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**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of West Virginia, et al.,

Petitioners,

v.

**United States Environmental
Protection Agency, et al.,**

Respondents.

Case No. 15-1363 (and
consolidated cases)

**DECLARATION OF EDITH CHANG,
DEPUTY EXECUTIVE OFFICER OF THE CALIFORNIA AIR
RESOURCES BOARD**

I, Edith Chang, declare:

1. I am a Deputy Executive Officer of the California Air Resources Board (ARB), which is the agency charged with implementation of the federal Clean Power Plan in the state of California. I hold a B.S. in Mechanical Engineering from the University of California, Berkeley, and an M.S. in Mechanical Engineering from the University of California, Irvine and am a registered Mechanical Engineer in the State of California. I have more than twenty years of experience at ARB, and have worked on a wide variety of projects, including

implementation of ARB's zero-emission vehicle program, preparation of State Implementation Plans, and diesel incentive programs. My current responsibilities include overseeing ARB's Cap-and-Trade program, and our Clean Power Plan compliance strategy. This Declaration is based upon my experience managing Clean Air Act programs for California.

2. The purposes of this declaration are to: (i) discuss the serious harms that climate change caused, in part, by power sector emissions, is causing and will continue to cause to California unless those emissions are reduced, (ii) demonstrate California's need for greenhouse gas emissions reductions from the power sector; (iii) describe California's success in reducing these and other emissions through state planning, and to compare those planning efforts with the Clean Power Plan's requirements for state compliance plans; and (iv) explain the ways in which California's regulatory efforts will benefit from continued implementation of the Clean Power Plan and the denial of a stay.

I. Climate Change Threatens California, Requiring Immediate Greenhouse Gas Pollution Reductions

3. ARB and the state of California are committed to reducing greenhouse gas emissions in all sectors because climate change poses a pressing threat to public health and prosperity in our state, as well as throughout the world. California's

Office of Environmental Health and Hazards Assessment, for instance, has concluded that climate change is having increasingly negative effects on our state.¹

These effects include:

- A marked increase in extremely hot weather, resulting in increased deaths associated with heat waves. Hotter weather, including increases in extremely hot days, also contributes to ground-level ozone (or “smog”) formation, which is linked to asthma, heart attacks, and pulmonary problems, especially in children and the elderly. Smog also reduces visibility, damages crops, and harms wildlife.
- Severe drought and the continuing collapse of the Sierra Nevada snowpack, which is a critical water supply source for California. Indeed, researchers have recently reported that the snowpack recently hit a 500-year low.² The drought has already been linked to climate change,³ and the long-term trend for the

¹ See California Office of Environmental Health and Hazards Assessment, *Indicators of Climate Change in California* (2013), available at: <http://oehha.ca.gov/multimedia/epic/pdf/ClimateChangeIndicatorsReport2013.pdf>

² See Monte Morran, “Sierra Nevada Snowpack Is Much Worse Than Thought: A 500-Year Low,” *Los Angeles Times*, (Sept. 14, 2015), available at: <http://www.latimes.com/science/sciencenow/la-sci-sn-snowpack-20150911-story.html>

³ See Justin Gillis, “California Drought is Made Worse by Global Warming, Scientists Say,” *New York Times* (“Global warming caused by human emissions has most likely intensified the drought in California by 15 to 20 percent, scientists said The odds of California suffering droughts at the far end of the scale, like the current one that began in 2012, have roughly doubled over the past century,

state under worsening climate change points to increasingly severe drought conditions.⁴ As a result of the vanishing snowpack and statewide drought, Californians have been forced to significantly curtail water usage, with very substantial economic consequences. Already, California agriculture is experiencing major challenges as a result of the drought,⁵ and continued severe drought will imperil both our agricultural sector and our economy generally.

- An increase in the severity and size of wildfires, with resulting lives lost, property damage, air quality harm resulting from the smoke (including from fine particles in the ash), and water quality risks from denuded slopes. This past summer, California experienced some of the most serious wildfires in its history, destroying large portions of entire towns, and many of these fires

they said.”), available at: http://www.nytimes.com/2015/08/21/science/climate-change-intensifies-california-drought-scientists-say.html?_r=0

⁴ *See id.* *See also* California Department of Water Resources, “Climate Change,” (“Warmer temperatures will cause what snow we do get to melt faster and earlier, making it more difficult to store and use. By the end of this century, the Sierra snowpack is projected to experience a 48-65 percent loss from the historical April 1st average. This loss of snowpack means less water will be available for Californians to use. Climate change is also expected to result in more variable weather patterns throughout California. More variability can lead to longer and more severe droughts.”), available at: <http://www.water.ca.gov/climatechange/>

⁵ *See, e.g.,* Dale Kasler, “More California farmland could vanish as water shortages loom beyond drought,” *Sacramento Bee* (Nov. 26, 2015), available at: <http://www.sacbee.com/news/state/california/water-and-drought/article46665960.html>

continued to burn into the autumn. Scientists project increased wildfire risk from climate change in the future.⁶

- Rising sea levels. The ocean has already risen between 6 to 8 inches along the California coast, and much larger increases have been predicted globally over the next century.⁷ Sea level rise threatens low-lying cities and infrastructure throughout the state, including the Sacramento/San Joaquin Delta, which is the core of the state's water infrastructure.
- Ocean warming and acidification. In addition to warming of the ocean due to climate change, CO₂ absorbed by the ocean is increasing the acidity of ocean water.⁸ This has very negative consequences for California's fisheries

⁶ See, Joshua Emerson Smith, "Wildfire risk to rise by six times, study says," *San Diego Union Tribune* (Nov. 8, 2015) ("Climate change will steadily amplify the risk of wildfires in California by six-fold, according to the study, which is published in the current issue of the Bulletin of the American Meteorological Society. The report's authors more specifically quantified increases in extreme fire conditions linked to climate change, a connection that many other researchers had established over the years but in broad terms."), available at: <http://www.sandiegouniontribune.com/news/2015/nov/08/wildfires-california-climate-change-yoon-gillies/>; see also Union of Concerned Scientists, *Science Connections: Western Wildfires and Climate Change*, available at: http://www.ucsusa.org/sites/default/files/legacy/assets/documents/global_warming/Infographic-Western-Wildfires-and-Climate-Change-Methodology-and-Assumptions.pdf.

⁷ See *Intergovernmental Panel on Climate Change*, "FAQ 5.1: Is Sea Level Rising?" available at: https://www.ipcc.ch/publications_and_data/ar4/wg1/en/faq-5-1.html.

⁸ See, e.g., Nicolas Gruber *et al.*, *Rapid Progression of Ocean Acidification in the California Current System*, *Science Express* (2012), available at:

and coastal wildlife. Changing ocean conditions have already contributed to a toxic algal bloom that led California to close its lucrative crab fishery this year.⁹ We have also seen record strandings of starving marine mammals this year, as warmer waters and changing ocean conditions makes it difficult for them to survive.¹⁰

4. These are just a sampling of the negative effects California is experiencing. In many regards, climate change, caused by greenhouse gases, threatens the public health and welfare of all Californians. Addressing this issue requires immediate, sustained, and deep cuts to greenhouse gas emissions, including from electric power plants.

5. I have reviewed the discussion of climate change and its impacts in the preamble to U.S. EPA's final "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units" (the "Clean Power Plan"). U.S. EPA's description of a wide range of scientific studies demonstrating that greenhouse gases endanger public health and welfare is well supported, and is

<https://www.oceanfdn.org/sites/default/files/Rapid%20Progression%20of%20Ocean%20Acidification%20in%20the%20California%20Current%20System.pdf>

⁹ See Azure Gilman, "A California crab ban reveals trouble in the Pacific Ocean," *Al Jazeera America* (Nov. 6, 2015), available at: <http://america.aljazeera.com/articles/2015/11/6/a-california-crab-ban-reveals-troubled-pacific-ocean.html>

¹⁰ See Marine Mammal Center, "Unusual Ocean Conditions Continue to Cause Record Strandings" (Nov. 19, 2015), available at: <http://www.marinemammalcenter.org/about-us/News-Room/2015-news-archives/record-strandings.html>

consistent with California's experience and conclusions. I fully concur with U.S. EPA's analysis, including its finding that "climate change impacts touch nearly every aspect of public welfare" and that "[c]hildren, the elderly, and the poor are among the most vulnerable to ... climate-related health impacts."

6. The National Academies of Science,¹¹ the U.S. Global Change Research Program,¹² and the Intergovernmental Panel on Climate Change,¹³ are among the many scientific bodies that have concluded that there is a limited amount of time left to reduce emissions to safe levels. This is, in part, because carbon dioxide, the principal greenhouse gas, persists in the atmosphere for centuries. As a result, every year of additional greenhouse gas emissions results in persistent climate disruption for years to come. Conversely, the earlier we begin to reduce emissions, the more limited future damage from climate change is likely to be.

7. In light of these very serious risks, and the closing window of opportunity to address them, California has long been focused on reducing greenhouse gas emissions. California's Global Warming Solutions Act, AB 32, is one of several statutes directing ARB and other state agencies to take action. It recognizes this

¹¹ See generally National Academies of Science, *American's Climate Choices* (2011), available at: <http://dels.nas.edu/Report/America-Climate-Choices-2011/12781>.

¹² See generally U.S. Global Change Research Program, *National Climate Assessment* (2014), available at: <http://nca2014.globalchange.gov/>.

¹³ See generally Intergovernmental Panel on Climate Change, *Climate Change 2014: Synthesis Report, Summary for Policymakers* (2014), available at: http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf

“serious threat” and directs California, and ARB, to support “other states, the federal government, and other countries” as they act to address emissions. *See* Cal. Health & Saf. Code §38501. This effort, supported by California Governors from both major political parties, involves agencies across state government and a wide range of programs.

8. California is currently on track to reduce total greenhouse emissions from all sectors to 1990 levels by 2020. Consistent with available science, California will then pursue emission reductions of 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050.¹⁴

9. California’s emissions reductions experience demonstrates that greenhouse gas emissions reductions can be consistent with economic prosperity. As we have reduced our emissions towards 1990 levels and put our carbon market into operation, jobs grew by 3.3% – outpacing the rest of the country.¹⁵ Personal income and wages are up – again growing at rates well above the national average.¹⁶ Our electric power grid delivers power reliably, resiliently, and

¹⁴ *See* Governor Edmund G. Brown Jr., Executive Order B-30-15 (Apr. 29, 2015), available at: <https://www.gov.ca.gov/news.php?id=18938>

¹⁵ Environmental Defense Fund, *Carbon Market California* (2014) at 5, available at: http://www.edf.org/sites/default/files/content/carbon-market-california-year_two.pdf.

¹⁶ *Id.*

efficiently thanks to the continued stewardship of our transmission operators.¹⁷

And power bills are down: Californians pay among the lowest power bills in the country – twenty dollars less per month than the national average, and forty dollars less than Texans pay on average.¹⁸

10. California's experience has not gone unnoticed. Many jurisdictions, international and domestic, are implementing similar programs, and are committing to continue reductions. According to the International Energy Agency, renewable energy will be the single largest source of electricity sector growth over the next five years.¹⁹ By 2020, the IEA expects that the energy coming from renewables worldwide will exceed the energy consumption of China, India, and Brazil combined. California is helping to bring together subnational actors via the "Under 2 MOU" to support this process. To date, 43 jurisdictions in 19 countries and 5 continents have signed. They collectively represent 474 million people, and

¹⁷ See California Independent System Operator, *What Are We Doing to Green the Grid?* (2014), available at:

<http://www.caiso.com/informed/Pages/CleanGrid/default.aspx>

¹⁸ Energy Information Administration, *2013 Average Monthly Bill – Residential*, http://www.eia.gov/electricity/sales_revenue_price/pdf/table5_a.pdf

¹⁹ IEA, *Renewables to Lead World Power Market Growth to 2020* (2015), available at:

<http://www.iea.org/newsroomandevents/pressreleases/2015/october/renewables-to-lead-world-power-market-growth-to-2020.html>

a GDP of \$13.6 trillion – the equivalent of the second largest economy in the world.²⁰

11. Although California's emission reductions, and these international efforts, are an important contribution, they alone are not sufficient to fully address global climate change. Doing so requires national and international action. It is clear that United States leadership on this issue is critical, both because national emissions reductions in the United States as a whole can be very substantial, and because United States leadership on this issue will support international climate action.

12. The Clean Power Plan is a critically important part of this necessary national effort. It addresses the largest national stationary source of greenhouse gas emissions, electricity generation, and, according to U.S. EPA's estimates, will generate 32% reductions in emissions from that sector relative to a 2005 baseline. The Clean Power Plan thus makes a very meaningful contribution to reducing United States emissions, and demonstrates the sort of leadership needed to secure further reductions internationally. Benefits from the Clean Power Plan are very significant in all of these regards; indeed, U.S. EPA estimates that the monetized net climate and public health benefits of the plan itself (leaving aside its

²⁰ See http://under2mou.org/?page_id=238.

contribution to international pollution reductions) will be as much as \$45 billion by 2030.

13. The Clean Power Plan will also help support and reinforce necessary efforts to reduce other pollutants, including ozone and particulate matter (in lay terms, “smog” and “soot” – both very dangerous to human health). California has significant air pollution challenges that can only be fully addressed by greatly reducing fossil-fuel emissions from all sources, including from power plants. The Clean Power Plan reinforces progress needed to support these reductions in-state and across the country.

14. Securing the full benefits of the Clean Power Plan for California, the country, and the world in the most effective way requires planning for compliance. Any disruptions to the Clean Power Plan have the potential to make it more difficult to achieve cost-effective emissions reductions based upon well-developed plans, resulting in intensified climate change risks, as well as challenges integrating federal programs like the Clean Power Plan with existing state programs.

15. For these reasons, and those discussed more fully below, California would be harmed by any judicial decision delaying Clean Power Plan implementation or decreasing the rigor of the Clean Power Plan.

II. Consistency of the Clean Power Plan's Requirements with Past Planning Efforts

16. One of the significant strengths of the Clean Power Plan is that it relies on the Clean Air Act's successful state/federal planning model, which has helped California and states across the country reduce air pollution for more than forty years. Based on my experience developing California's State Implementation Plans under the Clean Air Act, and on my current responsibilities, I conclude that the Clean Power Plan compliance process is fundamentally similar to the Clean Air Act planning processes that all states have long undertaken, and thus imposes no unique or special burdens on those states that wish to submit their own plans. Instead, it uses highly similar procedures to those that the states successfully employ as a matter of course.

17. Specifically, section 111(d) planning, as envisioned by the Clean Power Plan, is very similar to the planning processes states regularly undertake under Section 110 of the Clean Air Act to meet federal ambient air quality standards for criteria pollutants. That cooperative federalism approach, now in use in the Clean Power Plan, has allowed states to achieve large air pollution reductions while tailoring programs to meet their particular circumstances.

18. Nationally, Section 110 plans (also called State Implementation Plans) and other Clean Air Act programs have reduced aggregate national emissions of criteria pollutants by 72% from 1970 to 2012; during the same period, GDP grew by 219%.²¹ This progress has saved, and will continue to save, hundreds of thousands of lives.²² U.S. EPA reports that monetizing this progress demonstrates \$2 trillion of benefits, which exceed costs by a ratio of 30-to-1.²³

19. Progress in California has also been dramatic. While California's population has increased by 29% since 1990, state and federal clean air planning led to reductions in emissions of ozone-forming pollutant emissions of 50% and toxic pollutants of 80% in that same period.²⁴ Almost two-thirds of Californians now reside in areas that meet federal ozone smog standards, up from only 24% in 1990.²⁵

20. To make this progress, California, like other states, has developed considerable administrative expertise in air pollution control planning. State and

²¹ See U.S. EPA, *Progress Cleaning the Air and Improving People's Health* (2013), available at: <http://www2.epa.gov/clean-air-act-overview/progress-cleaning-air-and-improving-peoples-health>

²² See *id.*

²³ See *id.*

²⁴ See California Air Pollution Control Officers' Association (CAPCOA), *California's Progress Towards Clean Air* (2015), available at: <http://www.capcoa.org/wp-content/uploads/2015/04/2015%20PTCA%20CAPCOA%20Report%20-%20FINAL.pdf>

²⁵ See *id.*

local clean air agencies employ expert staffs to develop and implement state plans, and planning is an ongoing and regular part of our duties. California state and local agencies, for instance, have developed nearly fifty Clean Air Act implementation plans under Section 110 of the Clean Air Act since the year 2000 alone. California has also successfully implemented U.S. EPA's past section 111(d) emissions guidelines.

21. For instance, California's efforts to meet section 110 standards for particulate matter (PM 2.5) that poses serious health risks to the "South Coast" region – Los Angeles and environs – demonstrates how state planners regularly address potentially complex clean air planning challenges. U.S. EPA set air quality standards for this pollutant for the first time in 1997; addressing these standards was challenging because particulate matter is created by many pollution sources, and the pollutant itself is made up of many different compounds. The South Coast region was designated as out of attainment with those standards in 2005, starting a three-year clock for plan development. South Coast regional officials and ARB worked with U.S. EPA, and successfully developed a plan for these new standards within only two years. The plan contains an extensive and carefully modeled set of measures, regulatory initiatives, and modeling demonstrations intended to demonstrate attainment, and was developed with extensive stakeholder input. The plan was submitted in 2007. This past year, U.S.

EPA, recognizing the progress made, proposed to find that the South Coast region is now in attainment with the standards.²⁶ This sort of progress is not unusual: California, like other states, regularly implements comprehensive air pollution plans, and has seen significant pollution decreases as a result.

22. I have reviewed the state planning requirements of the Clean Power Plan. For states that choose to develop their own state plans (which are not required), the Clean Power Plan's requirements are no more demanding than those which the states have already met in previous Section 110 and Section 111(d) plans. Both processes require careful analysis of pollution sources and the effects of proposed regulatory regimes on those sources, and careful modeling to demonstrate emissions trajectories. Thus, the task of plan development under Section 111 will be familiar to agencies experienced in Section 110 planning.

23. In some ways, in fact, section 111 plans are somewhat more straightforward substantively. Notably, section 110 plans, which are focused on attaining ambient air quality levels for particular pollutants typically involve measures that affect many source categories – both stationary and mobile – as well as atmospheric modeling to understand the effect of sources on pollutant levels in the atmosphere. Hence, considerable effort is needed to consider measures and impacts across economic sectors. Section 111 planning, by contrast, focuses on

²⁶ See 70 Fed. Reg. 72,999, 73,000 (Dec. 9, 2014) (describing this procedural history and proposing attainment designation).

pollutants from a single source category, and does not require atmospheric modeling.

24. Further, in some regards, the Clean Power Plan also affords states very significant procedural flexibility as they develop their plans that is not always available in the Section 110 process. For instance, California, along with many other states, urged U.S. EPA to offer a wide range of state plan designs, including “state measures” plans that avoid rendering many state programs directly federally enforceable. U.S. EPA granted this request, providing state planners with a very wide range of designs, including the “state measures” option. This state measures option largely allows states to use new or existing programs and policies which are projected to achieve federally required emissions levels without subjecting those policies to federal enforcement – an important source of flexibility that could allow the use of a wide range of policies to respond to the Clean Power Plan at state discretion, including successful energy efficiency policies. Further enhancing state options, U.S. EPA has also proposed model plans and federal plans that states may use as models, or accept as alternatives.

25. Plan submission and implementation timelines under the Clean Power Plan also afford states more than ample time. U.S. EPA requires only a basic initial submission in 2016 to secure an extension for plan submittal to 2018, if necessary. U.S. EPA has also proposed a range of additional submission options –

including partial, conditional, and parallel processing and approval options – that will further accommodate state planners and their schedules. The fact that plans need not begin to meet compliance period requirements until 2022 further provides administrative flexibility.

26. The full seven years between finalization of the Clean Power Plan and the initial compliance period, the fact that emissions reductions then phase in through to 2030, and the up-to three years allowed for plan submissions, with revisions possible thereafter, provides ample time for ARB to enact and implement an appropriate plan. In contrast, ARB has implemented many highly complex state programs that are more sweeping than the Clean Power Plan in significantly less time. For example, California’s economy-wide Cap-and-Trade Regulation, which encompasses all large greenhouse gas emitters in the state, took approximately three years to develop and move into implementation from the time the state determined to move forward with the program in ARB’s first climate change Scoping Plan.

27. California’s experience is not unique in this regard. In my view, the decades of experience which states have accrued in successfully developing and implementing Clean Air Act compliance plans, the wide array of possible plan designs, and the extended implementation and compliance timelines of the Clean Power Plan all render compliance planning entirely manageable for the Air

Resources Board, as well as for other states that wish to submit their own plans.

Experience with the Clean Air Act to date strongly suggests that state plans of this sort will be effective and can be implemented smoothly, just as has generally been true for pollution control planning under the Act.

III. Benefits to California of Uninterrupted Implementation of the Clean Power Plan

28. California is moving ahead to implement the Clean Power Plan in accordance with other planning activities for the post-2020 period. I believe that expeditious, integrated planning in California, and across the country, provides significant benefits.

29. Our planning activities include a “scoping plan” establishing California’s overall plans for economy-wide greenhouse gas emissions reductions out to 2030, and amendments to our Cap-and-Trade Regulation, which structures California’s greenhouse gas emissions trading market. That market has operating since 2012, and the greenhouse gas emissions compliance instruments traded in the market reflect billions of dollars in value. The market is used to guarantee emissions reductions throughout the state by requiring participants to meet a declining cap on total emissions, under which trading may occur to allow for more economically

efficient compliance. The power plants affected by the Clean Power Plan generally are also covered by our Cap-and-Trade Regulation, and participate in the market.

30. ARB is beginning the planning process to ready the Cap-and-Trade Regulation for the post-2020 period. Providing a clear path forward to market participants is important to provide certainty to market participants, maintain the value of the market for participants, and ensure that the program continues to operate smoothly to produce emissions reductions. The planning process began with a workshop in October 2015, and is expected to unfold throughout 2016, with a final scoping plan and amendments to the Cap-and-Trade Regulation expected to be considered for approval in late 2016 and early 2017, respectively.

31. ARB is integrating its Clean Power Plan compliance planning efforts with our state-level scoping plan and Cap-and-Trade amendments because all of these processes bear on the obligations of affected power plants now participating in the California greenhouse gas emissions trading market. ARB is making significant efforts to ensure that the compliance obligations created by the Clean Power Plan can be smoothly integrated into the state market program. U.S. EPA has provided ample flexibilities in the Clean Power Plan to support this effort.

32. In order to develop a unified post-2020 regulatory plan for the power sector that will also provide market certainty, it is important that the state and federal planning processes move forward together, allowing carbon and power

market participants to fully understand their obligations going forward. A delayed Clean Power Plan compliance process, on the other hand, could create uncertainty in the market, diminishing market efficiency, and could force California to revisit the state-level rulemakings that will move forward from 2015 to 2017, at considerable administrative cost and inconvenience for all parties. For instance, a stay could push Clean Power Plan compliance planning beyond the planning period for the state-level rulemakings – such as by delaying U.S. EPA’s ability to reach a decision on California’s compliance plan, and by creating regulatory uncertainty around the process of plan development. The result would be that ARB would have to consider moving forward with state regulatory development, but without fully integrating Clean Power Plan compliance and without the benefit of U.S. EPA regulatory decisions on ARB’s determinations for a portion of that period. If a stay generated delays beyond the timeline of the state regulatory process, ARB would likely have to reopen closed state regulatory and planning processes to incorporate the delayed federal requirements, and do so very close to the beginning of the post-2020 period. The resulting administrative and market disruption costs have the potential to be significant. Compliance instruments traded in the California market are cumulatively worth billions of dollars, and the market itself contributes to controlling millions of tons of greenhouse gases,

meaning that even small disruptions to the smooth functioning of the market can have large absolute consequences.

33. Our climate planning process also involves substantial efforts to consult with disadvantaged communities. This consultation, including through a formal Environmental Justice Advisory Committee, is focusing on many aspects of ARB's programs, including our post-2020 programs. Here, too, providing stakeholders a comprehensive planning process aids in ensuring a thorough and effective consultation to help address these communities' concerns.

34. This coordination process also involves jurisdictions whose own carbon market programs are linked (in the sense of sharing fungible compliance instruments within coordinated policy designs) to the California market. California's carbon market is currently connected in this way to that of the Canadian Province of Quebec, and other jurisdictions are also exploring linkage. Because the Clean Power Plan compliance process is likely to affect the design of our carbon market, plan development will need to address this linkage as well. For this reason, a unified planning process – that can incorporate linkage considerations – is of considerable importance to avoiding market disruption in other jurisdictions as well and to securing cost-effective greenhouse gas reductions through this growing international effort.

35. Further, the Clean Power Plan compliance strategy for California is being developed at approximately the same time as major planning efforts that will affect our electricity system. One of the state's major electricity grid operators, the California Independent System Operator, will be involved in exploring expanding its power market to embrace power markets in other western states (including Oregon, Utah, and Wyoming) over the 2015-17 period. At the same time, our Public Utilities Commission and Energy Commission will be considering how to implement a new 50% renewable procurement target and other utility planning mandates for the 2020-2030 period. The electricity market shifts required for these programs have the potential to affect power plants regulated under the Clean Power Plan. Accordingly, it is most efficient to develop our compliance strategy in coordination with these electricity system policy efforts; such an effort will best support cost-effective electricity planning, and will also support sensible planning for electrical reliability as these policies are implemented. Again, delaying the Clean Power Plan compliance planning process will make it more difficult to ensure that the power market changes and greenhouse gas emission reduction strategies can relate successfully to each other.

36. Finally, I note that California's successful carbon reduction efforts have been influential in international climate discussions, including both policy efforts amongst subnational entities and in the discussions around the pending Paris

climate negotiations facilitated by the United Nations. Continued successful operation of the California programs, as examples of successful reduction efforts, and as venues to explore policy approaches, is likely to help support efforts worldwide to build upon our efforts. Moreover, international climate negotiations have been strongly influenced towards delivering the pollution reductions necessary by demonstrations that the United States, and individual states, are committed to greenhouse gas emission reduction programs. Accordingly, continued implementation of both our programs and the Clean Power Plan itself, which both help to foster continued international pollution reductions. Delays to implementation may disrupt these international efforts, which are necessary to climate stabilization.

37. Accordingly, California benefits substantially from being able to include Clean Power Plan compliance with its overall planning effort, and can only do so effectively if the Clean Power Plan is not stayed.

38. These potential harms are not likely to be limited to California. Many states are now developing greenhouse gas reduction programs at the state level. These states, too, will benefit from being able to incorporate federal compliance planning into their efforts.

39. California will also experience benefits from expeditious, effective Clean Power Plan compliance efforts nationwide. These benefits include durable state

emission reductions plans, further limiting greenhouse gas emissions endangering Californians. Earlier planning and implementation efforts are also likely to provide opportunities for regional coordination of planning efforts, which could help enhance reductions or reduce costs. Because coordination between state governments takes time, a planning window not shortened by a stay is likely to encourage states to explore and capture these potential benefits.

IV. Harms to California Resulting from a Stay

40. If the Clean Power Plan is stayed, California will experience several serious, and irreparable, harms.

41. First, as I have discussed above, it will be difficult and perhaps impossible to seamlessly coordinate state and federal planning for the post-2020 period in California if the Clean Power Plan is stayed. State-level planning must continue in 2016, but, if a stay is granted, these plans may need to be reopened or adjusted once full federal compliance planning can begin. Moreover, holding the federal compliance planning process so close to 2020, the beginning of the next compliance phase within the state greenhouse gas emissions trading market, will introduce unnecessary market uncertainty, and so may impair the program. The resulting market uncertainty, procedural complexity, and administrative costs

would cause significant harm to California's efforts to develop a unified and effective compliance program.

42. Moreover, staying the Clean Power Plan, or otherwise weakening it, will make it more difficult for state planners to develop durable plans that will deliver the requisite greenhouse gas emissions reductions. During the pendency of a stay, the uncertainty created, along with potential limits on U.S. EPA's implementation abilities, will make it more difficult to move state plans forward with full federal and state involvement in the process. Delays could also create a less certain planning timeline, making it more difficult to coordinate with other state processes. Because thoughtful coordination of this sort is important to effective planning, a stay would make it more difficult to integrate Clean Power Plan requirements into ongoing state processes.

43. Further, any delay to the Clean Power Plan will likely make it more difficult for California and the United States to encourage greenhouse gas reductions from other countries.

44. Critically, if a stay results in further delays to compliance deadlines for the CPP, or to state-level efforts to reduce greenhouse gas emissions, these emissions will likely accumulate in larger quantities in the atmosphere, resulting in increased climate risk to Californians.

45. The net result is that a stay to the plan will impair greenhouse gas reduction efforts at the state, national, and international levels, create uncertainties in California's functioning emissions market, potentially delay compliance deadlines resulting in extended periods of elevated greenhouse gas emissions exacerbating climate risk to California, and impose unnecessary additional planning and process coordination costs on California and similarly situated states.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on December 4, 2015.

/s/ Edith Chang
Edith Chang, Deputy Executive Officer

California Air Resources Board

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Protection Agency, et al.,**

Respondents.

Case No. 15-1363 (and
consolidated cases)

DECLARATION OF STUART CLARK

I, STUART CLARK, hereby declare:

1. I am now and at all times mentioned have been a citizen of the United States and a resident of the state of Washington, over the age of 18 years, competent to make this declaration, and I make this declaration from my own personal knowledge and judgment.

