



In summary, OPC generally supports the EPA’s Proposed 111(b) Rule as a step in the right direction to reduce the greenhouse gas emissions of the electric power sector in the United States. However, OPC urges further judicious deliberation regarding whether carbon capture sequestration is the best system of emission reduction for new power plants given the anticipated cost impact on consumers.

## **II. OVERVIEW OF THE OFFICE OF THE PEOPLE’S COUNSEL FOR THE DISTRICT OF COLUMBIA**

For several decades, OPC has zealously represented the interests of D.C. utility ratepayers before the D.C. Public Service Commission, the D.C. Council, the Federal Energy Regulatory Commission, and other federal agencies. OPC’s statutory mandate is to advocate on behalf of D.C. consumers for utility rates that are just and reasonable.<sup>3</sup> The Office is further required to consider public safety, the economy of the District of Columbia, the conservation of natural resources, and the preservation of environmental quality in defining its positions regarding the operations of the utility and energy companies serving District residents.<sup>4</sup>

As D.C.’s consumer advocate for affordable, reliable, and environmentally responsible energy services, OPC established an Energy Efficiency and Sustainability Section within the Office in 2011. OPC’s Energy Efficiency & Sustainability (“EES”) Section is responsible for identifying legislative, educational, and policy strategies that support the District of Columbia’s transition to a clean and sustainable energy economy. In developing clean energy policies and strategies, the Office is firmly committed to pursuing initiatives that will provide long-term environmental and economic benefits to the residents of the District.

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<sup>3</sup> *Id.*

<sup>4</sup> D.C. Code § 34-804 (e) (2010).

### III. THE EPA'S PROPOSED CARBON EMISSIONS STANDARDS FOR NEW POWER PLANTS

#### A. Proposed 111(b) Rule

The Proposed 111(b) Rule has been drafted pursuant to section 111(b) of the Clean Air Act, which requires that the EPA establish new technology-based standards for new stationary sources to minimize emission of air pollution in the environment.<sup>5</sup> Voluminous studies generated from numerous academic and research institutions over the years have long established that greenhouse gas pollution, including carbon dioxide, poses a serious threat to public health and has been the principal contributor to global warming and climate change. The United States has already begun to suffer from the drastic and negative impacts of climate change, which include extended heat waves during the summer, flooding, drought, severe storms and hurricanes, increased fires, smog, and extreme cold weather events during winter.<sup>6</sup> In future years, the District of Columbia is projected to experience more severe winter weather, significant flooding as a result of heavier precipitation and storms, as well as urban heat island effects.<sup>7</sup> These impacts of climate change have caused significant damage to local and regional economies through destroyed properties, ravaged coastlines, power outages, and even loss of

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<sup>5</sup> 42 U.S Code § 7411.

<sup>6</sup> See generally, Government of the District of Columbia, *Climate of Opportunity: A Climate Action Plan for the District of Columbia*, September 2010, available at [http://green.dc.gov/sites/default/files/dc/sites/ddoe/publication/attachments/ClimateOfOpportunity\\_web.pdf](http://green.dc.gov/sites/default/files/dc/sites/ddoe/publication/attachments/ClimateOfOpportunity_web.pdf); Metropolitan Washington Council of Governments ("MWCOC"), *Summary of Potential Climate Change Impacts, Vulnerabilities and Adaptation Strategies in the Metropolitan Washington region*, June 2013, available at <http://www.mwcog.org/uploads/pub-documents/pl5cXls20130701111432.pdf>; U.S. Environmental Protection Agency ("EPA"), *Climate Change Indicators in the United States*, 2012, available at <http://www.epa.gov/climatechange/pdfs/climateindicators-full-2012.pdf>.

<sup>7</sup> MWCOC, *Summary of Potential Climate Change Impacts, Vulnerabilities and Adaptation Strategies in the Metropolitan Washington region*, at 7-12.

human life.<sup>8</sup> The United States is at a critical juncture where it must decide how it will mitigate climate change and secure a reliable, clean energy future for generations to come.

