

GOVERNMENT LAW CENTER

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Warren M. Anderson  
Legislative Breakfast Seminar Series

*“From Paris, France to Paris, New York: What  
Role, If Any, Is there for State and Local  
Government in Addressing Climate Change?”*

May 3, 2016



ALBANY LAW SCHOOL

## WARREN M. ANDERSON LEGISLATIVE BREAKFAST SEMINAR SERIES

### From Paris, France to Paris, New York: *What Role, If Any, Is there for State and Local Government in Addressing Climate Change?*

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#### SPEAKER BIOGRAPHIES

**ERIN M. CROTTY** is Executive Director of Audubon New York and Vice President of the National Audubon Society. A proven leader in the public, private, and not-for-profit sectors and a life-long birding enthusiast, Ms. Crotty brought decades of experience to Audubon New York when she joined as Executive Director in April 2013. Audubon New York is a leading state program of the National Audubon Society with a \$3.5 million annual budget, 35 employees, 7 Audubon Centers and Sanctuaries, and a powerful network of members, Audubon Chapters, partners, and program participants. Audubon's mission is to protect birds and their habitats. A recognized leader in the environmental field, Ms. Crotty was Commissioner of the New York State Department of Environmental Conservation from 2001-2005, and the first woman to lead this agency. During her tenure, she led the first-in-the-nation 11-state Regional Greenhouse Gas Initiative (RGGI) to develop a cap and trade program for power plant carbon dioxide emissions which is now a national model. In addition, she oversaw the largest land conservation agreement to protect more than 260,000 acres of former International Paper property in the Adirondacks. After years of inaction, she helped craft the Superfund/Brownfields Law of 2003, and developed and led the integrated business, public, and legislative strategy that led to the law's successful passage. In her career, Ms. Crotty also led the negotiations of the historic New York City Watershed Agreement and helped develop the toughest-in-the-nation regulations on power plant emissions of sulfur dioxide and nitrogen oxide – precursors to acid rain. For nearly 5 years, she served as the Director of State and Community Relations for Rensselaer Polytechnic Institute, acting as the university's primary liaison to State and local government, businesses, and non-profits throughout the community. Erin has been recognized on numerous occasions for her conservation leadership, including with the New York State Bar Association's Environmental Law Section Award and Audubon's Long Island Sound Guardian Award. She was profiled in the *National Journal's* May 2004 Special Report for her work to combat climate change. Ms. Crotty holds a Bachelor of Arts in Political Science from Russell Sage College and a Master of Science in Urban and Environmental Studies from RPI.

**BRUCE GYORY, ESQ.**, is a Senior Advisor in the Government & Regulatory Policy Division at Manatt, Phelps & Phillips, LLP, in their Albany, New York, office. Mr. Gyory has more than 28 years of experience working as an attorney, as well as serving three governors of New York, two as a senior advisor. Mr. Gyory provides his clients with assistance in managing political, media and communications challenges facing institutions and businesses in today's marketplace. Prior to joining Manatt, Mr. Gyory

served as a strategic consultant for Corning Place Communications, where he consulted on a variety of political and communications challenges. Mr. Gyory is an Adjunct Professor of Political Science at the University of Albany focusing on national and state voting trends. He has extensive experience in the fields of higher education, healthcare and academic health centers. Mr. Gyory is a regular guest on YNN's Capital Tonight's Insiders segment hosted by Liz Benjamin. He has written op-eds for *Newsday*, *The Hill*, the *Daily News*, as well as *City and State News*. Mr. Gyory also appears on NY1's *Inside City Hall* with Errol Louis and Susan Arbetter's radio program, *The Capital Pressroom*. Mr. Gyory serves on the Advisory Board of the Government Law Center at Albany Law School. He is a graduate of New York University School of Law (J.D., 1979) and Columbia University (B.A. in Political Science, *cum laude*, 1976).

**PROFESSOR ELEANOR STEIN** is an Adjunct Professor at Albany Law School and at the State University of New York at Albany, where she teaches *The Power Dialog and Law of Climate Change: Domestic & Transnational*. In November 2015, Prof. Stein earned an LL.M., with distinction, in Climate Change Law and Policy from Strathclyde University in Glasgow. Prof. Stein, a former administrative law judge, recently retired after 25 years with the New York State Public Service Commission, where she last served as project manager for Reforming the Energy Vision (REV), an initiative to reduce greenhouse gas emissions and build a cleaner and more affordable energy system for New York State. As an ALJ, she presided over the state's Renewable Portfolio Standard and Energy Efficiency Standard proceedings, and from 2013-2014 mediated the ground-breaking post-Superstorm Sandy Con Edison climate adaptation collaborative. Aside from teaching at the Albany Law School and UAlbany's Rockefeller College of Public Affairs & Policy, Prof. Stein works with the Government Law Center at Albany Law School on climate change projects and is an expert with America's Power Plan. Prof. Stein earned a J.D. from City University of New York Law School. Her recent publications include *New York REV shows utilities and regulators how to manage change*, <http://www.utilitydive.com/news/new-york-rev-shows-utilities-and-regulators-how-to-manage-change/415002/> and *Ignorance/Denial/Fear/Paralysis/Engagement/Commitment: Reflections on a Decade Teaching Climate Change Law*, <https://radicalteacher.library.pitt.edu/ojs/index.php/radicalteacher/article/view/206>.

**DARREN SUAREZ** is Director of Government Affairs for The Business Council of New York State, Inc. He is responsible for all advocacy on Energy, Environmental and Occupational Safety and Health. Mr. Suarez comes to The Business Council from Hinman Straub LLC, where he lobbied on behalf of a number of Fortune 500 companies on energy and environment issues. Before that, Mr. Suarez was the program director for environmental and economic development for the New York State Senate, where he represented the Majority Leader in meetings and public events, and developed, amended, and negotiated economic development tax incentives. Previously, he was a government affairs representative for the City University of New York and Cornell University, and worked for the New York State Department of Labor as a job services representative working with employers to meet their workforce needs. Mr. Suarez holds a degree in Political Science from UMass-Dartmouth. He was the recipient of the 2006

Economic Development Service Award in recognition of work in attracting Global Foundries to construct a \$3.2 billion 300 mm-wafer fab in New York State. He was awarded the 2005 New York Nature Conservancy's Salamander Award for working to protect New York's biodiversity and a joint recipient of the 2004 National Conference of State Legislatures Staff Chair Award for work as a primary author of New York's Brownfield Cleanup Program.

*From Paris, France to Paris, New York: What is the role for state and local government in addressing climate change?*

*The Paris Climate Change Accord*

On April 22, 2016, with Earth Day as their background, 175 nations signed the Paris Climate Change Agreement.<sup>1</sup> The Agreement, the first ever universal, legally binding, global climate agreement, was reached at the December 2015 Paris Climate Conference.<sup>2</sup> The Agreement is designed to serve as “a bridge between today’s policies and climate-neutrality before the end of the century.”<sup>3</sup> The fundamental principles of the Agreement are the mitigation of harmful greenhouse gas emissions; transparency and accountability between parties; adaptation to, and minimization of damage from, climate change; and support for developing countries in strengthening their resilience to climate change.<sup>4</sup>

One of the main goals of the Paris Agreement is to reduce carbon gas emissions so as to limit the increase in global average temperature to well below 2°C above pre-industrial levels with the aim of limiting any increase to 1.5°C.<sup>5</sup> In order to meet this goal, the parties will need to increase emission cuts every 5 years, and implement comprehensive national climate action plans, known as intended nationally determined contributions or “INDCs,” to make renewable energies the source of 78% of new power generation and to create a low carbon economy.<sup>6</sup> The Agreement has set a goal to achieve a net zero emission from energy by 2050-60.<sup>7</sup> Implementation of INDCs will drive down the cost of renewable energy; however, achieving this goal will require major reforms to electricity markets, business and financial models.<sup>8</sup>

The parties have agreed to come together every five years to establish more ambitious targets and share their progress towards the long-term goals.<sup>9</sup> In addition to committing to these quinquennial meetings, the governments and investors are required to work towards an effective transition from a fossil fuel-dominated economy without stranding assets and negatively impacting workers.<sup>10</sup> As one commentator has noted: “The continuation of climate

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<sup>1</sup> European Commission, *Paris Agreement*, Climate Action [http://ec.europa.eu/clima/policies/international/negotiations/paris/index\\_en.htm](http://ec.europa.eu/clima/policies/international/negotiations/paris/index_en.htm) (last visited Mar 30, 2016); Paris Agreement, opened for signature April 22, 2016, C.N.63.2016 Treaties XXVII 7.d.

<sup>2</sup> European Commission, *supra* note 1.

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

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

<sup>6</sup> Nick Mabey, et al., *Judging the COP21 outcome and what’s next for climate action*, E3G) <https://www.e3g.org/library/judging-cop21-outcome-and-whats-next-for-climate-action> (last visited Mar 30, 2016).

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> European Commission, *supra* note 1.

<sup>10</sup> Mabey, et al., *supra* note 6.

financing in the Paris Agreement beyond \$100bn promised up to 2020 will provide support to emerging and developing countries to deliver these necessary economic and governance reforms.”<sup>11</sup>

The Agreement is a significant achievement for multilateral diplomacy in a world where such achievements have been increasingly difficult to realize.<sup>12</sup> Once 55 countries that account for at least 55% of global emissions have assented to ratification, the agreement will enter into force.<sup>13</sup> These numbers have been chosen to ensure the participation of the largest emitters, in particular China, the US, and the EU. The EU has already submitted its INDC that is designed to achieve the goal of mitigation by announcing its determination to achieve “an at least forty percent domestic reduction in greenhouse gas emissions compared to the 1990 levels by 2030.”<sup>14</sup>

In August 2015, President Barack Obama and the United States Environmental Protection Agency (EPA) announced a “Clean Power Plan” to cut carbon pollution from existing power plants. The Clean Power Plan’s final regulations would reduce greenhouse gas emissions by 32% by 2030.<sup>15</sup> The Clean Power Plan has been described as essential to the United States’ commitment to the Paris Agreement.<sup>16</sup> The future of the Clean Power Plan is uncertain, however, in light of the fact that United States Supreme Court has enjoined its implementation pending the determination of legal challenges to the regulations.<sup>17</sup> A decision by the Washington D.C. Circuit Court of Appeals where the case is pending is likely to come in the fall.<sup>18</sup>

### *Initiatives Underway in the United States*

Notwithstanding the status of the EPA regulations, states are already engaged in multi-state initiatives, many of which are consistent with the Paris Climate Change Agreement. New York has joined the *Regional Greenhouse Gas Initiative* (RGGI), created in December, 2005.

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

<sup>12</sup> *Id.*

<sup>13</sup> *Questions and Answers on the Paris Agreement*,

[http://ec.europa.eu/clima/policies/international/negotiations/paris/docs/qa\\_paris\\_agreement\\_en.pdf](http://ec.europa.eu/clima/policies/international/negotiations/paris/docs/qa_paris_agreement_en.pdf).

<sup>14</sup> European Commission, *2030 climate & energy framework*, Climate Action,

[http://ec.europa.eu/clima/policies/strategies/2030/index\\_en.htm](http://ec.europa.eu/clima/policies/strategies/2030/index_en.htm) (last visited Mar. 30, 2016). Additionally, the determination involves goals for at least a twenty-seven percent share for renewable energy and a twenty-seven percent improvement in energy efficiency. *Id.*

<sup>15</sup> Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662 (October 23, 2015),

<sup>16</sup> Coral Davenport, *Supreme Court’s Blow to Emissions Efforts May Imperil Paris Climate Accord*, N.Y. Times, Feb. 10, 2016, [http://www.nytimes.com/2016/02/11/us/politics/carbon-emissions-paris-climate-accord.html?\\_r=0](http://www.nytimes.com/2016/02/11/us/politics/carbon-emissions-paris-climate-accord.html?_r=0).

<sup>17</sup> *Chamber of Commerce v. EPA*, 136 S. Ct. 999 (2016).

<sup>18</sup> Jocelyn Durkay, *States’ Reactions to EPA Greenhouse Gas Emissions Standards* (National Conference of State Legislatures April 18, 2016), <http://www.ncsl.org/research/energy/states-reactions-to-proposed-epa-greenhouse-gas-emissions-standards635333237.aspx>.

<sup>19</sup>Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, Rhode Island, and Vermont are also part of RGGI.<sup>20</sup> The initiative sets a cap on CO<sub>2</sub> emissions from power plants throughout participating regions.<sup>21</sup> Although the program is administered through RGGI, Inc.,<sup>22</sup> individual state governments reserve enforcement authority.<sup>23</sup>

New York is also participating in the *Transportation and Climate Initiative* (TCI) along with Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, Pennsylvania, Rhode Island, Vermont, and the District of Columbia.<sup>24</sup> TCI was created to develop a clean energy economy and reduce greenhouse gas emissions specifically in the transportation sector.<sup>25</sup>

Other state collaborations include the *Midwest Greenhouse Gas Reduction Accord* (MGGRA) made up of Illinois, Iowa, Kansas, Michigan, Minnesota, Wisconsin, and the Canadian province of Manitoba,<sup>26</sup> and the *Pacific Coast Collaborative* (PCC), made up of Alaska, British Columbia, California, Oregon, and Washington.<sup>27</sup> MGGRA's goal is to reduce greenhouse gas emissions through a regional cap-and-trade program and other similar measures.<sup>28</sup> PCC's goal is to generate investments in renewable energy, climate resilience, low-carbon transportation infrastructure, and environmental conservation.<sup>29</sup>

These initiatives are more efficient and more effective than individual state initiatives in reducing greenhouse gases by providing predictable rules and avoiding duplicative processes.<sup>30</sup>

### *New York State Initiatives*

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<sup>19</sup> Center for Climate and Energy Solutions, *Multi-State Climate Initiatives*, <http://www.c2es.org/us-states-regions/regional-climate-initiatives#RGGI> (last visited Mar. 30, 2016).

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

<sup>21</sup> *Id.*

<sup>22</sup> RGGI, Inc. is a non-profit corporation created to support development and implementation of the Regional Greenhouse Gas Initiative (RGGI) "by providing administrative and technical services "to support the development and implementation of each RGGI State's CO<sub>2</sub> Budget Trading Program." <https://www.rggi.org/rggi> (last visited Mar. 30, 2016).

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

<sup>24</sup> Center for Climate and Energy Solutions, *Transportation and Climate Initiative*, <http://www.c2es.org/us-states-regions/regional-climate-initiatives#TCI> (last visited Mar. 30, 2016).

<sup>25</sup> *Id.* The goal of the initiative is to expand safe and reliable transportation options, attract federal investment, lower transportation costs, improve overall air quality and public health, and mitigate the transportation sector's impact on climate change. *Id.*

<sup>26</sup> Center for Climate and Energy Solutions, *Midwest Greenhouse Gas Reduction Accord*, <http://www.c2es.org/us-states-regions/regional-climate-initiatives#MGGRA> (last visited Mar. 30, 2016). Indiana, Ohio, South Dakota, and the province of Ontario have joined MGGRA as observers. *Id.*

<sup>27</sup> Center for Climate and Energy Solutions, *Pacific Coast Collaborative*, <http://www.c2es.org/us-states-regions/regional-climate-initiatives#PCC>.

<sup>28</sup> *Midwest Greenhouse Gas Reduction Accord*, *supra* note 25.

<sup>29</sup> *Pacific Coast Collaborative*, *supra* note 26.

<sup>30</sup> *Multi-State Climate Initiatives*, *supra* note 19.

Beyond its participation in RGGI and TCI, New York has been proactive in addressing climate change for several years. This memo highlights its most recent plans. On October 2, 2015, at a meeting with former Vice President Al Gore, Governor Cuomo signed the “Under 2 MOU”<sup>31</sup> to reaffirm New York’s goal of reducing greenhouse gas emissions by 40% by 2030 and by 80% by 2050.<sup>32</sup> At that time the Governor directed state agencies to work with California and other jurisdictions to develop a broad North American carbon market and committed the state to bringing solar to 150,000 homes and businesses and installing clean, renewable energy at every SUNY campus by 2020.<sup>33</sup>

In his 2016 State of the State Address, Governor Andrew M. Cuomo recognized that New York State is well suited to become the international capital for clean and green energy products during this time of harmful climate change, and he announced several additional climate change initiatives.<sup>34</sup>

He proposed increased renewable energy consumption at state-owned facilities and SUNY campuses. All 64 SUNY campuses will install solar and other renewable energy sources by 2020 to reduce their 1.2 million megawatts of energy consumption every year.<sup>35</sup> State facilities, including some parks, will be retrofitted with smart grid and solar technologies that will reduce the energy use of state facilities and provide nearby communities access to clean and renewable energy.<sup>36</sup> The state will provide three \$1 million prizes to winners of a competition to develop a plan to improve and install renewable energies on private college campuses.<sup>37</sup>

Governor Cuomo proposed an increase on the 1,000 large scale wind turbines already operating in the state with the building of 300 additional wind turbines which will increase New York’s wind production by 40 percent by 2020.<sup>38</sup> This plan includes the development of a wind master plan for the deployment of offshore wind turbines to be funded by the State.<sup>39</sup>

The Governor proposed the adoption of the Clean Energy Fund (CEF) which will use funds from surcharges on utility bills to support clean energy projects and programs with

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<sup>31</sup> The Under 2 MOU is a Memorandum of Understanding (MOU) on Subnational Global Climate Leadership. [http://under2mou.org/?page\\_id=10](http://under2mou.org/?page_id=10) (last visited Mar. 30, 2016). “Each signatory commits to limit emissions to below eighty to ninety-five percent below 1990 levels, or below two metric tons per capita, by 2050 – the level of emission reduction believed necessary to limit global warming to less than 2°C by the end of this century.” *Id.*

<sup>32</sup> Governor’s Pressroom, *supra* note 31.

<sup>33</sup> *Id.*

<sup>34</sup> New York State, *Video & Transcript: Built to Lead: Governor Cuomo’s 2016 State of the State and Budget Address*, Governor’s Pressroom, <https://www.governor.ny.gov/news/video-transcript-built-lead-governor-cuomos-2016-state-state-and-budget-address>.

<sup>35</sup> *Built to Lead*, *supra* note 35, at 79.

<sup>36</sup> *Id.*, at 78-79.

<sup>37</sup> *Id.*, at 83.

<sup>38</sup> *Id.*, at 80.

<sup>39</sup> *Id.*, at 81.

private sector partners that will help achieve the goal of having 50 percent of New York’s energy consumption to come from renewable resources by 2030.<sup>40</sup> The state will invest part of the CEF to increase the energy efficiency of 500,000 homes and 20,000 businesses by 2020.<sup>41</sup>

In addition, the state will set aside \$75 million over the next three years to incentivize the retrofitting of emission-reducing technologies in 100,000 housing units by 2025<sup>42</sup> and will invest \$8 million to provide eight, \$1 million grants to enhance community micro-grid energy systems.<sup>43</sup>

Lastly, the Governor urged private sector partners to accelerate the utilization of energy efficient, solar, wind, and other clean technologies through his multifaceted “Reforming the Energy Vision” strategy.<sup>44</sup>

### *Local Government Initiatives*

Over 170 New York municipalities are already engaged in promoting energy efficiency, renewable energy, and the green economy through the Climate Smart Communities program.<sup>45</sup> Under the auspices of the New York State Department of Environmental Conservation, the Climate Smart Communities program provides “support and assistance for reduction of greenhouse gas emissions and climate adaption at the local level.”<sup>46</sup> Through this program, counties, cities, villages and towns can use various programs, services, and funding opportunities to reduce greenhouse gas emissions and build resiliency to the effects of climate change, taking steps consistent with the Paris Agreement.<sup>47</sup>

The research and writing for this memorandum was done by Eric O’Bryan, Albany Law School ’18 and Justin Reyes, Albany Law School ’18

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<sup>40</sup> *Id.*, at 75, 76-77.

<sup>41</sup> *Id.*, at 79.

<sup>42</sup> *Id.*, at 84.

<sup>43</sup> *Id.*, at 82.

<sup>44</sup> *Id.*, at 73-74.

<sup>45</sup> Department of Environmental Conservation, *Community Action on Climate*, <http://www.dec.ny.gov/energy/76483.html> (last visited on April 27, 2016). A list of the communities is published on the Department’s website. Department of Environmental Conservation, *List of Climate Smart Communities*, <http://www.dec.ny.gov/energy/56876.html> (last visited on April 27, 2016).

<sup>46</sup> Department of Environmental Conservation, *Climate Smart Communities Resources and Services*, <http://www.dec.ny.gov/energy/76910.html> (last visited on April 27, 2016).

<sup>47</sup> For example, In April 2016, the DEC announced two new funding programs: 1) rebates on purchases of clean vehicles, including electric vehicles, and charging or fueling stations; and 2) competitive grants for resilience building activities such as “relocating or retrofitting climate-vulnerable facilities, restoring or conserving riparian and tidal marsh migration areas, and reducing flood risk. Department of Environmental Conservation, *Climate Smart Communities Resources and Services*, <http://www.dec.ny.gov/energy/76910.html> (last visited on April 27, 2016)..



## Paris Agreement

*The Parties to this Agreement,*

*Being Parties to the United Nations Framework Convention on Climate Change, hereinafter referred to as “the Convention”,*

*Pursuant to the Durban Platform for Enhanced Action established by decision 1/CP.17 of the Conference of the Parties to the Convention at its seventeenth session,*

*In pursuit of the objective of the Convention, and being guided by its principles, including the principle of equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances,*

*Recognizing the need for an effective and progressive response to the urgent threat of climate change on the basis of the best available scientific knowledge,*

*Also recognizing the specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, as provided for in the Convention,*

*Taking full account of the specific needs and special situations of the least developed countries with regard to funding and transfer of technology,*

*Recognizing that Parties may be affected not only by climate change, but also by the impacts of the measures taken in response to it,*

*Emphasizing the intrinsic relationship that climate change actions, responses and impacts have with equitable access to sustainable development and eradication of poverty,*

*Recognizing the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change,*

*Taking into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities,*

*Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity,*

*Recognizing the importance of the conservation and enhancement, as appropriate, of sinks and reservoirs of the greenhouse gases referred to in the Convention,*

*Noting the importance of ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity, recognized by some cultures as Mother Earth, and noting the importance for some of the concept of “climate justice”, when taking action to address climate change,*

*Affirming the importance of education, training, public awareness, public participation, public access to information and cooperation at all levels on the matters addressed in this Agreement,*

*Recognizing the importance of the engagements of all levels of government and various actors, in accordance with respective national legislations of Parties, in addressing climate change,*



*Also recognizing* that sustainable lifestyles and sustainable patterns of consumption and production, with developed country Parties taking the lead, play an important role in addressing climate change,

Have agreed as follows:

#### **Article 1**

For the purpose of this Agreement, the definitions contained in Article 1 of the Convention shall apply. In addition:

- (a) “Convention” means the United Nations Framework Convention on Climate Change, adopted in New York on 9 May 1992;
- (b) “Conference of the Parties” means the Conference of the Parties to the Convention;
- (c) “Party” means a Party to this Agreement.

#### **Article 2**

1. This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by:

- (a) Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;
- (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and
- (c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

2. This Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.

#### **Article 3**

As nationally determined contributions to the global response to climate change, all Parties are to undertake and communicate ambitious efforts as defined in Articles 4, 7, 9, 10, 11 and 13 with the view to achieving the purpose of this Agreement as set out in Article 2. The efforts of all Parties will represent a progression over time, while recognizing the need to support developing country Parties for the effective implementation of this Agreement.