2. I am currently employed by the Washington State Department of Ecology (Ecology) as the manager of the Air Quality Program. As manager of the Air Quality Program, I oversee the work of Ecology's Air Quality Program throughout the state of Washington. I have worked in this position for approximately ten years. I have worked with Ecology on air quality issues for

more than thirty years. Ecology's Air Quality Program is responsible for preserving, protecting and enhancing the air quality of the state for current and future generations.

3. As part of my work as the manager of the Air Quality Program, I have been involved in numerous efforts to regulate air quality in the state of Washington including air quality planning, state implementation planning, greenhouse gas emissions reduction programs, regulating the power sector, and coordinating with air/utility regulators. Following EPA's issuance of its final rules establishing greenhouse gas emission standards for power plants under Sections 111(b) and (d) of the federal Clean Air Act (CAA), I have been overseeing Ecology's efforts to comply with those rules.

4. Greenhouse gas emissions are causing climate change on a global and national scale, and in the Pacific Northwest, including Washington. A recent "State of the Knowledge Report," entitled Climate Change Impacts and Adaptation in Washington State, released in December 2013 by Climate Impacts Group, University of Washington, and reinforced in its 2015 assessment, summarizes and presents existing knowledge about the likely effects of climate change on Washington State and the Pacific Northwest. The report states that significant changes in Earth's climate system and the climate

of the Pacific Northwest, including Washington, are projected for the twenty-first century and beyond as a result of greenhouse gas emissions.

5. The changes in regional climate, water resources, and coastal conditions that have been observed are consistent with trends we would expect to see as a result of human-caused greenhouse gas emissions. Washington and the Pacific Northwest have experienced long-term warming, a lengthening of the frost-free season, and more frequent nighttime heat waves. Sea level is rising along most of Washington's coast, coastal ocean acidity has increased, glacial area and spring snowpack have declined, and peak stream flows in many rivers have shifted earlier.

6. Projected regional warming and sea level rise are expected to bring new conditions to Washington State. By midcentury, Washington is likely to regularly experience average annual temperatures that exceed the warmest conditions observed in the twentieth century. Washington is also expected to experience more heat waves and more severe heavy rainfall events. These and other local changes are expected to result in a wide range of impacts for Washington's communities, economy, and natural systems. These projected changes threaten our water resources, forests, species and ecosystems, oceans and coasts, infrastructure, agriculture, and human health.

7. Current and future choices about greenhouse gas emissions are important because they will have a significant effect on the amount of warming that occurs after about the 2050s. For example, global warming projected for the end of the century ranges from +1.8°F (range: +0.5°F to +3.1°F), if greenhouse gases are aggressively reduced, to +6.7°F (range: +4.7°F to +8.6°F) under a high “business as usual” emissions scenario. In a Washington-specific economic study, potential costs to Washington of not taking action from climate change impacts are projected to reach nearly \$10 billion per year by 2020 and \$16 billion per year by 2040.

8. The power sector is one of the largest emitters of greenhouse gases in Washington along with transportation emissions and fossil fuel use in the residential, commercial, and industrial sectors. In addition to combating climate change, reductions in greenhouse gas emissions from power plants will also have cobenefits. We would expect to see decreases from natural gas and coal sources in NO_x, fine particulates, and SO₂, pollutants that can directly harm public health and the environment. Washington enacted requirements for the state’s largest single source of greenhouse gas emissions, the Centralia coal plant, to shut down operations by 2025 with a schedule of

emissions reductions to be met along the way. The shutdown will also result in decreases in NO_x, fine particles, mercury and SO₂.

9. Limits on the Boardman power plant in Oregon will not only address that plant's emissions of greenhouse gases but its emissions of nitrates and its visibility impairment of the eastern portion of the Columbia River Gorge National Scenic Area, spanning southern Washington and northern Oregon. As renewable energy sources continue to be utilized and energy efficiency increases under the Clean Power Plan (CPP), fossil fuel sources will be used less thus decreasing greenhouse gases and other pollutants associated with these sources.

10. Many Washington communities, government agencies, and organizations are preparing for the impacts of climate change. Ecology released a state adaptation plan on April 3, 2012, entitled Washington State Integrated Climate Change Response Strategy. Ecology and a number of other state agencies developed the strategy as a framework for decision-makers to help protect Washington's communities, natural resources, and economy from the impacts of climate change. The framework includes ways to protect people and the environment by reducing risk of damage to buildings, transportation systems, and other infrastructure; reducing forest and agriculture vulnerability;

improving water management; safeguarding fish, wildlife, habitat, and ecosystems; reducing risks to the ocean and coastlines; supporting the efforts of local communities; and strengthening capacity to respond and engage the public.

11. Washington has taken numerous steps to mitigate climate change impacts in the last decade. These include enacting statewide greenhouse gas emission reduction limits that require reductions in greenhouse gas emissions over time including reaching 1990 levels by 2020; 25 percent below 1990 levels by 2035; and 50 percent below 1990 levels by 2050, or 70 percent below expected emissions that year.

12. For power plants, Washington has enacted carbon dioxide mitigation requirements, renewable portfolio standards, and greenhouse gas emission performance standards. It enacted legislation for the shutdown of the Centralia coal plant, the state's largest single source of greenhouse gas emissions. It has established requirements for utilities to perform integrated resource planning on a two-year frequency for meeting forecasted annual peak and power demand, with the lowest reasonable cost and risk. Utilities must pursue all available conservation that is cost-effective, reliable, and feasible.

13. Washington has enacted economy-wide greenhouse gas reporting requirements for large emitters including power plants. Ecology has adopted EPA's "Tailoring rule" that establishes greenhouse gas emissions standards for major stationary sources, including power plants that are subject to the federal Prevention of Significant Deterioration Program, to use best available control technology to reduce those emissions. Washington has adopted greenhouse gas emission standards for Washington's existing refineries. Washington has enacted greenhouse gas emission standards for motor vehicles. All of these statutory and regulatory actions have been accomplished while the economy of Washington has continued to grow and energy prices have remained among the lowest in the country. Currently, Ecology is developing a rule setting a declining cap on carbon emissions in Washington to achieve reductions in greenhouse gas emissions from the state's largest emitters of greenhouse gases including power plants. Combined, these policies will go a long way to reducing Washington's statewide greenhouse gas emissions.

14. Washington strongly supports federal greenhouse gas emission standards under the CPP. Federal standards will benefit Washington because they will ensure reductions of greenhouse gas emissions throughout the

country to mitigate harms from climate change and create incentives for development of cleaner sources of power in Washington. To express its support of the CPP rule, Ecology, in partnership with the Washington State Department of Commerce (Commerce) and the Utilities and Transportation Commission (UTC) reviewed and submitted comments on the proposed rule to EPA on December 1, 2014. The State Energy Office at the Department of Commerce (Commerce) is the state executive agency responsible for developing and analyzing state energy policies. The Utilities and Transportation Commission (UTC) is an independent quasi-judicial regulatory body that regulates the rates and services of investor-owned utilities, and ensures reliable and affordable service.

15. Ecology, Commerce, and UTC have reviewed the final rule. EPA's model plans have been helpful to understand the rule's provisions. The three agencies' comments on the proposed CPP suggested that the rule could be improved if EPA used a multi-year average between three to five years to establish the baseline for setting the interim and final state goals because Washington is a hydro-dominant state and 2012 was an uncharacteristically high water year to use as a baseline where little fossil fuel generation occurred. EPA addressed that comment with a three-year average using the

year before and after 2012, for a more representative baseline. The agencies also suggested that EPA allow the states to submit amendments to their plans at any time subject to EPA's approval. EPA responded by defining a process for states to submit amendments. Finally, we suggested that we have flexible interim compliance targets and changes to how the rule would address energy efficiency. EPA responded positively to make appropriate changes that still kept a stringent overall rule but made implementation more flexible and improved the final rule. After its review of the final rule, Washington believes it is well positioned to implement the CPP.

16. Ecology has begun its efforts to develop the plan to comply with the CPP. These efforts include a stakeholder meeting/listening session to get early views from stakeholders on what approaches it should consider and what areas the stakeholders consider important for discussion. Additional stakeholder and public meetings will be held and Ecology will use webinars and other internet-based tools to present options and elicit opinions from the stakeholders. A technical meeting was held in early November to begin addressing key technical issues related to the Northwest's power generation system and the effects various CPP policy choices might have on the power system. Ecology is developing a plan to work with low income and vulnerable

communities on impacts and opportunities resulting from the CPP. These and other appropriate actions will enable Washington to make its initial submittal by September 6, 2016, as required by EPA's final rule. Washington will be ready to submit its final plan on or before September 6, 2018.

17. Ecology, together with Commerce and UTC, has the ability to direct adequate technical resources and staff to analyze the rule and develop the plan to comply with the CPP. Ecology has determined that rulemaking will be required to implement the CPP. The three agencies are using normal funding sources from state appropriations to fund this work.

18. Ecology should have sufficient ongoing resources to develop and submit the state's CPP plan while also continuing to work on state implementation plan update requirements for new National Ambient Air Quality Standards and including updated regulatory text into those plans. It does not expect the need to divert resources from Ecology's other public policy priorities to implement the CPP.

19. The CPP is not expected to interfere with the state's regulation of the power sector that ensures system reliability and just and fair rates for consumers. Various power planning entities have analyzed impacts of shifting to cleaner energy. The Western Electricity Coordinating Council promotes

regional electric service reliability in western Canada and the western United States and performs system-wide modeling for power demand and system reliability. In 2014 the Western Electricity Coordinating Council modeled the consequences of the shutdown of approximately 7000 MW of coal-fired generation in the west and determined no adverse impact on system reliability.

20. The Northwest Power and Conservation Council performs system load modeling for periodic power plans, including modeling for the seventh plan which is currently being developed. Both the sixth and draft seventh power plans show relatively flat load growth in the Northwest and that cost-effective conservation and energy efficiency programs should ensure that the bulk of the power needs are met. The plans show a continued shift away from coal to natural gas, increased energy efficiency, and renewables to comply with state and federal laws and regulations without creating reliability issues or compromising fair rates. Commerce and UTC, working with Ecology, will help to ensure the final Washington plan does not conflict with rate and reliability priorities.

21. Washington's energy conservation efforts and renewable resource requirements in the energy sector affect greenhouse gas emissions. Washington compels utilities to be proactive and forward-thinking with

requirements of ten-year conservation potentials and biennial conservation targets. Utilities also have annual deadlines for reporting their compliance with Washington's conservation and renewable portfolio standards. The investor-owned utility companies regulated by the UTC have been meeting their renewable portfolio standards obligations to provide an increasing percentage of electricity generated from renewable resources, which will increase to 9 percent in 2016 and to 15 percent in 2020.

22. The UTC regulates the recovery of the costs of these conservation and renewable energy efforts by requiring timely reports, evaluating the prudence of the costs incurred, and ensuring that costs included in rates charged to the public are fair, just, reasonable, and sufficient. The strength of its conservation and renewable energy programs highlights a blueprint for Washington to comply with the CPP. While Washington can already be considered a leader in energy conservation and promotion of renewable resources, it welcomes rules that will directly regulate greenhouse gas emissions in the electricity sector and does not anticipate immediate harm or negative consequences from the CPP's planning requirements.

23. The CPP's compliance measures are consistent with market trends affecting the state's electric power sector, and actions taken to comply

with the plan will not require a major reorganization or disruption of the state's energy economy or regulatory programs. For example, renewable portfolio standards have driven the market to develop almost 9 GW of wind generating capacity in the northwestern United States. Washington has a requirement that utilities are to develop all cost-effective energy efficiency measures. Current power market costs and dispatch favor hydropower, wind, and natural gas combined cycle combustion turbines over coal units, especially those coal units owned by independent power producers. The CPP is expected to support the trend to conservation and renewables and to continue to support development of cleaner power that is cost-effective.

24. To assist with the completion of the state implementation plan for the CPP, the state has available data and analyses from existing programs that will inform the state's process. In addition to the data mentioned above, Ecology administers a greenhouse gas reporting program that requires the power sector to report its emissions. Commerce and the UTC have information about power demand, reliability, and cost. Finally, information comes from investor and consumer-owned utilities in Washington that prepare integrated resource plans.

25. Commerce is coordinating a series of meetings with the investor-owned utilities and others concerning power system modeling to further evaluate the utilities' costs to comply and overall system reliability under the CPP.

26. We do not expect implementation of the CPP to interfere with implementation of Washington's other energy policies and priorities. Instead we expect it to complement those other priorities that have the same objectives that the CPP will advance, including the emissions performance standard, renewable portfolio standard, and energy efficiency resource standard. Other federal systems have not negatively affected the delivery of electricity. For example, the creation of Bonneville Power Administration (federal power agency) and the federal hydroelectricity system have provided the region with low power costs that have benefitted utilities and retail electric customers.

27. Ecology has prepared and submitted state planning documents to EPA before under CAA, including state implementation plans. Washington State has been involved in developing and implementing plans to meet the CAA, Section 110 requirements and nonattainment and maintenance plans since the first plans were required in the 1970s. Ecology has developed at least two plans under CAA, Section 111(d). Ecology has adopted and implemented

Section 111 regulations applicable to new sources and those issued under Section 129 for waste incinerators. Throughout those processes, Ecology worked closely with EPA to ensure each plan met all requirements and expectations. Ecology will continue its close cooperation with EPA to implement the CPP, incorporating any feedback and refining submission(s) as necessary.

28. Washington has developed previous CAA implementation plans in significantly less time than the three-plus years the CPP allots for states to develop compliance plans. Based on this experience and Ecology's review of the CPP, Ecology anticipates developing a final plan within the timelines established in the CPP.

29. Ecology does not anticipate that it will need to seek new legislation to comply with the CPP. However, should it need to do so, Ecology has previous experience seeking state legislation necessary to implement federal environmental laws and clean energy policies. In 2012, Ecology successfully obtained legislative authority in the Washington Clean Air Act, Wash. Rev. Code 70.94, to allow it to regulate emissions from woodstoves and wood heating devices in areas threatened to violate or in violation of the federal particulate matter National Ambient Air Quality Standard. The

legislation needed was obtained in one legislative session in less than one year. Ecology has experience adopting rules to implement federal programs including new emission standards for hazardous air pollutants for industrial facilities under Section 112 of the CAA, and new National Ambient Air Quality Standards under Section 110 of the Act. Ecology can rely on this and other rulemaking experience to timely adopt rules necessary to implement the CPP.

30. Ecology routinely coordinates with Commerce and the UTC on issues of shared interest. For example, when the Washington Legislature enacted emission performance standards for electricity generating units, Commerce worked closely with Ecology, and involved UTC as Ecology adopted a rule to implement the standards. Similarly, Commerce worked with Ecology on Ecology's rule that implemented statutory CO₂ mitigation requirements for power plants. Ecology has also worked with Commerce since 2008 to biennially determine the total emissions of greenhouse gases for Washington and to develop an emissions reporting system to allow a comprehensive inventory of emissions of greenhouse gases from all significant sectors of the Washington economy.

31. EPA has made available a draft model federal plan that would satisfy the CPP requirements for state plans. Washington may want to use the model rules as the state plan, as the basis of a state plan, or, under a “state measures” plan, as a backstop plan.

32. The state has repeatedly sought to expedite EPA action to place federal limits on greenhouse gas emissions. Washington was one of a group of states who through litigation succeeded in requiring EPA to adopt greenhouse gas emission standards for motor vehicles, as well as the power plant rules at issue in this case. Washington was one of a group of states that supported EPA in the litigation challenging EPA’s “Tailoring rule”.

33. Staying the CPP could delay long-overdue reductions in emissions from the nation’s power sector, whose emission reductions would help prevent the worst impacts of climate change in Washington. Delays in emission reductions from these sources will cause the emissions to stay in the atmosphere for many years to come and aggravate the climate change harms to Washington. It will also delay the public health and environmental cobenefits of reductions in criteria and hazardous air pollutants.

34. The CPP acknowledges and provides mechanisms to credit the state’s past, present, and future investments in renewable energy and energy

efficiency. It will allow Washington to utilize the benefits from emission reductions generated by investments in renewable energy and energy efficiency that occur after 2013.

35. Washington appreciates that the CPP provides incentives for early action, in the form of bonus emission reduction credits or carbon allowances. These can be obtained by implementing renewable energy deployment and low-income energy efficiency programs that provide emission reductions in 2020 and 2021 that are completed by January 2022. The state is considering including these incentives in its compliance plan.

36. A stay of the final rule would create harmful uncertainty about the timeframe for new renewable or energy efficiency projects to qualify for the program's incentives. If the stay were not lifted until after the state plans are due (under the current rule), this could compress project development times and significantly delay projects or limit their ability to qualify for compliance.

I declare under penalty of perjury that the foregoing is true and correct.

DATED this 3rd day of December 2015, in Lacey, Washington.



STUART CLARK

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of West Virginia, et al.,

Petitioners,

v.

**United States Environmental
Protection Agency, et al.,**

Respondents.

Case No. 15-1363 (and
consolidated cases)

**DECLARATION OF KATHERINE S. DYKES, DEPUTY COMMISSIONER
OF THE CONNECTICUT DEPARTMENT OF ENERGY AND
ENVIRONMENTAL PROTECTION**

I, Katherine S. Dykes, hereby declare:

1. I am over the age of 18 and understand and believe in the obligations of an oath.
2. I am the Deputy Commissioner for Energy of the Connecticut Department of Energy and Environmental Protection ("DEEP). I joined DEEP in March 2012, after previously serving as Deputy General Counsel for the White House Council on Environmental Quality and as Legal Advisor to the General Counsel for the U.S. Department of Energy.

3. I hold a bachelor's degree in history and environmental studies from Yale, a master's degree in history, also from Yale, and a J.D. from the Yale Law School.
4. Connecticut is a founding member of the Regional Greenhouse Gas Initiative ("RGGI"). RGGI is the first market-based regulatory program in the United States to reduce greenhouse gas emissions. It is a cooperative effort among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont to cap and reduce CO₂ emissions from the power sector.
5. I currently serve as the Chair of the RGGI, Inc. Board of Directors. RGGI, Inc. is the non-profit corporation created to support the development and implementation of RGGI.
6. Through RGGI, Connecticut auctions nearly all of its emission allowances. The proceeds from the annual auction cover the administrative costs of implementing the program and furthering Connecticut's climate change programs under Conn. Gen. Stat. § 22a-200c. The administrative costs to administer the program consume only 7.5% of the proceeds. The remaining 92.5% of the proceeds are invested in energy efficiency and renewable energy, through programs administered by the Connecticut Green Bank and Connecticut utility companies. Investments in these programs are spurring

innovation and attracting private investment in the clean energy economy, and creating green jobs in Connecticut and the other RGGI states.

7. Through Connecticut's participation in RGGI and other climate change mitigation programs, our state has demonstrated that significant reductions in carbon pollution—such as the Clean Power Plan now requires—can be achieved affordably and reliably. Between 2005 and 2012, Connecticut reduced gross CO₂ emissions from the power sector by 23%, and per capita emissions by 25%. Concurrently between 2005 and 2011, Connecticut's economy-wide emissions of harmful criteria pollutants dropped precipitously; overall emissions of nitrogen oxides (NO_x) and sulfur oxides (SO_x) decreased by 80% and 91% respectively.
8. Collectively, the RGGI states have reduced carbon pollution by over 40 percent since 2005. During this time, the RGGI states' use of non-hydro renewables has increased by 63%. In 2013, the RGGI states produced about half of their power from clean or renewable sources.
9. Connecticut and the other RGGI states are well-positioned for compliance. As a group, the RGGI states are on track to reduce our power sector carbon pollution to 50 percent below 2005 levels by 2020, well beyond the national Clean Power Plan projection of a 32 percent reduction by 2030.

10. A 2015 peer-reviewed study concluded that RGGI is playing a significant role in the region's reduction in carbon pollution.¹ Complementary state policies and programs are also helping to drive these cost-effective achievements. These policies include utility-administered energy efficiency programs and renewable portfolio standards, which are established policies in many states across the country. Market forces are driving further reductions, by encouraging fuel-switching to less carbon-intensive generation such as high-efficiency, low-emitting natural gas combined cycle generating technology. The RGGI program works in tandem with these policies and market trends to reduce pollution and establish long-term solutions for a reliable energy system.

11. Thanks to investments in energy efficiency, Connecticut families and businesses are using less electricity, which is helping to lower energy bills for customers who install efficiency measures, and for all ratepayers who benefit from lower wholesale electricity prices and avoided energy, generation capacity, and transmission costs. Between 2005 and 2012, electricity consumption in Connecticut decreased by 11% on a per capita

¹“Why have greenhouse emissions in RGGI states declined? An econometric attribution to economic, energy market, and policy factors.” Brian Murray and Peter T. Maniloff, 2015. *Available at* https://sites.nicholasinstitute.duke.edu/environmentaleconomics/files/2014/05/RGGI_final.pdf (last accessed November 25, 2015).

basis and 13% on a gross basis. As a result, Connecticut has ranked among the top ten states on the American Council for an Energy-Efficient Economy Energy Efficiency Score Card for eight consecutive years.

12. By reinvesting RGGI proceeds and other funds in clean energy, Connecticut achieved a tenfold increase between 2010 and 2013 in the amount of renewable energy generation deployed in our state, including solar photovoltaics and fuel cells. Connecticut's renewable portfolio standard mandates that 19.5% of the state's electricity supply be sourced from renewable generation facilities in 2015, a proportion that will increase to 27% by 2020. Through a combination of in-state programs—including investments made by the Connecticut Green Bank² with RGGI proceeds—and long-term contracting for grid-scale regional renewables, Connecticut is staying on track to meet its renewable portfolio standard commitments.

Independent Studies on the Economic Benefits of RGGI

13. In 2015, the Analysis Group performed an independent evaluation of the economic impact of the RGGI program for the years 2012-2014.³ The Analysis Group report concludes that RGGI created \$1.3 billion in net

²Connecticut's Green Bank was established in 2011 to leverage public and private funds to accelerate the growth of green energy in Connecticut.

³Analysis Group, The Economic Impacts of the Regional Greenhouse Gas Initiative on Nine Northeast and Mid-Atlantic States, (2015) *available at* http://www.analysisgroup.com/uploadedfiles/content/insights/publishing/analysis_group_rggi_report_july_2015.pdf

overall economic benefits for the region, with each participating state experiencing positive net benefits. During this period, disbursement to states of nearly \$983 million in proceeds reduced consumer energy bills by \$460 million, resulted in an increase of 14,200 job-years, and saved \$1.27 billion in payments to out-of-region fossil fuel providers.

14. The Analysis Group's 2015 study followed its 2011 study, which found that during the RGGI program's first three years in operation (2009-2011), RGGI generated \$1.6 billion in net economic benefit for the region, 16,000 job-years, and \$1.3 billion in consumer energy bill savings for the participating states.⁴

15. In addition to the Analysis Group, Synapse Energy Economics, Inc. conducted a high level analysis to determine the benefits of using the RGGI proceeds to fund energy efficiency programs in the participating states.⁵ With the benefit of one year of auctions, RGGI auctions generated almost \$600 million in proceeds with almost half that amount devoted to energy efficiency. Synapse's original analysis, completed in 2010, found that in states with a focus on electricity energy efficiency programs, the benefits

⁴*Id.*

⁵Synapse Energy Economics, Inc., Electricity Energy Efficiency Benefits of RGGI Proceeds: An Initial Analysis, (2010) *available at* http://www.synapse-energy.com/sites/default/files/SynapseReport.2010-10.RAP_EE-Benefits-of-RGGI-Proceeds.10-027.pdf

range from \$2.17 to \$3.76 for every dollar of program cost. This analysis was updated in 2012, and includes an evaluation of other fuel programs funded through RGGI.⁶ In the updated study Synapse found that, for every dollar of RGGI auction revenues that was invested in energy efficiency in 2010, participating states received \$1.30 to \$6.80 in total energy benefits, with a weighted average of \$2.30.

16. In July 2015, The Clean Air Task Force analyzed the changes in health impacts caused by the power plants in the RGGI states over the 2005 to 2012 time period using the emissions reported to the EPA's Continuous Emissions Modeling System (CEMS) database.⁷ The baseline year was 2012 for which a detailed, plant-by-plant analysis of health impacts was available. Impacts for the earlier years were calculated from the 2012 baseline by comparing emissions in those years to 2012 emissions. Emissions of SO₂, NO_x and PM_{2.5} were factored into the analysis. The reductions in emissions and health impacts from 2005 to 2012 were very

⁶Synapse Energy Economics, Inc., Energy Benefits Resulting from the Investment of 2010 RGGI Auction Revenues in Energy Efficiency, (2012) *available at* http://www.synapse-energy.com/sites/default/files/SynapseReport.2012-02.RAP_.RGGI-Energy-Efficiency-Benefits.10-027A.pdf

⁷Clean Air Task Force, *RegulationWorks: How science, advocacy and good regulations combined to reduce power plant pollution and public health impacts; with a focus on states in the Regional Greenhouse Gas Initiative* (2015) *available at* <http://www.catf.us/resources/publications/files/RGGI-Report.pdf>

significant. Reductions in overall health-impact-related emissions over that time period were 88.5%. Specifically:

- a. Mortality decreased from 1,500 to 180 deaths per year.
- b. Asthma incidents decreased from 26,000 to 3,000 per year.
- c. Hospital admissions decreased from 1,200 to 145 per year.
- d. Health impact cost decreased from \$12.3 billion to \$1.4 billion per year.

17. The Clean Air Task Force found that in addition to the reduction in health impacts there were similar reductions in emissions. Reductions in overall health-impact-related emissions over that time period were 88.5%.

Similarly, the dollar cost to society of the health impacts went down by the same 88.5%. The reduction in CO2 emissions, while not factored into the health impact calculations, was 42.3%.

18. Specific to Connecticut, the Clean Air Task Force found the following results:

	Mortality (Laden⁸)	Mortality (Pope⁹)	Bronchitis Acute & Chronic	Heart Attacks	Asthma Incidents	Hospital Admissions
2005	43	17	34	31	280	14
2006	38	15	30	27	250	12
2007	35	13	27	25	226	11

⁸Mortality studies by Francine Laden et al.

⁹Mortality studies by C. Arden Pope III et al.

2008	35	14	28	25	232	11
2009	19	7	15	14	125	6
2010	21	8	16	15	137	7
2011	6	2	4	4	37	2
2012	2	1	2	2	14	1

19. The RGGI states have achieved extensive economic and health benefits in a short period of time. RGGI serves as a concrete example that a stay of the CPP is unnecessary as avenues exist for all states to achieve compliance with the CPP without unacceptable drops in revenue, power generation and jobs. Furthermore, the demonstrated health benefits of RGGI provide further incentives for states to act.

RGGI Has Achieved Cost-Effective Carbon Reductions While Maintaining Reliability

20. As a RGGI state, Connecticut has demonstrated that significant pollution reduction can be achieved in the power sector while maintaining grid reliability. Investments in peak demand reduction and energy efficiency programs—funded in part by RGGI proceeds—have enabled Connecticut to contribute to a more resilient, reliable electricity system.

21. Climate change and aging infrastructure also pose threats to reliability, which RGGI helps to mitigate by reducing climate pollution. The recent U.S. Department of Energy *Quadrennial Energy Review* found that severe

weather is the leading cause of power disruptions, costing the U.S. economy from \$18 billion to \$33 billion per year.

22. Connecticut has already experienced these adverse climate impacts, resulting in direct costs to our citizens and businesses. In 2011 and 2012, a series of intense storms left record numbers of residents without electricity, communications, heat, or reliable supplies of water. More than 800,000 customers lost power during Tropical Storm Irene in August 2012; six weeks later, an unusual Halloween nor'easter caused a record-setting 880,000 customer outages; and in 2012, more than 625,000 customers lost power during Superstorm Sandy. The cost of restoring power and rebuilding electric distribution lines damaged in those storms has reached to the hundreds of million dollars, and will be recovered from Connecticut ratepayers. According to the state's Department of Insurance, properties along the Connecticut coastline are collectively valued at over \$570 billion. Insurance companies paid out nearly \$1 billion for 200,000 covered claims as a result of the 2011-2012 storms.

Federal Action is Necessary and Proper

23. Connecticut has long been an advocate for federal action to limit greenhouse gas emissions. RGGI was created with the goal that it would serve as a model that could eventually be expanded into a federal program. As the

EPA noted in the CPP, RGGI is a model other states can duplicate without difficulty or states can enter into the federal trading program.

24. Connecticut has long demonstrated its support for the CPP. Connecticut joined other RGGI participating states in a letter dated December 2, 2013, urging the EPA to take action under 111(d).

25. On November 28, 2014, Connecticut submitted comments on the draft of the CPP supporting EPA's general approach. Connecticut also joined RGGI participating states' joint comments and supplemental comments supporting the Draft CPP, submitted on November 5, 2014 and December 1, 2014, respectively. Additionally, Connecticut joined thirteen other states (California, Connecticut, Delaware, Illinois, Maine, Maryland, Massachusetts, Minnesota, New Hampshire, New York, Oregon, Rhode Island, Vermont, and Washington) in joint comments on December 1, 2014, supporting the general approach taken by EPA in the draft Clean Power Plan.