OPC believes that an important step toward mitigating climate change and protecting public health and safety is to make a candid assessment of the causes of the many environmental challenges the nation is facing. Any review of historic carbon emissions in the United States will show that the electric power sector has been the largest concentrated source of carbon dioxide emissions.<sup>9</sup> Over the last century, the U.S. has benefitted from reliable electric service widely available to most of the population but the nation's longstanding consumption of fossil fuel-based electricity has caused serious harm to the environment.<sup>10</sup> Indeed, the electric power sector is responsible for at least one-third of all domestic greenhouse gas emissions.<sup>11</sup> To date, these emissions have been completely unregulated.<sup>12</sup> There have been no limits or even general parameters to guide the carbon emission levels of electric companies.<sup>13</sup>

The EPA's Proposed 111(b) Rule seeks to address this problem and curtail future carbon emissions through establishing parameters for fossil fuel-fired powers not yet built. In furtherance of President Obama's Climate Plan, which calls for a "broad-based" approach to the

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<sup>8</sup> In fact, on March 4, 2014, President Obama forwarded a budget to the U.S. Congress for 2015 that included a \$1 billion climate change resiliency fund that would assist communities across the country with recovery from stronger storms, flooding and long-term droughts. *See* Mark Drajem, *Obama Seeks to Boost Resilience to Climate-Driven Drought, Fires*, Bloomberg News, March 5, 2014, available at <http://www.bloomberg.com/news/2014-03-05/obama-seeks-to-boost-resilience-to-climate-driven-drought-fires.html>.

<sup>9</sup> *See* EPA, Sources of Greenhouse Gas Emissions, <http://www.epa.gov/climatechange/ghgemissions/sources.html>

<sup>10</sup> *Id.*

<sup>11</sup> *Id.*

<sup>12</sup> *See generally*, David Farnsworth, Regulatory Assistance Project, *Further Preparing for EPA Regulations*, January 2014; *see also* Natural Resources Defense Council, *Closing the Power Plant Carbon Pollution Loophole: Smart Ways the Clean Air Act Can Clean Up America's Biggest Climate Polluters*, March 2013, at 7 available at <http://www.nrdc.org/air/pollution-standards/files/pollution-standards-report.pdf>.

<sup>13</sup> Farnsworth, *Further Preparing for EPA Regulations* at 30.

nation's energy future, the Proposed 111(b) Rule anticipates the continuation of coal as an energy source in this country's fuel mix.<sup>14</sup>

The Proposed 111(b) Rule consists of a two-tiered approach for reducing carbon emissions for new power plants. First, there will be two limits for fossil-fuel-fired utility boilers and Integrated Gasification Combined Cycle ("IGCC") units that allow companies a choice between two compliance periods: (1) 1100 lb. CO<sub>2</sub>/MWh gross over a 12-operating-month period; or (2) 1000-1050 lb. CO<sub>2</sub>/MWh averaged over an 84-operating month (seven year) period. Second, for natural gas combined-cycle units, the proposed limits are (1) 1000 lb. CO<sub>2</sub>/MWh gross for larger units (> 850 mmBtu/h); or (2) 1100 lb. CO<sub>2</sub>/MWh gross for smaller units (≤ 850 mmBtu/h). OPC does not take a position on the specific carbon-dioxide limits prescribed in the Proposed 111(b) Rule but believes these proposed limits represent a step in the right direction towards limiting carbon pollution by electric power companies.

#### B. The Impact of Carbon Emissions on the District of Columbia

The District of Columbia is almost wholly dependent on energy imported from neighboring states – such as Maryland, Virginia, and Pennsylvania. Following divestiture of the Potomac Electric Power Company's ("Pepco") ownership of energy generation plants, the fossil-fuel combustion power plants owned by Pepco, in the District of Columbia region, were ultimately decommissioned by 2012.<sup>15</sup> The only remaining coal and natural gas plants operating in the District are the Capitol Power Plant and the Central Heating and Refrigeration Plant,

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<sup>14</sup> President Obama's Climate Action Plan, June 2013, <http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf>.

<sup>15</sup> These plants included the Potomac Electric Power Company's Benning Road and Buzzard Point generating units. See <http://www.pepcoholdings.com/about/news/archives/2007/article.aspx?cid=788>. Also, the GenOn Potomac River Generating Station in Alexandria, Virginia was decommissioned in 2012. Patricia Sullivan, *GenOn Power Plant in Alexandria Set to Close*, Washington Post, Sept. 2012, available at [http://www.washingtonpost.com/local/genon-power-plant-in-alexandria-is-set-to-close/2012/09/29/daa355ea-08d7-11e2-858a-5311df86ab04\\_story.html](http://www.washingtonpost.com/local/genon-power-plant-in-alexandria-is-set-to-close/2012/09/29/daa355ea-08d7-11e2-858a-5311df86ab04_story.html).

which provide electricity, heating, and cooling for federal government buildings throughout the U.S. Capitol campus in downtown D.C.<sup>16</sup>