#### **Article 4**

1. In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.



2. Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.
3. Each Party's successive nationally determined contribution will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.
4. Developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets. Developing country Parties should continue enhancing their mitigation efforts, and are encouraged to move over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances.
5. Support shall be provided to developing country Parties for the implementation of this Article, in accordance with Articles 9, 10 and 11, recognizing that enhanced support for developing country Parties will allow for higher ambition in their actions.
6. The least developed countries and small island developing States may prepare and communicate strategies, plans and actions for low greenhouse gas emissions development reflecting their special circumstances.
7. Mitigation co-benefits resulting from Parties' adaptation actions and/or economic diversification plans can contribute to mitigation outcomes under this Article.
8. In communicating their nationally determined contributions, all Parties shall provide the information necessary for clarity, transparency and understanding in accordance with decision 1/CP.21 and any relevant decisions of the Conference of the Parties serving as the meeting of the Parties to this Agreement.
9. Each Party shall communicate a nationally determined contribution every five years in accordance with decision 1/CP.21 and any relevant decisions of the Conference of the Parties serving as the meeting of the Parties to this Agreement and be informed by the outcomes of the global stocktake referred to in Article 14.
10. The Conference of the Parties serving as the meeting of the Parties to this Agreement shall consider common time frames for nationally determined contributions at its first session.
11. A Party may at any time adjust its existing nationally determined contribution with a view to enhancing its level of ambition, in accordance with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement.
12. Nationally determined contributions communicated by Parties shall be recorded in a public registry maintained by the secretariat.
13. Parties shall account for their nationally determined contributions. In accounting for anthropogenic emissions and removals corresponding to their nationally determined contributions, Parties shall promote environmental integrity, transparency, accuracy, completeness, comparability and consistency, and ensure the avoidance of double counting, in accordance with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement.
14. In the context of their nationally determined contributions, when recognizing and implementing mitigation actions with respect to anthropogenic emissions and removals, Parties should take into account, as appropriate, existing methods and guidance under the Convention, in the light of the provisions of paragraph 13 of this Article.



15. Parties shall take into consideration in the implementation of this Agreement the concerns of Parties with economies most affected by the impacts of response measures, particularly developing country Parties.

16. Parties, including regional economic integration organizations and their member States, that have reached an agreement to act jointly under paragraph 2 of this Article shall notify the secretariat of the terms of that agreement, including the emission level allocated to each Party within the relevant time period, when they communicate their nationally determined contributions. The secretariat shall in turn inform the Parties and signatories to the Convention of the terms of that agreement.

17. Each party to such an agreement shall be responsible for its emission level as set out in the agreement referred to in paragraph 16 of this Article in accordance with paragraphs 13 and 14 of this Article and Articles 13 and 15.

18. If Parties acting jointly do so in the framework of, and together with, a regional economic integration organization which is itself a Party to this Agreement, each member State of that regional economic integration organization individually, and together with the regional economic integration organization, shall be responsible for its emission level as set out in the agreement communicated under paragraph 16 of this Article in accordance with paragraphs 13 and 14 of this Article and Articles 13 and 15.

19. All Parties should strive to formulate and communicate long-term low greenhouse gas emission development strategies, mindful of Article 2 taking into account their common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.

#### **Article 5**

1. Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases as referred to in Article 4, paragraph 1(d), of the Convention, including forests.

2. Parties are encouraged to take action to implement and support, including through results-based payments, the existing framework as set out in related guidance and decisions already agreed under the Convention for: policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivizing, as appropriate, non-carbon benefits associated with such approaches.

#### **Article 6**

1. Parties recognize that some Parties choose to pursue voluntary cooperation in the implementation of their nationally determined contributions to allow for higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity.

2. Parties shall, where engaging on a voluntary basis in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards nationally determined contributions, promote sustainable development and ensure environmental integrity and transparency, including in governance, and shall apply robust accounting to ensure, inter alia, the avoidance of double counting, consistent with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement.



3. The use of internationally transferred mitigation outcomes to achieve nationally determined contributions under this Agreement shall be voluntary and authorized by participating Parties.

4. A mechanism to contribute to the mitigation of greenhouse gas emissions and support sustainable development is hereby established under the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to this Agreement for use by Parties on a voluntary basis. It shall be supervised by a body designated by the Conference of the Parties serving as the meeting of the Parties to this Agreement, and shall aim:

(a) To promote the mitigation of greenhouse gas emissions while fostering sustainable development;

(b) To incentivize and facilitate participation in the mitigation of greenhouse gas emissions by public and private entities authorized by a Party;

(c) To contribute to the reduction of emission levels in the host Party, which will benefit from mitigation activities resulting in emission reductions that can also be used by another Party to fulfil its nationally determined contribution; and

(d) To deliver an overall mitigation in global emissions.

5. Emission reductions resulting from the mechanism referred to in paragraph 4 of this Article shall not be used to demonstrate achievement of the host Party's nationally determined contribution if used by another Party to demonstrate achievement of its nationally determined contribution.

6. The Conference of the Parties serving as the meeting of the Parties to this Agreement shall ensure that a share of the proceeds from activities under the mechanism referred to in paragraph 4 of this Article is used to cover administrative expenses as well as to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.

7. The Conference of the Parties serving as the meeting of the Parties to this Agreement shall adopt rules, modalities and procedures for the mechanism referred to in paragraph 4 of this Article at its first session.

8. Parties recognize the importance of integrated, holistic and balanced non-market approaches being available to Parties to assist in the implementation of their nationally determined contributions, in the context of sustainable development and poverty eradication, in a coordinated and effective manner, including through, inter alia, mitigation, adaptation, finance, technology transfer and capacity-building, as appropriate. These approaches shall aim to:

(a) Promote mitigation and adaptation ambition;

(b) Enhance public and private sector participation in the implementation of nationally determined contributions; and

(c) Enable opportunities for coordination across instruments and relevant institutional arrangements.

9. A framework for non-market approaches to sustainable development is hereby defined to promote the non-market approaches referred to in paragraph 8 of this Article.

#### **Article 7**

1. Parties hereby establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view



to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal referred to in Article 2.

2. Parties recognize that adaptation is a global challenge faced by all with local, subnational, national, regional and international dimensions, and that it is a key component of and makes a contribution to the long-term global response to climate change to protect people, livelihoods and ecosystems, taking into account the urgent and immediate needs of those developing country Parties that are particularly vulnerable to the adverse effects of climate change.

3. The adaptation efforts of developing country Parties shall be recognized, in accordance with the modalities to be adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement at its first session.

4. Parties recognize that the current need for adaptation is significant and that greater levels of mitigation can reduce the need for additional adaptation efforts, and that greater adaptation needs can involve greater adaptation costs.

5. Parties acknowledge that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems, and should be based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems, with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate.

6. Parties recognize the importance of support for and international cooperation on adaptation efforts and the importance of taking into account the needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change.

7. Parties should strengthen their cooperation on enhancing action on adaptation, taking into account the Cancun Adaptation Framework, including with regard to:

(a) Sharing information, good practices, experiences and lessons learned, including, as appropriate, as these relate to science, planning, policies and implementation in relation to adaptation actions;

(b) Strengthening institutional arrangements, including those under the Convention that serve this Agreement, to support the synthesis of relevant information and knowledge, and the provision of technical support and guidance to Parties;

(c) Strengthening scientific knowledge on climate, including research, systematic observation of the climate system and early warning systems, in a manner that informs climate services and supports decision-making;

(d) Assisting developing country Parties in identifying effective adaptation practices, adaptation needs, priorities, support provided and received for adaptation actions and efforts, and challenges and gaps, in a manner consistent with encouraging good practices; and

(e) Improving the effectiveness and durability of adaptation actions.

8. United Nations specialized organizations and agencies are encouraged to support the efforts of Parties to implement the actions referred to in paragraph 7 of this Article, taking into account the provisions of paragraph 5 of this Article.

9. Each Party shall, as appropriate, engage in adaptation planning processes and the implementation of actions, including the development or enhancement of relevant plans, policies and/or contributions, which may include:



- (a) The implementation of adaptation actions, undertakings and/or efforts;
  - (b) The process to formulate and implement national adaptation plans;
  - (c) The assessment of climate change impacts and vulnerability, with a view to formulating nationally determined prioritized actions, taking into account vulnerable people, places and ecosystems;
  - (d) Monitoring and evaluating and learning from adaptation plans, policies, programmes and actions; and
  - (e) Building the resilience of socioeconomic and ecological systems, including through economic diversification and sustainable management of natural resources.
10. Each Party should, as appropriate, submit and update periodically an adaptation communication, which may include its priorities, implementation and support needs, plans and actions, without creating any additional burden for developing country Parties.
11. The adaptation communication referred to in paragraph 10 of this Article shall be, as appropriate, submitted and updated periodically, as a component of or in conjunction with other communications or documents, including a national adaptation plan, a nationally determined contribution as referred to in Article 4, paragraph 2, and/or a national communication.
12. The adaptation communications referred to in paragraph 10 of this Article shall be recorded in a public registry maintained by the secretariat.
13. Continuous and enhanced international support shall be provided to developing country Parties for the implementation of paragraphs 7, 9, 10 and 11 of this Article, in accordance with the provisions of Articles 9, 10 and 11.
14. The global stocktake referred to in Article 14 shall, inter alia:
- (a) Recognize adaptation efforts of developing country Parties;
  - (b) Enhance the implementation of adaptation action taking into account the adaptation communication referred to in paragraph 10 of this Article;
  - (c) Review the adequacy and effectiveness of adaptation and support provided for adaptation; and
  - (d) Review the overall progress made in achieving the global goal on adaptation referred to in paragraph 1 of this Article.

#### **Article 8**

1. Parties recognize the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage.
2. The Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts shall be subject to the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to this Agreement and may be enhanced and strengthened, as determined by the Conference of the Parties serving as the meeting of the Parties to this Agreement.
3. Parties should enhance understanding, action and support, including through the Warsaw International Mechanism, as appropriate, on a cooperative and facilitative basis with respect to loss and damage associated with the adverse effects of climate change.



4. Accordingly, areas of cooperation and facilitation to enhance understanding, action and support may include:

- (a) Early warning systems;
- (b) Emergency preparedness;
- (c) Slow onset events;
- (d) Events that may involve irreversible and permanent loss and damage;
- (e) Comprehensive risk assessment and management;
- (f) Risk insurance facilities, climate risk pooling and other insurance solutions;
- (g) Non-economic losses; and
- (h) Resilience of communities, livelihoods and ecosystems.

5. The Warsaw International Mechanism shall collaborate with existing bodies and expert groups under the Agreement, as well as relevant organizations and expert bodies outside the Agreement.

#### **Article 9**

1. Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention.

2. Other Parties are encouraged to provide or continue to provide such support voluntarily.

3. As part of a global effort, developed country Parties should continue to take the lead in mobilizing climate finance from a wide variety of sources, instruments and channels, noting the significant role of public funds, through a variety of actions, including supporting country-driven strategies, and taking into account the needs and priorities of developing country Parties. Such mobilization of climate finance should represent a progression beyond previous efforts.

4. The provision of scaled-up financial resources should aim to achieve a balance between adaptation and mitigation, taking into account country-driven strategies, and the priorities and needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change and have significant capacity constraints, such as the least developed countries and small island developing States, considering the need for public and grant-based resources for adaptation.

5. Developed country Parties shall biennially communicate indicative quantitative and qualitative information related to paragraphs 1 and 3 of this Article, as applicable, including, as available, projected levels of public financial resources to be provided to developing country Parties. Other Parties providing resources are encouraged to communicate biennially such information on a voluntary basis.

6. The global stocktake referred to in Article 14 shall take into account the relevant information provided by developed country Parties and/or Agreement bodies on efforts related to climate finance.

7. Developed country Parties shall provide transparent and consistent information on support for developing country Parties provided and mobilized through public interventions biennially in accordance with the modalities, procedures and guidelines to be adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement, at its



first session, as stipulated in Article 13, paragraph 13. Other Parties are encouraged to do so.

8. The Financial Mechanism of the Convention, including its operating entities, shall serve as the financial mechanism of this Agreement.

9. The institutions serving this Agreement, including the operating entities of the Financial Mechanism of the Convention, shall aim to ensure efficient access to financial resources through simplified approval procedures and enhanced readiness support for developing country Parties, in particular for the least developed countries and small island developing States, in the context of their national climate strategies and plans.

#### **Article 10**

1. Parties share a long-term vision on the importance of fully realizing technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emissions.

2. Parties, noting the importance of technology for the implementation of mitigation and adaptation actions under this Agreement and recognizing existing technology deployment and dissemination efforts, shall strengthen cooperative action on technology development and transfer.

3. The Technology Mechanism established under the Convention shall serve this Agreement.

4. A technology framework is hereby established to provide overarching guidance to the work of the Technology Mechanism in promoting and facilitating enhanced action on technology development and transfer in order to support the implementation of this Agreement, in pursuit of the long-term vision referred to in paragraph 1 of this Article.

5. Accelerating, encouraging and enabling innovation is critical for an effective, long-term global response to climate change and promoting economic growth and sustainable development. Such effort shall be, as appropriate, supported, including by the Technology Mechanism and, through financial means, by the Financial Mechanism of the Convention, for collaborative approaches to research and development, and facilitating access to technology, in particular for early stages of the technology cycle, to developing country Parties.

6. Support, including financial support, shall be provided to developing country Parties for the implementation of this Article, including for strengthening cooperative action on technology development and transfer at different stages of the technology cycle, with a view to achieving a balance between support for mitigation and adaptation. The global stocktake referred to in Article 14 shall take into account available information on efforts related to support on technology development and transfer for developing country Parties.

#### **Article 11**

1. Capacity-building under this Agreement should enhance the capacity and ability of developing country Parties, in particular countries with the least capacity, such as the least developed countries, and those that are particularly vulnerable to the adverse effects of climate change, such as small island developing States, to take effective climate change action, including, inter alia, to implement adaptation and mitigation actions, and should facilitate technology development, dissemination and deployment, access to climate finance, relevant aspects of education, training and public awareness, and the transparent, timely and accurate communication of information.

2. Capacity-building should be country-driven, based on and responsive to national needs, and foster country ownership of Parties, in particular, for developing country Parties,



including at the national, subnational and local levels. Capacity-building should be guided by lessons learned, including those from capacity-building activities under the Convention, and should be an effective, iterative process that is participatory, cross-cutting and gender-responsive.

3. All Parties should cooperate to enhance the capacity of developing country Parties to implement this Agreement. Developed country Parties should enhance support for capacity-building actions in developing country Parties.

4. All Parties enhancing the capacity of developing country Parties to implement this Agreement, including through regional, bilateral and multilateral approaches, shall regularly communicate on these actions or measures on capacity-building. Developing country Parties should regularly communicate progress made on implementing capacity-building plans, policies, actions or measures to implement this Agreement.

5. Capacity-building activities shall be enhanced through appropriate institutional arrangements to support the implementation of this Agreement, including the appropriate institutional arrangements established under the Convention that serve this Agreement. The Conference of the Parties serving as the meeting of the Parties to this Agreement shall, at its first session, consider and adopt a decision on the initial institutional arrangements for capacity-building.

#### **Article 12**

Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement.

#### **Article 13**

1. In order to build mutual trust and confidence and to promote effective implementation, an enhanced transparency framework for action and support, with built-in flexibility which takes into account Parties' different capacities and builds upon collective experience is hereby established.

2. The transparency framework shall provide flexibility in the implementation of the provisions of this Article to those developing country Parties that need it in the light of their capacities. The modalities, procedures and guidelines referred to in paragraph 13 of this Article shall reflect such flexibility.

3. The transparency framework shall build on and enhance the transparency arrangements under the Convention, recognizing the special circumstances of the least developed countries and small island developing States, and be implemented in a facilitative, non-intrusive, non-punitive manner, respectful of national sovereignty, and avoid placing undue burden on Parties.

4. The transparency arrangements under the Convention, including national communications, biennial reports and biennial update reports, international assessment and review and international consultation and analysis, shall form part of the experience drawn upon for the development of the modalities, procedures and guidelines under paragraph 13 of this Article.

5. The purpose of the framework for transparency of action is to provide a clear understanding of climate change action in the light of the objective of the Convention as set out in its Article 2, including clarity and tracking of progress towards achieving Parties' individual nationally determined contributions under Article 4, and Parties' adaptation



actions under Article 7, including good practices, priorities, needs and gaps, to inform the global stocktake under Article 14.

6. The purpose of the framework for transparency of support is to provide clarity on support provided and received by relevant individual Parties in the context of climate change actions under Articles 4, 7, 9, 10 and 11, and, to the extent possible, to provide a full overview of aggregate financial support provided, to inform the global stocktake under Article 14.

7. Each Party shall regularly provide the following information:

(a) A national inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases, prepared using good practice methodologies accepted by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties serving as the meeting of the Parties to this Agreement; and

(b) Information necessary to track progress made in implementing and achieving its nationally determined contribution under Article 4.

8. Each Party should also provide information related to climate change impacts and adaptation under Article 7, as appropriate.

9. Developed country Parties shall, and other Parties that provide support should, provide information on financial, technology transfer and capacity-building support provided to developing country Parties under Articles 9, 10 and 11.

10. Developing country Parties should provide information on financial, technology transfer and capacity-building support needed and received under Articles 9, 10 and 11.

11. Information submitted by each Party under paragraphs 7 and 9 of this Article shall undergo a technical expert review, in accordance with decision 1/CP.21. For those developing country Parties that need it in the light of their capacities, the review process shall include assistance in identifying capacity-building needs. In addition, each Party shall participate in a facilitative, multilateral consideration of progress with respect to efforts under Article 9, and its respective implementation and achievement of its nationally determined contribution.

12. The technical expert review under this paragraph shall consist of a consideration of the Party's support provided, as relevant, and its implementation and achievement of its nationally determined contribution. The review shall also identify areas of improvement for the Party, and include a review of the consistency of the information with the modalities, procedures and guidelines referred to in paragraph 13 of this Article, taking into account the flexibility accorded to the Party under paragraph 2 of this Article. The review shall pay particular attention to the respective national capabilities and circumstances of developing country Parties.

13. The Conference of the Parties serving as the meeting of the Parties to this Agreement shall, at its first session, building on experience from the arrangements related to transparency under the Convention, and elaborating on the provisions in this Article, adopt common modalities, procedures and guidelines, as appropriate, for the transparency of action and support.

14. Support shall be provided to developing countries for the implementation of this Article.

15. Support shall also be provided for the building of transparency-related capacity of developing country Parties on a continuous basis.



#### **Article 14**

1. The Conference of the Parties serving as the meeting of the Parties to this Agreement shall periodically take stock of the implementation of this Agreement to assess the collective progress towards achieving the purpose of this Agreement and its long-term goals (referred to as the “global stocktake”). It shall do so in a comprehensive and facilitative manner, considering mitigation, adaptation and the means of implementation and support, and in the light of equity and the best available science.
2. The Conference of the Parties serving as the meeting of the Parties to this Agreement shall undertake its first global stocktake in 2023 and every five years thereafter unless otherwise decided by the Conference of the Parties serving as the meeting of the Parties to this Agreement.
3. The outcome of the global stocktake shall inform Parties in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the relevant provisions of this Agreement, as well as in enhancing international cooperation for climate action.

#### **Article 15**

1. A mechanism to facilitate implementation of and promote compliance with the provisions of this Agreement is hereby established.
2. The mechanism referred to in paragraph 1 of this Article shall consist of a committee that shall be expert-based and facilitative in nature and function in a manner that is transparent, non-adversarial and non-punitive. The committee shall pay particular attention to the respective national capabilities and circumstances of Parties.
3. The committee shall operate under the modalities and procedures adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement at its first session and report annually to the Conference of the Parties serving as the meeting of the Parties to this Agreement.

#### **Article 16**

1. The Conference of the Parties, the supreme body of the Convention, shall serve as the meeting of the Parties to this Agreement.
2. Parties to the Convention that are not Parties to this Agreement may participate as observers in the proceedings of any session of the Conference of the Parties serving as the meeting of the Parties to this Agreement. When the Conference of the Parties serves as the meeting of the Parties to this Agreement, decisions under this Agreement shall be taken only by those that are Parties to this Agreement.
3. When the Conference of the Parties serves as the meeting of the Parties to this Agreement, any member of the Bureau of the Conference of the Parties representing a Party to the Convention but, at that time, not a Party to this Agreement, shall be replaced by an additional member to be elected by and from amongst the Parties to this Agreement.
4. The Conference of the Parties serving as the meeting of the Parties to this Agreement shall keep under regular review the implementation of this Agreement and shall make, within its mandate, the decisions necessary to promote its effective implementation. It shall perform the functions assigned to it by this Agreement and shall:
  - (a) Establish such subsidiary bodies as deemed necessary for the implementation of this Agreement; and
  - (b) Exercise such other functions as may be required for the implementation of this Agreement.



5. The rules of procedure of the Conference of the Parties and the financial procedures applied under the Convention shall be applied *mutatis mutandis* under this Agreement, except as may be otherwise decided by consensus by the Conference of the Parties serving as the meeting of the Parties to this Agreement.

6. The first session of the Conference of the Parties serving as the meeting of the Parties to this Agreement shall be convened by the secretariat in conjunction with the first session of the Conference of the Parties that is scheduled after the date of entry into force of this Agreement. Subsequent ordinary sessions of the Conference of the Parties serving as the meeting of the Parties to this Agreement shall be held in conjunction with ordinary sessions of the Conference of the Parties, unless otherwise decided by the Conference of the Parties serving as the meeting of the Parties to this Agreement.

7. Extraordinary sessions of the Conference of the Parties serving as the meeting of the Parties to this Agreement shall be held at such other times as may be deemed necessary by the Conference of the Parties serving as the meeting of the Parties to this Agreement or at the written request of any Party, provided that, within six months of the request being communicated to the Parties by the secretariat, it is supported by at least one third of the Parties.

8. The United Nations and its specialized agencies and the International Atomic Energy Agency, as well as any State member thereof or observers thereto not party to the Convention, may be represented at sessions of the Conference of the Parties serving as the meeting of the Parties to this Agreement as observers. Any body or agency, whether national or international, governmental or non-governmental, which is qualified in matters covered by this Agreement and which has informed the secretariat of its wish to be represented at a session of the Conference of the Parties serving as the meeting of the Parties to this Agreement as an observer, may be so admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure referred to in paragraph 5 of this Article.

#### **Article 17**

1. The secretariat established by Article 8 of the Convention shall serve as the secretariat of this Agreement.

2. Article 8, paragraph 2, of the Convention on the functions of the secretariat, and Article 8, paragraph 3, of the Convention, on the arrangements made for the functioning of the secretariat, shall apply *mutatis mutandis* to this Agreement. The secretariat shall, in addition, exercise the functions assigned to it under this Agreement and by the Conference of the Parties serving as the meeting of the Parties to this Agreement.

#### **Article 18**

1. The Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation established by Articles 9 and 10 of the Convention shall serve, respectively, as the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation of this Agreement. The provisions of the Convention relating to the functioning of these two bodies shall apply *mutatis mutandis* to this Agreement. Sessions of the meetings of the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation of this Agreement shall be held in conjunction with the meetings of, respectively, the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation of the Convention.

2. Parties to the Convention that are not Parties to this Agreement may participate as observers in the proceedings of any session of the subsidiary bodies. When the subsidiary



bodies serve as the subsidiary bodies of this Agreement, decisions under this Agreement shall be taken only by those that are Parties to this Agreement.

3. When the subsidiary bodies established by Articles 9 and 10 of the Convention exercise their functions with regard to matters concerning this Agreement, any member of the bureaux of those subsidiary bodies representing a Party to the Convention but, at that time, not a Party to this Agreement, shall be replaced by an additional member to be elected by and from amongst the Parties to this Agreement.

#### **Article 19**

1. Subsidiary bodies or other institutional arrangements established by or under the Convention, other than those referred to in this Agreement, shall serve this Agreement upon a decision of the Conference of the Parties serving as the meeting of the Parties to this Agreement. The Conference of the Parties serving as the meeting of the Parties to this Agreement shall specify the functions to be exercised by such subsidiary bodies or arrangements.

2. The Conference of the Parties serving as the meeting of the Parties to this Agreement may provide further guidance to such subsidiary bodies and institutional arrangements.

#### **Article 20**

1. This Agreement shall be open for signature and subject to ratification, acceptance or approval by States and regional economic integration organizations that are Parties to the Convention. It shall be open for signature at the United Nations Headquarters in New York from 22 April 2016 to 21 April 2017. Thereafter, this Agreement shall be open for accession from the day following the date on which it is closed for signature. Instruments of ratification, acceptance, approval or accession shall be deposited with the Depositary.

2. Any regional economic integration organization that becomes a Party to this Agreement without any of its member States being a Party shall be bound by all the obligations under this Agreement. In the case of regional economic integration organizations with one or more member States that are Parties to this Agreement, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under this Agreement. In such cases, the organization and the member States shall not be entitled to exercise rights under this Agreement concurrently.

3. In their instruments of ratification, acceptance, approval or accession, regional economic integration organizations shall declare the extent of their competence with respect to the matters governed by this Agreement. These organizations shall also inform the Depositary, who shall in turn inform the Parties, of any substantial modification in the extent of their competence.

#### **Article 21**

1. This Agreement shall enter into force on the thirtieth day after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55 per cent of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval or accession.

