLAR ENERGY INDUSTRY ASS'N, http://www.seia.org/research-resources/solar-industry-data (last visited Jan. 8, 2016).
[16] *North Carolina's Clean Energy Future*, *supra* note 9.
[17] *Id.*
[18] Net Summer Capacity is "[t]he maximum output, commonly expressed in megawatts (MW), that generating equipment can supply to system load, as demonstrated by a multi-hour test, at the time of summer peak demand (period of June 1 through September 30.) This output reflects a reduction in capacity due to electricity use for station service or auxiliaries." *Glossary*, U.S. ENERGY INFORM. ADMIN., http://www.eia.gov/tools/glossary/index.cfm?id=net%20summer%20capacity (last visited Jan. 8, 2015).
[19] *North Carolina Electricity Profile 2013*, U.S. ENERGY INFORM. ADMIN. (July 8, 2015), http://www.eia.gov/tools/glossary/index.cfm?id=net%20summer%20capacity.
[20] *Fact Sheet: Overview of the Clean Power Plan*, *supra* note 1.
[21] *North Carolina's Clean Energy Future*, *supra* note 9.

## IV. North Carolina's Plan

All states are required to submit an initial plan for reducing $CO_2$ emissions to EPA by July 1, 2016[22] and either a final plan or a request for an extension by September 6, 2016.[23] As of now, North Carolina may be one of the few states that does not ask for an extension. Instead of developing a comprehensive plan to meet the Clean Power Plan's goals, Governor Patrick McCrory's administration announced it anticipates drafting a plan that focuses strictly on reducing $CO_2$ emissions from coal-fired power plants—largely ignoring the other two building blocks.[24] The governor's office's stance begs the question: why? Why does North Carolina's leadership want to take the stricter path towards compliance when the state is already poised to take advantage of alternate energy production methods that can help catapult the state towards meeting the Clean Power Plan's goals?

The rationale appears to lie in the anticipation of changes being made to the Clean Power Plan. In August, North Carolina Department of Energy and Natural Resources (now Department of Environmental Quality) Secretary Robert van der Vaart—at the behest of state legislators and Governor McCrory—announced plans to sue EPA over the Clean Power Plan, alleging that the flexibility offered by the plan is in violation of Section 111(d) of the Clean Air Act.[25] In fact, in October, North Carolina joined twenty-three other states in a lawsuit against EPA claiming that the Clean Power Plan "is in excess of the agency's authority."[26] North Carolina officials believe

[22] Robin Smith, *North Carolina's Curious Response to EPA's Clean Power Plan*, N.C. POLICY WATCH (Aug. 5, 2015), http://www.ncpolicywatch.com/2015/08/05/north-carolinas-curious-response-to-epas-clean-power-plan/.
[23] *Fact Sheet: Overview of the Clean Power Plan*, *supra* note 1.
[24] Robin Smith, *supra* note 22.
[25] *Id.*
[26] John Downey, *North Carolina Joins Suit Against Federal Mandates to Reduce Carbon Emissions*, CHARLOTTE BUS. JOURNAL (Oct. 23, 2015), http://www.bizjournals.com/charlotte/blog/energy/2015/10/n-c-joins-suit-against-federal-mandates-to-reduce.html.

the Clean Air Act only provides states the authority to regulate carbon emissions at coal plants.[27] These 24 states plan to ask for a stay of the Clean Power Plan as well.[28] Some within North Carolina have also voiced concerns that the plan imposes too much of a burden on the state, which is already successfully following a 2003 state plan to reduce its carbon footprint.[29]

Lastly, there is concern over a hike in utility prices. Secretary Van der Vaart recently spoke at an event discussing the potential spike in energy costs that will be placed onto North Carolinians.[30] Van der Vaart explained that Duke Energy currently provides energy on a cost-based model that provides the cheapest sources of power for citizens as demand fluctuates, stating that under the Clean Power Plan the pricing will basically be based on how much $CO_2$ is emitted, which is not the same as a cost-based model.[31] Van der Vaart concluded that due to the Clean Power Plan "[energy is] going to be more expensive."[32] However, EPA estimates that the average American's power bill will be reduced by $85.[33]

Despite Secretary Van der Vaart's concerns, refusing to create a comprehensive backup plan may ultimately leave North Carolina with very little control over its power plan in the event EPA successfully thwarts legal challenges. North Carolina's limited plan, which would likely result in North Carolina not meeting the state's emissions goals, may be denied by EPA upon

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[27] John Downey, *North Carolina Takes Risky Course to Combat the Obama Administration's Clean Power Plan*, CHARLOTTE BUS. JOURNAL (Oct. 30, 2015), http://www.bizjournals.com/charlotte/blog/energy/2015/10/n-c-takes-risky-course-to-combat-the-obama.html.
[28] *Id.*
[29] *North Carolina State Energy Plan 2003*, APPALACHIAN ENERGY CTR., APPALACHIAN STATE UNIV. (Nov. 2004), http://energy.appstate.edu/sites/energy.appstate.edu/files/sep_12-04.pdf.
[30] Robert van der Vaart, *Address to the John Locke Foundation's Shaftesbury Society* (Sep. 21, 2015), http://jlf.streamhammer.com/speakers/donaldvandervaart092115.mp4.
[31] *Id.*
[32] *Id.*
[33] Allen Neuhauser, *White House Plan Calls for Even Greater Greenhouse Gas Reductions*, U.S. NEWS & WORLD REPORT (Aug. 3, 2015), http://www.usnews.com/news/articles/2015/08/03/epa-clean-power-plan-calls-for-bigger-greenhouse-gas-reductions.

submission. This would result in North Carolina having to follow a federal plan created by EPA, which has created concern for Duke Energy.[34]

## V. Duke Energy's Response

Duke Energy, North Carolina's largest utilities company, is in a state of confusion. Duke Energy wants to know more about what plan will either be created by or enforced upon North Carolina.[35] Without a clearly defined state-made plan, nor complete knowledge concerning the details of EPA's federal plan, Duke Energy is hesitant to move forward in making likely expensive changes to comply with the Clean Power Plan.[36]

Regardless, Duke Energy is still working to be competitive in the energy marketplace. In late October, Duke Energy announced a $4.9 billion plan to purchase Piedmont Natural Gas.[37] The Duke Energy and Piedmont Natural Gas transaction could provide another reason for North Carolina to embrace the Clean Power Plan's flexibility and build upon the blocks encouraging an increased reliance on natural gas and renewable energy sources.

## VI. Hope for the Future

North Carolina's stance on the Clean Power Plan certainly raises eyebrows. For a state already moving towards sustainable energy production, complying with the Clean Power Plan seems like a win-win situation for North Carolina, its citizens, its businesses, and the rest of the United States. Hopefully the situation will be settled by the summer. In the mean time, it will be interesting to see how North Carolina's plan for compliance with the Clean Power Plan develops.

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[34] Downey, *supra* note 27.
[35] *Id.*
[36] *Id.*
[37] Rebecca Smith, *Duke Energy to Buy Piedmont Natural Gas for $4.9 Billion*, THE WALL STREET JOURNAL (Oct. 26, 2015), http://www.wsj.com/articles/duke-energy-to-buy-piedmont-natural-gas-for-4-9-billion-1445858176?alg=y.