RGGI States are Well-Positioned to Comply with the CPP

26. The CPP compliance process for Connecticut will be very similar to the process Connecticut and the other RGGI participating states undertook in the formation of RGGI in 2008 and the RGGI program review in 2012. In fact, the CPP submission deadlines align comfortably with RGGI's 2016 Program

Review, which was planned well in advance of the deadlines established by the final CPP. Connecticut expects some adjustments will have to be made to conform RGGI to the final CPP, but does not expect significant difficulties in implementing these changes and achieving timely submission of the state's implementation plan on the timeline required under the final CPP.

27. The RGGI states have already begun the CPP compliance process. The RGGI participating states are addressing regional pathways for CPP compliance with the final CPP as part of the regular RGGI Program Review already planned for 2016. The RGGI Program Review provides an opportunity for regular engagement with stakeholders and compliance entities to strengthen RGGI program design and implementation.

28. The 2016 RGGI budget allocated sufficient funds, collected by the participating states' dues to RGGI, Inc., to complete the Program Review process. Connecticut will also conduct a Connecticut-specific process to engage with stakeholders on CPP compliance, utilizing existing resources. Furthermore, proceeds from the RGGI auction are supporting DEEP staff work on Connecticut's CPP compliance.

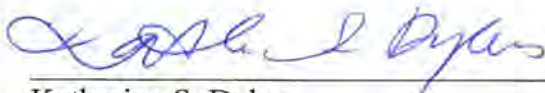
29. The first RGGI stakeholder meeting was held on November 17, 2015 in New York City. Further stakeholder comments are welcome through December

4, 2015. In addition, there will be quarterly meetings throughout 2016, both in person and via webinar. Stakeholders are encouraged to attend these meetings to maximize their input regarding the advantages of different state plans.

30.RGGI, Inc. will be undertaking modeling as part of the 2016 Program Review. Due to RGGI funds available through the shared resources of participating states, there is sufficient funding to engage in modeling. The modeling will permit RGGI states to customize the RGGI program design and CPP compliance approach to meet the needs and policy objectives of all of the participating states. The RGGI experience shows that investment in energy efficiency and renewable energy is consistent with economic growth and in fact creates more growth than business as usual.

I declare under penalty of perjury that the foregoing is true and correct

Executed this 30th of November, 2015.



Katherine S. Dykes
Deputy Commissioner for Energy of the Connecticut Department of
Energy and Environmental Protection

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of West Virginia, et al.,

Petitioners,

v.

**United States Environmental
Protection Agency, et al.,**

Respondents.

Case No. 15-1363 (and
consolidated cases)

**DECLARATION OF ROBERT KLEE,
COMMISSIONER OF THE CONNECTICUT DEPARTMENT OF
ENERGY AND ENVIRONMENTAL PROTECTION**

I, Robert Klee, hereby declare:

1. I am over the age of 18 and understand and believe in the obligations of an oath.
2. I am the Commissioner of the Connecticut Department of Energy and Environmental Protection (DEEP). I was appointed Commissioner of DEEP by Connecticut Governor Dannel P. Malloy in January of 2014.
3. I have served DEEP since April of 2011. I hold a Ph.D. from the Yale School of Forestry & Environmental Studies in industrial ecology, a law degree from the Yale Law School, and an undergraduate degree from Princeton University in geology and environmental science.

4. As the Commissioner of DEEP, my job includes guiding DEEP's integration of energy and environmental policies and helping Connecticut to build a sustainable and prosperous 21st-century economy.
5. In 2011, in recognition of the essential interconnectivity of effective energy and environmental policies, Governor Malloy, in conjunction with the Connecticut General Assembly, merged the Department of Environmental Protection, the Department of Public Utility Control, and the energy policy section of The Office of Policy and Management and created the single agency of DEEP. This action resulted in a more successful alignment of Connecticut's energy and environmental policies. As a consolidated agency, DEEP is well-positioned to review, analyze and respond successfully to the recent Clean Power Plan final rules. The Connecticut team that will respond to the Clean Power Plan final rules includes members from both the Bureau of Energy and Technology Policy and the Bureau of Air Management. I am in direct and frequent contact with this team as is my Deputy Commissioner of Energy and current Chair of the Board of Directors of RGGI, Inc., Katherine S. Dykes.¹

¹ See Declaration of Katherine S. Dykes.

Connecticut's Vulnerability to the Effects of Greenhouse Gases

6. It is imperative that states reduce greenhouse gas emissions in order to avert the severe economic, environmental and human harm from climate change. Connecticut is already experiencing the impacts of climate change. These impacts are directly harming the health and welfare of Connecticut residents and causing significant economic damage. Heavy rainfall events, flooding, and hurricane activity have increased in frequency and intensity in recent years and are expected to continue to increase. In August 2011, Tropical Storm Irene left 800,000 Connecticut customers without power for up to nine days. This record outage was surpassed just six weeks later when an October snowstorm disrupted power for 880,000 Connecticut customers. And in October 2012, Superstorm Sandy struck many of the areas still recovering from Tropical Irene and disrupted power for the greater portion of a week to more than 625,000 customers. Superstorm Sandy was deemed a superstorm because of the confluence of several severe weather systems, but also due to a warming climate. Rising sea levels increase the prospect that states like Connecticut will be increasingly vulnerable to these types of storms in the years ahead. The estimated cost to Connecticut for the 2011 storms will exceed \$750 million dollars. That figure does not include

uninsured losses that could push the total losses over \$1 billion dollars. The impact from these storms is not limited to Connecticut and affected numerous states.

7. The health of Connecticut's citizens is negatively impacted when greenhouse gases are not sufficiently controlled. Increased greenhouse gasses cause higher temperatures, which in turn cause an increase in ozone levels. High ozone levels aggravate existing conditions like asthma, cause breathing difficulties and can result in death.
8. In April 2010, the Governor's Steering Committee on Climate Change produced a report that predicted the impact of climate change on Connecticut's agriculture, infrastructure, natural resources and public health. In general the report concluded that the impact of climate change on these four areas would be largely negative; Connecticut crops such as maple syrup, apple and pear production, and shellfish will suffer; infrastructure to control coastal flooding and stormwater could be substantially damaged; rare habitats and critical species face elimination; and Connecticut's public health, particularly of the most vulnerable communities, is threatened by a decrease in air quality, extreme heat and the favorable conditions for increased disease.

Connecticut's Experience Addressing Greenhouse Gas Emissions

9. Connecticut is a founding member of the Regional Greenhouse Gas Initiative (RGGI). RGGI is the first market-based regulatory program in the United States to reduce greenhouse gas emissions. It is a cooperative effort among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont to cap and reduce carbon dioxide (CO₂) emissions from the power sector.
10. Through RGGI, Connecticut auctions nearly all of its emission allowances. The proceeds from the annual auction cover the administrative costs of implementing the program and furthering Connecticut's climate change programs under Conn. Gen. Stat. § 22a-200c. 92.5% of Connecticut's RGGI proceeds are invested in energy efficiency and renewable energy. *See* Declaration of Katherine S. Dykes for further information regarding the positive impacts of RGGI.
11. In addition to its participation in RGGI, Connecticut's commitment to climate change action is reflected in its leadership in developing climate change legislation. Connecticut has passed many laws that will help Connecticut attain our greenhouse gas mitigation goals. For example, in 2008, Connecticut adopted An Act Concerning Global Warming Solutions

that sets forth economy-wide greenhouse gas emission reduction requirements of 10% below 1990 levels by January of 2020 and 80% below 2001 levels by 2050. These statutory mandates have ensured that Connecticut is on a trajectory to achieve the power sector reductions required by the Clean Power Plan. Connecticut expects to continue to lead by example and achieve reductions of carbon dioxide beyond the levels established by the federal program.

12. Furthermore, DEEP is statutorily required to prepare a Comprehensive Energy Strategy for Connecticut every three years, and an Integrated Resources Plan for the electric sector every two years. Both the Comprehensive Energy Strategy and the Integrated Resources Plan provide a strategic planning framework. This framework includes an integrated approach to environmental and energy planning that enables Connecticut to identify cost-effective strategies to achieve emission reductions in the electric sector while maintaining a reliable electric grid and achieving affordable energy for consumers. As such, Connecticut is well positioned to coordinate activities across the State's agencies to comply with the final Clean Power Plan. The attached appendix to this declaration contains a list of these and other Connecticut laws intended to help prepare for and respond to climate change concerns. *See attached Appendix.*

Connecticut's Success in Addressing Climate Change

13. Connecticut is addressing the unavoidable impacts of climate change through adaptation strategies that focus on land use, shoreline preservation, flood and storm surge projections, resilient engineering, policy and financing tools – as well as protection of natural resources, habitats and species. The Connecticut Global Warming Solutions Act of 2008 requires the Department of Energy and Environmental Protection to issue a Progress Report on the State's progress toward reducing greenhouse gases and building resilience to the harmful impacts the global community is too late to avoid. The most recent report, Taking Action on Climate Change, was issued in 2014. *See* DEEP, Taking Action on Climate Change 2014 Progress Report (2014), *available at* http://www.ct.gov/deep/lib/deep/climatechange/ct_progress_report_2014.pdf

14. In 2013, the Connecticut General Assembly enacted two important adaptation bills, Public Act 13-179, and Special Act 13-9. Public Act 13-179 contains updated sea level rise considerations and planning procedures, including projected impact on coastal development and permitting. Special Act 13-9 calls for a plan to establish a Connecticut Center for Coasts as well

as for significant data collection, monitoring requirements, and reporting guidelines.

15. Global climate change is expected to significantly increase the risks of disruption to the regional power grid, so DEEP has awarded \$23 million in funding through its microgrid grant program to help communities establish distributed generation networks to keep critical infrastructure operational during a power outage. DEEP followed this initial investment with a recently announced third round of \$30 million in additional funding. DEEP will begin accepting applications for this third round of funding beginning December 10, 2015, and will review applications on a rolling basis.
16. Furthermore, Connecticut has partnered with the University of Connecticut to create the Connecticut Institute for Resilience and Climate Adaptation (CIRCA). CIRCA is a multi-disciplinary, regional center of excellence, which brings together experts in the natural sciences, engineering, economics, political science, finance, and law to provide practical solutions to the impacts of a changing climate. CIRCA has made grants of more than \$60,000 available to municipal governments and councils of government for initiatives that advance resilience, including the creation of conceptual design, construction (demonstration projects or other) of structures, or the design of practices and policies that increase a structure's resilience to

climate change and severe weather. CIRCA has also granted almost \$100,000 in matching funds to Connecticut institutions, universities, foundations, and other non-governmental organizations for projects that address practical solutions to climate change.

17. On April 22, 2015, Governor Malloy issued Executive Order 46 creating the Governor's Council on Climate Change, also known as the GC3. GC3 replaced the former Governor's Steering Committee on Climate Change and is charged with examining the efficacy of existing policies and regulations designed to reduce greenhouse gas emissions and identifying additional measures and strategies to meet the state's greenhouse gas emissions reduction target of 80% below 2001 levels by 2050. GC3 is tasked with developing interim statewide greenhouse gas reduction targets for the years 2020-50 and will identify short- and long-term statewide strategies to achieve the necessary reductions. GC3 is composed of representatives from state agencies, quasi-state agencies, businesses, and nonprofits.

18. In the wake of Superstorm Sandy, the state applied for and received recovery money from the United States Department of Housing & Urban Development that helped repair some of the damage to properties along Connecticut's shoreline. Despite those funds, significant damage remains and far more funding is needed to both increase the resiliency of

communities already devastated as well as diminish the risk of future storms.

In response to the United States Department of Housing & Urban Development Billion Dollar Natural Disaster Relief Competition, the State worked with CIRCA to develop and submit a Phase 1 application in October, 2015. When the State was subsequently invited to submit a Phase 2 application, the State formed a council called State Agencies Fostering Resilience. State Agencies Fostering Resilience collaborated with consultants to develop a Phase 2 application, which is focused on the advancement of resilient, transit oriented development based on the scientific research of CIRCA and the unmet needs of underserved constituencies and critical infrastructure in New Haven and Bridgeport, cities that were heavily impacted by Superstorm Sandy.

19. Through Connecticut's participation in RGGI and other climate change mitigation programs, our state has demonstrated that significant reductions in carbon pollution—such as the Clean Power Plan now requires—can be achieved affordably and reliably. Between 2005 and 2012, Connecticut reduced gross CO₂ emissions from the power sector by 23%, and per capita emissions by 25%. Concurrently, between 2005 and 2011, Connecticut's economy-wide emissions of harmful criteria pollutants dropped

precipitously; overall emissions of nitrogen oxides (NO_x) and sulfur oxides (SO_x) decreased by 80% and 91% respectively.

20. Collectively, the RGGI states have reduced carbon pollution by over 40 percent since 2005. During this time, the RGGI states' use of non-hydro renewables has increased by 63%. In 2013, the RGGI states produced about half of their power from clean or renewable sources.

21. Thanks to investments in energy efficiency, Connecticut families and businesses are using less electricity, which is helping to lower energy bills for customers who install efficiency measures, and for all ratepayers who benefit from lower wholesale electricity prices and avoided energy, generation capacity, and transmission costs. Between 2005 and 2012, electricity consumption in Connecticut decreased by 11% on a per capita basis and 13% on a gross basis. As a result, Connecticut has ranked among the top ten states on the American Council for an Energy-Efficient Economy Energy Efficiency Score Card for eight consecutive years.

22. Connecticut's proactive energy and environmental policies are keeping Connecticut on track to further reduce greenhouse gas emissions by pursuing a cheaper, cleaner, and more reliable energy future. In 2011, Connecticut established the nation's first Green Bank, to leverage public and private funds to accelerate the growth of green energy in Connecticut. Over the past

two years, each \$1 of public funds invested via the Green Bank, attracted approximately \$5-\$10 of investment from private sources.

23. By reinvesting RGGI proceeds and other funds in clean energy, Connecticut achieved a tenfold increase between 2010 and 2013 in the amount of renewable energy generation deployed in our state, including solar photovoltaics and fuel cells. Connecticut's renewable portfolio standard mandates that 19.5% of the state's electricity supply be sourced from renewable generation facilities in 2015, a proportion that will increase to 27% by 2020. Through a combination of in-state programs—including investments made by the Connecticut Green Bank with RGGI proceeds—and long-term contracting for grid-scale regional renewables, Connecticut is staying on track to meet its renewable portfolio standard commitments.

24. Connecticut has been a national leader on climate change action since 2001, when the State helped to develop the first ever international, multi-jurisdictional climate change action plan. This plan, the 2001 New England Governors/Eastern Canadian Premiers (NEG/ECP) Climate Change Action Plan, included an agreement on regional greenhouse gas reduction goals designed to achieve climate stability by mid-century. This agreement provided the basis for the targets established by the Connecticut General Assembly with the passage of the Global Warming Solutions Act. On

August 31, 2015, the New England Governors and Eastern Canadian Premiers adopted a resolution on climate change (Resolution 39-1) to continue NEGC/ECP's international leadership on climate change by establishing a 2030 reduction marker for the region to achieve at least a 35%-45% decrease in emissions from 1990 levels.

25. Connecticut's continuing efforts are laying a foundation to achieve the dramatic reductions in carbon emissions necessary by mid-century to fight climate change while creating jobs and generating savings and revenue that flow back into our local economy.

Federal Action is Necessary and Proper

26. Connecticut has long been an advocate for federal action to limit greenhouse gas emissions. RGGI was created with the goal that it would serve as a model that could eventually be expanded into a federal program. RGGI is a model other states can duplicate without difficulty.

27. On April 18, 2008, Connecticut joined seventeen other states signing the Governors' Declaration on Climate Change. In the declaration, the eighteen governors recognized the threat to their states' resources from climate change, encouraged the federal government to establish a strong and effective federal climate policy and recommitted themselves to stop global warming through a "federal-state partnership." The declaration specifically

recognized that a federal cap and trade system could drive meaningful climate action. Several of the governors from states now opposing the Clean Power Plan signed on to this declaration, including Kansas, Arizona, Colorado, Florida and Michigan.

28. Connecticut has long demonstrated its support for the Clean Power Plan.

Connecticut joined other RGGI participating states in a letter dated December 2, 2013, urging the EPA to take action under Section 111(d) of the Clean Air Act.

29. On November 28, 2014, Connecticut submitted comments on the draft of the Clean Power Plan supporting EPA's general approach. Connecticut also joined RGGI participating states' joint comments and supplemental comments supporting the Draft Clean Power Plan, submitted on November 5, 2014 and December 1, 2014, respectively. Additionally, Connecticut joined thirteen other states (California, Connecticut, Delaware, Illinois, Maine, Maryland, Massachusetts, Minnesota, New Hampshire, New York, Oregon, Rhode Island, Vermont, and Washington) in joint comments on December 1, 2014, supporting the general approach taken by EPA in the draft Clean Power Plan.

Connecticut is Well-Positioned to Address Its Obligations Under the Clean Power Plan

30. Many of the issues and suggestions raised in Connecticut's November 28, 2014 comment letter were constructively addressed in the final Clean Power Plan including; equity among state goals, fairer assessment of ability to deploy renewables, increased opportunities to use natural gas conversions as a compliance mechanism, and credit for early action. As a result of Connecticut's efforts to understand and prepare comments on the proposed rule, and its review of the final rule, Connecticut is well prepared to begin planning for compliance with the Clean Power Plan.

31. Connecticut has already begun its compliance planning efforts. The flexibility of the final rule, allowing for mass-based compliance, for which the EPA provided both interim and final targets, provides Connecticut and the other states a clear path toward compliance. Connecticut is conducting a joint stakeholder process with the other RGGI participating states as well as a Connecticut specific process.

32. Connecticut's efforts will be more than sufficient to support an initial submission that meets the requirements of the final rule by September 6, 2016, and a final plan by September 6, 2018, if not before.

33. To comply with the Clean Power Plan, Connecticut will perform analysis, stakeholder engagement, and statutory or regulatory changes – in a manner similar to the process it has used in a myriad of other Clean Air Act rules. The process for compliance with Cross-State Air Pollution Rule (CSAPR) is essentially the same as the requirements of the Clean Power Plan. The Clean Power Plan compliance process for Connecticut is also very similar to the process Connecticut and the other RGGI states undertook in the formation of RGGI in 2008 and the RGGI program review in 2012. In fact, the Clean Power Plan submission deadlines align comfortably with RGGI's 2016 Program Review, planned well in advance of the deadlines established by the final Clean Power Plan. Connecticut expects some adjustments will have to be made to conform RGGI to the final Clean Power Plan, but does not expect significant difficulties in implementing these changes and achieving timely submission of the state's implementation plan on the timeline required under the final Clean Power Plan.
34. As announced at the kick-off of the 2016 Program Review on November 17, 2015, the RGGI participating states, including Connecticut, are folding the compliance with the final Clean Power Plan into the 2016 RGGI Program Review. The 2016 RGGI budget allocated sufficient funds, collected by the participating states' dues to RGGI, Inc., to complete this project.

Furthermore, proceeds from the RGGI auction are supporting DEEP staff work on Connecticut's Clean Power Plan compliance.

35. Connecticut will also conduct a Connecticut-specific process within existing resources.

36. Connecticut's analysis of the impacts of climate change show that absent action, the costs of adapting to climate change will be far greater than the costs of taking action. The RGGI experience shows that investment in energy efficiency and renewable energy can reduce the production of greenhouse gases while simultaneously generating economic growth.²

37. The Clean Power Plan will not interfere with a state's sovereignty. Through its participation in RGGI, Connecticut has demonstrated that states can cooperate and still retain sovereignty and control over their own energy and environmental policies. For example, each of the RGGI states invests its share of the auction proceeds in line with its own priorities.

38. Connecticut, along with the United States Congress through the enactment of the Federal Power Act, has long recognized that the electric grid is interconnected and is not limited to states' borders. The trading program currently in place in RGGI and envisioned by the Clean Power Plan,

² See Declaration of Katherine S. Dykes for further details of the benefits Connecticut has realized through its participation in RGGI.

recognizes the reality of our interconnected grid and allows states to implement their own policy goals.

39. Connecticut is very familiar with the process of preparing and submitting State Implementation Plans (“SIPs”). Some recent examples of Connecticut’s SIP submissions include plans to address infrastructure requirements for national ambient air quality standards (NAAQS) as they are revised; regional haze plans; plans addressing reasonably available control measures (RACT) requirements under ozone NAAQS; and the transformation of the state’s vapor recovery program. In particular, Connecticut’s generation of the Regional Haze 5-Year Progress Report (July 13, 2015) and the RACT Analysis under the 2008 Ozone NAAQS (July 17, 2014) are heavily focused on ensuring reductions of emissions of NO_x, SO_x, and Fine Particulate Matter from electricity generating units (“EGUs”). And the Regional Haze Progress Report also demonstrates the effectiveness of coordinated efforts by northeastern and mid-Atlantic states to implement regional strategies to address haze and visibility as required by the Clean Air Act.

40. The timing of the Clean Power Plan state submissions does not pose a problem for Connecticut. For example, Connecticut’s 2014 RACT submission and its Regional Haze 5-year Progress Report were both

developed in a period of about five months. Similar to the structure of the Clean Power Plan, implementation of the commitments made in these SIPs will extend over several years.

41. In response to EPA's promulgation of the Nitrogen Oxide (NO_x) SIP Call and NO_x Budget Rules, Connecticut crafted and implemented a summertime NO_x allowance trading program that mainly affected the power generation sector. Both programs involved close coordination by all the participating states and the EPA to co-manage the program to avoid adverse reliability impacts across multiple Regional Transmission areas. Both programs are quite similar to RGGI, the CSAPR, and the compliance options available under the Clean Power Plan. Connecticut's NO_x SIP call filing was developed and promulgated within a mere 12 months, met EPA timelines and involved close coordination between the agencies now constituting DEEP, the affected states, multiple EPA regions and stakeholders.

42. Recently, Connecticut demonstrated that it has the capacity to develop plans that require multi-year complex planning, coordination with EPA and regulatory, and legislative changes in a relatively short period of time.

Following EPA's widespread use determination and waiver of the Stage II vapor recovery as an ozone nonattainment measure in May 2012, DEEP was able to promulgate a regulatory revision and coordinate with others resulting

in a legislative change to the authorization of the Stage II program so that a SIP could be submitted in 2015 demonstrating the satisfaction of Clean Air Act sections 184(b) and 110(l). Such extensive and timely regulatory development is typical in Connecticut, and the planning timeframes for the Clean Power Plan are adequate for Connecticut's development of a plan to implement the Clean Power Plan and any necessary regulatory revisions.

43. As demonstrated in the previous examples, DEEP has Air Bureau staff who are well-versed in Clean Air Act planning tasks that involve working closely with EPA, the Connecticut legislature, and other state agencies to submit an approvable plan on time.

44. The Clean Power Plan's compliance measures are in step with the current developments in Connecticut's energy market. In particular, the state has seen increasing dispatch of natural gas plants, new renewable energy projects, and deployment of energy efficiency measures. Connecticut has significant untapped renewable and efficiency resources that are available for development during the Clean Power Plan compliance period, and current market trends in the state confirm that developing those resources will be cost-effective.

45. Connecticut's efforts to address its own greenhouse gases in a responsible and effective manner have positioned it well to address the requirements of

the Clean Power Plan. States who have chosen to ignore the challenges of climate change and have continued to rely on carbon-intensive energy sources should not unfairly avoid carbon reduction measures given the broad ramifications of the problem. Moreover, the experience of RGGI states shows that states who have not yet acted to reduce CO2 emissions from the power sector have an opportunity to make substantial reductions through implementation of the more cost-effective efforts available to them.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 30th of November, 2015.

A handwritten signature in black ink, appearing to read 'Robert Klee', is written over a horizontal line.

Robert Klee
Commissioner of the Connecticut Department of
Energy and Environmental Protection

**Appendix to Declaration of Robert Klee, Commissioner of the Connecticut
Department of Energy and Environmental Protection**

I. Connecticut Legislation Reflecting Connecticut's Commitment to
Addressing Greenhouse Gases and Climate Change.

Public Act 15-194: “An Act Concerning the Encouragement of Local Economic
Development and Access to Residential Renewable Energy”

- Requires the Connecticut Green Bank to offer incentives to support the
deployment of no more than 300 MW of residential solar.

Public Act 15-113: “An Act Establishing a Shared Clean Energy Pilot Program”

- Requires DEEP to establish a two-year pilot program for shared clean
energy facilities using Class I renewable energy sources.

Public Act 15-107: “An Act Concerning Affordable and Reliable Energy”

- Authorizes DEEP to solicit and select proposals to meet winter reliability
needs using Class I renewable energy sources, energy efficiency, Class III
energy sources, large-scale hydropower, and natural gas.

Governor’s Executive Order 46:

- Establishes a new Governor’s Council on Climate Change to monitor the
state’s greenhouse gas emissions and make recommendations to meet the
2050 GWSA target.

Special Act 13-9: "An Act Concerning Climate Change Adaptation and Data
Collection"

- Endorses the establishment of a Coastal Climate and Resiliency Center to
provide resources and technical support.

Governor's Executive Order 32:

- Requires Connecticut to purchase renewable energy in increasing amounts,
leading to 100% renewable energy by 2050.

Public Act 13-303: "An Act Concerning Connecticut's Clean Energy Goals"

- Allows for large-scale procurement of regional renewable power, commencing immediately with policy tools (long-term contracts, reverse auctions, reduced reliance on older biomass projects, etc.) to ensure that projects get built at the lowest possible cost to ratepayers.
- Tightens standards for biomass to qualify as a Class I Renewable, ensuring the most effective use of limited clean energy incentive dollars.
- Increases competitiveness in the clean energy marketplace by introducing large-scale hydropower, which will result in lower electricity rates to consumers.

Public Act 13-298: "An Act Concerning Implementation of Connecticut's Comprehensive Energy Strategy and Various Revisions to the Energy Statutes"

- Doubles funding for residential, commercial, and industrial energy efficiency investments throughout the state.
- Creates a robust "decoupling" mechanism to ensure that utilities are properly incentivized for investments in energy efficiency.
- Ensures availability of energy efficiency financing to lower income households.
- Allows for submetering for all residents and businesses that use a Class I renewable or Combined Heat and Power (CHP) unit for generation, which will result in increased energy efficiency gains and lower energy demand.
- Allows for residents to utilize on-bill financing to pay for heating systems and energy efficiency upgrades.
- Creates a new "Energize" program that drives energy efficiency upgrades through community aggregation and that drives natural gas conversions through community aggregation.
- Expands virtual net metering for government entities to include critical facilities and enables agricultural virtual net metering.
- Requires gas utilities to create an action agenda that will convert roughly 300,000 non-gas customers to a cheaper and cleaner natural gas supply.
- Revises the "hurdle rate" from 15 to 25 years to facilitate the expansion of the natural gas infrastructure by better aligning financing in terms with the life expectancy of gas mains and allowing gas companies to finance more gas main extensions.
- Enables the state to use non-taxpayer dollars to help deploy electric vehicle charging stations through the EVConnecticut initiative.

- Allows for the adjustment of the rate structure for electric vehicle charging stations.
- Adjusts the regulatory framework to allow for municipal ownership of microgrids that cross a public right of way.

Public Act 13-285: "An Act Concerning Recycling and Jobs"

- Helps Connecticut increase the recycling rate and lower per capita disposal costs by recapturing more of the valuable materials in the waste stream.

Public Act 13-239: "An Act Authorizing and Adjusting Bonds of the State for Capital Improvements, Transportation, Elimination of the Accumulated GAAP Deficit and Other Purposes"

- Commits an additional \$25 million for energy efficiency upgrades in state buildings, on top of an existing \$43 million investment.
- Commits an additional \$30 million for the build-out of microgrids across the state.
- Provides \$20 million for state acquisition of open space lands under the Recreation and Natural Heritage Trust Program.
- Provides \$20 million for grants to municipalities and land trust organizations to support local open space purchase under the Open Space and Watershed Land Acquisition Grant Program.

Public Act 13-179: "An Act Concerning the Permitting of Certain Coastal Structures by the Department of Energy and Environmental Protection"

- Requires development of best practices for permitting of coastal structures and refines coastal regulatory procedures for ease of use by the public.

Public Act 13-78: "An Act Concerning Water Infrastructure and Conservation, Municipal Reporting Requirements and Unpaid Utility Cost Accounts at Multi-Family Dwellings"

- Promotes water conservation - and conservation of the energy used to treat and deliver it - through changes in water company rate structures.

Public Act 13-61: "An Act Concerning Property Tax Exemptions for Renewable Energy Sources"

- Creates a property tax exemption for Class I Renewable power projects.

Public Act 13-15: "An Act Concerning Sea Level Rise and the Funding of Projects by the Clean Water Fund"

- Takes a forward look at sea level rise to guide state investments.

Public Act 12-148: "An Act Enhancing Emergency Preparedness and Response"

- Establishes a pilot program to fund microgrids for critical facilities.
- Expands the depth of the state's civil preparedness and training requirements.