2. Solely for the limited purpose of paragraph 1 of this Article, “total global greenhouse gas emissions” means the most up-to-date amount communicated on or before the date of adoption of this Agreement by the Parties to the Convention.



3. For each State or regional economic integration organization that ratifies, accepts or approves this Agreement or accedes thereto after the conditions set out in paragraph 1 of this Article for entry into force have been fulfilled, this Agreement shall enter into force on the thirtieth day after the date of deposit by such State or regional economic integration organization of its instrument of ratification, acceptance, approval or accession.

4. For the purposes of paragraph 1 of this Article, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by its member States.

#### **Article 22**

The provisions of Article 15 of the Convention on the adoption of amendments to the Convention shall apply *mutatis mutandis* to this Agreement.

#### **Article 23**

1. The provisions of Article 16 of the Convention on the adoption and amendment of annexes to the Convention shall apply *mutatis mutandis* to this Agreement.

2. Annexes to this Agreement shall form an integral part thereof and, unless otherwise expressly provided for, a reference to this Agreement constitutes at the same time a reference to any annexes thereto. Such annexes shall be restricted to lists, forms and any other material of a descriptive nature that is of a scientific, technical, procedural or administrative character.

#### **Article 24**

The provisions of Article 14 of the Convention on settlement of disputes shall apply *mutatis mutandis* to this Agreement.

#### **Article 25**

1. Each Party shall have one vote, except as provided for in paragraph 2 of this Article.
2. Regional economic integration organizations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member States that are Parties to this Agreement. Such an organization shall not exercise its right to vote if any of its member States exercises its right, and vice versa.

#### **Article 26**

The Secretary-General of the United Nations shall be the Depositary of this Agreement.

#### **Article 27**

No reservations may be made to this Agreement.

#### **Article 28**

1. At any time after three years from the date on which this Agreement has entered into force for a Party, that Party may withdraw from this Agreement by giving written notification to the Depositary.
2. Any such withdrawal shall take effect upon expiry of one year from the date of receipt by the Depositary of the notification of withdrawal, or on such later date as may be specified in the notification of withdrawal.
3. Any Party that withdraws from the Convention shall be considered as also having withdrawn from this Agreement.



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**Article 29**

The original of this Agreement, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

DONE at Paris this twelfth day of December two thousand and fifteen.

IN WITNESS WHEREOF, the undersigned, being duly authorized to that effect, have signed this Agreement.

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# OVERVIEW OF THE CLEAN POWER PLAN

## *CUTTING CARBON POLLUTION FROM POWER PLANTS*

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On August 3, President Obama and EPA announced the Clean Power Plan – a historic and important step in reducing carbon pollution from power plants that takes real action on climate change. Shaped by years of unprecedented outreach and public engagement, the final Clean Power Plan is fair, flexible and designed to strengthen the fast-growing trend toward cleaner and lower-polluting American energy. With strong but achievable standards for power plants, and customized goals for states to cut the carbon pollution that is driving climate change, the Clean Power Plan provides national consistency, accountability and a level playing field while reflecting each state’s energy mix. It also shows the world that the United States is committed to leading global efforts to address climate change.

### WHAT IS THE CLEAN POWER PLAN?

- The Clean Power Plan will reduce carbon pollution from power plants, the nation’s largest source, while maintaining energy reliability and affordability. Also on August 3, EPA issued final Carbon Pollution Standards for new, modified, and reconstructed power plants, and proposed a Federal Plan and model rule to assist states in implementing the Clean Power Plan.
- These are the first-ever national standards that address carbon pollution from power plants.
- The Clean Power Plan cuts significant amounts of power plant carbon pollution and the pollutants that cause the soot and smog that harm health, while advancing clean energy innovation, development and deployment, and laying the foundation for the long-term strategy needed to tackle the threat of climate change. By providing states and utilities ample flexibility and the time needed to achieve these pollution cuts, the Clean Power Plan offers the power sector the ability to optimize pollution reductions while maintaining a reliable and affordable supply of electricity for ratepayers and businesses.
- Fossil fuels will continue to be a critical component of America’s energy future. The Clean Power Plan simply makes sure that fossil fuel-fired power plants will operate more cleanly and efficiently, while expanding the capacity for zero- and low-emitting power sources.

- The final rule is the result of unprecedented outreach to states, tribes, utilities, stakeholders and the public, including more than 4.3 million comments EPA received on the proposed rule. The final Clean Power Plan reflects that input, and gives states and utilities time to preserve ample, reliable and affordable power for all Americans.

## WHY WE NEED THE CLEAN POWER PLAN

- In 2009, EPA determined that greenhouse gas pollution threatens Americans' health and welfare by leading to long-lasting changes in our climate that can have a range of negative effects on human health and the environment. Carbon dioxide (CO<sub>2</sub>) is the most prevalent greenhouse gas pollutant, accounting for nearly three-quarters of global greenhouse gas emissions and 82 percent of U.S. greenhouse gas emissions.
- Climate change is one of the greatest environmental and public health challenges we face. Climate impacts affect all Americans' lives – from stronger storms to longer droughts and increased insurance premiums, food prices and allergy seasons.
- 2014 was the hottest year in recorded history, and 14 of the 15 warmest years on record have all occurred in the first 15 years of this century. Recorded temperatures in the first half of 2015 were also warmer than normal.
- Overwhelmingly, the best scientists in the world, relying on troves of data and millions of measurements collected over the course of decades on land, in air and water, at sea and from space, are telling us that our activities are causing climate change.
- The most vulnerable among us – including children, older adults, people with heart or lung disease and people living in poverty – may be most at risk from the impacts of climate change.
- Fossil fuel-fired power plants are by far the largest source of U.S. CO<sub>2</sub> emissions, making up 31 percent of U.S. total greenhouse gas emissions.
- Taking action now is critical. Reducing CO<sub>2</sub> emissions from power plants, and driving investment in clean energy technologies strategies that do so, is an essential step in lessening the impacts of climate change and providing a more certain future for our health, our environment, and future generations.

## BENEFITS OF IMPLEMENTING THE CLEAN POWER PLAN

- The transition to clean energy is happening faster than anticipated. This means carbon and air pollution are already decreasing, improving public health each and every year.
- The Clean Power Plan accelerates this momentum, putting us on pace to cut this dangerous pollution to historically low levels in the future.
- When the Clean Power Plan is fully in place in 2030, carbon pollution from the power sector will be 32 percent below 2005 levels, securing progress and making sure it continues.

- The transition to cleaner sources of energy will better protect Americans from other harmful air pollution, too. By 2030, emissions of sulfur dioxide from power plants will be 90 percent lower compared to 2005 levels, and emissions of nitrogen oxides will be 72 percent lower. Because these pollutants can create dangerous soot and smog, the historically low levels mean we will avoid thousands of premature deaths and have thousands fewer asthma attacks and hospitalizations in 2030 and every year beyond.
- Within this larger context, the Clean Power Plan itself is projected to contribute significant pollution reductions, resulting in important benefits, including:
  - Climate benefits of \$20 billion
  - Health benefits of \$14-\$34 billion
  - Net benefits of \$26-\$45 billion
- Because carbon pollution comes packaged with other dangerous air pollutants, the Clean Power Plan will also protect public health, avoiding each year:
  - 3,600 premature deaths
  - 1,700 heart attacks
  - 90,000 asthma attacks
  - 300,000 missed work days and school days

## HOW THE CLEAN POWER PLAN WORKS

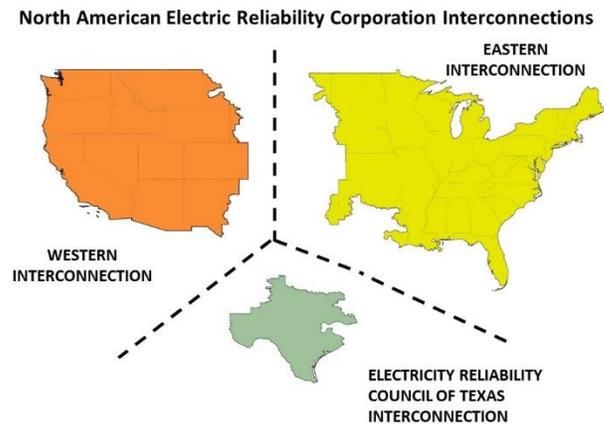
- The Clean Air Act – under section 111(d) – creates a partnership between EPA, states, tribes and U.S. territories – with EPA setting a goal and states and tribes choosing how they will meet it.
- The final Clean Power Plan follows that approach. EPA is establishing interim and final carbon dioxide (CO<sub>2</sub>) emission performance rates for two subcategories of fossil fuel-fired electric generating units (EGUs):
  - Fossil fuel-fired electric steam generating units (generally, coal- and oil-fired power plants)
  - Natural gas-fired combined cycle generating units
- To maximize the range of choices available to states in implementing the standards and to utilities in meeting them, EPA is establishing interim and final statewide goals in three forms:
  - A rate-based state goal measured in pounds per megawatt hour (lb/MWh);

- A mass-based state goal measured in total short tons of CO<sub>2</sub>;
- A mass-based state goal with a new source complement measured in total short tons of CO<sub>2</sub>.
- States then develop and implement plans that ensure that the power plants in their state – either individually, together or in combination with other measures – achieve the interim CO<sub>2</sub> emissions performance rates over the period of 2022 to 2029 and the final CO<sub>2</sub> emission performance rates, rate-based goals or mass-based goals by 2030.
- These final guidelines are consistent with the law and align with the approach that Congress and EPA have always taken to regulate emissions from this and all other industrial sectors – setting source-level, source category-wide standards that sources can meet through a variety of technologies and measures.

## HOW EPA DETERMINED EMISSION PERFORMANCE RATES

- Under section 111(d) of the Clean Air Act, EPA determines the best system of emissions reduction (BSER) that has been demonstrated for a particular pollutant and a particular group of sources by examining technologies and measures already being used.
- Consistent with previous BSER determinations in 111(d) rulemakings, the agency considered the types of strategies, technologies and measures that states and utilities are already using to reduce CO<sub>2</sub> from fossil fuel-fired power plants.
- In the final Clean Power Plan, EPA determined that BSER consists of three building blocks:
  - **Building Block 1** - reducing the carbon intensity of electricity generation by improving the heat rate of existing coal-fired power plants.
  - **Building Block 2** -substituting increased electricity generation from lower-emitting existing natural gas plants for reduced generation from higher-emitting coal-fired power plants.
  - **Building Block 3** - substituting increased electricity generation from new zero-emitting renewable energy sources (like wind and solar) for reduced generation from existing coal-fired power plants.
- In determining the BSER, EPA considered the ranges of reductions that can be achieved at coal, oil and gas plants at a reasonable cost by application of each building block, taking into account how quickly and to what extent the measures encompassed by the building blocks could be used to reduce emissions.

- In assessing the BSER, EPA recognized that power plants operate through broad interconnected regional grids that determine the generation and distribution of power, and thus the agency based its analysis on the three established regional electricity interconnects: the Western interconnection, the Eastern interconnection and the Electricity Reliability Council of Texas interconnection.



- EPA applied the building blocks to all of the coal plants and all of the natural gas power plants in each region to produce regional emission performance rates for each category.
- From the three resulting regional coal plant rates, and the three regional natural gas power plant rates, EPA chose the most readily achievable rate for each category to arrive at equitable CO<sub>2</sub> emission performance rates for the country that represent the best system of emission reductions.
- The same CO<sub>2</sub> emission performance rates were then applied to all affected sources in each state to arrive at individual statewide rate-based and mass-based goals. Each state has a different goal based upon its own particular mix of affected sources.
- The agency is setting emission performance standards for tribes with affected EGUs— Navajo, Fort Mojave, and Ute (Uintah and Ouray). At this time, EPA is not setting CO<sub>2</sub> emission performance goals for Alaska, Hawaii, Guam or Puerto Rico so that the agency can continue to collect data that can form the basis of standards for power plants there in the future.

## STATE PLANS

- The final Clean Power Plan provides guidelines for the development, submittal and implementation of state plans that establish standards of performance or other measures for affected EGUs in order to implement the interim and final CO<sub>2</sub> emission performance rates.
- States must develop and implement plans that ensure the power plants in their state – either individually, together, or in combination with other measures – achieve the equivalent, in terms of either or rate or mass, of the interim CO<sub>2</sub> performance rates between 2022 and 2029, and the final CO<sub>2</sub> emission performance rates for their state by 2030.
- States may choose between two plan types to meet their goals:

- **Emission standards plan**– includes source-specific requirements ensuring all affected power plants within the state meet their required emissions performance rates or state-specific rate-based or mass-based goal.
  - **State measures plan**– includes a mixture of measures implemented by the state, such as renewable energy standards and programs to improve residential energy efficiency that are not included as federally enforceable components of the plan. The plan may also include federally enforceable source-specific requirements. The state measures, alone or in conjunction with federally enforceable requirements, must result in affected power plants meeting the state’s mass-based goal. The plan must also include a backstop of federally enforceable standards on affected power plants that fully meet the emission guidelines and that would be triggered if the state measures fail to result in the affected plants achieving the required emissions reductions on schedule. States may use the final model rule, which EPA proposed on August 3, for their backstop.
- In developing its plan, each state will have the flexibility to select the measures it prefers in order to achieve the CO<sub>2</sub> emission performance rates for its affected plants or meet the equivalent statewide rate- or mass-based CO<sub>2</sub> goal. States will also have the ability to shape their own emissions reduction pathways over the 2022-29 period.
  - The final rule also gives states the option to work with other states on multi-state approaches, including emissions trading, that allow their power plants to integrate their interconnected operations within their operating systems and their opportunities to address carbon pollution.
  - The flexibility of the rule allows states to reduce costs to consumers, minimize stranded assets and spur private investments in renewable energy and energy efficiency technologies and businesses.
  - States can tailor their plans to meet their respective energy, environmental and economic needs and goals, and those of their local communities by:
    - relying on a diverse set of energy resources;
    - protecting electric system reliability;
    - providing affordable electricity; and
    - recognizing investments that states and power companies are already making.

## EMISSIONS TRADING

- One cost-effective way that states can meet their goals is emissions trading, through which affected power plants may meet their emission standards via emission rate credits (for a rate-based standard) or allowances (for a mass-based standard).

- Trading is a proven approach to address pollution and provides states and affected plants with another mechanism to achieve their emission standards. Emission trading is a market-based policy tool that creates a financial incentive to reduce emissions where the costs of doing so are the lowest and clean energy investment enjoys the highest leverage.
- Market-based approaches are generally recognized as having the following benefits:
  - Reduce the cost of compliance
  - Create incentives for early reduction
  - Create incentives for emission reductions beyond those required
  - Promote innovation, and
  - Increase flexibility and ensure reliability
- In addition to including mass-based state goals to clear the path for mass-based trading plans, the final rule gives states the opportunity to design state rate-based or mass-based plans that will make their units “trading ready,” allowing individual power plants to use out-of-state reductions – in the form of credits or allowances, depending on the plan type – to achieve required CO<sub>2</sub> reductions, without the need for up-front interstate agreements.
- EPA is committed to supporting states in the tracking of emissions, as well as tracking allowances and credits, to help implement multi-state trading or other approaches.

## RELIABILITY ASSURANCE

- The final rule has several features that reflect EPA’s commitment to ensuring that compliance with the final rule does not interfere with the industry’s ability to maintain the reliability of the nation’s electricity supply:
  - A long compliance period, and phased-in reduction requirements, providing sufficient time and flexibility for the planning and investment needed to maintain system reliability.
  - A basic design that allows states and affected EGUs flexibility to include a large variety of approaches and measures to achieve the environmental goals in a way that is tailored to each state’s and utility’s energy resources and policies, including trading within and between states, and other multi-state approaches that support electric system reliability.
  - A requirement that each state demonstrate in its final plan that it has considered reliability issues in developing its plan.
  - A mechanism for a state to seek a revision to its plan in case unanticipated or significant reliability challenges arise.

- A reliability safety valve to address situations where, in the wake of an unanticipated event or other extraordinary circumstances, an affected power plant must provide reliability-critical generation notwithstanding CO<sub>2</sub> emissions constraints that would otherwise apply.
- In addition to the measures outlined in the rule EPA, the Department of Energy (DOE) and the Federal Energy Regulatory Commission (FERC) are coordinating efforts to monitor the implementation of the final rule to help preserve continued reliable electricity generation and transmission.

## STATE PLAN TIMING

- States will be required to submit a final plan, or an initial submittal with an extension request, by September 6, 2016.
- Final complete state plans must be submitted no later than September 6, 2018.
- The final rule provides 15 years for full implementation of all emission reduction measures, with incremental steps for planning and demonstration that will ensure progress is being made in achieving CO<sub>2</sub> emission reductions.
- Each state plan must include provisions that will allow the state to demonstrate that the plan is making progress toward meeting the 2030 goal. The Clean Power Plan offers several options for states to show their progress for meeting interim CO<sub>2</sub> emission performance rates or state CO<sub>2</sub> emission interim step goals.
- In addition to offering three multi-year “step down” goals within the interim period, the final rule also allows states to apply measures in a gradual way that they determine is the most cost-effective and feasible.
- During the interim period states are required periodically to compare emission levels achieved by their affected power plants with emission levels projected in the state plan and report results to EPA.

## HELPING COMMUNITIES BENEFIT FROM CLEAN ENERGY

- The Clean Power Plan gives states the opportunity to ensure that communities share in the benefits of a clean energy economy, including energy efficiency and renewable energy.
- EPA is creating a Clean Energy Incentive Program (CEIP) to reward early investments in wind and solar generation, as well as demand-side energy efficiency programs implemented in low-income communities, that deliver results during 2020 and/or 2021.
- Through this program, EPA intends to make allowances or emission rate credits (ERCs) available to states that incentivize these investments. EPA is providing additional incentives to encourage energy efficiency investments in low-income communities.

## COMMUNITY INVOLVEMENT AND ENVIRONMENTAL JUSTICE

- The final rule reflects two years of unprecedented outreach and engagement with stakeholders and the public, and incorporates changes directly responsive to stakeholders' critical concerns and priorities.
- Public engagement was essential throughout the development of the Clean Power Plan, and EPA will continue to engage with communities and the public now that the rule is final.
- To ensure opportunities for communities – particularly low-income communities, minority communities and tribal communities – to continue to participate in decision making, EPA is requiring that states demonstrate how they are actively engaging with communities as part of their public participation process in the formulation of state plans.
- The requirement for meaningful engagement within state plans will provide an avenue for all communities to both hear from the state about strategies that might work best to tackle climate pollution, and to provide input on where possible impacts to low-income communities, minority communities, and tribal communities could occur along with strategies to mitigate those impacts.
- The final rule includes information on communities living near power plants, and EPA will provide additional information to facilitate engagement between communities and states as implementation of the Clean Power Plan moves forward. For example, the agency will provide guidance on strategies states can use to meaningfully engage with communities, along with other resources and information, on a portal web page the agency will develop for communities' use.
- As implementation of the Clean Power Plan goes forward, the agency will conduct air quality evaluations to determine impacts that state plans may have on vulnerable communities. EPA encourages states to conduct analyses to help states, communities and utilities understand the potential localized and community impacts of state plans.
- To help with these analyses, EPA will ensure emissions data is available and easily accessed through the Clean Power Plan Communities Portal web page. The agency also will provide demographic information and other data, along with examples analyses that states have conducted to assess the impact of other rules.

**United States Court of Appeals**  
FOR THE DISTRICT OF COLUMBIA CIRCUIT

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**No. 15-1363****September Term, 2015****EPA-80FR64662****Filed On: January 21, 2016**

State of West Virginia, et al.,

Petitioners

v.

Environmental Protection Agency and Regina  
A. McCarthy, Administrator, United States  
Environmental Protection Agency,

Respondents

-----  
American Wind Energy Association, et al.,  
Intervenors  
-----Consolidated with 15-1364, 15-1365,  
15-1366, 15-1367, 15-1368, 15-1370,  
15-1371, 15-1372, 15-1373, 15-1374,  
15-1375, 15-1376, 15-1377, 15-1378,  
15-1379, 15-1380, 15-1382, 15-1383,  
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15-1410, 15-1413, 15-1418, 15-1422,  
15-1432, 15-1442, 15-1451, 15-1459,  
15-1464, 15-1470, 15-1472, 15-1474,  
15-1475, 15-1477, 15-1483, 15-1488**BEFORE:** Henderson, Rogers, and Srinivasan, Circuit Judges**ORDER**

Upon consideration of the motion for stay and expedition and the motions for stay, the responses thereto, and the replies; the joint motion to establish briefing format and expedited briefing schedule, the responses thereto, and the replies; and petitioner LG & E and KU Energy's motion in No. 15-1418 to sever certain issues and hold them in abeyance and the oppositions thereto, it is

**United States Court of Appeals**  
FOR THE DISTRICT OF COLUMBIA CIRCUIT

**No. 15-1363****September Term, 2015**

**ORDERED** that the motions for stay be denied. Petitioners have not satisfied the stringent requirements for a stay pending court review. See Winter v. Natural Res. Def. Council, Inc., 555 U.S. 7, 20 (2008); D.C. Circuit Handbook of Practice and Internal Procedures 33 (2015). It is

**FURTHER ORDERED** that consideration of these appeals be expedited. It is

**FURTHER ORDERED** that the motion in No. 15-1418 to sever certain issues and hold them in abeyance be denied. It is

**FURTHER ORDERED**, on the court's own motion, that by noon on January 27, 2016, the parties submit a proposed format for the briefing of all the issues in these cases, as well as a proposed schedule that ensures that all initial briefs are filed by April 15, 2016, the deferred appendix is filed by April 18, 2016, and the final briefs are filed by April 22, 2016. The parties are reminded that the court looks with extreme disfavor on repetitious submissions, and the parties are encouraged to limit both the number and size of the briefs they propose to file. It is

**FURTHER ORDERED** that oral argument be scheduled before this panel on June 2, 2016, commencing at 9:30 a.m. The parties should also reserve June 3 in the event argument cannot be concluded on June 2nd.

The parties are directed to hand-deliver the paper copies of their submission to the court by the time and date due.

**Per Curiam**

**FOR THE COURT:**

Mark J. Langer, Clerk

BY:

John J. Accursio  
Deputy Clerk/LD

**15-1363**

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**United States Court of Appeals  
for the District of Columbia Circuit**

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STATE OF WEST VIRGINIA, et al.,

*Petitioner,*

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.,

*Respondents.*

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On Petition for Review of Environmental Protection Agency Final Action

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**Proof Brief for State and Municipal Intervenors in Support of  
Respondents by the States of New York, California, Connecticut,  
Delaware, Hawai'i, Illinois, Iowa, Maine, Maryland, Massachusetts,  
Minnesota, New Hampshire, New Mexico, Oregon, Rhode Island,  
Vermont, Virginia, and Washington; the District of Columbia; the Cities  
of Boulder, Chicago, New York, Philadelphia, and South Miami;  
and Broward County, Florida**

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Dated: March 29, 2016

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**CERTIFICATE AS TO PARTIES,  
RULINGS, AND RELATED CASES**

Pursuant to Circuit Rule 28(a)(1)(A), the undersigned State, District, and City Intervenors-Respondents adopt the certificate as to parties, rulings, and related cases in respondent EPA's brief.

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## GLOSSARY OF ABBREVIATIONS

EPA	Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
EPA Br.	Respondent EPA's Initial Brief
Power Co. Br.	Brief of Intervenor Power Companies in Support of Respondents
Br.	Opening Brief of Petitioners on Core Legal Issues
Legal Mem.	Environmental Protection Agency Legal Memorandum Accompanying Clean Power Plan for Certain Issues (Aug. 2015)

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Environmental Protection Agency's Response to Comments (Oct. 23, 2015) (EPA-HQ-OAR-2013-0602-37106)

## PRELIMINARY STATEMENT

The undersigned Intervenor States and Municipalities (State Intervenor) submit this brief in support of the Environmental Protection Agency (EPA). State Intervenor have a compelling and urgent interest in reducing dangerous carbon-dioxide pollution from the largest source of those emissions: fossil-fueled power plants. Our residents and businesses are already experiencing harms from climate change, such as flooding from rising seas, increasingly severe storms, and prolonged droughts. Unless greenhouse gases are significantly reduced, climate change threatens to worsen these harms as well as to increase extreme heat and ozone pollution, which lead to premature deaths. For years, State Intervenor have pursued multiple avenues to reduce carbon-dioxide pollution from power plants—including by implementing their own programs to curtail those emissions, and by demanding that EPA comply with its mandate to provide comprehensive nationwide regulation of power-plant carbon pollution.