As a result, the District relies upon energy generation from external sources for most of the city's electricity needs. The District has embraced sustainable energy as a public policy objective but still heavily relies on coal-based electricity from generators in the Mid-Atlantic region to meet the city's energy demand.<sup>17</sup> While the general void of fossil-fuel power plants within the District's physical boundaries has, for the most part, eliminated D.C.'s electric-generation-based carbon emissions, the District's energy choices and consumption still have an appreciable impact on regional air quality, water quality, and human health.<sup>18</sup>

The District of Columbia is uniquely situated between Maryland, Virginia, Delaware, and Pennsylvania and therefore cannot be considered in isolation. Indeed, carbon emissions and other air-borne pollutants are not stationary substances. Greenhouse gas emissions flow in the direction of the wind and impact the air quality of communities in their path. Because of this, the District of Columbia has taken steps to reduce its dependency on fossil-fuel-based electricity.

### C. The District of Columbia's Sustainable D.C. Plan

In July 2011, the Mayor of the District of Columbia launched the Sustainable D.C. Initiative to make the District the greenest, healthiest, and most livable city in the nation.<sup>19</sup> With a vision for the next 20 years, the Sustainable D.C. Initiative was developed to make the District

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<sup>16</sup> Architect of the Capitol, Capitol Power Plant, <http://www.aoc.gov/capitol-buildings/capitol-power-plant>.

<sup>17</sup> See Pepco Fuel Mix Report for Standard Offer Service, December 2011, available at [http://dcpsc.org/pdf\\_files/customerchoice/electric/pepco.pdf](http://dcpsc.org/pdf_files/customerchoice/electric/pepco.pdf).

<sup>18</sup> See e.g., District Department of the Environment, *2011 District of Columbia Greenhouse Gas Emissions Inventory*, December 2012, available at <http://ddoe.dc.gov/sites/default/files/dc/sites/ddoe/publication/attachments/GHGinventory-1205-.pdf>.

<sup>19</sup> Sustainable D.C. Initiative, available at <http://sustainable.dc.gov/page/about-sustainable-dc>.

more environmentally responsible, socially equitable, and economically competitive.<sup>20</sup> After many months of gathering community input, the Mayor announced the publication of the Sustainable D.C. Plan in Spring 2013.<sup>21</sup>

The Sustainable D.C. Plan includes specific goals regarding climate and energy. The principal climate goal is to reduce the District’s greenhouse-gas emissions by 50% by 2032.<sup>22</sup> One of the energy goals is to increase the use of renewable energy by 50% by 2032.<sup>23</sup> These goals reflect a collective decision by District residents, industry stakeholders and government policymakers to alter the District’s energy consumption.<sup>24</sup> The District is currently exploring more opportunities for renewable energy; distributed generation; aggressive energy-efficiency programs for residential, commercial, and institutional buildings; and the purchase of clean energy from regional energy suppliers in the wholesale energy markets. OPC supports efforts on the federal level, such as the EPA’s Proposed 111(b) Rule, that will bolster the District’s efforts to reach its sustainability goals.

D. Concerns Regarding Carbon Capture Storage Technology

OPC supports carbon-emission standards that are effective, practical, and not cost prohibitive. Consequently, the Office is concerned about the Proposed 111(b) Rule’s requirement that new power plants install carbon capture and storage (“CCS”), also known as

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<sup>20</sup> *Id.*

<sup>21</sup> Sustainable D.C. Plan, available at [http://sustainable.dc.gov/sites/default/files/dc/sites/sustainable/page\\_content/attachments/DCS-008%20Report%20508.3j.pdf](http://sustainable.dc.gov/sites/default/files/dc/sites/sustainable/page_content/attachments/DCS-008%20Report%20508.3j.pdf)

<sup>22</sup> *Id.* at 38.

<sup>23</sup> *Id.* at 60.

<sup>24</sup> About Sustainable D.C., <http://sustainable.dc.gov/page/about-sustainable-dc>.

carbon capture and sequestration, technology to lower carbon-dioxide emissions. According to the EPA:

Carbon dioxide (CO<sub>2</sub>) capture and sequestration (CCS) is a set of technologies that can greatly reduce CO<sub>2</sub> emissions from new and existing coal- and gas-fired power plants and large industrial sources. CCS is a three-step process that includes:

- Capture of CO<sub>2</sub> from power plants or industrial processes
- Transport of the captured and compressed CO<sub>2</sub> (usually in pipelines).
- Underground injection and geologic sequestration (also referred to as storage) of the CO<sub>2</sub> into deep underground rock formations. These formations are often a mile or more beneath the surface and consist of porous rock that holds the CO<sub>2</sub>. Overlying these formations are impermeable, non-porous layers of rock that trap the CO<sub>2</sub> and prevent it from migrating upward.<sup>25</sup>

The technology of CCS has been available for many years. Many contend that, from a purely technical standpoint, CCS is a viable technology that should be given full consideration.<sup>26</sup>

While OPC does not take a position on the specific process of CCS, the Office notes that the commercial viability of CCS remains uncertain. There is little debate regarding the fact that CCS is currently prohibitively expensive.<sup>27</sup> CCS has yet to reach the level of commercial deployment and development to make it a viable option for utilities to implement in the short term after the Proposed 111(b) Rule is finalized. In fact, there are no CCS projects running at

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<sup>25</sup> <http://www.epa.gov/climatechange/ccs/index.html>.

<sup>26</sup> See generally, U.S. Congressional Budget Office (CBO), *Federal Efforts to Reduce the Cost of Capturing and Storing Carbon Dioxide*, June 2012, available at <http://www.cbo.gov/sites/default/files/cbofiles/attachments/43357-06-28CarbonCapture.pdf>; Carbon Capture & Storage Association, *Viability and timescale of developing CCS*, available at <http://www.ccsassociation.org/faqs/viability-and-timescale-of-developing-ccs/>; Clare Foran, *Carbon Capture: Reality or Pipe Dream*, National Journal (Nov. 14, 2013), <http://www.nationaljournal.com/energy/carbon-capture-reality-or-pipe-dream-20131114>.

<sup>27</sup> CBO, *Federal Efforts to Reduce the Cost of Capturing and Storing Carbon Dioxide* at 7-10.

any power plants anywhere in the United States today.<sup>28</sup> More importantly, any costs that utilities would incur in deploying CCS projects would be borne by consumers. The risk of unjustly burdening ratepayers with these costs warrants scrupulous deliberation regarding whether and how CCS can be incorporated in the construction of new power plants in a cost-effective manner.

In May 2014, the U.S. Global Change Research Program released its National Climate Assessment report which discussed, *inter alia*, the potential for CCS to assist in reducing the electricity sector's impact on climate change.<sup>29</sup> Indeed, while acknowledging the potential of CCS to capture 90% of carbon emissions from coal and natural gas combustion processes, the report cautioned that CCS remains a highly cost-intensive technology that has not been widely deployed.<sup>30</sup> "Although the potential opportunities are large, many uncertainties remain, including cost, demonstration at scale, environmental impacts, and what constitutes a safe, long-term geologic repository for sequestering carbon dioxide."<sup>31</sup> OPC cautions that mandating the integration of a new, cost-prohibitive technology without evidence of the technology's successful performance in the marketplace could have a deleterious impact on ratepayers.

OPC acknowledges, though, that the current exorbitant cost of CCS could decrease in coming years as more utilities install CCS at their power plants. As with any new technology, once a few energy-market participants successfully utilize CCS, such early adopters may likely incite an upward trend of mass adoption of the technology by electric generators. This

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<sup>28</sup> According to the Massachusetts Institute of Technology's Carbon Capture and Sequestration Database, there are only four CCS power plant projects that are in the planning stages and just one that is under construction in the U.S. See [http://sequestration.mit.edu/tools/projects/index\\_capture.html](http://sequestration.mit.edu/tools/projects/index_capture.html).

<sup>29</sup> U.S. Global Change Research Program, *Climate Change Impacts in the United States: U.S. National Climate Assessment*, May 2014, at 271, available at <http://nca2014.globalchange.gov/downloads>.

<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

prospective increase in demand for CCS could lead to increases in the production of the technology, which would reduce costs.

Additionally, the Proposed 111(b) Rule allows for longer compliance period options, which provide flexibility by allowing new power plants to phase in the use of CCS over time. However, the EPA must recognize that, given the currently sparse CCS market, the electric power sector would be compelled to work from ground zero to become compliant with the new power plant, site-specific requirements of the Proposed 111(b) Rule. OPC believes that further analysis is necessary to ascertain whether CCS is indeed the best system of emission reduction for new power plants. OPC will continue to stay engaged in these issues and looks forward to submitting comments on the EPA's upcoming rules on carbon emissions from existing power plants.

## **V. CONCLUSION**

OPC appreciates the opportunity to provide comments to the EPA and requests that these comments be considered by the Agency as it drafts its final rule.

Respectfully submitted,

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