Public Act 11-80: "An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future"

- Creates the Department of Energy and Environmental Protection through the combination of the former Departments of Environmental Protection and Public Utility Control (DEP and DPUC respectively). The former DPUC becomes the Public Utilities Regulatory Authority (PURA).
- Requires DEEP to prepare a Comprehensive Energy Strategy for Connecticut on a tri-annual basis and requires DEEP to prepare an Integrated Resources Plan.
- Creates a Combined Heat and Power (CHP) pilot program.
- Authorizes state agencies and municipalities to enter into energy saving performance contracts with energy service companies.
- Requires that energy consumption in state-owned or state-leased buildings be reduced 10% by 2013, and an additional 10% by 2018.
- Creates the Clean Energy Finance and Investment Authority (CEFIA), the "green bank."
- Initiates a residential solar investment program, operated by CEFIA.

Public Act 08-98: "An Act Concerning Global Warming Solutions" (Global Warming Solutions Act, or GWSA)

- Adopted by the General Assembly in 2008, setting forth the following greenhouse gas emission reduction requirements:

- By January 2020, reduce greenhouse gas emissions to 10% below 1990 levels; and
 - By January 2050, reduce greenhouse gas emissions to 80% below 2001 levels.
- Pursuant to the GWSA, the Department of Energy and Environmental Protection is required to:
 - Publish on this website a baseline inventory of greenhouse gas emissions to establish a baseline for such emissions in the state and publish a summary of greenhouse gas emission reduction strategies by December 2009;
 - Publish on this website by July 2010 the results of greenhouse gas reduction modeling scenarios, including, but not limited to, the evaluation of potential economic and environmental benefits and opportunities for economic growth based on such scenarios;
 - Analyze greenhouse gas emission reduction strategies and, after an opportunity for public comment, make recommendations by July 2011 on which such strategies will achieve the greenhouse gas emission levels specified in the GWSA; and
 - Beginning in July 2012 and every three years thereafter, develop with an opportunity for public comment, a schedule of recommended regulatory actions by relevant agencies, policies and other actions necessary to show reasonable further progress towards achieving the greenhouse gas emission levels specified in the GWSA.

Public Act 04-252: "An Act Concerning Climate Change"

- Requires mandatory reporting of Greenhouse Gas (GHG) emissions and creates a GHG registry.
- Adopts GHG emissions reduction targets established by the Conference of New England Governors and Eastern Canadian Premiers of achieving 1990 (regional) baseline GHG levels by 2010; 10% below 1990 levels by 2020; and 75-85% below 2001 GHG levels by 2050 (unless otherwise dictated by the Conference).
- Requires a Climate Action Plan be created that outlines steps to achieve the 2010 and 2020 GHG reduction targets.
- Requires the Department of Administrative Services (DAS) to identify and purchase when possible, recycled and/or environmentally preferable products, services, and practices.

Public Act 04-231: "An Act Concerning Clean and Alternative Fuel Vehicles"

- Promotes clean and alternative fuel vehicle adoption through provision of tax incentives.

Public Act 04-222: "An Act Concerning Preservation of the Family Farm and Long Island Sound"

- Promotes the purchase of Connecticut-grown foods by the State.
- Creates a "Connecticut Farm Fresh" program.

Public Act 04-85: "An Act Concerning Energy Efficiency Standards"

- Establishes energy efficiency standards for products and appliances.

Public Act 04-84: "An Act Concerning Clean Cars"

- Adopts California light duty motor vehicle emissions standards.

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of West Virginia, et al.,

Petitioners,

v.

**United States Environmental
Protection Agency, et al.,**

Respondents.

Case No. 15-1363 (and
consolidated cases)

**DECLARATION OF DOUGLAS L. McVAY, CHIEF, OFFICE OF AIR
RESOURCES, RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL
MANAGEMENT**

I, Douglas L. McVay, declare:

1. This declaration is based on my personal knowledge. I am over the age of eighteen (18) years and suffer from no legal incapacity. I submit this declaration in support of the objections to the motions to stay filed in the above referenced matter.

2. I am the Chief of the Rhode Island Department of Environmental Management (“RIDEM”), Office of Air Resources. I have worked in Rhode Island’s air pollution control program since 1977 in various capacities. I worked in the program as an Air Pollution Engineer from 1977 to 1979; as a Senior Air Pollution Control Engineer from 1979 to 1984; as a Principal Air Quality Engineer

from 1984 to 1992; as an Associate Supervising Sanitary Engineer from 1992 to 2008; and Chief from 2008 to date. Prior to becoming Chief in 2008, my work in those positions was exclusively with all aspects of regulating stationary sources of air pollution, including, but not limited to, inspections, permitting, writing regulations, emission testing and enforcement.

3. I have been Chief of the RIDEM Office of Air Resources since 2008. In that capacity, I am responsible for planning and administering a statewide program to preserve, protect and improve the air resources of the state and to formulate and administer a comprehensive program for air pollution control and to do related work as required.

4. The regulations to implement the Regional Greenhouse Gas Initiative and the Clean Power Plan in Rhode Island are/will be administered and enforced by the RIDEM Office of Air Resources, which I manage and direct. Staff that work under my direction will be responsible for developing Rhode Island's compliance plan for the Clean Power Plan. I also regularly participate in Agency Heads meetings of the Regional Greenhouse Gas Initiative ("RGGI"), which I describe in greater detail below.

5. The purpose of this declaration is to provide my understanding of the State of Rhode Island's readiness to comply with the administrative and procedural requirements of the United States Environmental Protection Agency's ("EPA")

final rules regarding greenhouse gas emissions from existing power plants under Section 111(d) of the Clean Air Act, published in the Federal Register at 80 Fed. Reg. 64,661 on October 23, 2015, and titled “Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units” (the “Clean Power Plan”).

6. The State of Rhode Island is concerned about the impacts of greenhouse gas emissions from the electric power sector, the single largest source of these emissions in the United States and the second largest source in Rhode Island. Rhode Island has recognized that there is a compelling need to reduce greenhouse gas emissions from the electric power sector to mitigate the harms from global climate change, including sea level rise; coastal and shoreline changes; increased severe weather events, flooding, storm surges, and coastal erosion; critical infrastructure vulnerability; and ecosystem, economic, and health impacts.

7. In an effort to address the impacts from global climate change Rhode Island enacted the Resilient Rhode Island Act of 2014—Climate Change Coordinating Council, R.I.G.L. § 42-6.2-1, *et seq.* (the “Resilient RI Act”). The purpose of the Resilient RI Act is to assess, integrate, and coordinate climate change efforts throughout state agencies to reduce greenhouse gas emissions, strengthen the resilience of communities, and prepare for the effects of climate

change, including, but not limited to, coordinating vulnerability assessments throughout state government.

8. The Resilient RI Act requires that a plan be produced that includes strategies, programs, and actions to meet targets for greenhouse gas emissions reductions in Rhode Island as follows:

- (i) Ten percent (10%) below 1990 levels by 2020;
- (ii) Forty-five percent (45%) below 1990 levels by 2035; and
- (iii) Eighty percent (80%) below 1990 levels by 2050.

9. The State of Rhode Island strongly supports federal efforts to limit greenhouse gas emissions from the power sector. Federal action is essential given that only the federal government can set national guidelines and standards, which are necessary to maximize both emissions reductions and incentives for the development of cleaner sources of energy.

Clean Power Plan Rule

10. I have followed the development of the Clean Power Plan, including working with representatives of the Regional Greenhouse Gas Initiative states (“RGGI States”) to provide information to EPA as it developed the proposed Clean Power Plan, including the RGGI States’ comments in response to the pre-proposal opportunity to comment, and to prepare detailed comments on the proposed rule. (See December 2, 2013 Letter from RGGI States available at

http://rggi.org_States_111d_Letter_Comments.pdf; November 5, 2014 Letter from RGGI States available at http://www.rrgi.org/docs/PressReleases/PR110714_CPP_Joint_Comments.pdf; and December 12, 2014 Letter from RGGI States available at http://www.rrgi.org/docs/PressReleases/PR120114_RGGI_SupplementalComments_CPP.pdf.

11. I participated in RIDEM's review of the Clean Power Plan, including preparation of RIDEM's December 1, 2014 comments to the EPA regarding the proposed Clean Power Plan.

12. I am familiar with the final Clean Power Plan. The rule establishes state goals for carbon dioxide (CO₂) emissions for reducing emissions at electric generating units. It also specifies guidelines for states to use in developing, submitting, and implementing state plans to achieve the rule's goals. In the final rule, the state goals were determined using subcategory-specific CO₂ emission performance rates that reflect the "best system of emissions reductions...adequately demonstrated" (BSER) from the power sector. In the final rule, state goals are in two forms: rate-based and mass-based CO₂ goals to provide states with flexibility in developing their plans, including utilizing allowance trading programs and other measures.

13. The Clean Power Plan requires that states submit compliance plans or initial submittals requesting an extension to EPA by September 6, 2016. States that are granted an extension must submit their final compliance plans by September 6, 2018. The Clean Power Plan also permits states to join together and submit joint compliance plans in lieu of state-specific plans.

14. The Clean Power Plan acknowledges, and provides mechanisms to credit, the State of Rhode Island's past, present, and future investments in renewable energy and energy efficiency. In particular, if the State elects to adopt a mass-based state plan, all of the State's low-carbon resources and demand reduction investments, whenever undertaken, will facilitate the State's overall achievement of Clean Power Plan goals.

15. The RIDEM also acknowledges that the Clean Power Plan provides incentives for early action, in the form of bonus emission reduction credits or carbon allowances, for renewable energy deployment and low-income energy efficiency programs that provide emission reductions in 2020 and 2021, before compliance requirements under Clean Power Plan state plans take effect.

16. The RIDEM also recognizes that the Clean Power Plan allows states *not* to submit a plan without any sanction or penalty, in which cases EPA will impose a federal plan. If a state elects not to submit a plan, a state will not have

any obligation to conduct planning, adopt legislation or regulations, or expend taxpayer resources under the Clean Power Plan.

17. The RIDEM understands that the Clean Power Plan seeks to reduce emissions from electric generating units and that the entities regulated under the Clean Power Plan are the owners and operators of electric generating units, not states themselves, state environmental or energy agencies, or other participants in the state's energy sector. In this regard, the Clean Power Plan is not dissimilar to other air emissions regulations applicable to electric generating units. The RIDEM further understands that there is no regulatory or funding sanction if a state does not submit an approvable plan to EPA under the Clean Power Plan regulations.

18. The State of Rhode Island has already begun its compliance planning efforts. As a RGGI participating state, Rhode Island has and will continue to participate in stakeholder outreach through RGGI-wide stakeholder meetings. The first of an on-going series of stakeholder meetings occurred on November 17, 2015 in New York City. Stakeholder meetings will be a combination of in-person meetings and meetings via webinar. In addition, written comments are accepted as well. The draft proposed schedule for stakeholder meetings can be found <http://www.rggi.org/design/2016-program-review/rggi-meetings>. The RIDEM will also schedule a state specific stakeholder workshop in the near future. The RIDEM will extend outreach to all interested parties including but not limited to

vulnerable, low income or minority communities. The RIDEM may use a combination of the following approaches for community engagement: post CPP related information and notices on the RIDEM website, RGGI page, local media (newspaper), social media tools (e.g. Twitter, Facebook), and utilize the RIDEM's Press & Communications Office. In addition, as a RGGI participating state, the RIDEM staff engage in weekly conference calls with RGGI counterparts in the region. These discussions are ongoing and relate to the compliance obligations of the RGGI states in respect to the Clean Power Plan and include topics such as modifications to the Carbon Dioxide Allowance Tracking system (COATS), possible changes to the RGGI Model Rule, and modeling requirements. These conversations are being held at both staff level Program Committee level as well as with the respective Agency Heads of RGGI.

19. As a result of the State of Rhode Island's research and planning on climate change and its work with EPA and other RGGI States, the RIDEM fully anticipates that it can meet the planning deadlines in the Clean Power Plan by filing an initial submission by September 6, 2016, and a final plan by September 6, 2018.

Regional Greenhouse Gas Initiative

20. RGGI is a market-based program to reduce greenhouse gas emissions from the electric power sector. RGGI is a cooperative effort among the

RGGI States of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.

21. The program requires power plants to possess a tradable CO₂ allowance for each ton of CO₂ they emit. The program was developed under a Memorandum of Understanding signed by initial member state governors in 2005 and implemented by the RGGI States in 2009.

22. RGGI is grounded in each state's own statutory and regulatory authorities. Each state's laws and regulations establish "CO₂ Budget Trading Programs" that limit emissions of CO₂ from electric power plants, create CO₂ allowances, determine appropriate allowance allocations, and provide for participation in CO₂ allowance auctions. *See* R.I. GEN. LAWS §§ 42-17.1-2(19), 23-23, 23-82; R.I. CODE R. 25-4-46:46, 47:47.

23. Under contracts with the RGGI States, RGGI, Inc., a non-profit corporation, administers regional auctions to sell CO₂ allowances. States sell nearly all emission allowances through auctions and invest most of the proceeds—over \$2.2 billion through September 2015—in energy efficiency, renewable energy, and other consumer benefit programs. *See* Press Release, CO₂ Allowances Sold for \$6.02 in 29th RGGI Auction; \$152 Million Raised for Reinvestment on RGGI's Seventh Anniversary, September 11, 2015, *at* http://www.rggi.org/docs/Auctions/29/PR091115_Auction29.pdf.

24. Collectively, the states' CO₂ Budget Trading Programs establish an annually declining cap on CO₂ emissions from the power sector within the RGGI States. The RGGI program, in conjunction with other state clean energy policies and other energy market factors, has helped the RGGI States reduce carbon dioxide emissions by approximately 40 percent since 2005.

2012 Program Review

25. The RGGI States completed a two-year comprehensive program review in 2012. Following the review, the states established a new regional CO₂ budget that lowered the cap on emissions to 91 million tons in 2014, a reduction of 45 percent from the original cap. Under the program changes, the cap will decline 2.5 percent each year from 2015 to 2020. To implement the newly lowered cap, the RGGI States then revised their own CO₂ Budget Trading Programs through their state-specific legislative and regulatory processes.

26. Using their own processes for revising their respective legal authorities, the RGGI States successfully adopted statutory and regulatory changes in time for the lower regional cap to be in place for 2014 regional auctions. In Rhode Island, for example, the state Department of Environmental Management adopted changes to the regulations governing the state's CO₂ Budget Trading Program in their Air Pollution Control Regulation Nos. 46 and 47, revised on December 25, 2013.

27. The RGGI States' successful 2012 program review demonstrated their ability to work together to set new goals for regional emissions reductions while timely amending their individual state programs to reflect those goals. *See* Press Release, RGGI States Make Major Cuts to Greenhouse Gas Emissions from Power Plants, Jan. 13, 2014, *at* http://www.rggi.org/docs/PressReleases/PR011314_AuctionNotice23.pdf.

RGGI States and the Clean Power Plan

28. In their comment letters on the proposed Clean Power Plan, the RGGI States offered their support of the rule's framework, which provides states with flexibility to craft plans to meet state-specific emissions targets. The RGGI States also lauded the provisions of the proposed rule encouraging states to work together to develop multi-state compliance plans. *See* RGGI States' Comments on Proposed Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (November 5, 2014); RGGI States' Supplemental Comments on Proposed Clean Power Plan (Dec. 1, 2014), referenced in paragraph 10 *supra*.

29. Under the final Clean Power Plan, states will begin demonstrating initial compliance by January 1, 2022, and states may set their own interim goals between 2022 and 2029. The RGGI States are working together to consider submitting one multi-state compliance plan or individual state plans that rely on

RGGI as a compliance mechanism. The RGGI States currently have a plan for completing this multi-state effort in a timeframe that will allow for timely submission of state plans. For example, as discussed in paragraph 18 above, the RGGI-wide stakeholder process is underway and will continue into at least the summer of 2016. Additional stakeholder meetings will be added as needed and Rhode Island will hold a state-specific community workshop as well. The RIDEM is also coordinating with other State agencies, including the Office of Energy Resources and the Division of Public Utilities in the planning process.

30. The State of Rhode Island has in place the necessary authorities and administrative procedures to assure timely compliance with federal Clean Air Act rules, including the Clean Power Plan. In this regard, Rhode Island has decades of experience complying with other federal Clean Air Act rules that require comprehensive state planning to achieve compliance, including state implementation plans to achieve the National Ambient Air Quality Standards for criteria air pollutants. *See* 40 C.F.R. Part 52, Subpart OO (Rhode Island).

31. The RIDEM routinely and effectively coordinates with the Rhode Island Office of Energy Resources, our state energy agency, on issues of shared interest, including the impact of federal environmental regulations on the State's regulated industries and the State's power sector in particular. As with prior federal environmental regulations, the RIDEM is prepared to coordinate its work

under the Clean Power Plan among the State agencies with implicated jurisdiction or interests.

32. The State of Rhode Island has a demonstrated track record of efficiently working with counterparts in other states to develop harmonized and/or coordinated regulatory programs that implicate multiple states, including membership in RGGI and in the Northeast States for Coordinated Air Use Management (“NESCAUM”), an association of air quality agencies in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

33. Based on the RGGI States’ experience complying with federal Clean Air Act rules and their successful implementation of the RGGI program, I am confident that the RGGI States, including Rhode Island, are well equipped and will be able to comply with the state planning requirements of the Clean Power Plan in a timely fashion.

State Harms from a Stay of the Clean Power Plan

34. The State of Rhode Island has repeatedly sought to expedite EPA action to place federal limits on greenhouse gas emissions. These actions include pushing EPA to regulate Greenhouse gases (as a plaintiff in *MA v. EPA* (549 U.S. 497 (2007))); clarifying the federal government’s role in Greenhouse Gas regulation (as a plaintiff in *AEP v. CT* (131 S.Ct. 2527 (2011))); supporting EPA in its

regulation of greenhouse gases (as an Intervenor in *UARG v. EPA* (573 U.S. ____ (2014)) and *Delta Construction v. EPA* (Nos. 11-1428, 11-1441, 12-1427 (D.C. Cir. petition for rehearing en banc denied Aug. 3, 2015))); and supporting EPA's proposed Clean Power Plan as an Intervenor in this action.

35. Staying the Clean Power Plan could delay long overdue reductions in emissions from the nation's power sector, which the State sees as essential to preventing the worst impacts of climate change. There is no guarantee that a stay will not result in postponements of the compliance deadlines in the Clean Power Plan even if the Plan is ultimately upheld. For example, in the recent litigation in this Court over EPA's Cross-State Air Pollution Rule, a rule that was eventually upheld after a remand from the Supreme Court, a stay issued at the outset of the litigation resulted in EPA postponing the compliance deadlines by three years. Any such postponements would delay compliance actions that states and/or private actors would otherwise have taken, resulting in emissions that will stay in the atmosphere for many years to come and aggravating the climate change harms to the State.

36. A stay will interfere with the State of Rhode Island's activities under other federal and state air programs and with State clean energy planning. As part of the 2012 Program Review (described in paragraphs 25-27 above), the RGGI States committed to commencing a comprehensive program review no later than

2016 to consider program successes, impacts, and other program design elements. The RGGI States will use the regional 2016 Program Review as an opportunity to receive comments from stakeholders and experts on potential program changes in pursuit of compliance with the Clean Power Plan. RGGI's Program Review would be adversely affected by the uncertainty associated with a stay of the Clean Power Plan. A stay in the Clean Power Plan would also increase the uncertainties of federal involvement and complicate the State's future climate change mitigation planning activities.

I declare under penalty of perjury that, to the best of my knowledge and belief, the foregoing is true and correct.

Executed on this 1st day of December, 2015.

/s/ Douglas L. McVay
Douglas L. McVay, Chief
Office of Air Resources
Rhode Island Department of Environmental
Management

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of West Virginia, et al.,

Petitioners,

v.

**United States Environmental
Protection Agency, et al.,**

Respondents.

Case No. 15-1363 (and
consolidated cases)

**DECLARATION OF DICK PEDERSEN, DIRECTOR, OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY**

I, Dick Pedersen, hereby declare:

1. I make this declaration from my personal and professional knowledge.

I would testify to the following facts if called as a witness at trial.

2. I am the Director of the Oregon Department of Environmental Quality (DEQ). I have been Oregon DEQ Director since 2008.

3. My agency's responsibilities include implementing air quality programs in Oregon, including developing and implementing policies and programs to comply with and implement the federal Clean Air Act, 42 U.S. C. §§ 7401 et. seq.

Impacts of Climate Change in Oregon

4. Oregon already is experiencing adverse impacts of climate change and these impacts are expected to become more pronounced in the future, significantly affecting Oregon's economy and environment. The Oregon Climate Change Research Institute, for example, has analyzed current climate change impacts and climate change models and has concluded that climate change already is causing significant impacts in Oregon and will continue to do so. *Climate Change in the Northwest: Implications for our Landscapes, Waters, and Communities, Executive Summary*. Dalton, M.M., P.W. Mote, and A.K. Snover, eds., Island Press, available at: <http://occri.net/wp-content/uploads/2013/11/ClimateChangeInTheNorthwestExecutiveSummary.pdf>.

These impacts include:

- a. The seasonal flow cycles of rivers and streams are changing due to warmer winters and decreased snowpack accumulation, as more precipitation falls as rain, not snow. Spring peak flows will come sooner, and late-summer flow will decrease, depleting Oregon's supply of summer water for agriculture, stream flows for wildlife, and an expected decrease in hydropower generation.
- b. Ocean sea levels will rise between four and 56 inches on the Oregon coast by the year 2100, ocean waters will continue to become more acidified, and coastal cities will be threatened by increased flooding and erosion.

Increased ocean acidification will have a particular detrimental impact on some marine organisms like shellfish, which will threaten marine ecosystems, fisheries and aquaculture.

c. Fire activity is projected to increase due to warmer, drier summers, which will also exacerbate insect outbreaks in forests as drought stress increases forest vulnerability.

5. June 2015 was the hottest June on record in the Pacific Northwest, with two historic heat waves each lasting over ten days. Intense forest fires again burned in the region this year, with the Canyon Creek Complex fire burning over 110,000 acres as of November 2, 2015, and with total firefighting costs in Oregon of more than \$200 million. Water temperatures in the Columbia River system were higher this year, earlier in the season, than in the previous ten years, and the higher water temperatures contributed to significantly lower than normal survival rates for sockeye salmon (see October 28, 2015 memorandum by the Columbia River Fish Passage Center, *Requested data summaries and actions regarding sockeye adult fish passage and water temperature issues in the Columbia and Snake rivers* at <http://www.fpc.org/documents/memos/159-15.pdf>).

State Efforts to Combat Climate Change

6. Oregon has been concerned about the negative impacts of climate change for almost three decades and has been working on strategies to reduce and mitigate those impacts for nearly as long, beginning with the Governor's creation of the Oregon Task Force on Global Warming in 1988. The Oregon Legislature has established "the policy of this state to reduce greenhouse gas emissions in Oregon" and adopted greenhouse gas emission reduction goals for the State. ORS 468A.205. In furtherance of these goals, the Oregon Environmental Quality Commission has adopted a mandatory greenhouse gas reporting requirement for stationary emission sources, which the Legislature has expanded to apply to other sources. OAR chapter 340, division 215; ORS 468A.280. The Environmental Quality Commission also recently adopted the Oregon Clean Fuels Program, OAR chapter 340, division 257, requiring motor vehicle fuel providers to lower the lifecycle carbon emissions of fuel used in Oregon by ten percent by the year 2025.

7. In 2010, the EQC approved new regional haze reduction rules, pursuant to Clean Air Act requirements, that will require Portland General Electric's Boardman power plant, Oregon's only operational coal-fired power plant, to permanently shut down by 2020. OAR 340-223-0080. In adopting this plan, the Oregon Department of Environmental Quality concluded that

implementation of the shutdown plan would permanently eliminate approximately 4,000,000 tons per year of greenhouse gasses and all of the plant's mercury emissions, which currently range from 137 to 281 pounds per year, among other environmental and health benefits.

8. But while Oregon has been making good progress on reducing greenhouse gas emissions, more must be done to meet reduction goals and arrest climate change globally. For example, in 2013, the Oregon Global Warming Commission concluded that, "Oregon met its 2010 greenhouse gas reduction goal, having arrested the growth of greenhouse gas emissions and, it appears, also establishing a downward emissions trajectory in which emission levels are expected to be reduced into the future." *Report to the Legislature*, Oregon Global Warming Commission (2013). But the Commission also counseled that further strides must be made if Oregon is to meet its 2020 and 2050 greenhouse gas reduction goals. This report can be found at:

http://www.keeporegoncool.org/sites/default/files/ogwc-standard-documents/OGWC_2013_Rpt_Leg.pdf.

Federal Action to Reduce CO2 Emissions is Essential

9. Oregon has taken significant steps to begin to reduce CO2 emissions from power plants, but for a comprehensive solution to climate change, the federal

government and other states must also take action. Only concerted action across the entire United States will achieve all of the necessary reductions in CO₂, and only the federal government can set national guidelines and standards to maximize both emissions reductions and incentives for the development of cleaner sources of energy. Furthermore, United States leadership on emission reductions will support global action, and the Clean Power Plan is an essential element of our national effort.

10. Any delays or disruptions to the Clean Power Plan risk making it more costly to achieve substantial greenhouse gas reductions in the future, and could jeopardize our very ability to reduce emissions to a level that is needed to avoid the worst impacts of climate change. For these reasons, and those I discuss below, Oregon would be harmed by any judicial decision to delay or disrupt implementation of the Clean Power Plan.

Oregon's Efforts to Implement the CPP Have Begun

11. Oregon is not part of any regional greenhouse gas reduction regulatory program, but Oregon will be able to use the numerous analytical and regulatory efforts described above, and also described in the Declaration of Jason Eisdorfer, Utility Program Director at the Oregon Public Utility Commission, to develop our implementation plan for the Clean Power Plan.

12. The Department of Environmental Quality (DEQ) has begun working closely with the Oregon Department of Energy (Energy Department) and the Oregon Public Utility Commission (PUC) to develop the state's compliance plan. These agencies have held individual and open forum meetings with stakeholders, including an initial, open stakeholder meeting on October 27, 2015, that included representatives from power companies, environmental organizations, and ratepayer organizations. The group discussed stakeholder input received to date, criteria for evaluating compliance options, conceptual compliance scenarios, and the proposed process that will be used to develop Oregon's plan.

13. These Oregon agencies are working together to analyze plan compliance options and to develop criteria to assess the best compliance plan for Oregon. Factors under consideration include cost and risk to Oregon utility ratepayers, effect on CO2 emissions, cost to energy suppliers, effect on reliability of the electricity system, administration requirements, and connections and compatibility with other Oregon policies.

14. The agencies also have developed a planning timeline and schedule to meet the planning deadlines in the Clean Power Plan and fully anticipate making an initial submission to EPA by September 6, 2016.

15. As required under Oregon law (Oregon Revised Statute 182.545), Oregon's planning process will include engaging in public outreach to minority

and low-income communities that may be affected by the program. Oregon intends to engage in that public outreach process in 2016, to consider their input and concerns regarding program impacts, and to identify opportunities to address those concerns and to mitigate any potential disparate impacts on such communities. This outreach also offers an opportunity for Oregon's planning process to identify ways to reduce or mitigate existing impacts on these communities. In particular, stakeholders in Oregon have expressed strong interest in EPA's proposed Clean Energy Incentive Program which will spur further investment in energy efficiency programs in low income communities.

16. Oregon has sufficient personnel, time and resources to develop our compliance plan with the Clean Power Plan, and this is due in part to the fact that the requirements of this process will be very similar to the planning process DEQ has engaged in to comply with prior Clean Air Act requirements. The Clean Power Plan imposes no new or different burdens beyond the procedures Oregon used to develop its Clean Air Act State Implementation Plan (SIP), and that it continued to use to develop particular Nonattainment and Maintenance area plans and other required SIP amendments under Section 110 of the Clean Air Act.

17. Specifically, Oregon has a well-established process by which we will analyze the impacts of the final rule, consult with stakeholders, draft necessary regulatory or statutory changes, and prepare the appropriate documentation to

provide to EPA. We have developed extensive expertise in this process through our efforts with other air pollutants.

18. Over the past 10 years, for example, Oregon has developed three specific area plans to achieve national emission standards for particulate matter and ozone, completing all of them within required EPA deadlines. In May 2007, DEQ completed the Portland-Salem Ozone Maintenance Plan, to ensure that area continues to meet the 8-hour ozone national ambient air quality standard adopted by EPA. EPA approved the plan in December 2011. In August 2007, DEQ completed the Salem-Keizer Carbon Monoxide Limited Maintenance Plan, to ensure that that area continues to meet EPA's carbon monoxide national ambient air quality standard. EPA approved the plan in December 2008. And, finally, DEQ completed the Klamath Falls PM 2.5 Attainment Plan in December 2012, to bring that region back into compliance with the 24-hour small particulate national ambient air quality standard adopted by EPA. EPA approved the plan in August 2015.

19. Oregon is proud of the steps we have already taken to combat climate change and of our clean energy investment strategy, and we are in a good position to comply with the Clean Power Plan. If states collaborate and cooperate, the Clean Power Plan offers the United States a path toward finally addressing the real and pressing issue of climate change on an integrated and least cost basis.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on December 4, 2015.

A handwritten signature in blue ink, appearing to read "Dick Pedersen", is written over a horizontal line.

Dick Pedersen

Director, Oregon Department of Environmental Quality

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of West Virginia, et al.,

Petitioners,

v.

**United States Environmental
Protection Agency, et al.,**

Respondents.