The Clean Power Plan, 80 Fed. Reg. 64,662 (Oct. 23, 2015) (“Rule”), is an important step towards fulfilling EPA’s mandate under section 111(d) of the Clean Air Act. The Rule establishes a nationwide

framework to achieve meaningful and cost-effective reductions of carbon-dioxide emissions from power plants and provides States and power plants flexibility to decide how best to achieve these reductions. The Rule's emission guidelines properly build on existing trends in the industry as well as the experiences of States in addressing such emissions. The Rule is accordingly a legitimate, tailored exercise of EPA's statutory mandate to serve "as primary regulator of greenhouse gas emissions." *Am. Elec. Power Co. v. Conn.* ("AEP"), 564 U.S. 410, 427-28 (2011).

State and industry petitioners challenging the Rule argue that the Rule intrudes on States' traditional authority over the generation and consumption of electricity and commandeers the States to implement a federal program. These arguments are meritless. The Rule properly implements EPA's unambiguous statutory authority to regulate carbon-dioxide emissions from power plants. Any effect that the Rule may have on energy-generation decisions is a permissible consequence of that delegated authority, and does not meaningfully distinguish this rule from prior pollution limits that EPA has established for power plants.

Absent meaningful federal regulation like the Rule, State Intervenor may be unable to obtain needed reductions in carbon-dioxide emissions from existing power plants located in other States. Notably, the Supreme Court held in *AEP* that States cannot bring federal common-law claims against those power plants in light of EPA's comprehensive authority to regulate power plant greenhouse-gas emissions pursuant to section 111(d). EPA has now exercised that authority. This Court should reject petitioners' meritless challenges to the Rule.

### **ISSUES PRESENTED, STATUTES, AND REGULATIONS**

The issues presented are set forth in EPA's brief. All applicable statutes and regulations are attached to EPA's brief, except for those contained in the attached addendum.

### **STATEMENT OF THE CASE**

State Intervenor adopt EPA's Statement of the Case and emphasize the following:

State Intervenor have pursued more than a decade of litigation and regulatory activity in an effort to achieve meaningful limitations on carbon-dioxide emissions. In 2003, certain State Intervenor sued EPA

to compel regulation of greenhouse-gas emissions from new motor vehicles under section 202 of the Clean Air Act. The Supreme Court held that the Act's broad definition of "air pollutant" unambiguously covers greenhouse gases, and that EPA was accordingly obliged "to regulate emissions of the deleterious pollutant" if it found that greenhouse-gas emissions endanger public health or welfare. *Massachusetts v. EPA*, 549 U.S. 497, 528-29, 533 (2007).

EPA subsequently found that greenhouse gases, including carbon dioxide, endanger public health and welfare by causing more intense, frequent, and long-lasting heat waves; worse smog in cities; longer and more severe droughts; more intense storms such as hurricanes and floods; the spread of disease; and a dramatic rise in sea levels. 74 Fed. Reg. 66,496, 66,497, 66,524-25, 66,532-33 (Dec. 15, 2009). These effects harm State Intervenors' residents, infrastructure, and industries, such as farming, tourism, and recreation, as well as the States' wildlife habitats. See 80 Fed. Reg. at 64,682-88. This Court upheld EPA's endangerment finding, and its conclusions are not in dispute here. *Coal. for Responsible Regulation, Inc. v. EPA*, 684 F.3d 102, 120-21 (D.C. Cir. 2012) (per curiam), cert. granted in part on other grounds, 134 S. Ct.

418 (2013), *aff'd in part, rev'd in part*, *Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427 (2014).

While *Massachusetts* was still pending, certain State Intervenors brought common-law public-nuisance claims directly against power plants, seeking reductions in the greenhouse-gas pollution that was harming the health and welfare of their citizens. *See AEP*, 564 U.S. at 418. But when *AEP* reached the Supreme Court (after *Massachusetts*), the Court rejected the States' federal common-law claims, holding that the Clean Air Act "directly" authorized EPA to regulate greenhouse gases from power plants under section 111(d). *Id.* at 424 (quotation marks omitted). Because of this statutory authority, "the Clean Air Act and the EPA actions it authorizes displace any federal common-law right to seek abatement of carbon-dioxide emissions from fossil-fuel fired powerplants." *Id.*

To spur EPA to regulate greenhouse-gas emissions, some State Intervenors also sued EPA for failing to establish emission standards and guidelines under section 111. *See New York v. EPA*, No. 06-1322 (D.C. Cir., filed Sept. 13, 2006). After the Supreme Court decided *Massachusetts*, this Court remanded *New York* to EPA for further

proceedings, and EPA agreed to proceed with rulemaking under section 111. EPA's rulemaking process culminated in the Clean Power Plan.

### SUMMARY OF ARGUMENT

The Clean Power Plan is a reasonable and legitimate exercise of EPA's authority to limit harmful carbon-dioxide emissions from existing power plants. Both the purpose and effect of the Rule are to curtail these emissions and thus address the severe and ongoing harms to individuals and the economy caused by this pollution. The Rule properly incorporates and relies on existing trends and industry strategies to bring about these needed reductions.

Petitioners complain that the Rule improperly intrudes on State decisions about their "generation mix." Br. at 39. This argument is meritless. The Rule does not "control each State's energy mix," as petitioners claim (Br. at 24), and any effect on a State's energy mix is a permissible consequence of EPA's undisputed authority to regulate carbon-dioxide emissions. Indeed, an interpretation of the Clean Air Act that would forbid an emission regulation from affecting the energy sector would prevent EPA from regulating harmful emissions from

power plants at all, despite their being a substantial source of greenhouse gases as well as many other harmful pollutants.

Petitioners are also wrong in arguing that the Rule improperly commandeers or coerces States. Through section 111(d)'s well-established cooperative-federalism structure, States can decline to implement federal emission guidelines, leaving EPA to regulate power plants directly through a federal plan. The fact that States and their regulators may be faced with reviewing power plants' decisions to comply with the federal plan does not constitute commandeering or coercion: to the contrary, the Rule does nothing to restrict or control how States exercise their authority in reviewing those decisions.

Additionally, State Intervenors agree with EPA that petitioners' remaining challenges lack merit. In particular, EPA properly interpreted section 111(d) when it (1) selected the "best system of emission reduction," (2) determined EPA could regulate power plants' carbon-dioxide emission under section 111 while regulating their mercury emissions under section 112, and (3) established a minimum level of reductions in the Rule.

## ARGUMENT

### POINT I

#### **THE RULE LAWFULLY IMPLEMENTS EPA'S OBLIGATION TO REGULATE CARBON-DIOXIDE EMISSIONS UNDER THE COOPERATIVE-FEDERALISM STRUCTURE OF SECTION 111(d)**

##### **A. The Rule Directly Regulates Carbon Pollution Without Improperly Intruding on State Authority.**

Under the Clean Air Act, EPA has a mandate to serve “as primary regulator of greenhouse gas emissions” from power plants. *AEP*, 564 U.S. at 427-28; *see also Texas v. EPA*, 726 F.3d 180, 197 (D.C. Cir. 2013). The Rule is a legitimate exercise of this legislative mandate because it establishes a regulatory structure that directly limits carbon-dioxide emissions from existing power plants.

As outlined in its preamble, the Rule’s “fundamental goal” is “reduc[ing] harmful emissions” of carbon dioxide from fossil-fueled power plants “in accordance with the requirements of the [Clean Air Act].” 80 Fed. Reg. at 64,665. To achieve this goal, the Rule sets guidelines that States (or EPA under a federal plan) will use to establish standards of performance for different categories of power plants, based on EPA’s determination of the “best system of emission reduction” “adequately demonstrated” to reduce carbon-dioxide

emissions, 42 U.S.C. § 7411(a)(1). *See* 80 Fed. Reg. at 64,667, 64,820. Both the justification and operation of the Rule are accordingly “all about, and only about,” reducing carbon pollution, *FERC v. Elec. Power Supply Ass’n (“EPSA”)*, 136 S. Ct. 760, 776 (2016)—a subject matter squarely within EPA’s statutory mandate.

Petitioners challenge the Rule as an illegitimate effort by EPA to “invade” the States’ purportedly “exclusive” control over the “mix” of energy inside their borders. *See* Br. at 39-40. Specifically, petitioners object that the Rule’s incorporation of “generation-shifting” methods into the “best system” will effectively “mandate[] changes to the power generation mix in individual States, supplanting the States’ traditional authority in this area.” *Id.* This argument fails for two reasons.

First, contrary to petitioners’ assertion (Br. at 40), States do not have “exclusive” control over the mix of energy-generation sources within their borders. States’ decisions regarding their energy sectors have long been constrained by the concurrent regulatory authority of Congress, which has delegated authority to federal agencies over many

aspects of operating power plants.<sup>1</sup> For example, a State's decision to incentivize new hydroelectric dams<sup>2</sup> or nuclear power plants is subject to the authority of the Federal Energy Regulatory Commission and Nuclear Regulatory Commission, respectively, to approve such projects. See 16 U.S.C. § 817(1); 42 U.S.C. § 2131 & 10 C.F.R. § 50.10(b).<sup>3</sup> Concurrent federal jurisdiction over aspects of running a power plant properly reflects the fact that many of those aspects likely affect multiple States due to safety and environmental risks that cross state lines, as well as the interconnected nature of the electricity market. See, e.g., *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 205 (1983).

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<sup>1</sup> Cf. *EPSA*, 136 S. Ct. at 776 (noting that federally regulated wholesale electricity market and state-regulated retail electricity market “are not hermetically sealed from each other”); *Oneok, Inc. v. Laerjet, Inc.*, 135 S. Ct. 1591, 1601 (2015) (“platonic ideal” of “clear division between areas of state and federal authority in natural-gas regulation” does not exist).

<sup>2</sup> See, e.g., Tex. Utilities Code § 39.904(a) (mandating 5,000 megawatts of new renewable energy sources, including hydroelectric sources, by 2015).

<sup>3</sup> See also Neb. Op. Att’y Gen. No. 04024 (Sept. 7, 2004) at 2, 8 (recognizing that the federal Public Utility Regulatory Policies Act, which encourages use of renewable energies, preempts conflicting Nebraska law).

EPA's pollution regulations are simply another federal constraint that States and power plants must heed in this complex area of overlapping state and federal authority.<sup>4</sup> It is well established that air pollutants—including carbon-dioxide emissions—have substantial interstate effects that the Clean Air Act was designed to address. *See EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584, 1593-94 (2014); *Massachusetts*, 549 U.S. at 521-22. State policy choices in this area thus appropriately account for and yield to federal emission regulations. *See Hodel v. Va. Surface Mining & Reclamation Ass'n*, 452 U.S. 264, 290 (1981). Although States make policy-based decisions about their energy markets (and will continue to do so under the Rule),

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<sup>4</sup> State regulators and power plants are accustomed to overlapping federal and state constraints in this area. *See, e.g., In re Appalachian Power Co. DBA, Am. Elec. Power*, No. 13-0764-E-CN, 2014 WL 5212906, at \*1 (W. Va. Pub. Serv. Comm'n, Feb. 12, 2014) (approving conversion of several coal-fired units to natural gas to “retain needed generation capacity while complying with the recent tightening of federal environmental regulations”). *In re Portland Gen. Elec. Co.*, No. 10-457, 2010 Or. PUC LEXIS 400 (Or. Pub. Util. Comm'n, Nov. 23, 2010) (approving power company's plan to reduce use of coal as least-risk option to meet demand and maintain reliability in response to federal regional haze and mercury rules). *See also infra* 20-22.

no principle of law suggests that States have authority to determine their energy-generation mix regardless of federal environmental laws.

Second, even assuming that energy-generation mix is an area of “exclusive State jurisdiction” (Br. at 40), the Rule remains a lawful exercise of EPA’s statutory authority because any changes to energy mix would merely be an incidental effect of the Rule’s permissible focus on reducing carbon-dioxide emissions. As the Supreme Court recently explained in *EPSCA*, 136 S. Ct. at 776, whether a federal regulation improperly intrudes on an area of state control should be judged by assessing what it directly regulates, not by looking at any downstream effects it may have. In that case, the Court addressed a federal rule that directly “regulate[d] what takes place on the *wholesale* [electricity] market”—an area of federal regulation authorized by the Federal Power Act—but that also “of necessity” “affect[ed]” retail electricity rates—an area expressly reserved to the States under the Act. *Id.* The Court held that the rule’s effect on retail rates was “of no legal consequence” and did not “run afoul” of the Act’s grant of authority to States over retail electricity. *Id.*

The same is true here. The Rule directly regulates pollution, a subject squarely within EPA's regulatory jurisdiction; it is thus permissible regardless of its potential downstream effects on a State's energy mix. *Cf. Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277, 1280 (D.C. Cir. 2007) (recognizing that FERC's "indisputable authority" over entities directly subject to its jurisdiction "may, of course, impinge as a practical matter on the behavior of non-jurisdictional" entities).

Indeed, it would be difficult or even impossible for EPA to require meaningful pollution reductions from power plants if, as petitioners contend (*see* Br. at 39), its regulations could not in any way affect state or private choices about energy generation. Because power-plant emissions are the inherent product of electricity generation, *any* pollution limits will almost certainly affect where and how that energy is produced. *See* 80 Fed. Reg. at 64,689. For example, where pollution limits increase the cost of dirtier energy, they will necessarily cause more expensive dirtier power to be replaced by cheaper cleaner power, because demand for electricity is satisfied by the least expensive option available on an "interconnected grid of near-nationwide scope." *EPSA*,

136 S. Ct. at 768 (quotation marks omitted); *see also* 80 Fed. Reg. at 64,692, 64,780. Thus, power plants commonly comply with pollution limits in part by shifting to lower-emitting fuels or renewable technologies. *See* 80 Fed. Reg. at 64,781 (citing numerous examples where power plants “have reduced their individual generation, or placed limits on their generation, in order to achieve, or obviate, emission standards”).

The Clean Air Act itself reflects Congress’s understanding of the connection between pollution regulation and electricity generation. As the Supreme Court has recognized, EPA’s mandate under section 111(d) is to make an “informed assessment of competing interests[,]” including not only “the environmental benefit potentially achievable,” but also “our Nation’s energy needs.” *AEP*, 564 U.S. at 427; *see* 42 U.S.C. § 7411(a). Congress thus contemplated that pollution limits for power plants would have an indirect effect on energy markets.

The Rule’s permissible focus on pollution reduction rather than direct energy regulation is demonstrated by the fact that it is agnostic about the specific means by which States and power plants achieve the Rule’s emission limits. Far from “forc[ing]” or “mandat[ing]” any “particular levels” of generation in “individual States” (Br. at 39), the

Rule instead gives States substantial flexibility to determine how emission limits will be met, so long as the Rule's pollution-reduction goals are satisfied. Although EPA determined that cost-effective and available reductions could be achieved in part by increasing electricity generation from cleaner fuels or renewable energy—methods that power plants have used to comply with air quality regulations for years, *see* 80 Fed. Reg. at 64,666-67, 64,710—nothing in the Rule requires States or sources to adopt such measures in the manner or at the level that EPA has determined is achievable. *See* 80 Fed. Reg. at 64,666-67, 64,710. Accordingly, States and power plants may implement the Rule's required emission reductions through a broad range of available measures, including not just the specific “generation shifting” measures identified by EPA as part of the “best system,” but also (1) increases in energy efficiency at power plants (“heat rate” improvements); (2) use of natural gas alongside coal to fuel plants (“co-firing”); (3) demand-side measures like energy efficiency programs; or (4) some combination of these and other options. *See* 80 Fed. Reg. at 64,709, 64,755-57, 64,833-36. In addition, a State can use trading programs that provide power plants with the flexibility to continue preexisting carbon-dioxide

emissions by purchasing sufficient credits or allowances. 80 Fed. Reg. at 64,727.

The Rule thus operates in a manner similar to many previous Clean Air Act regulations by controlling air pollution from power plants without dictating the precise manner by which States and sources comply with these pollution limits. *See, e.g., Mich. v. EPA*, 213 F.3d 663, 687-688 (D.C. Cir. 2000) (EPA's rule provided States with "real choice" in implementing the "assigned reduction levels"); *see also Am. Farm Bureau Fed'n v. EPA*, 792 F.3d 281, 303 (3d Cir. 2015) (giving States flexibility in achieving water quality limits preserves State autonomy in areas such as land-use and zoning), *cert. denied*, 84 U.S.L.W. 3475 (Feb. 29, 2016). This balance between federal and State authority appropriately helps to ensure that the Rule will achieve meaningful reductions in carbon-dioxide emissions without unduly intruding on State regulation of energy.

By contrast, petitioners' expansive view of traditional state authority would insulate power plants from Clean Air Act regulation even though they emit vast quantities of many dangerous air pollutants and are the most significant sources of carbon dioxide, a pollutant that

is gravely affecting public health and welfare. This is not the law. As the Supreme Court recognized, the Clean Air Act requires EPA to address greenhouse-gas emissions from power plants, and this mandate displaces the States' own federal common-law remedies. *AEP*, 564 U.S. at 427. No basis exists for petitioners' narrow interpretation of EPA's authority to curtail carbon-dioxide emissions from the stationary sources most responsible for them.

**B. The Rule Does Not “Commandeer” or “Coerce” the States.**

**1. The option of direct federal regulation under a federal plan defeats petitioners' commandeering argument.**

Petitioners argue that the Rule “commandeers” the States by forcing them to “facilitate” implementation of the Rule. Br. at 78-79. But the Rule does not require a State to implement its requirements. To the contrary, as is typical under cooperative-federalism statutes, EPA will itself implement and enforce the Rule under a federal plan if a State chooses not to submit a plan. 80 Fed. Reg. at 64,881-82; *see* 42

U.S.C. § 7411(d)(2).<sup>5</sup> Under the proposed federal plan, EPA would directly regulate power plants, not “States as States,” *Hodel*, 452 U.S. at 287-88; and power plants could comply with the federal plan by purchasing allowances under a trading scheme and implementing any other necessary measures to reduce emissions. 80 Fed. Reg. 64,966, 64,970 (Oct. 23, 2015). The federal-plan option removes any “suggestion that the [Rule] commandeers the legislative processes of the States by directly compelling them to enact and enforce a federal regulatory program.” *Hodel*, 452 U.S. at 288; *see also* *EPISA*, 136 S. Ct. at 780; *Miss. Comm’n on Env’tl Quality v. EPA*, 790 F.3d 138, 175 (D.C. Cir. 2015) (per curiam); *Texas*, 726 F.3d at 196.

Petitioners argue that the Rule nonetheless *indirectly* commandeers States because state regulators may still be “forced to review siting decisions, grant permit applications, and issue certificates of public convenience,” or will be compelled to take action to “address reliability issues caused” by power plants’ efforts to comply with a federal plan’s

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<sup>5</sup> A State’s initial decision to accept direct federal regulation of the State’s power plants is not irreversible. States that initially decline to submit a plan can submit one later. 40 C.F.R. § 60.5720(b).

emission limits. Petitioners assert that because of these efforts EPA will not bear the “full regulatory burden” of the Rule under a federal plan. Br. at 82-84 (quoting *Hodel*, 452 U.S. at 288). This argument fails.

As an initial matter, petitioners misunderstand *Hodel*'s reference to the “full regulatory burden” of a federal regulation. For purposes of this constitutional analysis, *Hodel* makes clear that the burden of implementing a federal regulation is the burden of imposing it on the activities or individuals “actually regulated”—in this case, power plants. 452 U.S. at 289. The burden does not include the regulation’s “conceivable effects” on other areas of traditional State control. *Id.*; see also *Gordon v. Holder*, 721 F.3d 638 (D.C. Cir. 2013) (incidental effects of tobacco regulation on State’s tax collection burden were “constitutionally permissible”).<sup>6</sup> Thus, the fact that the Rule may have

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<sup>6</sup> This point is further supported by the experience of States under the Surface Mining Act, which was upheld in *Hodel*. For example, under that Act, the federal Office of Surface Mining Reclamation and Enforcement imposed a federal coal surface mining program on the State of Washington, but the State continued to handle permitting in order to address the effect of mining on state resources. See 30 C.F.R. §§ 947.773(e) (listing related state permits), 947.816(b) (federal “performance standards” require that “[a]ll operators shall have a plan of reclamation approved by the Washington Department of Fisheries”).

the “conceivable effect” of causing power plants to seek approval from state regulators for their compliance choices is legally irrelevant.

Additionally, the regulatory actions to which petitioners object are not a result of the Rule, but rather a result of States’ continued choice to exercise a role in regulating (or deregulating<sup>7</sup>) their electric utilities and infrastructure. State regulators routinely choose to play a role in this area by reviewing changes in power generation—whether caused by state or federal regulations, economic forces, industry practice, or power-plant owners’ private business decisions. It is thus common, even in petitioner States, for state regulators to evaluate and decide applications from power plants seeking to comply with federal air-quality regulations or to recover the costs of such compliance.<sup>8</sup> For

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<sup>7</sup> In deregulated States, such as New Jersey, Michigan, Ohio, and Texas, power plants sell electricity and make investment decisions in wholesale markets overseen by the Federal Energy Regulatory Commission. *See* 80 Fed. Reg. at 64,796. *See also* Br. at 38, n.23 (noting New Jersey’s choice to deregulate).

<sup>8</sup> *See In re Tucson Elec. Power Co.*, No. E-01933A-12-0291, 2013 WL 3296522, at \*6, 32, 59 (Ariz. Corp. Comm’n, June 27, 2013) (allowing power company to recover costs of complying with federal air pollution rules); *In re Ariz. Pub. Serv. Co.*, No. E-01345A-10-0474, 2012 WL 1455090, at \*33-35 (Ariz. Corp. Comm’n, Apr. 24, 2012) (allowing power plant owner to pursue acquisition of additional existing coal

*(continued on the next page)*

example, the Kentucky Public Service Commission approved a power plant's plans to convert a unit to natural gas to comply with EPA's Mercury and Air Toxics Rule because the conversion was the most cost-effective option that also ensured a continued reliable supply of energy.<sup>9</sup> Similarly, the Public Service Commission of Wisconsin approved a power plant's request to convert to natural gas to comply with federal environmental standards after determining, under Wisconsin law, that there were no more reliable or cost-effective alternatives and that the project was in the public interest.<sup>10</sup>

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plants on condition owner consider clean and renewable energy options); *In re Montana-Dakota Utilities Co.*, No. PU-11-163, 2012 WL 2849479 (N.D. Pub. Serv. Comm'n, May 9, 2012) (considering options presented by conversion to natural gas and investment in renewable energy when granting application to comply with regional haze regulations); *see also* M.J. Bradley & Associates, *Public Utility Comm'n Study*, EPA Contract No. EP-W-07-064 (Mar. 31, 2011) (describing responses by utility regulators, including in Indiana, Georgia, and West Virginia, to power plant efforts to comply with federal pollution regulations).

<sup>9</sup> *In re Ky. Power Co.*, No. 2013-00430, 2014 Ky. PUC LEXIS 583 (Ky. Pub. Serv. Comm'n, Aug. 1, 2014).

<sup>10</sup> *In re Wis. Electric Power Company*, No. 6630-CU-101, 2014 Wisc. PUC LEXIS 80 (Wis. Pub. Serv. Comm'n, Mar. 17, 2014). As another example, Virginia's State Corporation Commission granted a power plant's application to convert from coal to natural gas after Clean

(continued on the next page)

The fact that state regulatory agencies will continue exercising their ordinary oversight over their electric utilities—including over decisions made by power plants to comply with a federal plan—does not mean the Rule commandeers States. The States’ regulatory oversight is independent of the Rule, not a new mandate imposed by EPA. And the Rule imposes no constraints on how States may exercise their authority over power plants. *See* EPA Br. at 57-58, 103-104. States thus remain free to deny (for example) a permit, rate change, or plant closure requested by a power plant. It is the obligation of the power plant faced with such a denial to identify and pursue a different compliance option that will be acceptable both to state regulators and to EPA.

As an example, in its regional haze rule, EPA had identified scrubbers as the “best available retrofit technology” for coal plants. *See* 70 Fed. Reg. 39,104, 39,110 (July 6, 2005); *see also* 76 Fed. Reg. 81,728, 81,729 (Dec. 28, 2011) (federal plan). Oklahoma regulators nonetheless

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Air Act requirements made the continued use of coal uneconomical. The Commission made clear that state law governed its decision, regardless of the purpose for the application. *In re Va. Elec. & Power Co.*, No. PUE-2012-00101, 2013 Va. PUC LEXIS 633, at \*18-\*19 (Va. Corp. Comm’n, Sept. 10, 2013).

denied a request from the Oklahoma Gas and Electric Company to install scrubbers at one plant and convert two other coal plants to natural gas, in part because the company had not appropriately analyzed whether other alternatives, such as renewable energy, would be more cost-effective.<sup>11</sup> The federal plan there did not preclude Oklahoma from reaching this determination, nor did it allow the company to ignore Oklahoma's independent state-law authority to review and deny such an application. The Rule here is similar and would not preclude State regulators from exercising their independent judgment when entertaining power-plant applications.

The Rule's preservation of state regulators' preexisting authority over electricity generation easily distinguishes the Rule from the statutes that were found to impermissibly commandeer States in *Printz v. United States*, 521 U.S. 898, 932-33 (1997), and *New York v. United States*, 505 U.S. 144, 167-68, 176-77 (1992). See Br. at 82-83. In both of those cases, the relevant federal statutes supplanted state authority and directed state officials or agencies to act in a specific way. Here, in

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<sup>11</sup> See *In re Ok. Gas & Elec. Co.*, No. PUD 201400229, 2015 Okla. PUC LEXIS 397, at \*18-\*20 (Ok. Corp. Comm'n, Dec. 2, 2015).

contrast, the Rule places no restrictions on the States' continued exercise of authority over any compliance decisions by power plants.

## **2. The Rule does not coerce States.**

Petitioners repackage their “commandeering” claims to argue that the Rule also “coerces” States by threatening them with “electricity shortfalls” they must address by “facilitat[ing] generation-shifting.” Br. at 84-85. But this argument fails for the same reason the commandeering argument fails. State regulators have always considered the need to maintain the reliability of the electricity grid in overseeing the construction and operation of power plants. The Rule preserves this role. The Rule thus does not “coerce” any regulatory action beyond what States have long been accustomed to doing.<sup>12</sup>

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<sup>12</sup> Petitioners are mistaken in their assertion that the proposed federal plan “expressly relies” on state regulators to ensure reliability of the grid. Br. at 83. In the proposed federal rule, EPA recognizes that state planning authorities have a role in ensuring reliability. 80 Fed. Reg. at 64,981. But EPA has proposed that its implementation of a federal plan will principally rely on coordination with other federal agencies (specifically, the Department of Energy and the Federal Energy Regulatory Commission) to help ensure reliability. 80 Fed. Reg. at 64,982.

In any event, as explained by EPA in its brief, EPA Br. at 102, 150-53, and in the Rule, EPA exhaustively studied reliability and found the Rule “does not interfere with the industry’s ability to maintain the reliability of the nation’s electricity supply.” 80 Fed. Reg. at 64,875-76. Petitioners have not met their burden of showing that the Rule is unconstitutional. *See Miss. Comm’n on Env’tl Quality*, 790 F.3d at 178.

## POINT II

### EPA’S INTERPRETATION OF SECTION 111(d) IS REASONABLE AND CORRECT

As EPA explains, petitioners’ other challenges to the Rule are meritless. State Intervenors add only the following points:

#### **A. EPA Reasonably Incorporated Longstanding Pollution-Control Strategies in Determining the Best System.**

In determining the guidelines to apply to carbon-dioxide emissions from existing power plants, EPA was required to select the “best system of emission reduction” that is “adequately demonstrated” to achieve pollution reductions. 42 U.S.C. § 7411(a)(1). To satisfy this statutory obligation, EPA appropriately considered “strategies, technologies and approaches already in widespread use by power companies and states”

to address the unique qualities of carbon-dioxide pollution and the interconnected electricity grid. 80 Fed. Reg. at 64,664, 64,689; *see also id.* at 64,667, 64,725, 64,744. EPA's careful consideration of existing practices and emission-reduction strategies highlights the Rule's reasonableness.

As EPA explained in the Rule, the interconnected electricity grid allows cleaner generation to replace dirtier generation—whether that cleaner energy is developed in response to policy measures, economic forces, or other factors. *Id.* at 64,677, 64,795. Because of the ease of transitioning to cleaner power through the grid, power plants throughout the United States and abroad already use methods that include reducing their reliance on dirtier fuels in order to limit their carbon-dioxide emissions. *Id.* at 64,727-28. *See* EPA Br. at 31. In addition, there has been a consistent trend away from coal-fired electricity generation for more than a decade in the United States, largely as a result of market forces. 80 Fed. Reg. at 64,725, 64,795. Because of these industry trends and the unique features of the electricity grid, EPA determined that the set of measures it identified as the “best system”—including the use of more natural gas or renewable

energy—was the *least expensive* manner of reducing carbon-dioxide emissions. *Id.* at 64,727 (discussing other cost-effective methods).

EPA’s chosen system of emission reduction also comports with the strategies States and industry have “long relied” on to reduce pollution from fossil-fueled power plants.<sup>13</sup> *See* Power Co. Br. at I. State Intervenor were uniquely positioned to inform EPA’s determination because they have years of direct experience reducing power-plant carbon-dioxide emissions. For example, through the Regional Greenhouse Gas Initiative (RGGI), nine northeast and mid-Atlantic States (all intervenors here) agreed on limits for such emissions and created a trading program through which plants can buy and sell allowances to meet the agreed-upon limits. Natural-gas combustion turbines run more cleanly than coal plants and thus require fewer allowances to generate the same energy. Therefore, one practical effect of the RGGI trading program is that natural gas-fired plants are “called on to operate more often” than more polluting (and thus more

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<sup>13</sup> State Comments at 15-19; *see also* RGGI Comments at 3; RTC Ch. 3.2, at 2; 80 Fed. Reg. at 64,735, 64,783, 64,796, 64,803.

expensive) coal- and oil-fired generation units.<sup>14</sup> Encouraging these shifts, among other steps, helped RGGI states reduce carbon pollution from the power sector by over forty percent between 2005 and 2012.<sup>15</sup> Other programs in Minnesota and California have also led plants to make meaningful reductions to greenhouse-gas emissions through some of the same measures EPA included in the “best system” here.<sup>16</sup>

The experience of power plants in our States has shown that these reductions in carbon-dioxide emissions can be achieved without impeding economic growth or threatening grid reliability. Indeed, State Intervenor’s carbon-reduction initiatives have delivered significant economic benefits.<sup>17</sup> For example, in RGGI’s first three years, participating States realized \$1.6 billion in net economic benefits, largely from reduced energy bills for consumers.<sup>18</sup> Similarly, in Illinois, growth in the wind industry spurred by state regulations created 10,000

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<sup>14</sup> State Comments at 18.

<sup>15</sup> *Id.* at 26.

<sup>16</sup> *Id.* at 23-24. *See also* Iowa Comments at 6.

<sup>17</sup> *See* RGGI Comments at 23, 27-28; State Comments at 12, 15, 19-24.

<sup>18</sup> State Comments at 22.

new local jobs and economic benefits totaling \$3.2 billion between 2003 and 2010.<sup>19</sup>

Petitioners' narrow view of the "best system," Br. at 41-50, would require EPA to *ignore* well-demonstrated systems of emission reduction despite undisputed evidence that power plants are already using these methods and will continue to do so. *See* 80 Fed. Reg. at 64,784-85. Such disregard of directly relevant evidence would be contrary to basic principles of rational agency rulemaking. *See Motor Veh. Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 46-50 (1983); *see also* 80 Fed. Reg. at 64,761, 64,769.

### **B. EPA's Hazardous Air Pollution Regulations Do Not Bar the Clean Power Plan.**

Petitioners argue that EPA is barred from regulating carbon-dioxide from existing power plants because those plants are already regulated—for other pollutants—under the hazardous-air-pollutant program of section 112. Br. at 61-62. This argument must be rejected

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<sup>19</sup> Nichols Comments, Attachments, at 43.

because, among other reasons, it would create a loophole that is incompatible with the Clean Air Act's design and purpose.<sup>20</sup>

The Act establishes three general areas of regulatory authority to ensure comprehensive pollution control for existing sources. The first two areas cover specific pollutants: namely, (1) a small number of "criteria" pollutants, 42 U.S.C. §§ 7408-7410; and (2) a longer list of "hazardous" pollutants, *id.* § 7412. The third area, section 111(d), provides a catchall source of regulatory authority for harmful air pollutants from existing sources to ensure "no gaps in control activities pertaining to stationary source emissions that pose any significant danger to public health or welfare." S. Rep. No. 91-1196, at 20 (1970).

Along with power plants, many other large facilities, such as petroleum refineries, Portland cement facilities, landfills, fertilizer plants, and chemical plants are already regulated for certain hazardous air pollutants under section 112. *See* 40 C.F.R. pt. 61. Petitioners' interpretation of section 111(d), *see* Br. at 68, would create a large gap

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<sup>20</sup> State Intervenors also agree with EPA that petitioners misconstrue the statutory language, and that petitioners' interpretation conflicts with section 112(d)(7). *See* EPA Br. at 76-94.

in the Act's comprehensive coverage because it would preclude EPA's regulation of *any* non-criteria pollutants—including greenhouse gases—under section 111(d) from these sources.<sup>21</sup>

Petitioners argue that Congress meant to bar “double regulation” of power plants under section 111(d) and section 112 (Br. at 68), but regulating different pollutants under different programs is not “double regulation.” And, in fact, EPA and States have long used section 111(d) to limit harmful pollution, such as sulfuric acid mist and fluoride compounds, even though those sources are regulated for other pollutants under section 112.<sup>22</sup> Petitioners' nonsensical interpretation would threaten the viability of these regulations.

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<sup>21</sup> For example, although EPA has proposed to limit methane emissions from new oil and gas sources, *see* 80 Fed. Reg. 56,593 (Sept. 18, 2015), under petitioners' interpretation, EPA would be barred from requiring pollution reductions from existing sources—even though they are among the largest sources of this potent greenhouse gas—because this source category is regulated under section 112 for hazardous pollutants.

<sup>22</sup> Methane and non-methane organic compounds from landfills are regulated under section 111(d) while emissions of vinyl chloride, ethyl benzene, toluene, and benzene from those same sources are regulated under section 112. 61 Fed. Reg. 9,905 (Mar. 12, 1996) & 40 C.F.R. pt. 63, subpt. AAAA. Similarly, fluorides from phosphate fertilizer plants are regulated under section 111(d) and hydrogen fluoride and other  
*(continued on the next page)*

Petitioners' argument is not only wrong, but opportunistic. The power plant defendants in *AEP*, some of which are petitioners here,<sup>23</sup> took a contrary position to the one adopted here to defeat the States' common-law public-nuisance claims in that earlier litigation. At the time *AEP* was argued, EPA had already proposed to regulate hazardous air pollutants from existing power plants—regulations that, under petitioners' arguments now, would have precluded section 111(d) regulation of the same plants.<sup>24</sup> But petitioners in *AEP* never advanced such a constraint on EPA's authority under 111(d). To the contrary,

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pollutants from those sources are regulated under section 112, 42 Fed. Reg. 12,022 (Mar. 1, 1977) & 40 C.F.R. pt. 63, subpt. BB.

<sup>23</sup> For example, Alabama Power Company is a wholly-owned subsidiary of Southern Company (a defendant in *AEP*). American Electric Power Company, Cinergy Corporation, and Southern Company (defendants in *AEP*) are members of Utility Air Regulatory Group, a petitioner here. Many petitioners here were also amici in support of industry in *AEP*, including the Chamber of Commerce, National Rural Electric Cooperative Association, National Mining Association, and nineteen States.

<sup>24</sup> EPA released the proposed Mercury and Air Toxics Standards for power plants on March 16, 2011. See EPA, Mercury and Air Toxics Standards: History of This Regulation, *available at* <https://www3.epa.gov/mats/actions.html> (last visited Mar. 23, 2016). The proposal had been in development, with industry input, since 2009. See 74 Fed. Reg. 31,725, 31,727 (July 2, 2009).

they argued *in favor* of EPA’s “comprehensive” regulatory authority under the Clean Air Act to regulate greenhouse-gas emissions—including under section 111(d)—as a means of displacing the States’ federal common-law nuisance remedies against existing power plants.<sup>25</sup>

**C. EPA Correctly Interpreted Its Authority to Require a Minimum Level of Reductions.**

Petitioners assert the Rule improperly set “standards of performance” for existing power plants because under section 111(d) EPA can only promulgate a “procedure” for submitting state plans, under which States can establish emissions standards that are collectively “less stringent.” Br. at 75. But the statute gives EPA supervisory authority to ensure state plans contain “satisfactory” “standards of performance,” 42 U.S.C. § 7411(d)(1), (2)(A). That supervisory role necessarily entails authority to set criteria for

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<sup>25</sup> See Br. for Pets., 2011 WL 334707, at 41-42 (Jan. 31, 2011); Oral Argument, *AEP*, 2011 WL 1480855, at \*15 (Apr. 19, 2011); see also Amicus Br. for Nat’l Rural Elec. Coop. Ass’n, et al., *AEP*, 2011 WL 396513, at \*9 (Feb. 7, 2011) (asserting EPA could “produce hard emissions standards” under section 111(d) for “air pollutants that are not regulated under certain other provisions of the Clean Air Act, such as GHGs”).

evaluating the standards of performance proposed in state plans. EPA has consistently and reasonably set substantive emission guidelines that set minimum levels of reductions for regulated sources, while allowing States to establish source-specific performance standards. *See* 40 C.F.R. § 60.24(c),(f); 40 Fed. Reg. 53,340, 53,342 (Nov. 17, 1975); Legal Mem. at 21-23. That familiar procedure—followed in the Rule—represents a reasonable interpretation of the proper relationship between EPA and the States under section 111(d).

Petitioners assert a “right” to “relax[]” the rates reflected in the guidelines, Br. at 77-78, relying on language in section 111(d) requiring EPA to “permit” States to “take into consideration, among other factors, the remaining useful life of the existing source” in their plans. 42 U.S.C. § 7411(d)(1). But allowing States to “take into consideration” a particular plant’s remaining useful life cannot plausibly be read to grant petitioners a “right” to establish less stringent emissions standards overall. *Cf. id.* § 7416 (preserving the “right of any State” to establish more stringent emission standards). Instead, as EPA reasonably found, States have sufficient flexibility, as well as “headroom” in the levels, to allow them to “take into consideration” a

particular plant's remaining useful life when establishing performance standards for that plant. *See* 80 Fed. Reg. at 64,869-74, 64,872; Legal Mem. at 40-44.

Accepting petitioners' argument that they can establish emission rates that are collectively "less stringent" than the Rule requires, Br. at 75, would also undermine one of section 111's key functions: to guard against a "race to the bottom" in which some States can create "pollution havens" by setting more relaxed standards in order to create a regulatory environment more favorable to regulated industries. Legal Mem. at 19, n.34; *see also* H.R. Rep. No. 91-1146, at 3 (June 3, 1970). Such "pollution havens" undermine the protective purpose of the Clean Air Act by allowing increases in harmful emissions that cross state lines and injure the health and welfare of other States' residents. By contrast, when EPA sets a floor in its emission guidelines, as it has done with the Rule, it protects *all* States from the harmful effects of pollution, better serving the underlying purposes of the Act. *See Alaska Dep't of Env't'l Conservation v. EPA*, 540 U.S. 461, 486 (2004) (EPA's federal supervisory authority helps guard States against the threat of pollution from more "permissive" neighboring States).

## CONCLUSION

For the foregoing reasons, the petitions for review should be denied.

Dated: March 29, 2016

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## CERTIFICATE OF COMPLIANCE

I hereby certify that the Brief for State Intervenors in Support of Respondent, dated March 29, 2016, complies with the type-volume limitations of Rule 32 of the Federal Rules of Appellate Procedure, this Court's Circuit Rules, and this Court's briefing order issued on January 28, 2016, which limited the briefs for Intervenors in Support of Respondent to a total of 20,000 words. I certify that this brief contains 6,786 words, as counted by the Microsoft Word software used to produce this brief, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii) and Circuit Rule 32(a)(1), and that when combined with the word count of the other Intervenors-Respondents, the total does not exceed 20,000 words.

/s/ Bethany Davis Noll  
BETHANY DAVIS NOLL

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing Proof Brief for State Intervenors in Support of Respondent was filed on March 29, 2016 using the Court's CM/ECF system, and that, therefore, service was accomplished upon counsel of record by the Court's system.

/s/ Bethany Davis Noll  
BETHANY DAVIS NOLL

# ADDENDUM

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**16 U.S.C. § 817(1)**

§ 817. Projects not affecting navigable waters; necessity for Federal license; permit or right-of-way; unauthorized activities

(1) It shall be unlawful for any person, State, or municipality, for the purpose of developing electric power, to construct, operate, or maintain any dam, water conduit, reservoir, power house, or other works incidental thereto across, along, or in any of the navigable waters of the United States, or upon any part of the public lands or reservations of the United States (including the Territories), or utilize the surplus water or water power from any Government dam, except under and in accordance with the terms of a permit or valid existing right-of-way granted prior to June 10, 1920, or a license granted pursuant to this Act [16 USCS §§ 791a et seq.]. Any person, association, corporation, State, or municipality intending to construct a dam or other project works across, along, over, or in any stream or part thereof, other than those defined herein as navigable waters, and over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States shall before such construction file declaration of such intention with the Commission, whereupon the Commission shall cause immediate investigation of such proposed construction to be made, and if upon investigation it shall find that the interests of interstate or foreign commerce would be affected by such proposed construction, such person, association, corporation, State, or municipality shall not construct, maintain, or operate such dam or other project works until it shall have applied for and shall have received a license under the provisions of this Act [16 USCS §§ 791a et seq.]. If the Commission shall not so find, and if no public lands or reservations are affected, permission is hereby granted to construct such dam or other project works in such stream upon compliance with State laws.

\*\*\*\*\*

**42 U.S.C. § 2131**

## § 2131. License required

It shall be unlawful, except as provided in section 91 [42 USCS § 2121], for any person within the United States to transfer or receive in interstate commerce, manufacture, produce, transfer, acquire, possess, use, import, or export any utilization or production facility except under and in accordance with a license issued by the Commission pursuant to section 103 or 104 [42 USCS § 2133 or 2134].

**10 C.F.R. § 50.10(b)**

§ 50.10 License required; limited work authorization.

\*\*\*\*

(b) Requirement for license. Except as provided in § 50.11 of this chapter, no person within the United States shall transfer or receive in interstate commerce, manufacture, produce, transfer, acquire, possess, or use any production or utilization facility except as authorized by a license issued by the Commission.

\*\*\*\*

**30 C.F.R. § 947.773(e)**

§ 947.773 Requirements for permits and permit processing.

\*\*\*\*

(e) The Secretary shall coordinate the SMCRA permit with appropriate State and regional or local agencies to the extent possible, to avoid duplication with the following state and regional or local regulations:

(1) Department of Ecology:

Surface Water Rights Permit, RCW 90.03.250

Dam Safety Approval, RCW 90.03.350

Reservoir Permit, RCW 90.03.370

Approval of Change of Place or Purpose of Use (water) RCW 90.03.380

Ground Water Permit, RCW 90.44.050

New Source Construction Approval, RCW 79.94.152

Burning Permit, RCW 70.94.650

Flood Control Zone Permit, RCW 86.16.080

Waste Discharge Permit, RCW 90.48.180

National Pollution Discharge Elimination System (NPDES) Permit,  
RCW 90.48

Approval of Change of Point of Diversion, RCW 90.03.380

Sewage Facilities Approval, RCW 90.48.110

Water Quality Certification, RCW 90.48.160

(2) Department of Natural Resources:

Burning Permit, RCW 77.04.150 & .170

Dumping Permit, RCW 76.04.242

Operating Permit for Machinery, RCW 76.04.275

Cutting Permit, RCW 76.08.030

Forest Practices, RCW 76.09.060

Right of Way Clearing, RCW 76.04.310

Drilling Permit, RCW 78.52.120

(3) Regional Air Pollution Control Agencies:

New Source Construction Approval (RCW 70.94.152)

Burning Permit, RCW 70.94.650

(4) Department of Fisheries:  
Hydraulic Permit, RCW 75.20

(5) Department of Game:  
Hydraulic Permit, RCW 75.20.100

(6) Department of Social Health Services:  
Public Sewage, WAC 248.92  
Public Water Supply, WAC 248.54

(7) Department of Labor and Industries:  
Explosive license, RCW 70.74.135  
Blaster's license, WAC 296.52.040  
Purchaser's license, WAC 296.52.220  
Storage Magazine license, WAC 296.52.170

(8) Cities and Counties:  
New Source Construction Approval, RCW 70.94.152  
Burning Permit, RCW 79.94.650  
Shoreline Substantial Development Permit, RCW 90.58.140  
Zoning and Building Permits, Local Ordinances

\*\*\*\*

**30 C.F.R. § 947.816(b)**

§ 947.816 Performance standards -- surface mining activities.

\*\*\*

(b) All operators shall have a plan of reclamation approved by the Washington Department of Fisheries for operation in affected streams, RCW 75, and shall comply with the Hydraulic Project Approval Law, RCW 75.20.100, the Shoreline Management Act, RCW 90.58, the Forest Practices Act, RCW 76.09, the Water Pollution Control Act, RCW 90.48, the Minimum Water Flows and Levels Act, RCW 90.22, and the Pesticide Control Act, RCW 15.58, and regulations promulgated pursuant to these laws.

\*\*\*\*

**40 C.F.R. § 60.5720(b)**

§ 60.5720 What if I do not submit a plan or my plan is not approvable?

\*\*\*

(b) After a Federal plan has been implemented in your State, it will be withdrawn when your State submits, and the EPA approves, a final plan.

\*\*\*

**Tex. Utilities Code § 39.904**

## Sec. 39.904. Goal for Renewable Energy.

(a) It is the intent of the legislature that by January 1, 2015, an additional 5,000 megawatts of generating capacity from renewable energy technologies will have been installed in this state. The cumulative installed renewable capacity in this state shall total 5,880 megawatts by January 1, 2015, and the commission shall establish a target of 10,000 megawatts of installed renewable capacity by January 1, 2025. The cumulative installed renewable capacity in this state shall total 2,280 megawatts by January 1, 2007, 3,272 megawatts by January 1, 2009, 4,264 megawatts by January 1, 2011, 5,256 megawatts by January 1, 2013, and 5,880 megawatts by January 1, 2015. Of the renewable energy technology generating capacity installed to meet the goal of this subsection after September 1, 2005, the commission shall establish a target of having at least 500 megawatts of capacity from a renewable energy technology other than a source using wind energy.

\*\*\*\*

91ST CONGRESS } HOUSE OF REPRESENTATIVES { REPORT  
 2d Session } { No.91-1146

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## CLEAN AIR ACT AMENDMENTS OF 1970

JUNE 3, 1970.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. STAGGERS, from the Committee on Interstate and Foreign Commerce, submitted the following

### REPORT

[To accompany H.R. 17255]

The Committee on Interstate and Foreign Commerce, to whom was referred the bill (H.R. 17255) to amend the Clean Air Act to provide for a more effective program to improve the quality of the Nation's air, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

The amendment is as follows:

The amendment strikes out all after the enacting clause and inserts in lieu thereof a substitute which appears in the reported bill in italic type.

#### PURPOSE OF LEGISLATION

The purpose of the legislation reported unanimously by your committee is to speed up, expand, and intensify the war against air pollution in the United States with a view to assuring that the air we breathe throughout the Nation is wholesome once again. The Air Quality Act of 1967 (Public Law 90-148) and its predecessor acts have been instrumental in starting us off in this direction. A review of achievements to date, however, make abundantly clear that the strategies which we have pursued in the war against air pollution have been inadequate in several important respects, and the methods employed in implementing those strategies often have been slow and less effective than they might have been.

#### SUMMARY OF PROVISIONS AND COMPARISON WITH EXISTING LAW

##### (1) *National ambient air quality standards*

The Secretary of HEW will be authorized and directed to establish nationwide ambient air quality standards. The States will be left free to establish stricter standards for all or part of their geographic areas.

up to \$10,000 for each day during which any person fails to take action ordered by the Secretary to abate the pollution.

The Secretary may inspect any establishment for the purpose of determining whether the State plan is enforced or whether the establishment contributes to or fails to take required action to abate pollution.

Under existing law, procedures are more complex and more time-consuming, and no authority is provided for the Secretary to inspect establishments.

*(4) Federal emission standards for new stationary sources*

The Secretary is authorized and directed to establish Federal emission standards for new stationary sources where emissions from such sources are extremely hazardous or where such emissions contribute substantially to the endangerment of the public health or welfare. The purpose of this new authority is to prevent the occurrence anywhere in the United States of significant new air pollution problems arising from such sources either because they generate extra-hazardous pollutants or because they are large-scale polluters.