Case No. 15-1363 (and
consolidated cases)

**DECLARATION OF JARED SNYDER, ASSISTANT COMMISSIONER
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL
CONSERVATION**

I, Jared Snyder, hereby declare:

1. I am the Assistant Commissioner for Air Resources, Climate Change, and Energy at the New York State Department of Environmental Conservation (“Department”). I have served in this role since joining the Department in 2007. My responsibilities as Assistant Commissioner include oversight of the Department’s regulations implementing the Clean Air Act (“Act”), including submission of State Implementation Plans (“SIPs”) and state plans to the U.S. Environmental Protection Agency (“EPA”), and coordination and implementation of state programs and policies to reduce greenhouse gas emissions. Part of my duties currently include coordinating the Department’s response to EPA’s final

Clean Power Plan rule under Section 111(d) of the Act, *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Final Rule*, 80 Fed. Reg. 64,662 (Oct. 23, 2015) (“Clean Power Plan”). This involves evaluation of state plan options under the Clean Power Plan, outreach with stakeholders regarding the State’s implementation of the Clean Power Plan, and ultimately the submission of a state plan to EPA to comply with the Clean Power Plan.

2. I have personal knowledge and experience regarding the Clean Power Plan, the Regional Greenhouse Gas Initiative (“RGGI”), and New York State’s SIP submissions to EPA under the Act. This includes following the development and finalization of the Clean Power Plan rule, providing information and comments to EPA regarding the Clean Power Plan, working with representatives of other states on the development and implementation of the RGGI program,¹ and serving as the Department’s primary official responsible for oversight of SIP submissions to EPA. I also currently serve as a Director on the RGGI, Inc. Board of Directors, and will serve as the Vice Chair of the RGGI, Inc. Board of Directors in 2016.

3. The purposes of this declaration are to: (i) briefly summarize existing state programs to reduce greenhouse gas emissions from the electric power sector;

¹ In addition to New York, the other states currently participating in RGGI are Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, Rhode Island, and Vermont (collectively the “RGGI States”).

(ii) describe activities the Department and the State have taken to evaluate the Clean Power Plan; (iii) provide examples of prior instances in which the Department has implemented regulatory programs applicable to the energy sector, prepared and submitted state planning documents to EPA under the Act, and collaborated with other states and entities such as the New York Independent System Operator (“NYISO”); and (iv) explain the State’s readiness and ability to comply with the administrative and procedural requirements of the Clean Power Plan.

I. Existing State Programs to Reduce Greenhouse Gas Emissions

4. The State is already experiencing the impacts of climate change, and has recognized the urgent need to reduce the greenhouse gas emissions that contribute to climate change. For example, heat waves, coastal flooding, and riparian flooding will continue to threaten the State’s environmental, social, and economic systems. The State has already been subject to an increase in extreme precipitation, with the Northeast experiencing a greater increase in extreme precipitation than any other region in the nation. Sea-level rise along New York’s Atlantic coast has exceeded 18 inches since 1850. In 2011, Hurricane Irene and Tropical Storm Lee ravaged New York. A year later, Hurricane Sandy killed at least 61 New Yorkers and caused more than \$50 billion in damage. Researchers estimate that sea-level rise since 1900 alone resulted in the flooding of

approximately 80,000 additional residents from Sandy, and sea-level rise alone will increase the costs from storms like Sandy in the future.

5. As a result of these impacts and for other reasons, New York State is committed to reducing greenhouse gas emissions, including by limiting those emissions from the electric power sector. The electric power sector is the largest source of greenhouse gas emissions across the country, and one of the largest sources of those emissions in the State.²

6. New York State has long supported federal efforts to limit greenhouse gas emissions, including through EPA regulation of the electric power sector under the Act. For example, as far back as 2008, the Department submitted comments to EPA on the Advance Notice of Proposed Rulemaking, *Regulating Greenhouse Gas Emissions under the Clean Air Act*, 73 Fed. Reg. 44,354 (July 30, 2008). More recently, even before EPA proposed the Clean Power Plan, New York joined the RGGI States in submitting comments to EPA supporting the regulation of greenhouse gases from the electric power sector under Section 111(d) of the Act.

7. In the absence of federal limits on greenhouse gas emissions from power plants, the State has implemented various programs to reduce those

² See U.S. Greenhouse Gas Inventory Report: 1990-2013, available at: <http://www3.epa.gov/climatechange/ghgemissions/usinventoryreport.html>; New York State Greenhouse Gas Inventory and Forecast: Inventory 1990-2011 and Forecast 2012-2030, Final Report April 2014, Revised June 2015, available at: <http://www.nyserda.ny.gov/-/media/Files/EDPPP/Energy-Prices/Energy-Statistics/greenhouse-gas-inventory.pdf>.

emissions from the electric power sector. For example, in 2012 the Department adopted regulations limiting carbon dioxide (“CO₂”) emissions from new and expanded power plants. See *CO₂ Performance Standards for Major Electric Generating Facilities*, N.Y. Comp. Code R. & Regs. (NYCRR), tit. 6, Part 251, (“Part 251”). In addition, the State participates in RGGI, which is a multi-state market-based program that has set a limit on CO₂ emissions from both new and existing power plants since 2009. The Department implemented RGGI in New York through adoption of and revisions to its *CO₂ Budget Trading Program*, 6 NYCRR Part 242, (“Part 242”) regulations.

8. New York has implemented these and other programs to reduce greenhouse gas emissions from the electric power sector without significant negative impacts to the economy or electric system reliability. In fact, CO₂ emissions from power plants covered by RGGI in New York have decreased by approximately 45% since 2005, while the state economy has grown by 8%. And according to independent analyses, the RGGI program has provided close to \$700 million in economic benefits to the State, saving electricity consumers more than \$200 million, and saving the State more than \$400 million dollars in avoided fuel costs.³

³ See The Economic Impacts of the Regional Greenhouse Gas Initiative on Ten Northeast and Mid-Atlantic States, Review of the Use of RGGI Auction Proceeds from the First Three-Year Compliance Period, Nov. 15, 2011, available at:

9. I coordinate with officials from other New York State agencies and authorities, including the New York State Public Service Commission and Department of Public Service (collectively “PSC”) and New York State Energy Research and Development Authority (“NYSERDA”), to implement New York State’s policies to reduce greenhouse gas emissions. These policies are in furtherance of the State’s overall goal of reducing greenhouse gas emissions by 80 percent from 1990 levels by 2050. In addition to Part 251 and RGGI, this includes existing programs to transition to a clean energy economy and reduce greenhouse gas emissions from the electric power sector, such as:

a. PSC’s Reforming the Energy Vision (“REV”) initiative, which aims to achieve wholesale changes in the regulatory and market structures of the State’s energy system, including to promote cleaner and more distributed sources of energy, increase resiliency and reliability, and empower consumers with additional choice.

b. The State Energy Plan, which establishes the State’s clean energy goals for 2030, including: (i) achieving a 40% reduction in greenhouse gas emissions from 1990 levels from the energy sector; (ii)

http://www.dec.ny.gov/docs/administration_pdf/ag11rggi.pdf; The Economic Impacts of the Regional Greenhouse Gas Initiative on Nine Northeast and Mid-Atlantic States, Review of RGGI’s Second Three-Year Compliance Period (2012-2014), July 14, 2015, available at: http://www.dec.ny.gov/docs/administration_pdf/ag15rggi.pdf.

generating 50% of electricity from renewable energy sources; and (iii) decreasing energy consumption in buildings by 23% from 2012 levels.

10. I am currently collaborating with PSC and NYSERDA regarding the implementation of REV, the State Energy Plan, and the Clean Power Plan. This collaboration will provide the State with the ability to implement the Clean Power Plan in conjunction with its other programs and policies regarding the electric power sector.

II. Evaluation of Clean Power Plan and Options for States

A. Development of Clean Power Plan

11. I have followed the development of the Clean Power Plan since at least 2013. For example, prior to EPA's proposal of the Clean Power Plan, I worked with representatives of the RGGI States to develop and submit comments supporting EPA's regulation of greenhouse gases from the power sector under Section 111(d) of the Act. These pre-proposal comments also included recommendations to EPA about such a regulation, such as providing flexibility to states to determine the appropriate compliance mechanism, allowing for the use of mass-based compliance approaches, and encouraging the use of multi-state programs.

12. I reviewed EPA's proposed Clean Power Plan, 79 Fed. Reg. 34,830 (June 18, 2014) ("Proposal"). The Proposal included many of the

recommendations the RGGI States made in the pre-proposal comments, including providing flexibility to states to build their own plans, allowing for mass-based programs, and facilitation of regional programs that include multiple states working together.

13. I worked with officials from the RGGI States to evaluate the Proposal, and to develop and submit comments to EPA on the Proposal. In their comment letters, the RGGI States supported the basic structure of the Clean Power Plan and provided recommendations to EPA to strengthen the final rule. See RGGI States' Comments on Proposed Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (Nov. 5, 2014), Document ID EPA-HQ-OAR-2013-0602-22395; RGGI States' Supplemental Comments on Proposed Clean Power Plan (Dec. 1, 2014), Document ID EPA-HQ-OAR-2013-0602-24208.

14. In addition to working together with the RGGI States, I worked with other New York State officials to evaluate the Proposal and its potential impacts on the State. Together with PSC and NYSERDA, the Department submitted comments to EPA on the Proposal. See New York State Comments on Proposed Carbon Pollution Emission Guidelines for Existing Stationary Sources (Dec. 1, 2014), Document ID EPA-HQ-OAR-2013-0602-23627. In addition to generally supporting the Proposal, New York State's comments included recommendations

to EPA regarding the methodology used by EPA to calculate the State's CO₂ emission goal.

B. Final Clean Power Plan Rule

15. The State has completed a review of the final Clean Power Plan and associated rulemaking documents. This includes my own review and assessment of the rule, evaluation of the final rule by other Department staff, collaboration with PSC and NYSERDA regarding the final rule, and discussions with NYISO, entities that would be subject to the state plan, and other stakeholders.

16. As a result of the State's prior efforts to evaluate and comment on regulation of greenhouse gases under Section 111(d) and the Proposal, as well as other activities, the State had an understanding of the basic structure of the Clean Power Plan even before EPA finalized the rule. This includes that EPA would set state-specific CO₂ emission goals that each state must meet, based on CO₂ emission performance rates reflecting the "best system of emission reduction" for existing fossil-fueled power plants as determined by EPA. Moreover, the final rule specifies guidelines for states to use in developing, submitting, and implementing state plans to achieve the rule's CO₂ emission goals. The final Clean Power Plan provides states with flexibility in developing their plans, including utilizing allowance trading programs like RGGI, working with other states, and other

measures. EPA did not significantly change this basic structure of the Clean Power Plan between the Proposal and the final rule.

17. EPA did, however, constructively address many of the issues raised by the RGGI States in their comments and by New York State in its own comments. The final Clean Power Plan, for example, includes state-specific CO₂ emission goals that better reflect progress already made by states like New York in reducing emissions, as well as additional emission reduction opportunities achievable in other states. Moreover, consistent with comments made by the RGGI States and New York, the final Clean Power Plan includes mass-based compliance options for states, facilitates the use of emissions trading for compliance, and clarifies certain issues regarding interstate collaboration.

C. Other Options Available to States

18. The Clean Power Plan provides states with the option of not submitting a state plan. In that case, EPA would not impose any sanctions on the state, such as the withholding of federal funds from the state. 40 C.F.R. § 60.5736. Instead, EPA would impose a federal plan, which is currently available for public comment. See *Federal Plan Requirements for Greenhouse Gas Emissions from Electric Generating Units Constructed on or Before January 8, 2014; Model Trading Rules; Amendments to Framework Regulations; Proposed Rule*, 80 Fed. Reg. 64,966 (Oct. 23, 2015) (“Proposed Federal Plan”).

19. The Proposed Federal Plan also includes model rule language. This model rule language can be adopted by states for their own state plans under the Clean Power Plan. The model rule language may also be tailored by states in development of their state plans. This is similar to the processes described below, in which the RGGI States each adopted individual state regulations within approximately 24 months of the issuance of a final RGGI Model Rule in 2007, and adopted revisions to individual state regulations within approximately eleven months of the issuance of a revised RGGI Model Rule in 2013.

20. Because of the availability of the Proposed Federal Plan and associated model rule language, states do not need to devote significant time or resources to developing a state plan under the Clean Power Plan. Instead, states have the option of being subject to a federal plan, or of using model rule language contained in the Proposed Federal Plan.

21. Even for states that become subject to a federal plan, the Clean Power Plan still provides flexibility for states. For example, even after a federal plan has been implemented in a state, the federal plan will be withdrawn if and when EPA approves a plan submitted by the state. See 40 C.F.R. § 60.5720(b).

III. Examples of Prior Power Sector Regulations and Planning Efforts

22. The Department has extensive experience developing and implementing regulations applicable to the energy sector. This includes, for

example, the promulgation of Part 242 and Part 251 regulating CO₂ emissions from power plants, as well as regulations for other non-greenhouse gas pollutants.

Before implementing these types of regulations applicable to the energy sector, the Department collaborates with entities such as NYISO, PSC, and NYSERDA, discussing, among other things, any issues regarding potential impacts to reliability or electricity cost. This experience will provide a useful framework for collaboration regarding electricity planning and utility regulation as the State develops and implements a plan to comply with the Clean Power Plan.

A. RGGI Implementation and Program Review

23. RGGI is one example of a program the State has developed and implemented to reduce greenhouse gas emissions from the power sector. RGGI is a market-based program to reduce CO₂ emissions from power plants, and is a cooperative effort amongst the RGGI States.

24. RGGI was initially developed through a collaborative process amongst the RGGI States. This included dialogue amongst the states, coordination amongst the environmental and energy agencies within each state, discussions with NYISO and the other relevant regional organizations, modeling of the electricity sector under various scenarios, and interaction with stakeholders and experts to obtain input regarding the design of the RGGI program.

25. The RGGI program is grounded in each state's own statutory and regulatory authorities. Following the initial development process, the RGGI States collectively drafted a Model Rule containing model regulatory language that could be used to implement the RGGI program in each state. The RGGI States issued a final Model Rule with technical corrections on January 5, 2007. See Regional Greenhouse Gas Initiative Model Rule, Final with Corrections, available at: http://www.rggi.org/docs/model_rule_corrected_1_5_07.pdf.

26. Each of the RGGI States then used this Model Rule as the basis for developing its own regulation and implementing RGGI through its own statutory and/or regulatory processes. As a result, each state established a "CO₂ Budget Trading Program" regulation that contained substantially similar provisions.⁴ These regulations became effective in each state by the end of 2008, or within approximately 24 months of the release of the final corrected Model Rule. During the interim period between the release of the Model Rule and the adoption of individual state regulations, as part of individual state rulemakings, New York and other states participating in RGGI worked together with relevant independent

⁴ See Conn. Agencies Regs. § 22a-174-31; Del. Admin. Code tit. 7, ch. 1147; 06-096 Me. Code R. 156; Md. Code Regs. 26.09; 310 Mass. Code Regs. 7.70; N.H. Code Admin. R. Env-A 4600, 4700; N.Y. Comp. Codes R. & Regs. tit.6, § 242; R.I. Code R. 25-4-46:46; Vt. Code R. 12-031-002.

system operators and public utility commissions to assess electricity cost and reliability issues.

27. The primary requirement of the RGGI program, as implemented by each state's CO₂ Budget Trading Program, is for each power plant subject to the program to obtain a tradeable CO₂ allowance for each ton of CO₂ it emits over a compliance period. RGGI's first three-year compliance period began on January 1, 2009, within just a few months of when each of the RGGI States established its individual CO₂ Budget Trading Program. At the end of the compliance period, each power plant must make such CO₂ allowances available to the Department, or to the environmental agency in the relevant RGGI state, for permanent deduction.

28. Collectively, the RGGI States' CO₂ Budget Trading Programs establish a declining cap on CO₂ emissions from the power sector within the RGGI States. Since 2005, CO₂ emissions from power plants covered by RGGI have decreased by approximately 45% across the RGGI States.

29. After the initial three-year compliance period (2009-11) of effective program operation, the RGGI States conducted a comprehensive Program Review in 2012. This Program Review assessed the benefits and impacts of the program to date, and evaluated potential options for changes to the RGGI program. The 2012 Program Review included many of the same components as the initial development of the RGGI program, including coordination amongst the environmental and

energy agencies of each state, outreach to stakeholders, and electricity sector modeling.

30. Following this 2012 RGGI Program Review, the RGGI States established a new regional CO₂ emissions cap of 91 million short tons, a 45 percent reduction from the original regional cap. Moreover, under the program changes following the 2012 Program Review, the cap will decline by 2.5 percent each year from 2015 through 2020.

31. To implement these and other changes to the RGGI program, the RGGI States first collectively developed revisions to the RGGI Model Rule. The RGGI States issued a revised Model Rule on February 7, 2013. See RGGI Model Rule, Issued February 7, 2013, Revised December 23, 2013, available at: http://www.rggi.org/docs/ProgramReview/_FinalProgramReviewMaterials/Model_Rule_FINAL.pdf. Each state then revised its own CO₂ Budget Trading Program through state-specific statutory and/or regulatory processes. In New York State, the Department proposed amendments to its Part 242 regulation on July 10, 2013, and adopted such amendments effective on January 1, 2014. The RGGI States all successfully adopted regulatory changes in time for the new lower regional cap to be in place for 2014, or within approximately eleven months of the release of the revised RGGI Model Rule.

32. Therefore, on two separate occasions, the State has successfully worked with other states to develop and implement a cooperative regulatory program for reducing greenhouse gas emissions from power plants. On both occasions, this included many of the same elements that may be required for states to develop and implement state plans under the Clean Power Plan, such as electricity sector modeling, collaboration with environmental and energy agencies, outreach to stakeholders, interaction with Independent System Operators/Regional Transmission Organizations, and individual state legislative and/or regulatory processes. Moreover, many of the steps taken by the RGGI States to design the RGGI program may not be necessary for states developing a state plan under the Clean Power Plan, because of the availability of existing regulatory language and other materials for states under the Clean Power Plan.

33. New York State's experience in developing, implementing, and revising the RGGI program provides a useful framework for potential collaboration by other states in submitting a plan for compliance under the Clean Power Plan. It also demonstrates the ability of states to develop common regulatory language, and then independently implement such language expeditiously through each state's own statutory and regulatory processes.

B. SIP Submittal and Federal Regulatory Review

34. The Department has decades of extensive experience developing plans for submittal to EPA under the Act. Most notably, this includes the development and submittal of SIPs to meet and maintain relevant National Ambient Air Quality Standards (“NAAQS”) for criteria pollutants under the Act. The process for developing SIPs and submitting SIPs to EPA for approval shares many similarities with the process for developing and submitting a state plan to EPA for approval under the Clean Power Plan. At the same time, certain elements of many SIP processes will not be part of the state plan development process under the Clean Power Plan, such as complex ambient air quality modeling analyses.

35. Part of the SIP process includes working with EPA to understand federal regulatory requirements. For example, Department staff frequently discuss applicable requirements with EPA staff, and then incorporate any feedback from these discussions into SIP submittals. This is similar to the ongoing process with EPA staff regarding the Clean Power Plan, in that Department staff are engaged in an ongoing dialogue with EPA staff regarding specific provisions of the Clean Power Plan, which in turn informs evaluation of state plan options under the Clean Power Plan.

36. The SIP process typically includes the promulgation of regulations by the Department as well as emissions inventory projections and complex ambient

air quality modeling analyses. As part of SIPs, the Department commonly promulgates new regulations, or revises existing regulations, applicable to the electric power sector. Moreover, the establishment of such regulations is often subject to a timeline established by EPA, which is sometimes shorter than that provided for state plan submittal under the Clean Power Plan.

37. Department staff routinely evaluate changes to federal standards under the Act, including standards applicable to the electric sector. This evaluation includes an assessment of the impact of any federal regulation on the State's electric power system, and frequently involves coordination with PSC, NYSERDA, and NYISO.

38. In addition to regulatory changes to meet or maintain a NAAQS and submit a SIP, the Department routinely promulgates regulations to implement other federal standards under the Act. The process of responding to new EPA regulations, including by making changes to Department regulations, is therefore familiar to me and to Department staff.

39. The Department's familiarity with SIP preparation and review of federal regulations will serve to facilitate its response to the Clean Power Plan. The processes the Department undertakes to prepare SIPs and respond to other relevant EPA regulations are similar to what the Department is currently undertaking in response to the Clean Power Plan.

C. Other Planning Efforts and Regional Collaboration

40. The State has conducted numerous analyses of the electric power sector in support of various policies and regulations. In addition to modeling and other analyses to support RGGI and SIPs, this also includes analyses in support of other air regulations, clean energy policies such as the REV initiative and State Energy Plan, and other programs. These efforts have been ongoing for years and will help inform evaluation of options for the State under the Clean Power Plan.

41. The Department has also worked effectively with its counterpart agencies in other states to develop coordinated regulatory programs implicating the laws of multiple states. In addition to RGGI, this also includes participation in the Ozone Transport Commission and development of SIPs in collaboration with other states. For example, the Department regularly coordinates SIP submissions for ozone and fine particulate matter (PM 2.5) non-attainment with the neighboring states of Connecticut and New Jersey. This coordination includes inventorying of emissions and projections, air quality modeling, and emission reduction strategies reflected in individual state rulemakings.

IV. New York's Ability to Develop a State Plan

A. Coordination with Other Policies

42. While the Clean Power Plan requires states to submit plans to EPA for compliance, actual regulatory requirements under a state plan will be applicable

to owners or operators of affected electric generating units, and not states, environmental or energy agencies, or other organizations. In this respect, the Clean Power Plan is similar to other air emission regulations applicable to the electric power sector.

43. Moreover, because of this similarity to other air emission regulations and for other reasons, I do not expect the Clean Power Plan to interfere with the State's other energy and environmental policies, including other programs to reduce greenhouse gas emissions from power plants. The Department's ongoing coordination with PSC, NYSERDA, and NYISO regarding the implementation of policies applicable to the electric power sector will enable the State to allocate staff resources efficiently.

44. Furthermore, many of the State's other policies, such as the REV initiative and the State Energy Plan, are intended to help serve some of the same objectives as the Clean Power Plan. For example, many of these other policies are aimed, in part, at reducing greenhouse gas emissions, accelerating the transition to cleaner and renewable energy sources, and reducing other air pollutants. In this way, the Clean Power Plan is complementary to the State's existing efforts under State law.

B. State Plan Timing and Submittal

45. The Clean Power Plan requires that, by September 6, 2016, states submit to EPA either a final state plan or an initial submittal requesting an extension. 40 C.F.R. § 60.5760. In order to be granted by EPA, an initial submittal requesting an extension must contain only minor and non-binding information, including: (1) an identification of the final plan approaches under consideration and a description of progress made to date; (2) an explanation of why additional time is necessary to submit a final state plan; and (3) a description of the opportunities for public comment and meaningful engagement with stakeholders during preparation of the initial submittal, and plans for engagement during development of the final plan. *See id.*; *id.* § 60.5765; EPA Memorandum from Stephen D. Page to Regional Air Directors, Initial Clean Power Plan Submittals under Section 111(d) of the Clean Air Act, October 22, 2015, available at: <http://www3.epa.gov/airquality/cpptoolbox/cpp-initial-subm-memo.pdf>. For those states granted an extension, a final state plan must be submitted to EPA by September 6, 2018. 40 C.F.R. §§ 60.5760, 60.5765. Therefore, states have almost three years from the finalization of the Clean Power Plan to the extended deadline for final state plan submittal. For the reasons described in this declaration, the Department can readily meet the initial and final submittal deadlines.

46. In addition to the availability of this almost three-year period for final state plan submittal to EPA, the final CO₂ emission goals in the Clean Power Plan do not need to be achieved until 2030. See 40 C.F.R. §§ 60.5770, 60.5855. Furthermore, the final rule establishes less stringent state-specific interim CO₂ emission goals, which must be achieved on average or in aggregate over the eight-year interim period from 2022-2029. See id. States therefore have flexibility in determining the pace of emission reductions over the interim period. In other words, actual requirements on affected power plants will not become effective until 2022 under the Clean Power Plan, and even then will only be based on a phased-in interim goal that is less stringent than the final goal for 2030.

C. Development of State Plan

47. The State has already begun its efforts to develop a state plan for compliance with the Clean Power Plan. In addition to evaluation of the various plan approaches available to states under the Clean Power Plan, these efforts include stakeholder outreach, ongoing modeling and other analyses of the electric power system, collaboration with NYISO, PSC, and NYSERDA, and discussions with officials representing the RGGI States.

48. The State is conducting two parallel stakeholder outreach processes. These include:

a. New York State-specific outreach, including discussions with entities that would be subject to the state plan to comply with the Clean Power Plan, NYISO, non-governmental organizations, and environmental justice communities. The Department has already held initial focus group meetings with two of these groups to discuss development of the state plan and implementation of the Clean Power Plan, including on November 2, 2015 with representatives of entities that would be subject to the state plan, and on November 20, 2015 with non-governmental organizations. The Department plans to hold a webinar with representatives of environmental justice organizations on December 11, 2015, which will also include discussion of plans for additional engagement with communities across the State.

b. Stakeholder outreach together with the RGGI States. The outreach by the RGGI States began with a meeting in New York City on November 17, 2015, and included discussion of electricity sector modeling, key topics regarding RGGI program review, and potential compliance under the Clean Power Plan. This includes the potential for compliance together with other states, such as through the addition of new RGGI participating states, naming additional trading partners, or the so-called “trading ready” mechanism under the Clean Power Plan. The RGGI States also released

materials explaining plan options available under the Clean Power Plan, describing key items for RGGI program review, listing draft assumptions for electricity sector modeling, and providing an anticipated schedule of additional stakeholder outreach. See November 17 Meeting Materials, available at: <http://www.rggi.org/design/2016-program-review/rggi-meetings>.

49. The RGGI States are currently conducting electricity sector modeling and other analyses to support review of the existing RGGI program and potential compliance options under the Clean Power Plan. This includes the use of modeling to project emissions, CO₂ allowance prices, electricity prices, and other variables under various Clean Power Plan compliance scenarios.

50. In addition to this electricity sector modeling being conducted by the RGGI States, New York is conducting its own modeling and other analyses to support electricity sector planning, which will inform consideration of state plan options under the Clean Power Plan. This includes the State Resource Planning effort, which is a collaborative study that includes participation by staff from the Department, NYSERDA, and PSC, in addition to participation of NYISO and regulated utilities. This effort is intended, in part, to assess the State's electricity system to ensure that it meets various public policies and regulations by 2030, including the Clean Power Plan, while maintaining reliability with the least

economic impact to consumers. This effort is complementary to the State Energy Plan and other ongoing state programs, and will be able to accommodate considerations regarding the State's implementation of the Clean Power Plan.

51. The Department collaborates with NYISO on an ongoing basis regarding the implementation of certain of its environmental regulatory programs. For example, Department staff periodically attend meetings (either in-person or via teleconference) of NYISO's Electric System Planning, Market Systems, and Installed Capacity Working Groups. Department staff also meet with the New York State Reliability Council every two months, which includes participation by NYISO. This also includes collaboration with NYISO regarding the development and implementation of RGGI and regarding the Clean Power Plan. The Department has already begun discussions with NYISO regarding state plan options under the Clean Power Plan, including on November 19 and 20, 2015 at NYISO's Environmental Advisory Council's Fall Meeting. Based on my discussions with NYISO representatives, my understanding is that NYISO has reviewed the final Clean Power Plan and has preliminarily concluded that EPA addressed many of the key concerns NYISO raised in its public comments on the Proposal.⁵

⁵ See, e.g., NYISO, EPA Clean Power Plan, Preliminary Assessment of Impact on New York, October 27, 2015, available at: http://www.nyiso.com/public/media_room/publications_presentations/index.jsp.

D. Department's Ability to Meet Clean Power Plan Deadlines

52. The Department has sufficient staff, time, and resources to evaluate options for the State under the Clean Power Plan, conduct relevant coordination and stakeholder outreach activities, perform appropriate analyses, and ultimately prepare its initial submittal. Based on the three required components of an initial submittal, as described above, the Department will, at a minimum, be in a position to obtain the two-year extension for submittal of a final state plan.

53. The Department has the ability to conduct the activities necessary to develop and implement a final state plan under the Clean Power Plan. This is partly because of prior experiences by the Department in implementing similar programs applicable to the electric power sector, such as the preparation of SIPs.

54. Based on my personal knowledge and experience, and the State's prior experience, I am confident that the State will be able to meet the deadlines established for state submittals under the Clean Power Plan. At a minimum, this includes the filing of an initial submittal by September 6, 2016, and a final state plan by September 6, 2018.

E. Impacts of Potential Stay

55. The ability of the State to effectively coordinate the Clean Power Plan with other energy sector policies and planning efforts could be negatively impacted by any stay of the Clean Power Plan. This is partly because a stay may not

ultimately result in postponement of the submittal or compliance deadlines under the Clean Power Plan, and the State is currently working towards meeting those deadlines.

56. Any stay may also delay actions that other states or affected power plants would otherwise have taken to prepare for compliance with the Clean Power Plan. This could interfere with states' energy planning efforts that may be accounting for the Clean Power Plan, delay actions that would otherwise reduce greenhouse gas emissions, or make it more costly for states and affected power plants to comply with the rule.