At present emission standards for stationary sources are established exclusively by the States.

The promulgation of Federal emission standards for new sources in the aforementioned categories will preclude efforts on the part of States to compete with each other in trying to attract new plants and facilities without assuring adequate control of extra-hazardous or large-scale emissions therefrom.

Such emission standards may be enforced either by a State as part of that State's plan or by the Secretary if a State fails to include such standards within its plan. The provisions for court actions to secure abatement and the imposition of penalties are comparable to the provisions described under (3) above.

*(5) Automotive emission control—Motor vehicle testing and certification*

The Secretary is authorized and directed to test, or require to be tested in such manner as he deems appropriate, any new motor vehicle or motor vehicle engine as it comes off the assembly line in order to determine whether the vehicle or engine conforms with the applicable emission standards. Such tests are in addition to testing the prototypes furnished by the automobile manufacturers for purposes of securing certificates of conformity. On the basis of the assembly line testing, the Secretary may suspend or revoke any such certificate in whole or in part. Hearings on the record are to be conducted by the Secretary at the request of any manufacturer who desires to challenge the Secretary's decision to suspend or revoke a certificate, but such hearings shall not stay the suspension or revocation. Determinations made by the Secretary on the basis of such hearings are subject to judicial review.

Experience has shown that the testing and certification of prototypes does not of itself assure that automobiles coming off the assembly line which are sold to the public comply with the Federal emission standards. Therefore, the legislation authorizes inspection of assembly plants and the testing of automobiles and engines coming off the assembly line.

Additionally, the legislation provides that States must require inspection of motor vehicles in actual use if the Secretary, after consultation with the State, determines that the achievement of ambient

(ORDER LIST: 577 U.S.)

TUESDAY, FEBRUARY 9, 2016

ORDER IN PENDING CASE

15A787 CHAMBER OF COMMERCE, ET AL. V. EPA, ET AL.

The application for a stay submitted to The Chief Justice and by him referred to the Court is granted. The Environmental Protection Agency's "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units," 80 Fed. Reg. 64,662 (October 23, 2015), is stayed pending disposition of the applicants' petitions for review in the United States Court of Appeals for the District of Columbia Circuit and disposition of the applicants' petition for a writ of certiorari, if such writ is sought. If a writ of certiorari is sought and the Court denies the petition, this order shall terminate automatically. If the Court grants the petition for a writ of certiorari, this order shall terminate when the Court enters its judgment.

Justice Ginsburg, Justice Breyer, Justice Sotomayor, and Justice Kagan would deny the application.

## CONFIDENTIAL MEMORANDUM

**FROM:** Bruce N. Gyory  
**RE:** The Untapped Political Potential of the Climate Change Gap  
**DATE:** July 23, 2015

### *Synopsis*

I coined the term Climate Change Gap in a Newsday op-ed entitled “Climate Change Will Make More Politicians Into Environmentalists.” (Newsday, December 7, 2014 [www.Newsday.com](http://www.Newsday.com)). My op-ed spotted trends in the 2014 exit polls, both nationally and in NYS, sustaining the conclusion that the Climate Change Gap could become an important factor in American Politics:

“Most scientists agree that weather events will increase in frequency and severity. A growing majority of voters want pragmatic solutions, reflecting not just common sense compromise but purposeful results. When events leave voters no choice but to connect the impact of Superstorms, a steep political price will be paid for inaction. That hasn’t happened, but when it does, it will likely produce a Pearl Harbor moment. In the blink of an eye yesterday’s policy caution could be seen as political infamy” (Id.).

In this memo, I will take a sustained look at the polling data and exit polls over the last decade. In the 2014 exit polls, nationally voters by 57-41%, believed global warming was a serious problem. Think of this 16% difference on whether global warming is a major problem as the Climate Change Gap. Moreover, voters nationally divided sharply between the two parties on this issue. Those who saw global warming as a serious problem supported Democrats 70-29%. Those who did not think it is a serious issue supported Republicans 84-14%. In NYS, the 2014 exit polls revealed that fully 68% of voters believed climate change was a serious problem vs. 31% who did not (a gap of 37%) and they broke for Cuomo over Astornio by 73-20%.

For the climate change issue to cut for the Democrats nationally in 2016 and beyond, that gap must grow from 16% to 25% and those voters must break by a full 3-1 margin in favor of candidates committed to addressing climate change. The larger turnout in the 2016 presidential year will probably move the gap to 20% (from the 16% level in the 2014 off-year election) and close to the necessary 3-1 ratio, but you still need to move that gap the last 5 percentage points, by heightening the understanding in 2016, of just why and how climate change is a serious problem

The potential for success is not really a stretch. A Times/Stanford/Resources for the Future poll taken in January of 2015 found that 2/3 of voters were more likely to vote for candidates who campaign in favor of fighting climate change (NYT January 31, 2015 at p. A1). Moreover, the underlying message from distilling all the polling data into a single pot pours into the conclusion that both the gender and generational divides underlying the Climate Change Gap, will be shaping the contour of the political riverbed going forward.

Several factors can help transform this Climate Change Gap into a chasm sinking the prospects of the deniers and the candidates towing the denial line. First, given the Pope's emergence on this issue, as reflected in the recently issued *Laudato Si'* encyclical, given the significant movement of Catholics your way in recent years on climate change (even before the Pope's encyclical was released), harvesting the fruit of this Catholic shift is essential.

After all, the Catholic vote is not only huge, about a quarter of the national vote, but dead center at the ideological equilibrium point of the national electorate (and at least 40% of swing voters in most elections) and much higher in the large Electoral College states (e.g., traditionally 40% of vote in NYS) as well as next year's swing states (i.e., Pennsylvania, New Jersey, and Ohio) not to mention a critical factor in the Purple states (e.g., Virginia, Florida, Nevada and Colorado). Moreover, the functional impact of the Catholic vote is enhanced as the Hispanic votes swells the de facto Catholic share the within electorate of these states (i.e., Florida, Wisconsin, California, Texas, Colorado, Nevada, New York and Illinois). The recent Pew Research data is pretty clear in establishing that the Pope's advocacy on behalf of the aggressive policy agenda regarding climate change, can become an accelerant in moving public opinion amongst Catholic voters your way. You would be wise to do everything possible to properly set the kindling amongst Catholics for that acceleration factor.

Second, while public opinion is moving toward NRDC's policy views regarding climate change, this movement is in mid-passage and the full potency of the emerging Climate Change Gap has not yet been realized. While events are someday likely to produce that Pearl Harbor moment I wrote about last December, you should not wait for events to deliver public opinion. Instead, you should cultivate public opinion in order to enhance the political currency underlying the Climate Change Gap, so that you are ready in terms of both policy and political mobilization, when those events seal the deal with the electorate.

Third, this approach can combat the chronic misreading of the polling data. Pollsters, pundits and pols consistently underestimate the political potential of climate change. In fact, the Climate Change Gap can help nourish the Democratic base, while separating Independents, as well as moderate suburban Republicans from the clutches of those Republican candidates playing only to the party's Tea Party base. Ultimately, your goal should be a return to the bipartisanship of the Rockefeller-Nixon-George H. W. Bush - Pataki approach to clean air and water. Nevertheless, the cutting political edge attending the Climate Change Gap will probably have to be deployed, before the healing balm of bipartisanship returns.

Luckily, almost all of the swing seats for control of US Senate in 2016 will be fought in states where the Climate Change Gap could well become a critical factor for success or failure (e.g., New Hampshire, Pennsylvania, North Carolina, Florida, Wisconsin, Illinois, Nevada and Colorado), so your issue can find salience in the 2016 Campaign. This salience factor could provide an opportunity to generate support for our agenda from key Democratic strategists first in the campaign, but ultimately, and most importantly in regard to their governing agenda.

I addressed this in that December 2014 op-ed analyzing the polling results:

“Proper reading of the data shows that global warming could be a base retention issue for Democrats. For them to forgo mustering the full political potential of a climate change agenda is political malpractice. Republicans, especially those from suburbs like

Long Island, should be fearful of the political fallout from a Superstorm that floods coastal communities. To speak in the brass tacks of politics, when storm surges hit suburban communities – like Long Island during Superstorm Sandy, or the river communities in the Hudson Valley after Tropical Storm Irene – that damage often cascades across affluent towns with many independent voters, the classic definition of bellwether communities.” (Id.)

As an aside, if Republican campaign strategists looked at the polling data they would not misread the take always. They would look at the Climate Control Gap and turn it into a ditch burying opponents, just as Lee Atwater saw the triad which took down Dukakis in 1988: the pledge of allegiance, the ACLU and prison furloughs. An Atwater would not see the Climate Change Gap as an issue to be ignored, just because it was not currently at the top of the list of voters’ priority issues, instead he would see it as an issue ripe for at once uniting his party, snaring independents and dividing the opposition’s base by creating a sharply negative reaction for their opposition amongst a large majority of the electorate (i.e., casting your opponents as at once weird and wrong on a litmus test issue of your own creation).

In short, if Republican strategists with the skills of Atwater and Rove had an issue like the Climate Change Gap, they would take on the challenge of driving an issue that was not high on pollsters’ priority list, like the Climate Change Gap, into the top tier issue lane with voters over the course of the campaign(e.g., as the GOP did with that triad in 1988, not to mention the swift boating of John Kerry and gay marriage issues in 2004). Republican strategists would follow the Gretzky rule and play electoral hockey based upon where the puck will (can) go, rather than where it is now.

Fourth, our approach should not be partisan. Here in New York there are still strains worth cultivating of Rockefeller Republicanism in the GOP. We can have public opinion at our backs in NYS, if we push the Democrats to find the heart to fight for a climate change agenda while pulling New York’s Republicans to reclaim their heads (separating themselves from the shortsighted mistake of becoming tainted by the climate change deniers, who too often drive the bus in GOP presidential primaries).

This is the classic saga of the Tin Man and the Scarecrow where the climate change agenda can become a critical ingredient in American politics for decades to come. New York could pave the road for your movement nationally, by creating a safe harbor for moderate Republicans to land. So at every turn, you should extend an open hand to any Republican elected official willing to work with you in Albany or in Washington from our state’s congressional delegation.

Fifth, while public opinion is coalescing around the need to confront climate change, it is by no means united in support of a particular action agenda. Consequently, it would be wise to keep that lack of a policy consensus in mind, as you strive to expand the public opinion pressure for confronting climate change. Take care to not scare off the inchoate majority in favor of taking action to combat climate change, as you begin the process of persuasion on what form that action should take. Especially, given the deep pockets sustaining the deniers (e.g. the Koch brothers) which can facilitate well-funded counter attacks (e.g. 2010-2012). Consequently, take pains to protect the emerging majority along the Climate Change Gap so that it is capable of sustaining a purposeful policy agenda over the long haul.

## *Analysis*

### *1. The Trend Line*

The roots of the undervaluation in the potency of the Climate Change Gap lie in the significant drop off public support for confronting climate change in the immediate wake of the Great Recession. That dip in public opinion was relatively short lived, but the political perception has not yet caught up with the reality emerging from more recent polling data.

As far back as 2007, the Democrats' nostalgic approach pining for the days of easy bi-partisanship on the environmental agenda (i.e., the straight line particiualy here in NYS from TR and Dewey through Rockefeller and Nixon on to George H.W. Bush and George Pataki) was revealed as a flawed vision. A Zogby poll back in 2007 found that a clear ideological divide was forming: 48% of Americans believed that conservatives understated the threat of global warming, while 51% felt the threat was overstated by liberals ([www.liveearth.msn.com/green/zogby 2](http://www.liveearth.msn.com/green/zogby_2), June 29, 2007).

This data was based upon an interactive survey of 7,241 adults nationwide conducted between May 11-14, 2007. Zogby's headline accurately projected public opinion over the course of the next decade, "Political views split Americans on Global Warming." The correct way to read this 2007 poll and the polling data on the environment ever since, should have been that for Democrats to make gains on the environment in Congress, would require hard and sustained fights, because today's Congressional Republicans would increasingly eschew bi-partisanship on the nation's green agenda.

The most telling talisman for the perceptual decline of global warming as a potent political issue comes from the Gallup polling data. In 2006, only 30% of Americans believed that seriousness of global warming was generally exaggerated, but by 2010 that percentage jumped sharply all the way up to 48% ([www.Gallop.com](http://www.Gallop.com) March 11, 2010 "Americans' Global Warming Concerns Continue to Drop"). Moreover, by 2010, 35% of Americans said the effect of global warming would either never happen (19%) or would not happen in their lifetimes (16%; Id.)

In 2008, Gallup found that 40% of Americans felt that global warming would pose a serious threat to their way of life (vs. 58% who did not), but by 2010, that negative spread widened with only 32% saying yes global warming would pose a serious threat in their lifetime vs. 67% who said it would not (Id.). Yet in 2008, a clear majority, 58% of Americans felt that human activities caused the increase in the Earth's temperature vs. 38% who felt that rise was due to natural causes (Id.). Meanwhile in 2010, that clear majority had whittled away to a bare 50-46% (Id.).

By 2010, doubts also crept into the public consciousness on the scientific consensus underlying global warming. In 2006, 65% of Americans felt that global warming was occurring, 29% felt it was not and only 3% were unsure (Id.). In 2010, however, that consensus had shrunk to only 52% feeling global warming was occurring, while the percentage who said it was not, had surged to 36% and those who were unsure tripled to 10% (Id.).

In April of 2010, Gallup reported in a poll entitled "Americans Prioritize Energy over Environment for First Time" that 50% of Americans then put a higher priority on energy production vs. 43% on protecting the environment ([www.Gallup.com](http://www.Gallup.com) April 6, 2010). Yet in 2007, Gallup had found 58% of Americans had prioritized protecting the environment vs. only 34% who prioritized energy

production (Id.). That same 2010 Gallup poll showed that the 2007 pro-green ratio of 64% of Americans who wanted to solve the nation's energy problems by engaging in more conservation vs. only 26% calling for more production, had shrunk to only 52-36% in favor of conservation (Id.).

In retrospect, it is clear that the devastating impact of the Great Recession which simultaneously expanded poverty (especially in the suburbs), while hollowing out the middle class, led to the public prioritizing economic development over the environment from 2010-2012. Moreover, the climate change deniers, who had been sent reeling by Gore's messaging around inconvenient truths in the middle of the first decade of the 21<sup>st</sup> Century, had become hyper aggressive and their efforts were having a clear impact on public opinion. Not to mention that the Tea Party backed success in the 2010 elections, drove the legislative debate against our side not only in Congress but in the increasing number of State Legislatures controlled by a GOP ingesting the Tea Party's environmental policy brew (i.e., too few remember that before the Tea Party Candidates locked onto opposing Obamacare, those bank rolling the Tea Party had originally focused upon opposing the Obama administration's initiatives on combating climate change as their priority).

The bad news in the polling data continued to accumulate in 2012. Quinnipiac reported in December of 2012 that by 53-37% registered voters did not think climate change caused Superstorm Sandy ([www.quinnipiac.edu/institutes-centers](http://www.quinnipiac.edu/institutes-centers), December 5, 2012). The cross tabs were revealing, as the highest percentages underlying the view that climate change was not the cause of Superstorm Sandy were amongst Republicans (78%), Men (57%), Whites without a college degree (62%) and White Evangelicals (73%). Those who did think Superstorm Sandy was the result of climate change back in 2012 were Democrats (55%), Blacks (56%), but by only 51-38% amongst White college graduates and 52-37% amongst Independents. In 2012, the forces denying climate change were uniting the GOP base, while Democrats appeared on the verge of dividing on the issue.

Pew Research showed that the decline in the prioritizing of dealing with global warming continued into 2013. In January of 2009, Pew found that 30% of the nation felt dealing with global warming should be a top priority (vs. 85% who felt strengthening the economy should be), but by January 2012 only 25% felt global warming should be top priority (vs. 86% who felt strengthening the economy should be a priority; [www.people-press.org](http://www.people-press.org) January 24, 2013 Pew Research Center for the People the Press).

The Pew Research data also, uncovered that 2013 marked the beginning of the bounce back after the bottoming out in public concern over the environment in general and climate change in particular. In January of 2013, Pew found that 52% of the nation felt that protecting the environment should be "a top priority" as opposed to "the top priority", up by 9% from 2012, but down from 63% in 2001 (Id.). Moreover, those who felt energy should be a top priority slipped below the environment from the 52% level in January 2012 to only 45% in January 2013 (Id.).

The Pew data in 2013 highlighted the public opinion shift amongst Independents away from alignment with the Republicans on environmental issues in general and global warming in particular. In answering the questions of should the environment be a top priority, and should global warming be a top priority (Id.):

January 2012

January 2013

Change

Protecting the environment	43%	52%	+9%
Republicans	27%	32%	+5%
Democrats	58%	69%	+11%
Independents	40%	49%	+9%
Global Warming as a top priority	25%	28%	+3%
Republicans	11%	13%	+2%
Democrats	38%	38%	+0%
Independents	21%	31%	+10%

By November of 2013, the Pew Research data was establishing not only were independents beginning a clear break away from the Republican base on environmental issues, but fissures were opening up within the GOP. Pew released a poll entitled “GOP Deeply Divided Over Climate Change” ([www.people-press.org/2013](http://www.people-press.org/2013), November 1, 2013).

This poll found that while just 25% of Tea Party Republicans said there was solid evidence of global warming, 61 % of non-Tea Party Republicans thought there was solid evidence of global warming (Id.). In terms of what caused global warming, Pew found 44% of the public in late 2013 felt global warming was mostly caused by human activity vs. only 18% who said it was due to natural pattern in the earth’s environment (Id.).

In this November 2013 survey, Pew Research found that Republican and Republican leaning independents divided into 4 groups of relatively equal size: 23% who said there was solid evidence of global warming and that it was mostly caused by human activity; 19% who said global warming exists but is due to natural patterns; 28% who see no solid evidence and say it is not happening and 20% who say there is not solid evidence, but that not enough is known to conclude yet (Id.). Thus, at least a quarter, and depending upon events, as much as a third of the GOP vote nationally was open to persuasion on climate change by 2013.

This Pew data from November of 2013 also shows that an education pocket was lurking underneath the overall Climate Change Gap. Amongst college graduates: 86% of Democrats and 45% of Independents but only 28% of Republicans believed that global warming was caused by human activity (Id.). Interestingly amongst non-college graduates 57% of Democrats, 42% of Independents but only 23% of Republicans say global warming is caused by human activity.

Finally, this Pew data revealed that 2013 was the year when the public began to realize and believe that the scientists were in fact in accord that global warming was caused by human activity, undermining the deniers’ line “I am not a scientist”. In late 2012, Pew found that 45% of the public felt

that scientists generally agree that the earth is warming because of human activity, while 43% felt scientists did not agree. By November of 2013, 54% believed in the scientific consensus vs. 37% who said there was no agreement amongst scientists (71% of Democrats, 52% of Independents and 41% of Republicans agreed with the truth on scientific consensus underlying global warming; Id.).

Most encouragingly, this Pew data from November 2013, found that while there was disagreement over whether global warming exists, 74% of those who say there is solid evidence of rising temperatures, believed that it was possible to reduce or mitigate the effects of global warming and 44% responded that major sacrifices will be needed to reduce global warming's impact (i.e., the seeds of a policy prescription that action was worth taking to combat global warming).

It seems clear that today's political perceptions of the declining import of the potency attending global warming are mistakenly stuck in the lingering memories of the polling data and election returns from 2010-2012, while public opinion has shifted significantly since 2013. It is this lag in political perceptions, inculcating a flawed conventional wisdom, which you must counter with potent messaging and sustained public outreach.

If 2013 was the year that the polling data began to turn your way on climate change, then 2014 was the year that the pollsters and the pundits underestimated and/or misread the shifts in public opinion. Once again Gallup took the lead by misinterpreting their own data.

In its release of a poll in March of 2014, Gallup's headline read, "Americans Most Likely to Say Global Warming is Exaggerated." ([www.Gallup.com](http://www.Gallup.com) March 17, 2014). This was based upon 42 percent of Americans responding that the seriousness of global warming was generally exaggerated. Gallup's headline writers missed the real import of the data: not only did 33% respond that the seriousness of global warming was underestimated but 23% responded that it was generally correct (i.e., thus by 56-42% American rejected the notion that global warming was generally exaggerated; Id.). Moreover, the generally exaggerated percentage had significantly dropped from 48% in 2010 to 42% in 2014, while the generally underestimated percentage rose from 28% to 33% (Id.). Clearly, Gallup's the headline mischaracterized the real shift in public opinion.

The real story from this March 2014 Gallup poll taken from (March 6-9th), was that while 68% of Republicans felt global warming was exaggerated, 53% of Independents and 81 of Democrats felt the seriousness of global warming was generally correct and/or generally underestimated with those feelings Global Warming was generally underestimated representing a higher percentage of Independents (32%) and Democrats (49%) than those who felt perceptions were generally correct (respectively 21% for Independents and 32% for Democrats; Id.). Consequently, Gallup's real headline should have been 'Americans slowly but surely shifting away from the view that global warming is exaggerated', with a sub-headline revealing: 'Republicans are falling away from a clear majority who believe that global warming is a serious problem'.

On March 18, 2014, Gallup reported, "A Steady 57% in US Blame Humans for Global Warming." ([www.Gallup.com](http://www.Gallup.com) March 18, 2014). Gallup's data confirmed that for the second year in a row, 57% of Americans believed that the increases in the Earth's temperature over the last century were due more to human activities vs. 40% who cited natural changes as the cause (Id.). This 57% level was down from the high water mark of 61% in 2007, but up significantly from the 50% level registered in Gallup's 2010 data (Id.). By 2014, a new trend line was in place.

Moreover, a record high 33% of Americans reported that they “understood” global warming “very well”, sharply up from the 21% level in 2006 and 2008 and the 27% level in 2013. This sharp rise in understanding set the trend line firmly against the climate deniers, as 47% of those who said they understood global warming “very well” and 62% of those who felt they understand it “fairly well” believed that global warming was caused by human activities. In addition, the sharpest spikes for those feeling human activity caused global warming came from 2013 to 2014, amongst those who responded that they understood global warming “very well”: Democrats (36% from 27%), Republicans (30% from 23%), while Independents rose to 32% from 30% (Id.).

The partisan trend line in the Gallup data is worth charting: in 2010, 65% of Democrats felt the rise in global temperatures were due mainly to human activities, but by 2014 that percentage grew to 79% (Id.). It was relatively flat amongst Independents growing to 50% in 2014 from 49% in 2010. But amongst the Republicans the share from 2010 to 2014 who attributed the rise in the Earth’s temperatures to human activities grew from 35% to 41% (Id.). By 2014, the seeds of global warming becoming a divisive issue for Republicans but a strong unifying consensus for Democrats were taking root. The percentage of persuadable amongst Republicans regarding climate change, by 2014 had grown to about 40% from the low 30’s in 2013.

Gallup’s data in March of 2014 also continued to show the rebound in the percentage of those who put a priority for environmental protection over economic growth, from its dip in the wake of the Great Recession (in a poll headlined by “Americans Again Pick Environment over Economic Growth” ([www.Gallup.com](http://www.Gallup.com) March 20, 2014). In 1998, by 68-24% Americans felt environmental protection should be prioritized over economic growth; that shrank to 53-38% in 2010 and reversed to 54% prioritizing economic growth vs. 36% the environment in 2011, before landing at 50-41% with environmental protection prioritized over economic growth in March of 2014 (Id.). This scant majority masked a deep partisan divide: Republicans prioritized economic growth over environmental protection by 59-32%; whereas Democrats prioritized the environment over economic growth by 66-27% (Id.). Yet, even amongst Republicans the percentage who chose prioritizing environmental protection over economic growth surged from only 19% in 2011 to 32% in 2014 (Id.).

Underneath this poll’s partisan divide was a generation gap: by 60-30% those 18-29 years of age called for prioritizing the environment over economic growth; it was 52-41% amongst those 30-49 years in age; 49-41% the environment over economic growth amongst those 50-64; with only those 65 and over in age prioritizing economic growth over environmental protection by 50-39% (Id.). Given the critical importance of the under 40 vote in the last two presidential elections for the Democrats, finding a way to mold climate change into a wedge issue would be of great utility to the Democrats in 2016.

Gallup came back to the Global Warming issue in April of 2014, when they released a poll entitled, “One in Four in US are Solidly Skeptical of Global Warming” ([www.Gallop.com](http://www.Gallop.com) April 22, 2014). Gallup reported Americans clustering into three broad groupings on global warming: “Concerned Believers” (those who attribute global warming to human actions and are worried about it); the “Mixed Middle” (“who hold a combination of beliefs); and the “Cool Skeptics” (“who are not worried about global warming much or at all.” (Id.)). In 2012, the breakdown in Gallup’s data was 45% “Mixed Middle”, 33% “Concerned Believers” and 22% “Cool Skeptics”. By 2014, the breakdown was 39% “Concerned Believers”, 36% “Mixed Middle” and 25% “Cool Skeptics”. (Id.) Amazingly that Gallup’s headline did not more accurately note the rise to nearly 4 in 10 in US who are “Concerned Believers”

regarding global warming, rather than flagging the quarter of the American public that remained skeptical. Once again the arithmetic of their data did not guide the hand of Gallup's headline writers.

Especially when the cross tabs revealed that "Concerned Believers" are more likely to be women than men 60 vs. 40% (and women were 53% of the presidential electorate in 2008 and 2012) and the "Mixed Middle" was slightly more female than male. In brief, climate change could become a hidden lever accentuating the gender gap which drove the outcome toward the Democrats in the last two presidential elections. Climate change could become an essential trigger mechanism for maximizing the political energy underlying the gender and generational divides favoring Democrats.

The movement in Gallup's data which largely escaped those drafting Gallup's headlines, was not lost on the USA Today headline writers (concerning a White House report on the climate). The USA Today headline accurately read in May of 2014, "Climate Costs Already Hit Home" (USA Today, May 7, 2014 at p.1A). The lead in that story was even more revealing as it correctly suggested, that events were driving public perceptions: "Devastating droughts in the Southwest, ruinous floods in New York City, killer wildfires in Colorado, intense heat waves in the Plains: These are some of the disasters today that are being exacerbated by global warming and will continue to worsen in coming decades (Id.); italics added).

The USA Today's headline and lead paragraph put a bright lamp on an emerging reality in terms of public opinion: events were beginning to accelerate the trend lines locking in perceptions that climate change was a serious problem for Americans. Here in New York State, similar reports were hitting New Yorkers. The Albany Times Union headline tracked that same national report, "Climate Future Shock" as did its lead paragraph, "Welcome to the climate future of New York: warmer, wetter, with more disease-carrying ticks and mosquitoes and more allergy-causing pollen." (Albany Times Union, May 7, 2014 at p. A1).

It is significant to note that, the media coverage on global this warming report by the White House was no longer focusing upon abstract notions of the impact of rising temperatures, but instead was focusing upon the practical impact of water levels, allergies and the increase in Lyme Disease emanating from climate events. That Times Union article reported that in the Northeast there had been not just a rise of 2 degrees in average temperature between 1895 and 2011, but annual precipitation had increased by 5 inches, with most of the increase coming in rain since the 1950's and a 70% increase in "very heavy storms" and a dramatic increase in the number of temperatures topping 90 degrees (projected to reach 15 days by 2050 from 5 days a year now currently, in areas of NYS bordering the Canadian border) not to mention that the rag weed pollen season was rising from 13 to 27 days at 44 degrees latitude (Id. At p. A8). Articles like this probably proved persuasive to New Yorkers, who have lived through Superstorms Irene and Sandy, not to mention a 7-foot lake effect blizzard early last winter in Western New York.

Nor was the Northeast unique. That same national report revealed that Florida's sea level had risen 8 inches since 1870 (NYT, "Florida in Eye of the Storm on Climate Change" by Coral Davenport, May 8, 2014 at p. A1-A17). Davenport's article reported a projected rise in Florida's sea levels of one to four feet by the end of this century (Id.):

“The national climate report found that although rapidly melting Arctic ice is threatening the entire coastline, Miami is exceptionally vulnerable because of its unique geology. The city is built on top of porous limestone, which is already allowing the rising seas to soak into the city’s foundation, bubble up through the pipes and drains, encroach on fresh water supplies and saturate infrastructure. County governments estimate that the damages could rise to billions or even trillions of dollars” (Id.).

This national report released by the White House no doubt led to articles throughout the country assessing the impact on life around the Great Lakes, the Rockies and the drought ravaged West back in May of 2014. Therefore, the Quinnipiac national poll in July of 2014 should have surprised no one: by 58-30% Americans believed that the federal government should limit the release of greenhouse gasses from existing power plants ([www.Quinnipiac.edu](http://www.Quinnipiac.edu), July 3, 2014 at p.4 Question 61). Quinnipiac’s cross tabs are revealing charting that yes answer on limiting greenhouse gas emissions from existing power plants: Democrats 76%, Independents 58%, Women 60%, 18-29 in age 74%, 30-49 64% (Id.). Even 38% of Republicans answered yes to the limiting of emissions question as did 52% of those 50-64 years of age.

This trend line was also tracked in the WSJ/NBC poll released post-election in November of 2014 (blogs.wsj.com, November 19, 2014 reported by Reid Epstein “Americans Foggy on Climate Change Steps”). This poll found 59% of Americans said they supported specific targets to limit carbon emissions (Id.). Yet, 49% disapproved of steps to limit greenhouse gas emissions which would limit their pocketbooks vs. 47% who approved. So as 2014 came to an end, there was a growing consensus in public opinion forming behind climate change – seeing it as a serious and growing problem – but no real consensus in the polling data around the specific steps to be taken to combat its impacts.

The bounce back in public support for taking action on climate change which began in 2013, advanced in 2014, really began locking in during 2015. The Times, Stanford University and the nonpartisan environmental research group Resources for the Future took a poll between January 7-22<sup>nd</sup> of 1,006 adults. The Times summarized the findings of this poll in an article entitled “Most Americans Support Government Action on Climate Change” by Coral Davenport and Marjorie Connelly (NYT, January 31, 2015 at p. A1 and [www.nytimes.com](http://www.nytimes.com), January 30, 2015).

This poll found not only that “two-thirds of Americans said they were more likely to vote for political candidates who campaign on fighting climate change”, but that 67% said “they are less likely to vote for candidates who question or deny the science of human-caused global warming”. (Id.; italics added). Overall, 66% were more likely to vote for a candidate pledging to fight climate change vs. only 12% who would be less likely (15% said it would have no effect) including 81% of Democrats (Id.). Thus, fighting climate change now unifies the Democratic base with near unanimity.

Meanwhile, this Times poll also showed the issue moving amongst Independents with 66% more likely to vote for candidates pledging to fight climate change vs. only 12% who would be less likely (with 22% saying it would have no effect; Id.). Not to mention the issue had become divisive amongst Republicans: 48% of Republicans would be more likely to support candidates pledged to fight climate change vs. 24% who would be less likely (and 26% who said it would have no effect). By 2015, the percentage of persuadable Republicans regarding climate change now approached a full half of the party, up from near 40% in 2014 and less than a third in 2013.

When you distill all that down, climate change has the potential to become a potent wedge issue for Democrats in the 2016 presidential/congressional as well as state legislative/gubernatorial contests. While many Republicans, especially the Tea Party base so prominent in low to moderate primary electorates, “question or deny the science of human-caused global warming” as the Times points out (Id.), this issue simultaneously unites Democrats, while pulling Independents away from Republican candidates hewing to or sympathetic to the denial position on climate change, while even opening a portal to raiding moderate Republican voters (particularly in the suburbs of coastal and Purple states). In the final analysis, if this poll done for the Times/Stanford/Resources for the Future is accurate, a Climate Change Gap has opened up and this gap is made to order to serve as a wedge issue for the Democrats in the 2016 general election (especially if the GOP primaries push the Republican presidential nominee into alignment with the denial camp).

When asked in this Times poll, if they would be less likely to vote for a candidate who denies the science underlying global warming: 78% of Democrats, 72% of Independents and 48% of Republicans (67% overall) said that it would (Id.). Large swaths of Independents and almost half of Republicans, have drifted away from the Tea Party position regarding climate change (e.g., 49% of Tea Party supporters vs. 27% of all Americans support the denial approach; Id.).

Meanwhile, if the Tea Party’s hold on the conventional wisdom of what drives GOP primaries deters Republican candidates from reaching toward the growing majority of the electorate in support of government action to combat climate change, the Republican base could fracture in the 2016 general election were the climate change issue to become salient with voters. Astute Democratic strategists should take note, as they hold almost no other issue save climate change in their basket, with the potential to divide the GOP base in 2016.

The answers in this poll done for the Times in terms of substantive questions are even more telling than the more political queries: 77% of Americans believe that the federal government should be doing a substantial amount to combat climate change: 90% amongst Democrats, 78% of Independents and 48% of Republicans (Id.). In addition, this article reports that the poll found that 71% of Americans expect they will be “personally hurt by climate change, although to different degrees.” (18% a great deal; 16% a lot; 20% a moderate amount; 17% a little; and 28% not at all; Id.).

The Times quotes a Jason Becker, a self-identified Independent from Ocoee Florida who provided a window into the core of America’s public opinion regarding climate change:

“I don’t think it’s the number one hot issue in the world. There are some other things that should take precedent, like the ISIS issues. [But] if someone feels it’s a hoax they are denying the evidence out there. Many arguments can be made on both sides of the fence. But to just ignore it completely indicates a close-minded individual, and I don’t want a close-minded individual in a seat of power.” (Id.; italics added).

If Republican candidates in 2016 accepted the science of climate change and shifted the debate to the lack of a clear consensus on specific policies they might find safe harbor in the general election, but if the Republican nominee for President and the GOP candidates in swing congressional and gubernatorial contests bow to the climate change deniers (to lower the controversy threshold in GOP primaries), they will be opening the door to climate change being used as a wedge issue by Democrats in 2016, (a la the triad of the Pledge of Allegiance, the ACLU and prison furloughs were used by the Bush

campaign in 1988). Jason Becker’s closing comments above, could prove to be a one person focus group enabling the Democrats to render the GOP “weird” and hence “untrustworthy” on climate change (i.e., Becker, “But to just ignore it completely indicates a close-minded individual and I don’t want a close-minded individual in a seat of political power.”; Id.; italics added).

Gallup finally got their headline in sync with their own polling data, in their April 2015 poll entitled, “Conservative Republicans Alone on Global Warming’s Timing.” ([www.Gallup.com](http://www.Gallup.com), April 22, 2015) Gallup’s lead succinctly synopsised the Republican dilemma, “while notable majorities of all political party/ideology groups say the effects of global warming will happen within their lifetime, fewer than four in 10 conservative Republicans (37%) agree, a sign of that political identity’s strident skepticism on this issue.” (Id.).

It is worth charting out this Gallup poll’s finding to best explore the isolation of conservative Republicans on climate change heading into the 2016 campaign (Id.)

	Liberal Democrats	Conservative/Moderate Democrats	Non-Leaning Independents	Moderate/Liberal Republicans	Conservative Republicans
Global Warming will happen in your lifetime	89%	78%	66%	64%	37%
Effects of global warming pollution come from human activities	81%	67%	54%	49%	27%
Effects of global warming come from natural changes in the environment	16%	29%	38%	47%	70%

The accompanying Gallup article pinpoints the axe which could hit conservative Republicans if Democrats succeed in turning climate gap into a wedge issue in the Fall of 2016:

“Conservative Republicans not only decisively reject the notion that the effect of global warming will happen in their lifetime – a position in sharp contrast to all other political identities – but another 40% say global warming will never happen. This is significantly higher than the percentages of moderate/liberal Republicans (16%) non-leaning independents (14%), conservative/moderate Democrats (5%) and liberal Democrats (3%) who say the same.” (Id.).

The proponents of governmental action to combat climate change would be wise to nurture this self-imposed isolation of the conservative Republicans who are either deniers of climate change or fellow travelers of denial, precisely because the liberal Democratic reflexes on this issue are not universally held. While nearly 6 to 10 liberal Democrats (58%) see global warming as a serious threat to their way of life, that judgment according to this April 2015 Gallup poll is not shared by a majority of the other partisan/ideology clusters: 46% of conservative/moderate Democrats, 35% of non-leaning Independents, 30% of moderate/liberal Republicans and 12% of conservative Republicans.

In the final analysis, the emerging majority supporting a climate change agenda is still a fragile majority and it has yet to mature and solidify in terms of action items. The wise approach would be to recognize that fragility and message around climate change with a sharp appreciation for the how the ears of moderate/conservative Democrats, non-leaning Independents and moderate/liberal Republicans will react to NRDC’s messaging. With that messaging prudence in place, you can advocate on behalf of greater action on climate change so as to nurture a vibrant vital center around the Climate Change Gap, which is ready to absorb the new adherents driven by events (e.g., Superstorms, droughts, flooding etc).

The current status of public opinion regarding climate change was captured by a Pew Research poll taken from May 5 – June 7, 2015 (a large national sample of 5,122 adults using both landlines and cell phones with a margin of error of only 1.6 percentage points; [www.pewresearch.org](http://www.pewresearch.org) “Catholics Divided over Global Warming: Partisan Differences Mirror Those Among General Public”). Here again the Pew headline captures the media narrative of the moment, but it does not reflect the real lessons emerging from the polling data.

Public opinion is crystallizing amongst a growing majority of Americans who realize that the Earth’s temperature is rising and that global warming is a serious problem. This movement in public opinion is ongoing and is being led by Democrats and Independents, while also becoming a divisive issue amongst Republicans. The decline in public concern over global warming/climate change which hit in the immediate wake of the Great Recession has ended and the public consciousness of and concern for the impact of climate change is growing, rendering this recent Pew Research data at once comprehensive (due to its sample size) and compelling.

Let’s review Pew’s 2015 data: 68% of the general public believes the Earth is warming; 45% of believe that warming is caused by human activity and 69% feel that global warming is either a very serious or a somewhat serious problem (Id. at p.1 and 6). This movement in public opinion is best reflected in the Pew data regarding the level who see global warming as a “very serious” problem. In 2008 that level hit a high water mark at 51%, it declined to 32% in 2010 and 33% in 2013, but has now risen sharply back up to 46% (Id. at p. 3). In 2015: 46% of Americans believe that global warming is a “very serious” problem, 23% see it as “somewhat serious” problem, 13% “not too serious” a problem and 16% “not a problem” with only 2% answering “don’t know.” (Id.). In summation, the public by 69-29% sees global warming as a serious problem.

Let’s drill down on the cross tabs of those who see global warming as a “very serious” problem to track the significant movement our way (Id. at p. 7):

	<u>2013</u>	<u>2015</u>	<u>Change</u>
Total	33%	46%	+13%
Republican	14%	21%	+7%

Democrat	48%	67%	+19%
Independent	31%	45%	+14%

This mirrors the rapid velocity of public opinion over gay marriage where the movement in the polling data began first amongst the Democrats then Independents (reflecting the increasing support amongst liberals, moderates, women and minorities) with Republicans lagging, on the way to forming a new majority in overall public opinion. Here is the breakdown of key groups who today believe global warming is a “very serious” problem: women 50%; Hispanics 65%; Blacks 54%; 18-29 years of age 51%; 30-49 47%; Catholics 48%; liberals 70%; moderates 47% (Id.). This movement has had the effect of isolating conservatives (29%) and Republicans (21%) who lag in finding global warming a serious problem. Nevertheless, we are on the cusp of having a majority of Americans who believe global warming is a very serious problem.

The pollsters’ press releases unfortunately tend to stress the partisan differences, because the lower percentages amongst conservative Republicans do pull down the overall poll numbers in support of combating climate change. But that is not how a political strategist should interpret this data. The correct strategic assessment should be that public opinion is moving briskly toward the green agenda and therefore the Climate Change Gap if handled properly, can become a sharp wedge issue isolating the climate change deniers and those who pay political fealty to their denial.

Going forward I think one of the things to track in the polling data and derivatively the messaging around that data, is the practical utility of whether global warming or climate change is a better messaging term? Pollsters tend to use the terms interchangeably (a la Hispanics and Latinos). I have seen no data to answer this question on which term is a better messaging tool.

But my gut hunch is that global warming is the wrong term to use, because it is so easily misunderstood every time there is a cold winter or a cold snap. The deniers can make jokes about global warming, but they cannot do that with climate change. After all, climate change incorporates all the weather related issues attending the rise in the Earth’s temperature (e.g., rising sea levels, drought, massive Superstorms, blizzards, hurricanes and forest fires). The best analogy is the abortion issue where questions using support for Roe v. Wade consistently poll 4-5% higher than polling on specific pro-choice questions. I suspect that over time climate change will poll just enough better than global warming, to make it a worthwhile messaging shift. The question on the best messaging terminology is perhaps worth a focus group session.

## ***2. The Fulcrum Point in the Climate Change Gap***

The 2014 exit polls allow us to pinpoint the fulcrum point for political leverage on climate change. The turnout nationally in 2014 was the fourth lowest in recent history. (Here in New York State it was the second lowest turnout in absolute numbers since 1934).

The exit polls of the national congressional races for 2014, found that by 57-41% voters felt that global warming was a serious problem (that 57% is significantly below the 69% in the recent Pew poll reflecting the low turnout). Underneath that 16% Climate Change Gap, the 57% who thought it was a serious problem broke 70-29% for the Democrats, while the 41% who felt it was not a serious problem broke 84-14% for the Republicans. When you do the math you lost that sharp cleavage point around Climate Change Gap by 51-46% in 2014.

Meanwhile, if you shift fulcrum point surrounding this equation by expanding the Climate Change Gap if from 16% to the 25% in 2016 (i.e., at least a 62-38% split) and that two thirds who see climate change as a problem broke 3-1 for Democrats that trips the equilibrium point (i.e., the Climate Change Gap would tip against those who play the denial card). You then win on the gap.

The 2014 exit polls for NYS are illustrative. Amongst NYS voters, 68% believed that climate change was a problem (a 36% gap) and they voted for Cuomo by 73-20%. Thus in NYS, the climate change gap helped Cuomo and hurt his Republican opponent Rob Astorino in 2014.

Given where the polling data has been heading, in both the Pew and Gallup data, the percentage of Americans who see climate change as a problem hovers right at or under 70%. If the presidential turnout even comes close to reflecting that data (e.g., greater turnout amongst younger, female and minority voters) that alone will bring the Climate Change Gap to 20% from the 16% level in 2014. Messaging tied to turnout, including from aggressive campaigns, should bring that gap to a 25% and the percentage of votes cast against candidates hewing to the politics of denial of climate change to a full 3-1 level (tripping the fulcrum point along the gap).

The most fertile ground to plant the seeds and harvest the fruit for expanding both the Climate Change Gap and the margins attending that gap, against the fellow travelers of the denial camp, lies in political action aimed at Catholics voters. That prospect deserves a separate section in this memo (see below).

The political underpinnings are in place for the Climate Change Gap to become a significant wedge issue in the 2016 campaign. Not only could this play in the presidential race, but it could become a key issue in the seats which are likely to play a huge role in determining partisan control of the U.S. Senate (i.e., New Hampshire, Pennsylvania, North Carolina, Florida, Illinois, Wisconsin and Colorado).

The real question becomes will the strategists both within the environmental movement and directing Democratic campaigns see the sharp blade lurking within the Climate Change Gap?

### ***3. The Catholic Pocket Within the Climate Change Gap***

The narrative underlying the media coverage of the Pope's Encyclical Letter "Laudato Si': On Care For Our Common Home" has been most interesting, but ironically misleading. The conservative opposition both within the Catholic Church and amongst those politically opposed to policies confronting climate change, has pretended that the Pope's move comes out of the blue and that the Pope is not reflecting his flock and that Catholics will therefore ignore the Pope's moral call for action. After studying the polling data, nothing could be further from the truth.

First and foremost, the Pope's encyclical is not bucking the public opinion trends within and amongst American Catholics. John Zogby took a poll of American Catholics back in 2005 for LeMoyne College. The results were startling for many and hence were intriguing back in 2005, precisely because most pundits did not think of Catholic voters as being very concerned about the environment. But none should be surprised after studying Zogby's, November 14, 2005 poll, which effectively presaged the movement in the polling data amongst Catholics over the late decade. Zogby found that in 2005:

1. 87% of Catholics polled said that protecting the environment is an important issue. With 21% placing it as “the most important issue” facing America today.
2. The majority of Catholics also believe they can make a difference for the environment with 81% agreeing that making changes in lifestyle would have a positive impact.
3. Many Catholics translate their environmental concerns into action: with 32% considering the environmental impact of products they regularly buy and 77% saying they get involved in recycling.
4. 40% of the respondents reported that in the past year they have taken some action on behalf of the environment, such as contacting a government official, giving money or attending a public event on behalf of the environment.
5. A final point of interest in this poll had nothing to do with the environment, but 61% of Catholics surveyed reported reading a newspaper daily versus only 40% of all Americans who read a newspaper every day. Only 6% of U.S. Catholics said they never read newspapers. Thus, issue based newspaper advertising is a good way to reach Catholic voters (especially older White Catholic voters).

Consequently, American Catholics after reading articles and thinking about the Pope’s encyclical, are likely to find Pope Francis’ moral thrust persuasive. Not to mention that climate change unites both Hispanics and ultimately White Catholics, with Hispanics taking the lead. The Times/Stanford/Resources for the Future poll taken in February 2015 found that 54% of Hispanics rated global warming as “extremely” or “very important” and 67% said they would be “hurt personally to a significant degree if nothing was done to reduce global warming compared to half of whites” (NYT, February 10, 2015 at p. A1 – A14: “Climate is a Big Issue for Hispanics, and Personal” by Coral Davenport). This data tracked a 2013 Pew Research poll which revealed that 76% of Hispanics felt the Earth’s temperature was rising and 59% attributed that warming to human activity (vs. 41% of Whites: Id at p. A14).

Pew Research just recently issued a comprehensive poll on June 16, 2015 (op cit). This poll was entitled “Catholics Divided Over Global Warming” but its results actually show that while the issue divides Catholics like the overall electoral, there is a growing consensus around climate change isolating conservative Republicans on the issues of global warming and Catholics are leading the way in triggering that isolation.

Therefore, Pope Francis’ encyclical hits Catholics as they are mid-passage on the road to having their faith inform their support for environmental protection (i.e., Zogby’s 2005 data) driving higher levels of support for aggressive action to combat climate change (i.e., Pew’s, June 2015 poll).

Pew’s 2015 data shows 68% of all Americans believing that the Earth is warming , but that rises to 71% amongst all Catholics (85% amongst Catholic Democrats, 72% amongst Catholic Independents and even 51% amongst Catholic Republicans (Id.). Moreover, while 45% of the general public according to Pew sees global warming as caused by human activity 47% of Catholics feel that way (62% of Catholic Democrats, 48% of Catholic Independents, but only 24% of Catholic Republicans, Id.).

On the seminal question, 46% believes that global warming is a “very serious” problem, but that percentage is 48% amongst Catholics (64% amongst Catholic Democrats, 49% amongst Catholic independents but again only 24% amongst Catholic Republicans). That 48% of Catholics who feel global warming is a very serious problem surged from only 33% in 2013 (Id. at p.3).

As an aside, in this survey, 34% of Catholics described themselves as Democrats, 31% as Independents, but only 24% as Republicans. So issues like global warming which unite Democratic and Independent Catholics forge a clear majority of Catholics (65% of all Catholics in this Pew data; Id. p.1).

In addition to the 48% of Catholics who felt global warming was a “very serious” problem, 26% found it was a “somewhat serious” problem vs. 12% who said it was either “not too serious” or another 12% who felt it was “not a problem”(Id. at p.6). In sum, 74% of Catholics told Pew that global warming was a serious problem vs. 24% who felt it was not. So by a 3-1 ratio American Catholics see global warming as a serious problem and that was before Pope Francis encyclical weighed in with a moral argument, “Climate Change is a global problem with grave implications: environmental, social, economic, political and for the distribution of goods. It represents one of the principal challenges facing humanity in our day.” (June 18, 2015 “Pope Francis’ Sweeping Encyclical, Calls for Swift Action on Climate Change” by Jim Yardley and Laurie Goodstein at nytimes.com).

In his column E.J. Dionne Jr., quoted the Pope’s encyclical as flatly stating that a “very solid scientific consensus indicates that we are presently witnessing a disturbing warming of the climate system” and “that things are now reaching a breaking point” and that greenhouse gases are “released mainly as a result of human activity.” (www.washingtonpost/opinions “The Pope, the Saint and the Climate, June 17, 2015).

Many who disagree with Pope Francis dismissively contend that the Pope can’t move his flock on this issue. I believe the polling data is clear and irrefutable that in this encyclical Pope Francis is leading American Catholics in a direction where they were already headed and consequently more likely to follow.