57. Any stay of the Clean Power Plan would also impair opportunities for multi-state collaboration. This is because states would not be able to fully assess their options for state plan approaches under the Clean Power Plan. For example, part of a state's consideration of plan approaches may depend on the compliance paths being pursued by other states, such as whether a state intends to be "trading ready" under the Clean Power Plan. If states do not provide an initial indication of the plan approach or approaches under consideration, then states may not be able to accurately conduct electricity sector modeling or other analyses of Clean Power Plan implementation.

58. Any delay in reducing greenhouse gas emissions, such as a delay that might result from a stay of the Clean Power Plan rule, will have negative impacts

on the State. This is because of the urgent need to reduce greenhouse gas emissions from the nation's power sector. The State has long supported federal efforts to limit greenhouse gas emissions, as such action is essential to limiting the impacts of climate change.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct. Executed on December 4, 2015.

A handwritten signature in black ink, appearing to read 'J. Snyder', with a long horizontal flourish extending to the right.

Jared Snyder
Assistant Commissioner for Air Resources, Climate Change, and Energy
New York State Department of Environmental Conservation

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of West Virginia, et al.,

Petitioners,

v.

**United States Environmental Protection
Agency, et al.,**

Respondents.

Case No. 15-1363 (and consolidated cases)

DECLARATION OF MARTIN SUUBERG

I, Martin Suuberg, declare:

1. I was appointed Commissioner of the Commonwealth of Massachusetts Department of Environmental Protection by Governor Charles D. Baker and Secretary of Energy and Environmental Affairs Matthew A. Beaton on January 8, 2015. Under MASS. GEN. LAWS ch. 21A, § 8, the Department of Environmental Protection is responsible for implementing statutory requirements relating to, but not limited to, environmental health, air pollution control, noise regulation, community sanitation, water supply and water quality, noisome trades and sanitary landfills.

2. I have over thirty years experience in natural resource and environmental law and policy. I have served as Undersecretary for Environmental Affairs in the Executive Office of Energy and Environmental Affairs, and as the Massachusetts Department of Environmental Protection's Deputy Commissioner for Policy and Planning, as well as General Counsel.

3. The purpose of this declaration is to provide my understanding of Massachusetts' readiness to comply with the administrative and procedural requirements of the United States Environmental Protection Agency's ("EPA") final rules regarding greenhouse gas emissions from existing power plants under Section 111(d) of the Clean Air Act (the "Section 111(d) Rule" or "the Rule"). 80 Fed. Reg. 64510 (2015).

Section 111(d) Rule

4. I have reviewed the final Section 111(d) Rule and, based on my initial review of the Rule, Massachusetts as part of the Regional Greenhouse Gas Initiative ("RGGI") is well positioned to meet the goals of the Section 111(d) Rule. The Rule establishes carbon dioxide (CO₂) emission performance rates for reducing emissions at electric generating units. It also specifies guidelines for states to use in developing, submitting, and implementing state plans to achieve the Rule's emission rate goals. The Rule also sets out state rate-based and mass-based CO₂ goals to provide states with flexibility in developing their plans, including utilizing allowance trading programs and other measures.

5. The Section 111(d) Rule requires that states submit compliance plans, or initial submittals requesting an extension, to EPA by September 6, 2016. States that are granted an extension must submit their compliance plans by September 6, 2018. The Section 111(d) Rule also permits states to join together and submit joint compliance plans in lieu of state-specific plans. The compliance period begins January 1, 2022, giving states more than six years from now to prepare to comply. Given the work that Massachusetts has already done as part of RGGI and the state goals established in the 111(d) Rule, Massachusetts expects to comply with the deadlines to submit a compliance plan and meet the state goals.

Regional Greenhouse Gas Initiative

6. RGGI is a market-based program to reduce greenhouse gas emissions from the electric power sector. RGGI is a cooperative effort among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont (together, the “RGGI States”).

7. The program requires power plants to possess a tradable CO₂ allowance for each ton of CO₂ they emit. The program was developed under a Memorandum of Understanding signed by initial member state governors in 2005. In 2007, Massachusetts signed onto the RGGI Memorandum of Understanding and adopted the Massachusetts CO₂ Budget Trading Program regulations by 2008. The first RGGI multi-state auction took place in September 2008, and the compliance period began January 1, 2009.

8. Massachusetts’ laws and regulations establish a CO₂ Budget Trading Program that limits emissions of CO₂ from electric power plants, creates CO₂ allowances, determines appropriate allowance allocations, and provides for participation in CO₂ allowance auctions. MASS. GEN. LAWS ch. 21A, § 22; 310 MASS CODE REGS. 7.70; and 225 MASS CODE REGS. 13.00.

9. Collectively, the RGGI states’ CO₂ Budget Trading Programs establish an annually declining cap on CO₂ emissions from the power sector within the RGGI States. The RGGI program, in conjunction with other state clean energy policies and other energy market factors, has helped Massachusetts reduce carbon dioxide emissions by approximately 40 percent since 2005.

10. The RGGI States completed a two-year comprehensive program review in 2012. Following the review, the states established a new regional CO₂ budget that lowered the cap on emissions to 91 million tons in 2014, a reduction of 45 percent from the original cap. Under the

program changes, the cap will decline 2.5 percent each year from 2015 to 2020. To implement the newly lowered cap, the RGGI States then revised their own CO₂ Budget Trading Programs through their state-specific legislative and regulatory processes.

11. Using their own processes for revising their respective legal authorities, the RGGI States successfully adopted statutory and regulatory changes in time for the lower regional cap to be in place for 2014 regional auctions. In Massachusetts, the Department of Environmental Protection, following the release of proposed draft regulations and a public hearing and comment period, adopted changes to the regulations governing the state's CO₂ Budget Trading Program, 310 MASS. CODE REGS. 7.70, within one year from finalizing the changes to the Model Rule that reflected the program review.

12. Under the final Section 111(d) Rule, states are assigned final emission goals for the year 2030, and states may set their own interim goals between 2022 and 2029. The RGGI States are working together to consider submitting one multi-state compliance plan or individual state plans that rely on RGGI as a compliance mechanism. The RGGI states currently have a plan for completing this multi-state effort in a timeframe that will allow for timely submission of state plans. For example, the RGGI states have scheduled stakeholder meetings within the RGGI region to get input on using RGGI as a compliance mechanism. Massachusetts believes the Massachusetts CO₂ Budget Trading Program, as well as other programs currently in place in Massachusetts (e.g., Energy Efficiency programs and the Renewable Portfolio Standard) will assist Massachusetts in complying with EPA's state goal for Massachusetts under the Section 111(d) Rule.


13. Massachusetts has in place the necessary authorities and administrative procedures to assure timely compliance with federal Clean Air Act rules, including the Section

111(d) Rule. In this regard, Massachusetts has decades of experience complying with other federal Clean Air Act rules that require comprehensive state planning to achieve compliance, including State Implementation Plans to achieve the National Ambient Air Quality Standards (“NAAQS”) for criteria air pollutants. *See* 42 U.S.C. §§ 7408, 7410; 40 C.F.R. Part 52 Subpart W (Massachusetts).

14. Massachusetts’ has experience in preparing and submitting to EPA State Implementation Plans under the NAAQS Program and other State Plans adopted under 111(d) of the Clean Air Act. Pursuant to sections 111(d) and 129 of the Clean Air Act, Massachusetts submitted the Municipal Waste Combustor (MWC) State Plan to EPA on January 11, 1999 (64 Fed. Reg. 48095 (1999) (publication of EPA’s approval of MWC State Plan), and submitted amendments to the MWC State Plan on November 16, 2001 (67 Fed. Reg. 62896 (2002) (publication of EPA’s approval of amendment). This experience will help the Commonwealth decide on the requisite measures it must include in the State Plan to comply with the recently adopted Section 111(d) Rule for Power Plants.

15. Based on Massachusetts’ experience in complying with federal Clean Air Act rules, I anticipate that Massachusetts will be able to comply with the state planning requirements of the Section 111(d) Rule in a timely fashion.

Executed on this 1st day of December, 2015.


Martin Sullivan
Commissioner

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of West Virginia, et al.,

Petitioners,

v.

**United States Environmental Protection
Agency, et al.,**

Respondents.

Case No. 15-1363 (and
consolidated cases)

**DECLARATION OF J. DAVID THORNTON,
ASSISTANT COMMISSIONER FOR AIR POLICY FOR THE
MINNESOTA POLLUTION CONTROL AGENCY**

I, J. David Thornton, hereby declare:

1. I am the Assistant Commissioner for Air Policy at the Minnesota Pollution Control Agency (MPCA). I have served in this role for over six years, and have 35 years of experience in air policy with the MPCA.

2. As Assistant Commissioner, I oversee the development and implementation of the MPCA's air policies to ensure that Minnesota's outdoor air is healthy for all to breathe and that Minnesota reduces its contribution to global air pollution. These duties include working on the development and implementation of the MPCA's air policies to reduce Minnesota's contribution to global concentrations of greenhouse gases (GHGs).

3. I also oversee the MPCA's implementation of the Clean Air Act (CAA) in Minnesota. In this capacity, I currently direct the MPCA's efforts to address the U.S. Environmental Protection Agency's (EPA) Clean Power Plan rule under § 111(d) of the CAA, "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Final Rule" (Clean Power Plan). 80 Fed. Reg. 64662 (October 23, 2015). The MPCA leads Minnesota's efforts to evaluate the Clean Power Plan, engage with stakeholders regarding potential State pathways for implementation of the rule, and to develop and submit a state plan to meet Clean Power Plan compliance obligations.

4. I have personal knowledge and experience with Minnesota's efforts to prepare for and to begin to implement the Clean Power Plan, with Minnesota's state programs to reduce GHG emissions from the power sector, and with Minnesota's State Implementation Plan (SIP) submissions to EPA under the CAA.

5. The purposes of this declaration are to: (i) briefly describe Minnesota's experience to date implementing measures to reduce GHG emissions – particularly those from the power sector – including the progress made and benefits realized, (ii) provide an overview of Minnesota's efforts to evaluate and strengthen the EPA's Clean Power Plan, and (iii) compare compliance planning for the Clean Power Plan with planning efforts in Minnesota to address other federally required regulatory programs, namely the SIP.

MINNESOTA'S GHG PROGRAMS

6. Minnesota has accomplished significant reductions in GHG emissions from the electric utility sector over the past two decades through a number of strategies, involving the state legislature, Minnesota's Department of Commerce, Minnesota's Public Utilities Commission, the MPCA, and Minnesota's electricity producers.

7. In 2007, the Minnesota legislature unanimously adopted a wide-ranging state effort to address GHG emissions in Minnesota, known as the Next Generation Energy Act (NGEA). Minn. Stat. §§ 216H.01-.13. The NGEA established state-level GHG emission reduction targets of 15% from 2005 levels by 2015, 30% from 2005 levels by 2025, and 80% from 2005 levels by 2050. The NGEA also established a GHG emission reporting structure, a comprehensive planning process and limitations on new or imported coal generation for Minnesota customers.

8. Also in 2007, the Minnesota legislature adopted a state Renewable Energy Standard (RES). Minn. Stat. § 216B.1691. The RES phases in from 2010 to 2025 and creates renewable energy requirements for all utilities operating in Minnesota. It will ultimately result in a weighted 27% of all retail electric sales in Minnesota coming from renewable energy sources. Minnesota now has about 2,800 megawatts (MW) of renewable energy installed, and based on Minnesota

utilities' long-range resource plans, is on track to meet the statute's RES requirement by 2025. In addition to the overall RES, in 2013, the Minnesota legislature adopted a Solar Energy Standard for the state's investor-owned utilities requiring that by the end of 2020, at least 1.5% of total retail sales are generated by solar energy. Minn. Stat. § 216B.1691, subd. 2f.

9. Minnesota has administered a demand-side management program called the Minnesota Conservation Improvement Program ("CIP") since 1982. The NGEA expanded and improved the program and established a statewide energy conservation goal of 1.5% of annual retail electric and gas sales. Minn. Stat. § 216B.241. A 2013 report to the Minnesota legislature compares the cost of the CIP to the cost of electric generation by a variety of technologies: <http://archive.leg.state.mn.us/docs/2013/mandated/131112.pdf>. The report demonstrates the CIP and demand side management efforts generally have proven to be very efficient, and low cost. The Minnesota Department of Commerce manages the CIP to ensure effective implementation of the program. I believe Minnesota will continue investing in this program because the statutory requirement has proven to be a cost-effective way to reduce the growth in demand for electricity in Minnesota.

10. In 2001, the Minnesota legislature enacted an emissions reduction statute that allowed special recovery rate consideration for air pollution control

projects, with the goal to reduce emissions from Minnesota’s aging coal-fired utility boilers. Minn. Stat. § 216B.1692. As a result, beginning in 2007 and finishing in 2009, Xcel Energy, the state’s largest electric utility, completed a project called the “Metro Emissions Reduction Project.” The project repowered a 520 MW coal-fired power plant, lowering its heat rate by 5%, and retired 642 MW of coal-fired power and replaced it with 956 MW of intermediate load natural gas combined cycle generation. The repowering from coal to gas generation is not only a significant contribution to Minnesota’s GHG emission reduction efforts, it also provides backup capacity to support Minnesota’s wind generation.

11. In 2008, the MPCA began to biennially track Minnesota’s progress in meeting GHG emission reduction targets. Based upon this progress tracking, the most recent of which is included in the MPCA’s January 2015 Greenhouse Gas Emissions Reduction biennial report to the Minnesota legislature, I have personal knowledge and experience that the Minnesota programs described above have resulted in significant emission reductions of GHG – specifically carbon dioxide (CO₂) – from our power sector while still supporting a robust economy:

a. Between 2005 and 2012, GHG emissions from the electric utility sector, the largest single sector source of GHG emissions in Minnesota, declined 17%. The MPCA estimates that if emissions reductions efforts in the

electric power sector continue at present levels through 2025, Minnesota could expect a 33% reduction in expected electric power sector GHG emissions.

b. During this period of GHG emissions reductions, the gross state product of Minnesota has increased, surpassing pre-recession (2009) levels by 2010 and continuing to grow through at least 2012.

12. The MPCA is a member of the Minnesota Environmental Quality Board (“EQB”) and contributed to EQB’s 2015 “Minnesota and Climate Change: Our Tomorrow Starts Today” report, which noted that renewable energy accounts for nearly 20% of Minnesota’s annual electric generation, with nearly 16% of Minnesota’s power coming from wind generation in 2013, making Minnesota fifth in wind generation nationwide, while Minnesota’s residential electricity rates are frequently below the national average.

13. The EQB report notes that more than 15,300 Minnesotans work in the clean energy field, and these workers added more than \$1 billion in direct wages to the Minnesota economy in 2013. These clean energy jobs in Minnesota grew more than 75% between 2000 and 2014, while the total Minnesota economy grew 11% during the same time period.

14. Minnesota’s electric producers incorporate NGEA and other statutory clean energy requirements into their required energy planning through an Integrated Resource Plan (IRP) process. Minnesota’s Public Utilities Commission,

with review from the Minnesota Department of Commerce and assistance from the MPCA, approve utilities' IRPs and ensures they provide reliable and affordable electricity for all Minnesotans while complying with state and federal environmental and clean energy regulations.

15. In short, Minnesota has achieved significant GHG emissions reductions since 2007 while growing its economy, and has built a clean energy economy over the past decade that will support continued GHG emissions reductions well into the future.

16. In addition to supporting state efforts to reduce climate change-causing GHG emissions, the strategies relied upon to reduce GHG emissions have also contributed to significant reductions in “conventional” air pollutants from the same power plant sources. For example, between 2002 and 2012 utility emissions of nitrogen oxides (NO_x) and sulfur dioxide (SO₂) in Minnesota decreased 67% and 74%, respectively.

17. Power plants also saw significant reductions in air toxics. According to MPCA's 2015 “Air Quality in Minnesota” report to the Minnesota legislature, power plants saw a nearly 19% reduction in mercury emissions between 2007 and 2011.

18. Minnesota's “Life and Breath” report, a 2015 publication jointly authored by MPCA and the Minnesota Department of Health, notes that a 10%

reduction in concentrations of fine particles (formed, in part, from emissions of SO₂ and NO_x) and ground-level ozone (created by chemical reactions between NO_x and VOC) can prevent hundreds of deaths, hospitalizations and emergency department visits due to heart and lung conditions each year.

CLEAN POWER PLAN REVIEW AND ANALYSIS

19. I have led the MPCA's efforts to analyze and inform the development of the proposed and final Clean Power Plan since at least 2013. The MPCA provided pre-proposal comments to EPA with recommendations for a potential existing source performance standard that included compliance flexibility for states and regional cooperation. Our comments also recommended that EPA include a mix of policies and programs as the "best system of emission reductions" (BSER) and noted that Minnesota had shown that such a mix of policies – including generating source improvements, renewable energy development and demand side management – can achieve important GHG emissions reductions without affecting reliability, while supporting a healthy economy.

20. I worked with representatives of the Midwestern Power Sector Collaborative (MPSC), a diverse group of regional stakeholders including electric power providers, environmental organizations and state regulators, to submit joint pre-proposal comments on existing source performance standards for the electric

sector that also reflected requests such as state flexibility and opportunities for multi-state collaboration.

21. Both the State of Minnesota (the MPCA working jointly with the Minnesota Department of Commerce) and the MPSC submitted comments on EPA's proposed Clean Power Plan in 2014 suggesting improvements to the proposal. 79 Fed. Reg. 34830 (June 18, 2014). The EPA's final Clean Power Plan reflects many of these submitted comments, including requests for better facilitation of multi-state compliance approaches, refinement of the interim targets to avoid "compliance cliffs," and better equivalency of rate and mass-based targets.

22. I, along with my staff, have reviewed the Clean Power Plan and supporting documents and have discussed that rule with other state agencies, the MPSC, the Midcontinent States Energy and Environmental Regulators (MSEER) group, EPA, and stakeholders from across the state and nation. I believe EPA's Clean Power Plan is reasonable and its targets achievable. It incorporates several recommendations from Minnesota and others to ensure a program that is appropriately stringent, while providing helpful flexibility.

23. EPA's calculation of BSER and final rule pathways for compliance reflect many strategies that Minnesota has demonstrated are successful. As indicated previously, the MPCA estimates that if emissions reduction efforts in the electric power sector continue at present levels for the next decade (i.e., if our

“business as usual” policies continue to produce consistent levels of emissions reductions), Minnesota can expect a 33% reduction (from 2005 levels) in electric power sector GHG emissions by 2025. An analysis of the Clean Power Plan’s mass-based emission target for Minnesota, adjusted for the outage of our largest affected power plant in 2012, shows that the rule requires an approximately 34% GHG emission reduction from 2012 levels. While Minnesota must make some further reductions to achieve its target, Minnesota’s early reduction efforts position the state well to achieve the reductions required under the Clean Power Plan.

24. The flexibility provided by the Clean Power Plan ensures that Minnesota can achieve its required emissions standard without significant change to existing energy plans for the future. While EPA’s assembly of “building blocks” in its Clean Power Plan would suggest a certain energy profile for Minnesota, we expect to meet targets by relying on a different compliance structure than that suggested by the building blocks, namely, by relying more on the development of renewable energy resources, and on energy efficiency measures, and less on a shift from coal to gas generation. It is clear in the Clean Power Plan that EPA’s building block assembly was used to calculate reasonable targets, and not to establish binding compliance pathways for states.

25. The trading and multi-state compliance options afforded by the Clean Power Plan provide further flexibility, and allow states to consider the regional nature of electricity generation in their compliance planning.

26. Section 111 of the CAA requires that EPA provide states the opportunity to submit plans that establish equivalent programs for the emission guidelines that apply to existing sources under Section 111(d). States have considerable flexibility in determining the nature of compliance planning, as long as the state demonstrates equivalency with the federal emission guidelines.

27. The planning period provided by EPA in the Clean Power Plan is sufficient to allow for effective energy planning, particularly in light of the proposed model trading rule language, which EPA expects to finalize in summer 2016. While state plans may be due as early as September 6, 2016, requests for a two-year extension are available for states with minimal requirements. States are therefore afforded as much as a three-year planning window to develop and submit state plans demonstrating equivalency with the federal emissions guidelines. This planning window is comparable to that provided by the CAA for many SIPs that address National Ambient Air Quality Standards (NAAQS). Some of these SIPs can require extensive levels of control across a far broader range of sources than the electric power sector, as well as significant amounts of modeling and other technical support.

28. While states have work ahead of them to produce final plans for Clean Power Plan compliance, the planning window is comparable to other CAA state planning programs. The MPCA will submit a request for extension by the September 6, 2016, deadline. EPA provided guidance on the minimum requirements for a state to request an extension and the MPCA is committed to following the guidance. To support an extension request, the MPCA will continue its extensive stakeholder input process, will deploy its Environmental Justice outreach plan, and will continue discussions regarding the appropriate compliance approach to take and whether to participate in the Clean Energy Incentive Program.

29. The compliance timelines required by the Clean Power Plan are reasonable and achievable. The Clean Power Plan provides approximately 15 years between rule finalization and the final 2030 compliance target. Minnesota finalized its NGEA in 2007, and between 2005 and 2012, saw a 17% reduction in GHG emissions from the electric power sector. The MPCA expects to see an additional commensurate level reduction over the next decade.

30. The Clean Power Plan also establishes less stringent interim emissions standards, which states must achieve on average over an eight-year period between 2022 and 2029 (the interim period begins nearly seven years after rule finalization). The Clean Power Plan also affords states the opportunity to determine the pace of reductions in this interim period, as long as the average

standard is achieved. With the extensive lead time, the emissions reductions required by the Clean Power Plan are realistic and achievable, as Minnesota has demonstrated with its BSER.

ADDITIONAL EXPERIENCE WITH STATE PLANNING FOR FEDERAL REGULATIONS

31. Minnesota has experience with the state/federal cooperative model in its air quality planning efforts, in particular, its SIP/NAAQS planning whereby Minnesota uses its SIPs to ensure that it achieves compliance with the NAAQS (federal target). Minnesota has a successful SIP program; there are currently no areas EPA has determined to be in violation of any NAAQS.

32. The CAA provides SIP development deadlines of up to three years to address various NAAQS changes, and from three to six years after an area is initially designated nonattainment, or five to eight years after a new standard is finalized. By contrast, the Clean Power Plan provides a generous 15 years between finalization of the standards and final compliance.

33. Minnesota has experience with complex, multi-state planning efforts across lengthy planning periods. For example, the regional haze SIPs required by the Regional Haze Rule and Section 169 of the CAA are intended to address a ten-year planning period, and involve considerable multi-state (and multi-agency) coordination and planning. Minnesota's initial Regional Haze SIP was largely

approved by the EPA in 2012, and visibility conditions in our two Class I areas have improved beyond what was expected by the SIP.

34. Minnesota also has experience in state planning for Section 111(d) requirements. On April 28, 1998, the MPCA submitted its “Section 111(d) Plan for Implementing the Large Municipal Waste Combustor Emission Guidelines.” Minnesota’s plan addressed emission guidelines finalized by EPA on December 19, 1995 (60 Fed. Reg. 65382) and amended on August 25, 1997. EPA approved Minnesota’s plan, effective October 13, 1998 (63 Fed. Reg. 43080).

35. Minnesota’s experience with the state/federal cooperative model across a wide range of CAA programs supports our ability to effectively plan for and comply with EPA’s Clean Power Plan.

HARMS TO MINNESOTA

36. Minnesota has already begun to see the harmful effects of climate change. The temperature in the state has increased 1°F to 2°F since the 1980s. Since 2004, Minnesota has experienced three 1,000-year floods and an increase in intense weather events including hailstorms, tornadoes and droughts. In 2007, we saw several counties in the state receive drought designation, while others were declared flood disasters – an occurrence that repeated itself in 2012 when 11 counties declared flood emergencies while 55 received drought designations.

37. Climate change has caused financial impacts to Minnesota as well. In 2013, Minnesota had some of the highest weather-related disaster claims in the nation. Since 1997, 32 severe weather natural disasters have cost Minnesota nearly \$500 million in natural disaster recovery assistance to affected jurisdictions alone.

38. The impacts of climate change are expected to worsen in Minnesota, affecting our economy, our ecosystems and the health of all Minnesotans. For these reasons, Minnesota has been proactive in its efforts to address GHG emissions, and has urged EPA to require action nationwide.

39. A stay of the Clean Power Plan implementation will result in a delay in actions to reduce GHG emissions and a delay in real progress to reduce the harmful impacts of climate change, in Minnesota and elsewhere.

40. A stay would also create uncertainty and confusion for state planning efforts, affecting Minnesota's ability to coordinate state, regional and federal energy planning efforts. Changes in the electric utility industry require long planning horizons and lengthy lead times for infrastructure development. A stay would introduce uncertainty in these planning horizons and hamper the ability of utilities and regulators to make orderly, timely, and cost effective decisions. Any such intrusion into the effective planning will serve to increase

implementation costs and market uncertainty, and decrease efficiency for Minnesota, and likely all states.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 12/4/2015.

A handwritten signature in black ink, appearing to read "J. David Thornton", written over a horizontal line.

J. David Thornton
Assistant Commissioner for Air Policy
Minnesota Pollution Control Agency

**IN THE UNITED STATES COURT OF APPEALS
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**DECLARATION OF CRAIG A. WRIGHT,
DIRECTOR OF AIR RESOURCES DIVISION, NEW HAMPSHIRE
DEPARTMENT OF ENVIRONMENTAL SERVICES**

I, Craig A. Wright, declare:

1. I have been employed at the New Hampshire Department of Environmental Services (“DES”) in the field of air pollution control since January 1988. Since September 2013, I have served as the Director of the Air Resources Division (“Air Director”) at DES. My educational background consists of a B.S. in Chemical Engineering from the University of New Hampshire.

2. During my career at DES, I have become very familiar with the federal Clean Air Act and its regulation of stationary sources of air pollution, including Sections 111(b) and 111(d). My specific job assignments at DES have

included working as a Permit Engineer, Permit Bureau Administrator, Environmental Programs Manager (Deputy Director) and currently serving as the Air Director. I have been directly involved in the planning, development and implementation of state plans under the Clean Air Act, including state implementation plans under Section 110 to comply with the National Ambient Air Quality Standards and also Section 111(d) State Plans for other source categories, including Municipal Waste Combustors (MWCs), Commercial/Industrial Solid Waste Incinerators (CISWI) and Hospital/Medical/Infectious Waste Incinerators (HMIWI).

3. In my current capacity as DES Air Director, I am responsible for the oversight and implementation of federal Clean Air Act programs on behalf of the State of New Hampshire. In addition, I have been directly involved in the state's activities as part of the Regional Greenhouse Gas Initiative ("RGGI"), including the 2012 "program review" of RGGI that resulted in a number of policy changes to the program. DES is ultimately responsible for the day-to-day mechanics of implementing the RGGI Program in New Hampshire, including interactions with RGGI, Inc. For example, I oversee and manage the DES program staff that participates in RGGI Program Committees conference calls and work sessions. I, on occasion, serve on behalf of the DES Commissioner as an "alternate director" on the RGGI Executive Committee. I also routinely consult with DES

Commissioner Thomas S. Burack and Public Utilities Commission (“PUC”)

Commissioner Robert R. Scott, both members of the RGGI Board of Directors, on RGGI program and policy matters.

4. Ultimately, DES will be responsible for development and implementation of a State Plan to comply with the United States Environmental Protection Agency’s (“EPA”) final rules regarding greenhouse gas emissions from existing power plants under Section 111(d) of the Clean Air Act (the “Section 111(d) Rule”), otherwise known as the Clean Power Plan.

5. The purpose of this declaration is to provide my understanding of New Hampshire’s and the RGGI states’ readiness to comply with the administrative and procedural requirements of the Section 111(d) Rule.

Addressing Climate Change Pollution in New Hampshire

6. New Hampshire residents are already experiencing the effects of a changing climate on our environment: more intense rainstorms that wash out roads and culverts, and that damage homes, businesses, and wastewater and drinking water facilities; and gradual warming that supports larger tick populations that infect people and wildlife with disease and that negatively affects our cold-weather industries and maple-syrup producers. In addition to adapting to a changing climate we must also take concrete steps to reduce carbon emissions from all

sectors, including the electric utility sector which represents about one-third of carbon dioxide emissions in the United States, according to EPA.

7. To address the causes and impacts of climate change, former NH Governor John Lynch created the Climate Change Policy Task Force in December 2007. The Task Force was chaired by DES Commissioner Burack and composed of 29 members, who represented a variety of geographic regions as well as interests, and possessed a significant amount of experience in energy, climate and policy issues. The Task Force oversaw the development of the 2009 NH Climate Action Plan, which expresses a vision for the state's energy, environmental, and economic development future and includes recommendations for maximizing energy efficiency, increasing use of renewable fuels, protecting natural resources, and adapting to existing impacts of our changing climate. The plan recommendations were selected to support the goal of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050 while providing significant economic opportunities across the state.

8. More recently, Governor Margaret Wood Hassan announced that New Hampshire would sign onto the Under 2 MOU, a global compact among cities, states, and provinces worldwide to limit the increase in global average temperature to below two degrees Celsius.