Pew’s, June 2015 data is pretty clear in its cross tabs breaking down where American Catholics fall on the fundamental question of whether global warming is a “very serious” problem: 48% of Catholics overall agreed before the Pope issued *Laudato Si’*. The cross tabs are even more revealing regarding Catholics who feel it is a very serious problem: 52% amongst Catholic women, 39% amongst White Catholics, 63% amongst Hispanic Catholics, 52% amongst Catholics 18-29 in age as well as 54% amongst Catholics 30-49 in age and 46% amongst Catholics 50-54 in age, 45% amongst those who attend Mass weekly and 53% who attend Mass monthly (Id. at p. 8). In fact, lapsed Catholics are less likely to feel global warming is a very serious problem than Catholics who attend Mass (Pew Research June 2015, op.cit).

While moderate (49%) and liberal Catholics (67%) see global warming as a very serious problem 35% of conservative Catholics feel that way (vs. 29% of conservatives overall; Id.). Thus, there is the potential for Pope Francis, together his bishops and clergy from the pulpit, to move Catholic opinion in favor of greater support for taking aggressive action on climate change.

Conservative pundits who dismiss the Pope’s potential to accelerate this movement in terms of Catholic public opinion are not looking at the polling data. Pew’s June survey found 86% of American Catholics had a favorable view of Pope Francis (including 52% rating the Pope “very favorable”; Id. at p. 11).

That favorable rating for Pope Francis was across the board: 90% amongst Catholic women, 82% amongst Catholic men, 89% amongst White Catholics, 81% amongst Hispanic Catholics, 92% amongst moderate Catholics (Id. At p. 12). Meanwhile Pope Francis, is more popular with older Catholics (87% amongst Catholics 30 and over) than younger Catholics (75% amongst 18-29 year old Catholics) and liberal Catholics (83%), with little partisan divide: Republican Catholics (90%), Democratic Catholics (89%) than Independents (85%; Id.). Finally, Pope Francis is far more popular with weekly churchgoers (92% favorable rating) and monthly churchgoers (85% favorable) than those Catholics who seldom or never attend mass (77%; Id.). Not to mention that 69% of American Catholics see Pope Francis representing a major change for the better in their church (Id. at p. 14).

If conservatives and climate change deniers move to attack Pope Francis over Laudato Si' the polling data indicates two things: they will likely meet a brick wall amongst American Catholics and Pope Francis' message has the potential keep moving Catholic opinion forward on the issue of climate change (including amongst older, church going Catholics, even Republican Catholics). After all, according to Pew's data 94% of American Catholics see their Pope as compassionate, 90% as humble, 89% as open-minded, with only 19% seeing him as too liberal and 15% as naïve (Id. at p.15).

When you overlay this polling data over the brass tacks of the role of Catholics in American politics, you see the weight behind the Climate Change Gap's potential as a wedge issue. Catholics cast 25% of the national vote, but that share tends to be much higher in the large Electoral College states, (i.e. California, NYS, Texas, Florida and Illinois) as well as in many Purple States (New Jersey, Ohio, Pennsylvania, and Nevada), especially as the Hispanic vote swells the de facto Catholic percentage beyond the coastal states and Midwest (e.g., the Catholic of the electorate share is growing in Virginia, Nevada, North Carolina and Colorado).

On an issue like global warming, where the Hispanics are leading the movement in the polling, but could soon be followed by White Catholics, the Catholic quotient of the Climate Change Gap could become of immense and enduring importance. It is no accident that since 1928 the candidate who carries the Catholic vote almost always wins the White House (failing only in 1968 and 2012 – but narrowly). Such is the import of Catholics, who count a quarter of the national vote but who are probably at least 45% of the swing vote in the swing states driving the Electoral College.

If the environmental movement takes full advantage of the potential for support from Catholic voters emanating from a trinity of factors (predisposition to have faith inform environmental policy views, the Hispanic surge behind the green agenda and Pope Francis' encyclical) they will likely transform the Climate Change Gap into a determinative wedge issue in American politics for at least a decade.

### ***Conclusion:***

Today's politics surrounding the climate change debate is caught in a time warp. The environmental movement has been caught in a trap that is one part nostalgia and two parts gridlock. The nostalgia relates to pining for the halcyon days when environmental policies were driven by a purposeful bi-partisan consensus. That consensus was shattered by a conservative backlash which unfortunately drove the Congressional Republicans away from the environmental movement, while our friends on the Democratic side became too often unwilling to fight for environmental priorities. Converging upon that

political stasis of the Tin Man vs. the Scarecrow (where you hope that the Democrats will find their fighting hearts, while the Republicans would reclaim their heads in search of important policy advances protecting the environment), came the grim cloak of the Great Recession and the grave threat of global warming.

Public polling data in the wake of the Great Recession led to an emphasis on job growth and economic recovery placing concerns over climate change on the back burner (from late 2009-2012). That perception congealed into conventional wisdom, creating literally a petrified forest of legislative inaction regarding global warming. The polling data began to turn in 2013 and has since advanced your way (in 2014 and 2015), but the flawed conventional wisdom remained locked in, deterring advances on your agenda, particularly in Washington, but also at the state level.

Today, however, public opinion and Pope Francis have intervened to produce several hard political factors capable of transforming the Climate Change Gap in public opinion into a cutting electoral edge. In the final analysis, public opinion is way ahead of Washington's partisan gridlock in understanding the severity of the challenges underlying climate change.

This memo charts those trend lines from the polling data while positing the parameters for transforming the Climate Change Gap into a potent wedge issue. I believe to my core that events will create a Pearl Harbor moment, when the deniers of climate change and those who bow to their rejection of any meaningful policy remedies, will be overrun by an angry electorate which finally connects the dots (i.e., from Superstorms, droughts, rising seas levels and perhaps famine if we are not careful).

Nevertheless, you do not have the luxury of waiting for events to connect those dots, given the lag time between the date policy is enacted and the desired results, precisely because of the severity of the threats the scientists agree, with a near unanimous verdict, await inaction on climate change. Public opinion is on the cusp of being ready for mobilization along the gap attending climate change. Furthermore, Pope Francis' Laudato Si' can put a potent weight on the very fulcrum point of political action in America (the Catholic vote), around a cluster of issues that a clear majority of Americans, particularly Catholics could unite around (i.e., the environment). Let's take advantage of this rare political alignment.

While the polling data is clear even compelling regarding the politics, many campaign strategists are still misreading both the import and the potential for breaking the policy gridlock around climate change. This memo was an attempt to connect those dots for all to see, so that you can take action in anticipation of the moments when climate events take hold, and so you will not have to write a report of why the movement slept.

Given the gender and generational underpinnings in the polling data, our advocacy should maximize the potential of social networking techniques so that younger and female voters (especially younger women voters who spend more time on the internet than older men) converse with each other on behalf of the climate change agenda. Social networking is also a potent tool for reaching younger minority voters.

We have within our grasp the policy message and soon hopefully the advocacy muscle, to trigger a Climate Change Gap which recreates, unfortunately after much controversy, a new bi-partisan

consensus for finally and fully facing the inconvenient truths attending climate change. This effort of public outreach and grass roots mobilization can succeed, but would be buttressed if we can prepare public opinion for the Pearl Harbor events which will lead yesterday's policy caution to be characterized as political infamy, by an electorate demanding action and action now, on behalf of taking, to use Pope Francis' words, "care for our common home".

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To see interactive maps for all 314 species under threat, and for more information about what you can do, visit [audubon.org/climate](http://audubon.org/climate).



Above: Brown Pelican  
Copyright © 2014 National Audubon Society

## THE AUDUBON REPORT

# BIRDS & CLIMATE CHANGE

Every bird species has adapted to the places it currently lives. But global warming is altering the availability of food and suitable nesting and wintering grounds, and if those shifts are too extreme, birds will be forced to seek out habitat and/or food supplies elsewhere. To determine how bird ranges will be affected, Audubon scientists used sophisticated climate models that combine decades of observations from the Audubon Christmas Bird Count and the North American Breeding Bird Survey, factoring in 17 climate variables, including temperature, precipitation, and seasonal changes. The models forecast the “climate envelopes,” or ranges, where future conditions are expected to support each species’ historical climatic needs.

**Here are some important takeaways from the study:**

**The models predict the ranges** of 588 North American bird species under future climate scenarios. It found that the majority—314 species—will lose more than 50 percent of their current range by 2080.

**Of the 314 species at risk from climate change**, 126 of them, classified as “climate-endangered,” are projected to lose more than 50 percent of their current range by 2050. The other 188 species are “climate-threatened,” and expected to lose more than 50 percent of their current range by 2080.

**While some species may be able to adapt**, others will have nowhere to go. Many of our most cherished birds, including the Bald Eagle, Brown Pelican, and Common Loon, face an increased risk of extinction.

**The findings may appear shocking**, and we know that a certain amount of change is already inevitable, but the study provides a roadmap for action. By identifying which birds are most at risk and the places they might inhabit in the future, we can prioritize protections for critical habitat.

**To give birds a chance at a future**, we need to continue supporting efforts to curb global warming by cutting greenhouse gases. These dire outcomes are inevitable only if we do not use this warning as an opportunity to take collective action.

For more information about Audubon’s climate work, go to [audubon.org/climate](http://audubon.org/climate).

Right: Bobolink



### What You Can Do to Help Protect Birds

Audubon’s new science sends a clear message about the serious dangers birds face in a warming world. Protecting them will require both redoubling conservation efforts to safeguard critical habitat and curbing greenhouse gas emissions. Below are a few important steps you can take right away. For more ideas and to share your stories, visit [audubon.org/climate](http://audubon.org/climate).

#### Create a Bird-Friendly Yard

Healthy birds will be better equipped to face the challenges of climate change. Commit to creating safe spaces for birds around your home and community by using fewer pesticides, letting dead trees stand, installing birdbaths, and converting lawns and gardens to native plants. School grounds, parks, vacant lots, and common areas can all be “bird-scaped.” Learn more at [athome.audubon.org](http://athome.audubon.org).

#### Get Involved With Your Local Important Bird Area

Protect the places birds need most today and in the future by pitching in with Audubon’s IBA program, which identifies and conserves areas that are vital to birds and biodiversity. You can help with IBA restoration, cleanup, citizen science, and field trips. To get started, find Audubon near you at [audubon.org/search-by-zip](http://audubon.org/search-by-zip).

#### Put Birds on Your Community’s Agenda

Use this pullout to begin a conversation with your neighbors, colleagues, and local leaders about why it’s important to protect your community’s birds, and share what you’re doing on behalf of birds. Reach more people by writing a letter to your newspaper, speaking at a community event, or visiting a local school.

#### Meet With Local Decision Makers

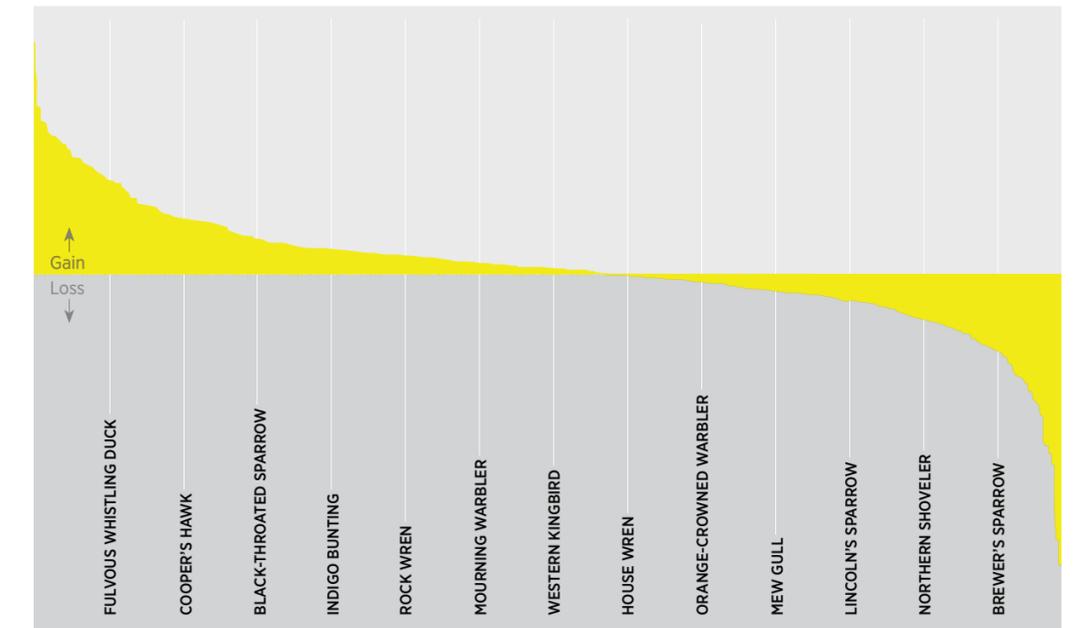
Share this science with state wildlife agencies, city parks departments, extension services, and other groups that manage our natural resources to illustrate how global warming imperils birds, and ask decision makers how they are planning to address it. For more information on how to help officials use and integrate Audubon’s science, email [climatescience@audubon.org](mailto:climatescience@audubon.org).

#### Support Policies That Lower Emissions

Urge leaders at the local, state, and national levels to enact policies that lower greenhouse gas emissions and support clean energy. Renewable portfolio standards, energy efficiency targets, and other proactive measures will reduce emissions and help limit the effects of global warming on birds. Put these policies on your leaders’ agendas, and publicly support efforts to make them stick.

#### Sign Up to Learn More About What You Can Do Year-Round

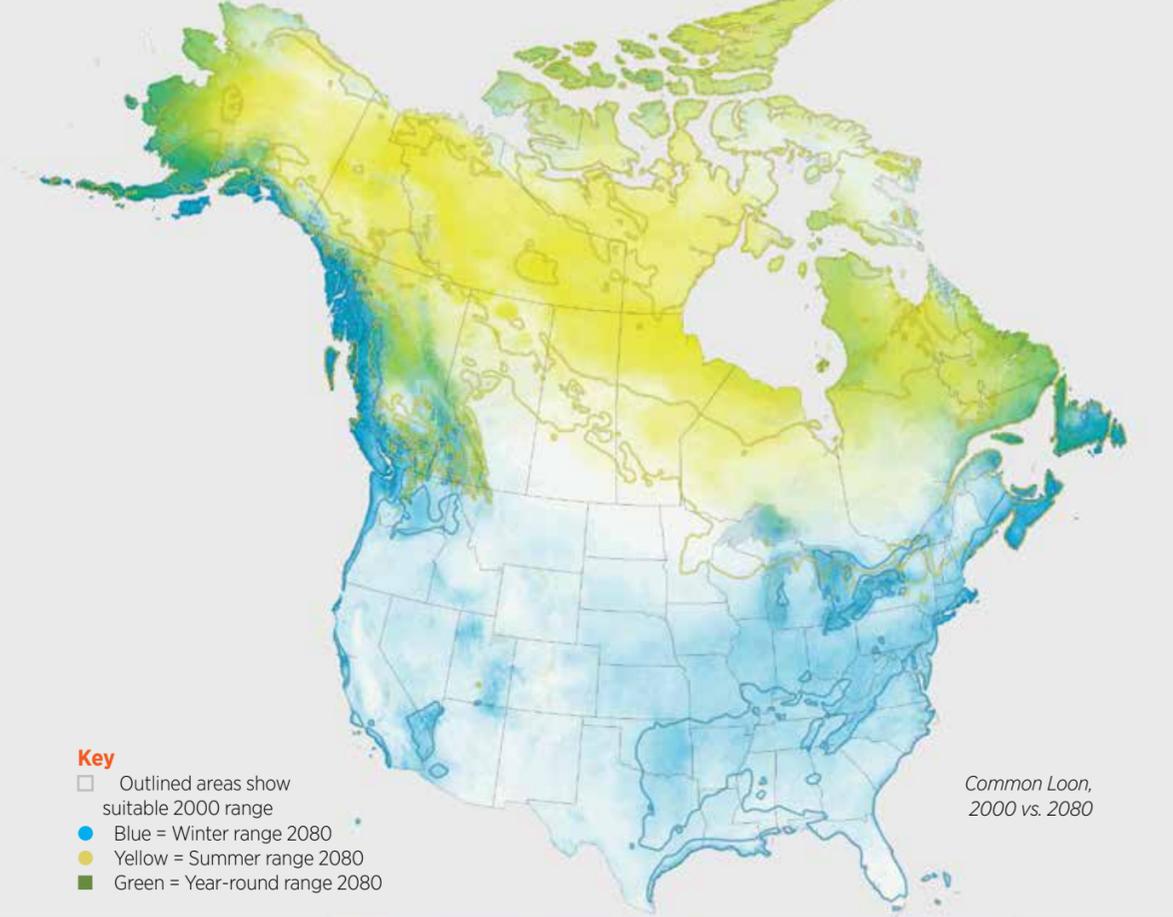
Go to [audubon.org/climate](http://audubon.org/climate) to receive the latest findings, explore climate-related volunteer opportunities in your state or local area, and enlist in Audubon’s forthcoming citizen science project to help monitor birds and document how they respond to a changing climate.



### Winners and Losers: Summer Ranges in 2080

Some birds will adapt better to climate change than others. The distribution above includes data for all 588 species Audubon studied and projects the potential gains and losses in summer (read, breeding) range. The 13 species here represent different prospects for success along the spectrum, with some flourishing and others collapsing. Potential gains in range don’t necessarily mean healthy populations: Birds may find that new climatically appropriate areas can’t support them for a host of other reasons.

Go to [audubon.org/climate](http://audubon.org/climate) to see maps for all 314 climate-threatened or climate-endangered species.



# GUIDE TO AUDUBON'S CLIMATE MODEL DATA

## How to Read the Maps

Each map displays the approximate range of a bird species in 2000 (solid outline) and the projected climatic ranges for the summer (yellow) and winter (blue) in 2080. Where the summer and winter ranges overlap (green), the bird will likely be a year-round resident in the future.

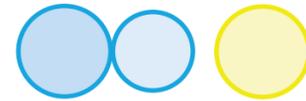
It's important to understand that while these look like the maps in field guides, the models can forecast only where future climatic conditions will match those in each species' current range—defining, by extension, that species' potential future range. But variables other than climate could render that potential future range unsuitable, a possibility this model does not take into account. For example, while a dove might easily shift from prairie to forest as the planet warms, a grassland-dependent bird would have a hard time making a go of it in the woods. Birds that lose significant amounts of their summer habitat will likely have a harder time reproducing.

## Shifting Ranges

The size of the Venn diagram circles roughly indicates the species' range size in 2000 (left) and 2080 (right). The amount of over-

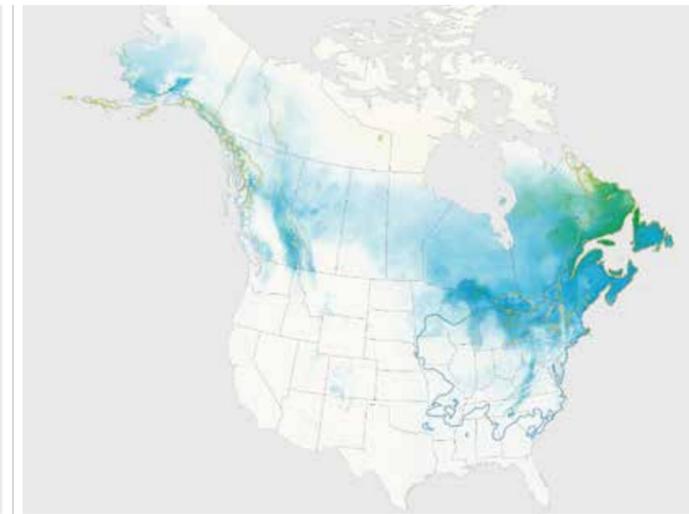


lap between the 2000 circle and the 2080 circle indicates how much the range will shift geographically. Lots of overlap means the bird's range doesn't shift much. No overlap means the species will leave its current range entirely.



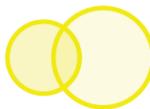
## Baird's Sparrow

This grassland songbird will likely go extinct. According to the models, it will lose 100 percent of its summer range by 2080.



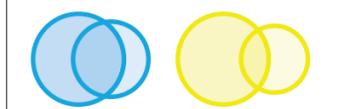
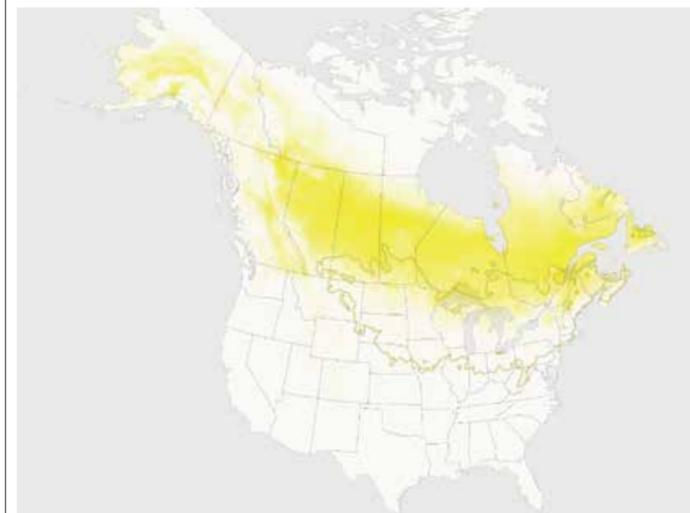
## American Black Duck

By 2080 its winter range will migrate north, while its summer range will be largely unaffected.



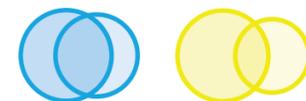
## Bobolink

This songbird's range is projected to expand into Canada's boreal forests, but making this shift may be impossible for this grassland-dependent bird. Data for its wintering grounds in South America is not available.



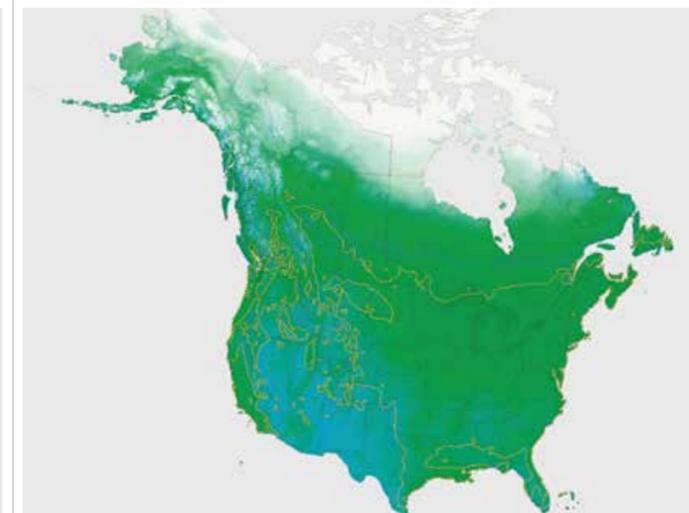
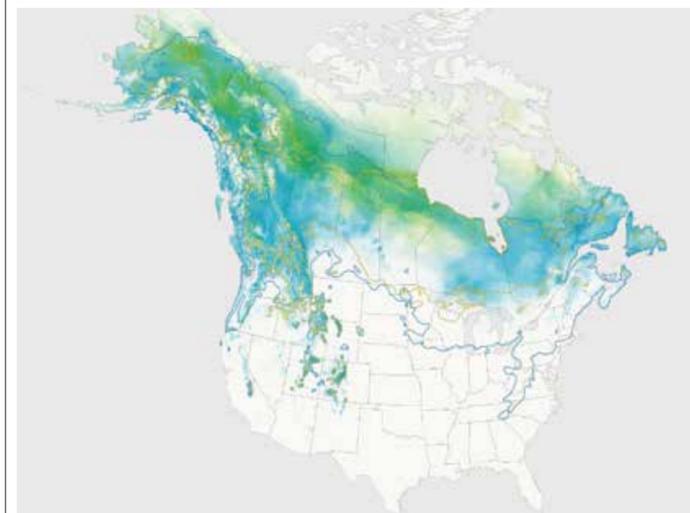
## Black-billed Magpie

Like most corvids, the magpie is projected to lose significant winter and summer range. By the end of the century it could be gone from most of the United States.



## Ruffed Grouse

The grouse's summer and winter ranges will migrate north, which means this species, the state bird of Pennsylvania, could disappear from the Northeast entirely.



## European Starling

This introduced and invasive species will continue its march across the continent, eventually colonizing Alaska.