Section 111(d) Rule

9. I have closely followed the development of the Clean Power Plan since its original proposal in June of 2014. Since that time, my direct involvement includes reading significant portions of both the proposed and final rules, as well as reading EPA guidance materials and technical support documents. In addition, I have participated in numerous conference calls with EPA, the RGGI States, Environmental Council of the States, and the Georgetown Climate Center on various aspects of both the draft and final versions of the Clean Power Plan. I have participated directly in the drafting and filing of comments on the proposed rule by DES, RGGI, and the Georgetown Climate Center. These efforts included participating in conference calls, providing comments on draft language and consulting with DES leadership and the Governor's Office on various aspects of the Clean Power Plan. Finally, I have attended and participated in several meetings with other RGGI states' staffs to discuss various aspects of the Clean Power Plan and its implementation.

10. I have reviewed the final Section 111(d) Rule. The rule establishes carbon dioxide (CO₂) emission performance rates for reducing emissions at electric generating units. It also specifies guidelines for states to use in developing, submitting, and implementing state plans to achieve the rule's emission rate goals.

In the final rule, EPA promulgated subcategory-specific CO₂ emission performance rates that reflect the “best system of emissions reductions... adequately demonstrated” (BSER) from the power sector. The final rule also sets out state rate-based and mass-based CO₂ goals to provide states with flexibility in developing their plans, including utilizing allowance trading programs and other measures. New Hampshire’s rate-based goal for 2030 is 858 pounds-CO₂ per megawatt-hour by 2030, and its mass-based goal for 2030 is about 4 million short tons of CO₂ per year, which is about 14% below 2012 power sector emissions.

11. The Section 111(d) Rule requires that states submit compliance plans or initial submittals requesting an extension to EPA by September 6, 2016. States that are granted an extension must submit their compliance plans by September 6, 2018. The Section 111(d) Rule also permits states to join together and submit joint compliance plans in lieu of state-specific plans. The compliance period begins January 1, 2022, giving states seven years from now to prepare to comply. The Section 111(d) Rule also provides for considerable flexibility in the setting of states’ interim goals, including the opportunity to achieve the final 2030 goals at a pace that each state finds appropriate.

Regional Greenhouse Gas Initiative

12. The Regional Greenhouse Gas Initiative (“RGGI”) is a market-based program to reduce greenhouse gas emissions from the electric power sector. RGGI

is a cooperative effort among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont (together, the “RGGI States”).

13. The program requires power plants to possess a tradable CO₂ allowance for each ton of CO₂ they emit. The program was developed under a Memorandum of Understanding signed by initial member state governors in December 2005, followed by issuance of a model rule in August 2006. All states completed their legislative and regulatory processes by the end of 2008, allowing for implementation by the RGGI States in 2009.

14. In New Hampshire, former Governor Lynch signed the RGGI Memorandum of Understanding on December 20, 2005. RGGI authorization legislation (HB 1434) was introduced on January 2, 2008, approved by the NH General Court on June 5, 2008 and signed into law by Governor Lynch on June 11, 2008. DES initiated the formal rulemaking process on August 21, 2008 and adopted interim regulations implementing RGGI on October 1, 2008 and final regulations on April 3, 2009. In all, approximately 16 months elapsed from the time the legislation to adopt RGGI was proposed until the law was enacted and the implementing regulations were adopted.

15. RGGI is grounded in each state’s own statutory and regulatory authorities. Each state's laws and regulations establish “CO₂ Budget Trading

Programs” that limit emissions of CO₂ from electric power plants, create CO₂ allowances, determine appropriate allowance allocations, and provide for participation in CO₂ allowance auctions. In New Hampshire, RGGI is grounded in statute and regulations. N.H. REV. STAT. ANN. § 125-O:20-29; N.H. CODE ADMIN. R. ENV-A 4600, 4700, 4800.

16. Under contracts with the RGGI States, RGGI, Inc., a non-profit corporation, administers regional auctions to sell CO₂ allowances. States sell nearly all emission allowances through auctions and invest most of the proceeds—over \$2 billion through March 2015—in energy efficiency, renewable energy, and other consumer benefit programs. See Press Release, CO₂ Allowances Sold for \$6.02 in 29th RGGI Auction; Total Proceeds for Reinvestment Now Exceed \$2 Billion, September 11, 2015, at http://www.rggi.org/docs/Auctions/29/PR091115_Auction29.pdf

17. Collectively, the states’ CO₂ Budget Trading Programs establish an annually declining cap on CO₂ emissions from the power sector within the RGGI States. The RGGI program, in conjunction other state clean energy policies and other energy market factors, has helped the RGGI States reduce carbon dioxide emissions by approximately 40 percent since 2005.

2012 Program Review

18. The RGGI States completed a two-year comprehensive program review in 2012. Following the review, the states established a new regional CO₂ budget that lowered the cap on emissions to 91 million tons in 2014, a reduction of 45 percent from the original cap. Under the program changes, the cap will decline 2.5 percent each year from 2015 to 2020. To implement the newly lowered cap, the RGGI States then revised their own CO₂ Budget Trading Programs through their state-specific legislative and regulatory processes.

19. New Hampshire and the RGGI States successfully adopted statutory and regulatory changes in time for the lower regional cap to be in place for 2014 regional auctions. In New Hampshire, RGGI revision legislation was introduced as a non-germane amendment to existing House Bill 306 on February 26, 2013 and passed the NH House on March 20, 2013. The NH Senate passed the bill with amendments on May 23, 2013. The NH House subsequently concurred with the Senate amendments on June 5, 2013 and the bill was signed into law by Governor Hassan on July 15, 2013. The revised statutory changes authorized the lowering of the state share of the regional cap, adoption of a revised price protection mechanism, and additional offsets categories. DES subsequently initiated the formal rulemaking process on September 9, 2013 and received final approval from the Joint Legislature Committee on Administrative Rules (JLCAR) on November

22, 2013 with a rule effective date of January 1, 2014. *See* N.H. REV. STATS. ANN. §§ 125-O:20-29; N.H. CODE ADMIN. R. ENV-A 4600, 4700, 4800.

20. As when RGGI was adopted, New Hampshire successfully implemented the 2012 Program Review changes, despite the irregular calendar (generally only in session from January through June in any given calendar year) of the New Hampshire legislature.

21. The RGGI States' successful 2012 program review demonstrated their ability to work together to set new goals for regional emissions reductions while timely amending their individual state programs to reflect those goals. *See* Press Release, RGGI States Make Major Cuts to Greenhouse Gas Emissions from Power Plants, Jan. 13, 2014, *at* http://www.rggi.org/docs/PressReleases/PR011314_AuctionNotice23.pdf.

RGGI States and the Section 111(d) Rule

22. In their comment letters on the proposed Section 111(d) Rule, the RGGI States offered their support of the rule's framework, which provides states with flexibility to craft plans to meet state-specific emissions targets. The RGGI States also lauded the provisions of the proposed rule encouraging states to work together to develop multi-state compliance plans. *See* RGGI States' Comments on Proposed Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (November 5, 2014); RGGI States' Supplemental

Comments on Proposed Clean Power Plan (Dec. 12, 2014); *see also* NH State Comments on Proposed Clean Power Plan (Dec. 1, 2014).

23. Under the final Section 111(d) Rule, states will be required to demonstrate compliance by January 1, 2022, and states may set their own interim goals between 2022 and 2029. The RGGI States are working together to consider submitting one multi-state compliance plan or individual state plans that rely on RGGI as a compliance mechanism. The RGGI States currently have a plan for completing this multi-state effort in a timeframe that will allow for timely submission of state plans.

24. For example, DES has already held a stakeholder meeting on November 20, 2015 to gather public input on implementation of the Clean Power Plan. As part of the outreach process, DES provided public notice of the stakeholder meeting via a newspaper of statewide circulation and the DES and RGGI, Inc. websites. In addition, DES provided direct notification to affected power plants, towns where power plants are located, selected additional towns that have vulnerable, low income or minority communities (per the environmental justice requirements of the Clean Power Plan), sister governmental agencies, state legislators and other potentially interested parties. In addition, DES also participated in a regional RGGI stakeholder meeting on November 17, 2015 hosted by RGGI, Inc. DES and RGGI, Inc. have provided stakeholders with materials via

the RGGI, Inc. website on key items for discussion including: State Plan Approaches, Post 2020 CO₂ Emissions Reductions, RGGI Flexibility Mechanisms, RGGI Regulated Sources, Promoting Renewable Energy and Energy Efficiency, and Broadening the RGGI Market/Trading Partners. See http://www.rggi.org/docs/ProgramReview/2016/11-17-15/Key_Discussion_Items_11_17_15.pdf. Finally, DES has provided briefings on the final Clean Power Plan to a number of interested parties including environmental interest groups, professional engineering organizations, legislative oversight committees, biomass interests, and the NH Congressional Delegation. The RGGI states plan to hold at least two other stakeholder meetings to ensure that at least one meeting will be held in each of the regional transmission organizations (ISO-NE, NYISO and PJM) located within the RGGI States.

25. The RGGI State environmental agencies, including DES, have in place the necessary authorities and administrative procedures to assure timely compliance with federal Clean Air Act rules, including the Section 111(d) Rule. In this regard, each of the RGGI States has decades of experience complying with other federal Clean Air Act rules that require comprehensive state planning to achieve compliance, including state implementation plans to achieve the National Ambient Air Quality Standards for criteria air pollutants. *See* 40 C.F.R. Part 52, Subpart EE (New Hampshire).

26. New Hampshire has a demonstrated history of successfully adopting a program to regulate and reduce carbon dioxide pollution from the electric generating sector and subsequently amending the program. As noted above, New Hampshire successfully implemented the RGGI program in 2008 and significant program amendments in 2013. Both of these events required both legislative approval and a formal administrative rules adoption process. As noted above, the NH Legislature is only in session for approximately six months (typically January through June) per calendar year and with very limited bill filing windows. Despite these limiting factors, New Hampshire has in the past been successful in adopting policies (in the form of statutes and implementing regulations) consistent with or similar to the Clean Power Plan.

27. Based on the New Hampshire's experience complying with federal Clean Air Act rules and New Hampshire's and the RGGI States' successful implementation of the RGGI program, I am confident that New Hampshire and the RGGI States are well equipped and will be able to comply with the state planning requirements of the Section 111(d) Rule in a timely fashion. I believe that under the Clean Power Plan, EPA has provided states with sufficient time to adopt a compliant and approvable state plan.

28. New Hampshire, working with the other RGGI States will likely file an initial submittal with a request for extension by September 6, 2016, as provided

for in the Clean Power Plan. I believe that New Hampshire will be well positioned to obtain an extension from EPA as we are actively working on evaluating state plan options with respect to a multi-state approach, undertaking a significant public outreach effort including consideration of environmental justice communities, and planning to utilize the additional time to complete necessary plan components, including revised legislation and administrative rules, as needed. As a final note, I anticipate that New Hampshire will be able to comply with the Clean Power Plan by submitting an approvable final plan to EPA by September 6, 2018.

Executed on this 1st day of December 1, 2015.

A handwritten signature in cursive script that reads "Craig A. Wright". The signature is written in dark ink and is positioned above a horizontal line.

Craig A. Wright, Director

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of West Virginia, et al.,

Petitioners,

v.

**United States Environmental
Protection Agency, et al.,**

Respondents.

Case No. 15-1363 (and
consolidated cases)

**DECLARATION OF JASON EISDORFER, UTILITY PROGRAM
DIRECTOR, OREGON PUBLIC UTILITY COMMISSION**

I, Jason Eisdorfer, hereby declare:

1. I make this declaration from my personal and professional knowledge.

I would testify to the following facts if called as a witness at trial.

2. I am the Utility Program Director at the Oregon Public Utility Commission. I oversee a staff of approximately 77 employees who advise the Oregon Public Utility Commission how to regulate electric, natural gas, telephone and water companies. Previously I was the Greenhouse Gas Policy Strategist for the Bonneville Power Administration, serving as the senior advisor on policies and programs related to greenhouse gas issues. I served as legal counsel and energy program director of the Citizens' Utility Board of Oregon for 13 years. I co-

authored legislation related to climate change and to electric utility restructuring and operations, including the Oregon Renewable Energy Act and the Climate Change Integration Act.

State Efforts to Combat Climate Change

3. Oregon has been concerned about the negative impacts of climate change for almost three decades and has been working on strategies to reduce and mitigate those impacts for nearly as long, beginning with the Governor's creation of the Oregon Task Force on Global Warming in 1988.

4. Many of Oregon's efforts to reduce greenhouse gas emissions have focused on the power sector. Oregon has imposed carbon dioxide emission limits on new gas-fired power plants since 1997. ORS 469.503(2). The requirement is implemented by the Oregon Energy Facility Siting Council ("Siting Council") and requires new power plants to either meet the requirement or purchase greenhouse gas offsets from The Climate Trust, a non-profit entity that has qualified to provide offsets under Siting Council rules.

5. In 2009, the Oregon Legislature prohibited cost recovery in retail rates for any new power plant located in Oregon if its greenhouse gas emissions would exceed that of a modern natural gas-fired power plant. Oregon Laws 2009, ch. 751 (codified as ORS 757.528 to 757.538). In 2013, the Oregon Legislature clarified

that the same prohibition applies to any new out of state power plant serving Oregon load. Oregon Laws 2013, ch. 172. The law also applies to new long-term financial commitments for existing generating facilities in Oregon or serving Oregon. Finally, it requires the Oregon Public Utility Commission (PUC) to report biennially on the estimated rate impacts of Oregon's regulated electric and natural gas utilities achieving two greenhouse gas emission reduction targets.

6. The Oregon Renewable Portfolio Standard, a state statute, requires Oregon's largest utilities to deliver 25 percent of their electricity from renewable resources by 2025. More information on the Renewable Portfolio Standard can be found at: http://www.oregon.gov/energy/RENEW/Pages/RPS_home.aspx. The standards are being phased in for Oregon's investor owned utilities. Each year since the standards became effective in 2010, utilities have met their compliance requirement to provide 5% of their electricity from renewable resources and they are on track to meet the 15% standard in 2015.

7. Oregon's power sector has met the emissions limits and renewable requirements in part by promoting energy efficiency. In 1999, Oregon authorized an independent nonprofit organization to deliver cost effective energy efficiency and market transformation funded through a public purpose charge collected from ratepayers of electric investor owned utilities. ORS 757.612. This nonprofit

organization was later named Energy Trust of Oregon (“the Energy Trust”) and began acquiring energy efficiency savings in 2002. From 2002-2014, the Energy Trust acquired 4,310 GWh (492aMW) of electric savings at a levelized cost of 2.34 c/kWh, which is 29 percent of what it would have otherwise cost the utilities to supply an equivalent amount of delivered electricity. Using an Oregon average marginal CO2 emissions avoidance rate of 0.95 pounds per kWh, as calculated by the Energy Trust, this has resulted in the avoidance of approximately 4 billion pounds of CO2 emissions. This represents energy savings equivalent to building a 500 MW power plant or enough energy to power more than 470,700 Oregon homes. The more than half a million customers who realized these savings by participating in Energy Trust programs have already saved \$1.9 billion on their utility bills, and over time, these savings will grow to reach \$4.8 billion.

8. Today, identification of all cost effective energy efficiency continues through cooperative planning between the utilities and the Energy Trust. As a result of the utilities’ bi-annual integrated resource planning, energy efficiency programs have become a significant portion of the lowest cost and least risk utility services provided in integrated resource plans. For example, the 2013 Integrated Resource Plan for Portland General Electric, one of Oregon’s largest electric utilities, called for no new major supply resources within the next 10 years, instead selecting increased energy efficiency to meet short and long term energy needs.

EPA Listened to Public Comments and Improved the Final Rule

9. On October 16 and November 25, 2014, Oregon filed with EPA detailed comments on the proposed Clean Power Plan rules. Copies are available at: <http://www.deq.state.or.us/aq/climate/co2standard.htm>.

10. The Clean Power Plan provides state regulators with a significant degree of flexibility in determining how to comply and has accommodated states that are differently situated. In Oregon, we are currently exploring that degree of flexibility to decide whether to use a rate-based system or a mass-based system in our state plan, whether to apply for early action credits, and whether to “go it alone” or participate in multi-state allowance markets. To that end, we have already begun discussing preferred approaches with states from which our utilities import power. The Clean Power Plan is accommodating of a variety of state compliance approaches, allowing states to leverage existing state laws and recognizing, under particular approaches, the historic investments ratepayers have made in renewable energy and energy efficiency.

11. The final rule also better accommodates provisions in state plans to address electricity reliability concerns. EPA changed the compliance period to begin in 2022, rather than 2020, and added mechanisms for states to seek revision of compliance plans in case of reliability concerns, along with adding a reliability

safety valve—allowing a state to seek revision to its plan or re-submit a new plan in case of unanticipated reliability challenges.

Oregon's Efforts to Implement the CPP Have Begun

12. Oregon is not part of any regional greenhouse gas reduction regulatory program. The reduction policies and investments we have made, partly described in paragraphs 3 through 8, above, have put Oregon, its utilities, and their customers in a strong position to successfully implement and comply with the Clean Power Plan.

13. Oregon's clean energy analytic and regulatory efforts described above provide a strong foundation for us and other states to develop implementation plans for the Clean Power Plan. The Clean Power Plan is a complement to the many actions Oregon has taken over the past few decades to reduce emissions, and will assist Oregon in providing a long-term signal to the power sector for continued emission reductions going forward.

14. Three Oregon State agencies, the Department of Environmental Quality (DEQ), Department of Energy (Energy Department), and the Public Utility Commission (PUC), along with nearly two dozen major stakeholders, have begun working together to develop Oregon's implementation plan. DEQ, the Energy Department and the PUC already have met with representatives from Oregon's

largest private power utilities, independent power producers, environmental organizations, consumer and business groups, and consumer-owned utilities to begin determining the best compliance pathway for Oregon. These agencies also held an initial, open stakeholder meeting on October 27, 2015, which was attended by more than 40 persons representing power companies, environmental organizations, ratepayer organizations, industrial electricity customers, and a federal power marketing agency. The group engaged in robust conversations regarding stakeholder input received to date, criteria for evaluating compliance options, conceptual compliance scenarios, and the proposed process that will be used to develop Oregon's plan.

15. DEQ, the Energy Department, and the PUC are working together to develop specialized modeling and analysis of compliance options, including regional and national compliance approaches. The agencies also have begun developing criteria to assess the best compliance plan for Oregon. Possible factors for that consideration include cost and risk to Oregon utility ratepayers, effect on CO2 emissions, cost to energy suppliers, effect on reliability of the electricity system, administration requirements, and connections and compatibility with other Oregon policies.

16. DEQ, the Energy Department, and the PUC have developed a planning timeline and schedule to meet the planning deadlines in the Clean Power

Plan and fully anticipate making an initial submission to EPA by September 6, 2016.

17. Oregon's electric utility planning process requires utilities to demonstrate that they are providing the least-cost and least-risk portfolio of resources to their customers. Included in the analysis of cost and risk is assessment of compliance with current and likely future environmental regulations. In these plans, submitted every two years, utilities conduct sophisticated analyses of the least-cost and least-risk portfolio of resources and planning for compliance with federal and state regulation. For example, the PUC requires the utilities to explore a range of potential future prices on carbon as a surrogate for a number of different potential carbon regulation designs. The results of these scenario and sensitivity runs help inform the utilities, utility stakeholders, and the regulators what kinds of investments provide the least cost and least risk portfolio of resources depending on the stringency of future carbon regulation. The portfolio of resources could include fossil-fuel generation, renewable generation, energy efficiency or demand response.

18. This is a familiar process that has been followed in Oregon for many years. For example, in 2010, the Public Utility Commission approved Portland General Electric's plan to close its Boardman power plant by the end of 2020 in response to regional haze and mercury emissions standards implemented by the

Oregon Department of Environmental Quality. The PUC concluded that closure of the plant in 2020, rather than approving costly pollution control upgrades, was the least cost, least risk option to meet Portland General Electric's customer demands and maintain reliability. The PUC therefore approved and incorporated the closure into the utility's 20-year integrated resource plan.

19. Oregon utilities have already begun factoring the specific requirements of the Clean Power Plan into that process, which will make the CPP an integral, streamlined part of utilities' planning by the time compliance decisions will begin to be made.

20. Indeed, the Clean Power Plan allows states significant time and flexibility in developing a compliance plan. The EPA has said that states can receive an extension up to 2018 for submitting their final plan, if necessary. They have also outlined flexible submission options that will allow states to accommodate their own planning processes and the needs of their stakeholders. There are seven years between the finalization of the Clean Power Plan and when the compliance period begins, allowing Oregon agencies and regulated parties ample time to develop a plan that works for Oregon and to begin putting in place the measures necessary to comply. For these reasons, and others articulated above, I believe that implementation of the Clean Power Plan will be relatively

straightforward and entirely manageable for Oregon and other states that choose to submit their own plans to EPA.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on December 3, 2015.



Jason Eisdorfer

Utility Program Director, Oregon Public Utility Commission

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of West Virginia, et al.,

Petitioners,

v.

**United States Environmental
Protection Agency, et al.,**

Respondents.

Case No. 15-1363 (and
consolidated cases)

**DECLARATION OF NEIL MILLAR, EXECUTIVE DIRECTOR
INFRASTRUCTURE DEVELOPMENT AT THE CALIFORNIA
INDEPENDENT SYSTEM OPERATOR CORPORATION**

I, Neil Millar, declare as follows:

1. My name is Neil Millar. I am employed by the California Independent System Operator Corporation (California ISO) as the Executive Director, Infrastructure Development. My business address is 250 Outcropping Way, Folsom, California 95630. I make this declaration based on my own personal knowledge and if called as a witness could and would testify competently thereto.

2. The California ISO is a nonprofit public benefit corporation chartered under the laws of the State of California for the purpose of ensuring efficient use and reliable operation of the electric transmission grid under its operational control. As part of its responsibilities, the California ISO performs transmission

planning functions for its planning area. These processes examine forecasts of electricity use and changes in resource portfolios to ensure sufficient infrastructure is available to serve electric customers. The California ISO has used these processes to help facilitate the development of a large increase in renewable resources in its planning area while maintaining electric grid reliability.

3. I received a Bachelor of Science in Electrical Engineering degree at the University of Saskatchewan, Canada, and am a registered professional engineer in the province of Alberta. I have been employed for over 30 years in the electricity industry, primarily with a major Canadian investor-owned utility, TransAlta Utilities, and with the Alberta Electric System Operator and its predecessor organizations. Within those organizations, I have held management and executive roles responsible for transmission planning. Since November 2010, I have been employed at the California ISO, leading the Transmission Planning and Grid Asset departments.

4. Similar to other independent system operators and regional transmission organizations operating in the United States, the California ISO conducts an annual transmission planning process. The California ISO's planning process takes a long-term (10 year) analytical approach to transmission planning. The California ISO undertakes this process pursuant to its tariff approved by the Federal Energy Regulatory Commission and consistent with mandatory transmission planning

reliability standards developed by the Electric Reliability Organization of North America as well as the California ISO's own planning standards. This process assesses and identifies reliability-driven, policy-driven, or economic-driven transmission system needs, ensures that the California ISO meets all applicable reliability standards and planning standards, and also identifies efficient solutions to ensure continued compliance with those standards and reliable operation of the electric grid.

5. The California ISO has used this process to identify transmission needs to support grid reliability. For example, after the closure of the San Onofre Nuclear Generating Station in 2013, the difficulty in siting replacement generation in the Los Angeles basin - in part because of emission constraints – necessitated that the California ISO identify transmission upgrades as part of the solution to ensure customers in Southern California would continue to receive reliable electric service.

6. Another instance of the California ISO's use of its transmission planning process to assess electric grid reliability needs arises from implementation of restrictions on the use of coastal or estuary waters for power plant cooling. These restrictions have resulted or will result in the retirement or repowering of a large number of coastal power plants. The California ISO's transmission planning process provides a mechanism to assess the impacts of those planned retirements

and identify new infrastructure projects necessary for the reliable operation of the electric grid. The California ISO shares this information in a collaborative process with California state energy and environmental agencies and, if electric reliability is at risk, the California ISO may trigger a regulatory review of the compliance schedule implementing the once through cooling restrictions.

7. Since 2011, the California ISO's transmission planning process has identified transmission needs based on federal and state policies. This feature was reinforced by the final rule of the Federal Energy Regulatory Commission involving regional transmission planning and cost allocation, known as Order 1000. This rule requires that transmission planning processes consider transmission needs driven by public policy requirements established by state or federal laws or regulations.

8. A significant focus of the California ISO's policy-driven transmission planning has been to assess and identify transmission needs to achieve California's renewable portfolio standard, which is a component of the state's policies to achieve carbon reduction goals. These policies have resulted in substantial investment in new renewable generation capacity both inside and outside of California. Through its planning process, the California ISO has identified sufficient transmission projects to meet a 33 percent renewable portfolio standard by 2020.

9. The California ISO's transmission planning process uses each planning cycle to incorporate updated information involving implementation of these policies to ensure the transmission system can support the renewable energy goal. The California ISO will continue to identify needs based on policies such as California's increased renewable portfolio standard by 2030, as well as state implementation of the United States Environmental Protection agency's final rule governing greenhouse gas emission from existing generators, known as the Clean Power Plan.

10. To this end, the California ISO's transmission planning process relies on a consultative process. The California ISO, public utilities, state agencies and other stakeholders work closely together to assess how to meet environmental objectives. For example, the California ISO and state agencies have worked to improve infrastructure planning coordination by developing unified assumptions for use within three core processes: (1) the California Energy Commission's long-term forecast of energy demand produced as part of its biennial Integrated Energy Policy Report; (2) a biennial Long-Term Procurement Plan proceeding conducted by the California Public Utilities Commission that authorizes new resource procurements; and (3) the California ISO's annual transmission planning process. As a result, each year the California ISO consults with the state agencies and stakeholders to develop planning assumptions and scenarios for use in

infrastructure planning studies in the coming year. The assumptions include demand, supply, and system infrastructure elements, including likely portfolios of renewable resources.

11. Based on the process alignment achieved to date and the progress in developing common planning assumptions, the California ISO anticipates an orderly identification of system and local needs on the transmission grid resulting from implementation of California's environmental policies and the Clean Power Plan.

12. By identifying system reliability, policy and economic needs in advance, the transmission planning process gives stakeholders time to propose projects to address identified needs. Supply-side resources, including demand response and energy storage resources, can assist in the resolution of transmission reliability issues. Other solutions such as the deployment of synchronous condensers to maintain transmission voltage or investments in energy efficiency can also assist in the resolution of transmission reliability issues. Through its transmission planning process, the California ISO seeks to identify the most efficient or cost-effective means to resolve needs that arise on the transmission system and identify these needs sufficiently in advance to allow for any permitting, procurement and construction activities.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on December 1, 2015.



Neil Millar
Executive Director, Infrastructure Planning
California Independent System Operator Corporation

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of West Virginia, et al.,

Petitioners,

v.

**United States Environmental
Protection Agency, et al.,**

Respondents.

Case No. 15-1363 (and
consolidated cases)

**DECLARATION OF EDWARD F. RANDOLPH, DIRECTOR,
CALIFORNIA PUBLIC UTILITIES COMMISSION, ENERGY DIVISION**

I. Professional Expertise and Responsibilities

1. I am the Director of the Energy Division of the California Public Utilities Commission (CPUC), a position I have held since November 2011. In this position, I am responsible for administering and, along with the Safety Enforcement Division, enforcing California's regulation of investor-owned electric and natural gas utilities as well as, to a more limited extent, other retail electricity providers. I make this declaration in support of the State Intervenor's opposition to motions for a stay of the Clean Power Plan.

2. This declaration describes the CPUC's experience to date in decarbonizing the California electric grid and explains why, in my professional view, this experience indicates that the magnitude of the greenhouse gas emission

reductions called for by the U.S. Environmental Protection Agency's (U.S. EPA) Clean Power Plan regulation on greenhouse gas emissions from existing power plants can be achieved in time without straining rates, threatening reliability, or forcing states to upend their electricity sectors. Furthermore, it is my view that the Clean Power Plan will provide important benefits to Californians and to the country generally, and it will enable California to meet its significantly more ambitious emission reduction goals at less cost than we would be able to otherwise.

3. In California, investor-owned electric utilities are subject to cost-of-service regulation, in which the CPUC determines the rates those utilities are entitled to charge customers. Other retail electricity providers in the state include community choice aggregators, electric service providers, and publicly owned utilities.¹ The CPUC has limited oversight over the operations of community choice aggregators and electric service providers: our primary responsibility is to ensure that these entities comply with the state's renewable energy requirements, but our jurisdiction was recently expanded this year, via Senate Bill 350, to ensure that these entities engage in integrated resource planning to meet the state's long-

¹ Community choice aggregators are governmental entities formed by cities and counties that source electricity for their communities. Similarly, electricity service providers are private entities that source electricity on behalf of their retail customers. In both the case of community choice aggregators and electric service providers, the incumbent investor-owned utility is still responsible for delivering the electricity to those end-use customers.

term greenhouse gas emission reduction targets. The CPUC does not regulate publicly owned electric utilities.

4. The electric utilities under CPUC jurisdiction supply electricity to more than three quarters of the customers in California, which accounts for a large majority of total electricity end-use in the state, based on 2013 data from the U.S. Energy Information Agency. To put our jurisdiction in a national perspective, the CPUC regulates the electric service to 8.9 percent of U.S. electric customers. The three largest investor-owned electric utilities in California collectively supply electricity to 10.6 million residential customers. In 2014, all CPUC-jurisdictional load-serving entities, including the investor-owned utilities, community choice aggregators, and electric service providers, collectively procured 52,740 MW of capacity to meet expected peak system demand plus a 15 percent reserve margin.

5. Energy Division's primary and historical responsibility is to assist the CPUC in assuring that regulated utilities provide safe and reliable utility service at reasonable cost. The California Legislature has over the last few decades expanded the CPUC's, and thus Energy Division's, role in reducing greenhouse gas emissions. My staff and I are also responsible for advising the CPUC on matters related to the regulation of electric utilities, including rate and market design, reliability and resource adequacy, renewable energy procurement, energy efficiency programs and demand-side management, customer-owned electricity

generation, electricity storage, environmental review of new infrastructure projects, interconnection rules and grid infrastructure planning, electric vehicle charging and vehicle-to-grid integration, and research and development programs.

II. California's Experience Shows Compliance with the Clean Power Plan Is Possible

A. Greenhouse gas emission reductions are quickly achievable without threatening rates or reliability

6. The CPUC is one of the California agencies responsible for developing and implementing policies to reduce electric-sector greenhouse gas (GHG) emissions while minimizing electricity costs and ensuring the reliability of electric service. As part of California's efforts to reduce GHG emissions to 1990 levels by 2020, the California Air Resources Board (ARB), in partnership with other agencies including the CPUC, developed a Climate Change Scoping Plan, which defined the state's strategy to reduce GHG emissions. The CPUC is the primary agency responsible for overseeing two of the three programs that California estimates will contribute most to reducing GHG emissions: the Renewables Portfolio Standard (RPS), and the investor-owned utilities' energy efficiency programs. The CPUC also oversees the investor-owned utilities' participation in the GHG Cap-and-Trade Program. As part of these responsibilities, the CPUC oversees a combination of both long and short-term planning that includes

approving utility capital investments, electricity procurement contracts, and demonstrations of resource adequacy for reliability. We also coordinate intimately with the California Independent System Operator's (CAISO) transmission planning process.

7. The CPUC's experience overseeing electric utility compliance with the state's Cap-and-Trade Program has demonstrated that the cost impacts on customers have been low, the electricity market has remained stable, and the program is an administratively efficient means of reducing GHG emissions. Public filings from the three largest electric utilities to the CPUC demonstrate that the utilities' projected 2015 Cap-and-Trade-related costs are on average 2% of their total revenue requirement. These costs will total \$867 million in 2015, including costs from 2013 that will be amortized in 2015; however, customers will also receive the benefit of \$1.1 billion in bill credits in 2015 resulting from the state's GHG emission allowance auctions, such that customer bills as a whole will be \$230 million lower than they otherwise would be in 2015 but for the Cap-and-Trade Program.

8. Electric generators began including GHG emission costs in their wholesale market bids on January 1, 2012, when electric-sector emissions became covered under Cap-and-Trade. Since then, economic dispatch in the CAISO's wholesale markets has reflected generators' GHG emission costs. Quarterly reports

from the CAISO's Department of Market Monitoring demonstrate that Cap-and-Trade has not led to unexpected market volatility or negative reliability impacts to date: the impact of Cap-and-Trade on day-ahead market prices is highly consistent with the cost of California GHG emission allowances and the efficiency of natural gas generators that typically set the day-ahead market price.

9. From an administrative perspective, the CPUC's responsibilities under Cap-and-Trade have been relatively straightforward to implement, because Cap-and-Trade is a market-based program. Cap-and-Trade has also made it easier for the public to have insight into the emissions intensity of their electricity, due to public reporting requirements the CPUC has required of the utilities and the transparent price of GHG emissions.

10. The CPUC has decades of experience designing and overseeing portfolios of energy efficiency programs that have been widely recognized by independent organizations as among the most ambitious and successful in the country. The CPUC is responsible for fulfilling a statutory mandate to ensure that the investor-owned utilities pursue all cost-effective energy efficiency opportunities. To achieve this mandate, the CPUC requires the investor-owned utilities to pursue rolling two- to three-year portfolios of energy-efficiency resources, measures and programs funded by electricity ratepayers. These portfolios have typically included rebates for appliances and measures that achieve

above-code efficiency standards; financing to support building retrofits; support to develop new codes and standards for building and appliance efficiency; mechanisms and funding to engage local government and community organizations in efforts to improve energy efficiency; statewide education and outreach; and an evaluation, monitoring and verification program to measure energy efficiency savings and ensure that they are real, additional and verifiable. Between 2006 and 2012, the most recent period for which we have evaluated savings data, energy efficiency programs and measures in the investor-owned utilities' territories have achieved 17,557 GWh of cumulative gross annual energy efficiency savings and have avoided a cumulative 4,056 MW of generation capacity.

11. The CPUC has thirteen years of experience overseeing one of the more ambitious RPS programs in the country. The CPUC's primary responsibilities have been to establish mechanisms for the investor-owned utilities to procure renewable energy resources, to review the utilities' and other electric service providers' procurement plans to meet RPS targets, to evaluate the utilities' competitive solicitations and review utility contracts for renewable resources, to coordinate with long-term reliability and transmission planning efforts, and to report to the Legislature on the utilities' and electric service providers' progress toward meeting RPS targets. The lessons we have learned through analysis, planning and the

results our regulated utilities have achieved indicate that there are sufficient renewable resources to meet the state's RPS goals, renewable energy costs have declined significantly over time and are likely to continue to do so, and California utilities have been able to accelerate the rate at which they deploy new renewable generation.²

12. California's current RPS program requirement is to supply a minimum of 33 percent of the state's retail electricity sales from eligible renewable resources by 2020. On September 11, 2015, the Legislature extended the RPS requirement to a minimum of 50 percent of electricity sales from renewable resources by 2030, a policy change that the CPUC will begin implementing. The three largest electric utilities the CPUC regulates are on track to achieve the 2020 requirement. Between 2003 and 2014, 11,054 MW of renewable capacity achieved commercial operation

² We have insight into the costs of renewable resources through our oversight of the utilities' competitive solicitations and contracts that the utilities submit for approval. Evidence from these solicitations and contracts indicates that renewable electricity prices are declining. While the average time-of-delivery-adjusted price of contracts approved by the CPUC from 2003 to 2014 increased from 5.4 cents/kWh to 7.4 cents/kWh in nominal dollars, the prices decreased from 9.2 cents/kWh to 7.4 cents/kWh in real dollars. One reason for the increase in nominal contract pricing is that the utilities contracted with existing renewable facilities in the first years of the RPS program versus contracting with mostly new facilities as the RPS program developed. The decrease in RPS contract prices in terms of real dollars indicates that the renewable market in California is robust and competitive and has matured since the start of the RPS program. Additionally, RPS contract prices approved by the CPUC in 2014 are lower than the nominal prices of contracts approved in 2013 (7.4 cents/kWh in 2014 versus 8.1 cent/kWhs in 2013).

under the RPS program. Additionally, in 2015, 2,098 MW of renewable capacity is forecasted to achieve commercial operation. To put these figures in perspective, total installed in-state electric generation capacity was 78.9 GW in 2014, according data published by the California Energy Commission. CPUC-regulated utilities have been able to achieve these results through a combination of regular competitive solicitations designed to identify resources that provide the most value to ratepayers, as well as multi-agency efforts to coordinate and streamline interconnection and transmission planning to minimize project development costs and timelines.

13. Similarly, California has increased the use of solar power through the California Solar Initiative, a declining-rate incentive program that began in January 2007 with a goal of installing 1,940 MW of solar electric capacity on customer-owned facilities by the end of 2016. The program was intended to transform the market for solar energy by reducing the cost of solar generating equipment and, along with other statewide solar programs, to transition the solar industry to a point where it can be self-sustaining without subsidies. At the end of 2006, before the California Solar Initiative began, California had 156 MW of customer-sited solar generation at 22,000 sites. By the end of 2014, the state had 2,529 MW of installed solar capacity on 302,000 sites in investor-owned electric utilities' territories. Between the last quarter of 2008 and the last quarter of 2014, the average cost of

installed residential solar systems decreased 53 percent from \$10.87 per watt to \$5.14 per watt, and non-residential system costs decreased 62 percent from an average of \$10.93 per watt to \$3.93 per watt. Since 2014, many of the rebate programs under the California Solar Initiative have closed as funding has become fully subscribed, as planned; however statewide solar installations have continued to increase. The latest statistics available since the 2014 annual program assessment indicate that as of November 11, 2015, California customers of the investor-owned electric utilities have installed 438,225 solar electric projects totaling 3,457 MW of capacity.³

14. The CPUC and California Energy Commission also enforce an Emissions Performance Standard, established by the California Legislature, which prohibits utilities from making any long-term financial commitments with power plants that cannot meet the emissions rate of a combined-cycle gas turbine power plant. In 2007, the CPUC set this emission limit at 1,100 pounds of CO₂ per MWh on an interim basis and may revise the target in the future. This emission rate standard helped the state rein in its reliance on inefficient coal-fired generators.

15. Together, these policies have resulted in significant GHG emission reductions without disrupting rates or reliability. These policies can be flexibly

³ See www.californiasolarstatistics.ca.gov for regularly updated data.

applied within the context of either a rate-based or a mass-based strategy to comply with the Clean Power Plan.

B. California Is on track to comply with its Clean Power Plan targets without threatening rates or reliability

16. The policies described above have resulted in emissions levels and emissions rates that place California on track to comply with California's Clean Power Plan targets, even though California's targets are among the most stringent of any state.⁴ California can achieve those stringent targets without disrupting rates, reliability or economic growth.

17. The Clean Power Plan provides states with sufficient time to comply with its targets. States that choose to write their own plans have up to nine years before they must meet the CPP's interim emission reduction targets, and fifteen years to meet the final targets. As a point of reference, most of the programs and policies California has in place today took far less time to bear fruit. For example,

⁴ U.S. EPA's California Fact Sheet states that California's electric emissions from covered generators were 46.1 million short tons in 2012, which is below the federal emissions goal for California of 48.6 million short tons by 2030. Additionally, U.S. EPA projects that California's greenhouse gas emissions rate will be 712 lbs/MWh in 2020 based on existing policy, which is below the federal 2030 goal for California of 828 lbs/MWh. U.S. EPA states that California's emission-rate goal of 828 lbs/MWh is one of the more stringent state goals, compared to other state goals in the final Clean Power Plan. *See* www.epa.gov/airquality/cpptoolbox/california.pdf.

in just six years from passage of the RPS, the bulk of RPS-eligible generation capacity under contract with California investor-owned electric utilities began commercial operation.⁵ Similarly, in just eight years, CPUC's California Solar Initiative led to the installation of an additional 3,300 MW of renewable capacity.

18. Within the same timeline as the Clean Power Plan, California is working to achieve GHG reductions on a scale that far exceeds the state's federal targets. California's current statutory goals are to obtain 50 percent of electricity from renewable resources by 2030, achieve a cumulative doubling of statewide energy efficiency savings in retail customers' electricity and natural gas final end uses, and reduce economy wide GHG emissions 40 percent from 1990 levels by 2030. Additionally, the state is working to encourage the adoption of 1.5 million zero-emission vehicles by 2025, which may significantly increase overall demand for electricity. The challenge of meeting these goals far exceeds what the Clean Power Plan requires of California or any other state.

III. Rates and Reliability Will Benefit from the Clean Power Plan

A. Climate change threatens electric rates and reliability in California

⁵ California's investor-owned utilities have 22,588 MW of RPS-eligible resources in their portfolios. Of this, 16,200 MW—more than 70 percent—began commercial operation since 2010.

19. Climate change poses numerous threats to Californians and the physical and biological systems on which our economy depends. The drivers and expected effects of climate change on California are documented extensively in the California Environmental Protection Agency's report, *Indicators of Climate Change in California*, which compiles large amounts of scientific data from state and federal agencies, universities and other researchers to identify indicators that reflect how temperature and precipitation are changing as a result of increased greenhouse gas emissions and how these changes affect physical and biological elements of the environment.⁶ The indicators tracked in the report reveal evidence of already discernable impacts of climate change, including warmer weather, more extreme heat events, decreased water volumes of snowmelt, increased sea levels, increased heat-related tree mortality, and increased acreage burned by wildfires, among many other impacts.

20. Aside from their effects on the overall economy and the livelihoods of Californians, temperature and weather-related impacts of climate change affect the electricity sector in specific ways: reduced snowmelt reduces the availability of hydropower; increased atmospheric temperature and surface water temperatures

⁶ See *Indicators of Climate Change in California*, 2013 Edition, compiled by the California Environmental Protection Agency Office of Environmental Health Hazard Assessment, available at: <http://oehha.ca.gov/multimedia/epic/pdf/ClimateChangeIndicatorsReport2013.pdf>.

affect the efficiency of thermal power plants, and the increased frequency of heat waves places additional stress on the grid during peak-demand periods, all of which increase the cost of maintaining a reliable electricity grid.

21. California is currently facing a drought on a scale not experienced in 500 years. The most recent studies indicate that the severity of the drought is a product both of natural cycles and anthropocentric GHG emissions. The drought has led to one of the worst seasons of forest fires on record, which not only stresses the state's resources but also threatens the reliability of the electric grid. In September 2015, fires damaged parts of The Geysers 725 MW geothermal power plants during one of the state's peak months of electricity demand. Persistently low levels of rain and snowfall have also substantially diminished the availability of the state's hydropower resources, on which we have historically relied to meet peak demand. A low-carbon electric grid is achievable and is in the interest of all parties.

22. The Clean Power Plan will help mitigate the impacts of climate change and its serious threats to people and the grid, which California is already facing. Any actions to stay the U.S. EPA regulation and delay its implementation will also delay planning efforts to reduce GHG emissions and will exacerbate the risks of climate change and the costs of managing it. As a coastal state with many arid regions and an agricultural industry that feeds much of the nation, Californians are

especially vulnerable to the effects of sea level rise and the increasing droughts that are resulting from climate change.

B. Moving away from fossil fuels stabilizes rates

23. California's movement away from fossil-fueled resources toward increasing quantities of fixed-cost renewable resources has had a stabilizing effect on electricity rates. California's electric utilities rely on portfolios of both fossil-fuel and zero-emission resources, such as renewables, nuclear and large hydro. Contracts with fossil-fueled resources contain energy-pricing terms indexed to the market price of natural gas, and as a result the costs of these resources can be unpredictable and widely variable. For example, in the winter of early 2014 extreme cold in eastern states created a spike in natural gas demand that led to a supply shortage in the west and a corresponding spike in electricity prices. Overreliance on fossil-fueled resources is an economic and reliability risk to California electric customers, because the costs and availability of these resources is subject to macroeconomic conditions over which states and utilities have little to no control.

24. By contrast, the vast majority of renewable resources and demand-side measures have no fuel costs, contract prices are stable and predictable, and they act to stabilize rates in the long run and protect utilities from unexpected revenue

shortfalls in the near-term. The nonprofit organization Ceres⁷ came to similar conclusions in its report “*Practicing Risk-Aware Electricity Regulation*,”⁸ recommending that state electricity regulators can minimize the financial and environmental risk borne by electricity customers by ensuring that utilities diversify their electricity generation portfolios away from narrow reliance on fossil and nuclear resources, and instead place more emphasis on renewable resources and energy efficiency.

C. California’s electric bills are among the lowest in the nation

25. California residential customers pay monthly electric bills that are among the lowest in the nation, both in cost and overall consumption. In 2013 California households’ average monthly electricity bills ranked the 45th lowest in cost among all U.S. states and Washington D.C., based on U.S. Energy Information Administration data.⁹ Overall electricity use and cost are among the lowest in the nation thanks to California’s suite of complimentary clean energy programs. California has pursued an integrated set of policies that are intended

⁷ www.ceres.org.

⁸ See, *Practicing Risk-Aware Regulation: What Every State Regulator Needs to Know*, available at www.ceres.org/resources/reports/practicing-risk-aware-electricity-regulation.

⁹ See, U.S. Energy Information Administration Form EIA-861 data for 2013 Average Monthly Bills at www.eia.gov/electricity/sales_revenue_price/xls/table5_a.xls

both to change the structure of the state's electricity supply and to significantly improve end-use energy efficiency and reduce consumption.

26. This combined focus on supply and demand resources has resulted in electricity supply that has low emissions, and buildings and appliances that are highly efficient, without disproportionately burdening customers with high bills. California's ability to control costs points to the importance of energy efficiency and conservation measures as compliments to supply-side measures that decrease a state's dependence on high-emission fossil-fueled resources.

D. The Clean Power Plan will improve availability of renewables, energy efficiency, and other pollution control measures

27. The Clean Power Plan is likely to help California to achieve its GHG emission reduction goals, renewable energy goals, and energy efficiency goals at lower cost and with greater ease than we would be able to without the Clean Power Plan. The Clean Power Plan is likely to further expand the nation's renewable energy market as well as research that aids in the development of renewable energy. The Clean Power Plan will also promote further expansion of the diversity and ability of firms that can provide renewable energy and energy efficiency services. By increasing the demand for renewable energy, the Clean Power Plan will put additional downward pressure on renewable energy costs, which have declined over time and are likely to decline faster as more states establish RPS

goals and energy efficiency programs at levels necessary to comply with Clean Power Plan emission targets. Similarly, California expects that the Clean Power Plan will improve the availability and reduce the costs of energy efficiency and pollution control measures by expanding the market for these resources, by encouraging additional research in these areas, and by providing clear and stable investment signals to the private sector.

28. California has learned through its RPS and energy efficiency programs that stable market signals are necessary to help the private sector make effective decisions about how and when to invest resources. Our RPS and energy efficiency programs are successful in part because the state's long-term commitment to these resources has helped to cultivate a network of private businesses and organizations capable of providing technology and services to meet our program goals. The Clean Power Plan has the potential to expand these markets and create new opportunities for the private sector. A stay of the Clean Power Plan, however, would cast uncertainty over the regulation and may slow the private sector from ramping up investments that will be necessary to support the kinds of measures that states, utilities and electricity generators will need to pursue to reduce greenhouse gas emissions and comply with the Clean Power Plan.

29. California is already experiencing renewed interest from government, non-profit, and private organizations in other states in developing renewable

energy and energy efficiency projects to generate Clean Power Plan Emission Reduction Credits or in supporting measurement and tracking systems to support markets for these credits. The California Energy Commission led a multi-stakeholder workgroup that is reviewing and making recommendations as to how the existing Western Renewable Energy Generation Information System could be modified to support such tracking and trading. To the extent that a market for Clean Power Plan Emission Reduction Credits provides additional revenue streams and liquidity for new efficiency or renewable energy projects, California expects that it would increase supply and lower total costs for all such projects.

IV. Public Utilities Commissions Regularly Engage in the Type of Planning Envisioned by the Clean Power Plan.

A. CPUC coordinates with other agencies to ensure long-term reliability in light of effects of emissions reductions efforts.

30. Energy Division staff participate in regular meetings with the California Air Resources Board (ARB) and the California Energy Commission to coordinate the state's responses to the Clean Power Plan. This coordination is not unique to the Clean Power Plan; the CPUC, ARB and the California Energy Commission are regularly, and increasingly, involved in broad multi-agency efforts to reduce greenhouse gas emissions in California, which is evident in the state's Climate

Change Scoping Plan and the range of measures that California agencies have been taking to reduce greenhouse gas emissions.

31. Since 2003, the CPUC has engaged in a cyclical long-term procurement planning process in coordination with the California Energy Commission, CAISO, utilities and other stakeholders to ensure that the state has adequate resources to meet both system and local grid reliability needs. This planning process evaluates resource needs within a ten-year timeline and, if warranted, directs the utilities to contract for the construction of new resources that have attributes necessary to satisfy grid reliability needs. In recent years, the CPUC has become increasingly specific in the resource attributes (i.e., technology type, minimum and maximum capacity, geographic location) it authorizes utilities to procure. The state's electricity demand forecast is a primary input into this proceeding and it reflects the impacts that CPUC programs like energy efficiency, demand response, the RPS and customer-owned generation will have on the state's energy demand and resource supply. Additionally, the CAISO's transmission plans and operational details about the existing generation fleet are also key inputs to the CPUC's long-term planning proceeding. Based on these inputs and production simulation modeling, the CPUC evaluates whether there will be sufficient resources in ten years to meet projected electricity demand.

B. CPUC regularly engages in short- and medium-term resource planning to account for plan retirements and retrofits, including those caused by federal mandates

32. The CPUC has recent experience responding to short and medium-term challenges affecting a significant portion of the state's electric generation fleet. This experience has included incorporating federal environmental regulations into electric-sector planning.

1. Retirements and Retrofits Caused by State's Decision to Phase Out Once-Through-Cooling, in Response to Clean Water Act Section 316(b)

33. One such case resulted from California's effort to comply with federal Clean Water Act section 316(b), 33 U.S.C. § 1326(b). In response to the federal mandate in that section, the California State Water Board adopted a policy to phase out the use of coastal and estuarine waters for power plant cooling (also known as once-through cooling) in 2010. Knowing that once-through-cooling-based generation represented about a quarter of California's installed capacity (approximately 19 GW), the Water Board worked with the CPUC, CAISO and a variety of other state agencies when developing the implementation schedule. Implementation was phased over several years to allow the CPUC resource-planning process and CAISO transmission-planning process to evaluate local reliability issues, evaluate alternate solutions, and then authorize and build new

resources. The Water Board also established an advisory committee¹⁰ to monitor policy implementation and system reliability as new resources came online and older resources retire. Over 5 GW of capacity has retired to date, with the next tranche planned for December 2018 and the largest amount of facility retirements expected in 2020.

34. The CPUC is currently planning for a contingency in which all 19 GW of affected units retire. Because many of the resources using once-through cooling were older and less efficient than modern facilities, the state's normal process of replacing aging resources has facilitated compliance. Resources authorized in the CPUC's 2004 and 2006 long-term procurement planning (LTPP) proceeding as well as transmission upgrades approved by the CAISO provided sufficient reliability to retire several once-through-cooling resources. Energy efficiency gains and resources built to meet renewable goals have also helped make the generation fleet cleaner and reduced electric load, effectively making it unnecessary to replace all once-through-cooling plants megawatt-for-megawatt with new generation.

35. The new plants being built also have different operating characteristics that reflect the state's changing electricity grid and policy priorities: many of the

¹⁰ The Statewide Advisory Committee On Cooling Water Intake Structures includes staff from the Water Board, CPUC, the California Energy Commission, CAISO, ARB, Coastal Commission and State Lands Commission.

new natural gas facilities being built to replace baseload once-through-cooling plants are peaker plants used primarily to integrate renewable resources. The staff of the participating agencies work closely to understand rule changes that may impact resource selection and permit approvals, such as South Coast Air Quality Management District's Rule 1304 concerning particulate matter (PM) 10 and PM 2.5 emissions.

2. Unexpected Retirement of San Onofre Nuclear Power Plan, in Part Due to Nuclear Regulatory Commission Action

36. The California energy agencies' reliability process also responded successfully when the 2300 MW San Onofre Nuclear Generating Station (San Onofre) retired unexpectedly in 2012. The CPUC opened a special phase of its 2012 long-term procurement planning proceeding to examine reliability issues created by the retirement of San Onofre, while the California Energy Commission and CAISO performed targeted studies. Other state agencies also participated in expediting analyses and reviews necessary to understand the state's ability to site new resources quickly. In the near term, two previously retired once-through-cooling steam turbines were converted to synchronous condensers and quickly brought on-line to provide inertia and reactive power support. Rarely used once-through-cooling plants were operated more frequently, and the CPUC accelerated

its exploration of options to expand the use of zero-carbon resources in the affected region.

37. To provide long-term, low GHG-emission generation and transmission resources to fulfill any local area reliability needs previously served by San Onofre, the CPUC authorized the construction or implementation of a variety of resources (natural gas plants, storage facilities, energy efficiently programs, demand response programs, and distributed renewable generation) in 2014, and the CAISO authorized transmission system upgrades (new transmission lines and synchronous condensers). The CPUC, CAISO, California Energy Commission and Water Board advisory committee are all monitoring the development of the new resources, assessing possible impacts on the once-through cooling compliance schedule, and analyzing contingencies in case planned activities do not occur on schedule. To date, no reliability events have occurred as a result of the unexpected retirement of San Onofre.

3. Reliability Planning and Power Plant Permitting Rules to Meet National Ambient Air Quality Standards for Particulate Matter

38. In addition to the impact that Clean Water Act section 316(b) has had on electric generators that use once-through cooling, the CPUC has had to evaluate the impacts of the U.S. EPA's National Ambient Air Quality Standard (NAAQS) for particulate matter (PM 10 and PM 2.5). The EPA's PM 10 standards have most

impacted electric reliability planning in the region covered by California's South Coast Air Quality Management District (SCAQMD), which includes Los Angeles, Orange, Riverside, and San Bernardino counties, and which is the largest population area in the state. The SCAQMD region also has a constrained electric transmission system that requires local electric generation to ensure electric reliability.

39. Since 2007, an interagency working group composed of the CPUC, California Energy Commission, CAISO, Water Resources Control Board, and ARB have collectively examined electric reliability impacts, electric generator retirement schedules and other relevant information to advise the SCAQMD on an appropriate PM 10 compliance program. The CPUC also currently factors PM 10 constraints into long-term electric reliability planning for the Los Angeles Basin. Similarly, in 2012 the U.S. EPA lowered federal PM 2.5 standard from 15.0 micrograms per cubic meter to 12.0 micrograms per cubic meter, and the ARB convened the existing PM 10 interagency working group to assess the impact of the revised standard on power plant operations and electric reliability.

V. A Stay Will Harm Rates and Reliability in California, Either by Delaying Compliance Deadlines or by Potentially Shortening the Planning Horizon and Complicating Planning Efforts, Especially with Regard to Regional Cooperation

40. The benefits of the Clean Power Plan described above will be harder to capture if the rule is stayed. A stay of the CPP will make it more difficult to smoothly adopt and implement new mandates or to develop regional partnerships necessary to comply with the rule. If a stay results in compliance deadlines being delayed to allow states additional time to file plans, the risks and costs of climate change will continue to accrue. Whether or not compliance deadlines change, the careful planning needed to shift away from expensive high-carbon sources as efficiently as possible will be harder to conduct. Staying the Clean Power Plan will lead to continued climate risk and financial risk to ratepayers, and will delay states from taking the kinds of reasonable measures that California has demonstrated are achievable and compatible with both grid reliability and electric customers' economic welfare.

41. Furthermore, California is currently experiencing intensified interest from neighboring states and their electricity planners, balancing authorities, and load serving companies in collaboratively planning for GHG reductions, renewable development, transmission investments, and increased market coordination. Stakeholders from across the West are actively planning for a lower-carbon electricity future and identifying priority generation, transmission, and electricity market projects based, in part, on expectations of Clean Power Plan compliance requirements. This activity—taking place in venues including the Western

Electricity Coordination Council, Western Interstate Energy Board, Western Conference of Public Service Commissioners, and in specific initiatives such as the California Independent System Operator's Energy Imbalance Market and the Renewable Energy Transmission Initiative 2.0—represents the most promising regional-coordination effort since before the California Electricity Crisis, and holds significant potential cost and reliability benefits for ratepayers and local economies across the West by making stronger infrastructure and market linkages across the region. A stay of the Clean Power Plan implementation would inject substantial uncertainty into these activities, threatening to derail momentum for the entire region.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on December 4, 2015.

A handwritten signature in dark ink, appearing to read "Edward Randolph", is enclosed within a rectangular border.

Edward Randolph
Director, California Public Utilities Commission, Energy Division

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

)	
State of West Virginia, et al.,)	
)	
Petitioners,)	
)	
v.)	Case No. 15-1363
)	(and consolidated cases)
)	
United States Environmental)	
Protection Agency, et al.,)	
)	
Respondents.)	
)	

DECLARATION OF DALLAS WINSLOW,

CHAIRMAN OF DELAWARE PUBLIC SERVICE COMMISSION

I, Dallas Winslow, hereby declare:

1. I am the current Chairman of the Delaware Public Service Commission (the “Commission”). I was first appointed to the Commission in 2005 and have served as Chairman since 2012. For 30 years, I served the State of Delaware in the Office of the Public Defender, including as Chief of Legal Services, and I remain engaged in the private practice of law in Wilmington. I am also a retired Colonel from the Delaware National Guard. I also served in the Delaware State Senate from 1998 to 2002 as a member of the Republican Caucus from the 4th Senatorial District. While there, I served on the Senate Energy and Transit Committee, Judiciary

Committee, Highways and Transportation Committee, and the Joint Finance Committee.

2. In my role at the Commission, my responsibilities include working to ensure safe, reliable and reasonably priced electric, natural gas, water and wastewater services for Delaware customers. The Commission also has limited regulatory authority over telephone and cable television rates and services.

3. As part of my responsibilities at the Commission, I currently serve as a member of the Board of Directors of the Regional Greenhouse Gas Initiative, Inc., the entity that assists states with the implementation of the Regional Greenhouse Gas Initiative (“RGGI”).

4. The purpose of this Declaration is to provide my understanding, on behalf of the Commission, of the Commission’s readiness to work with other state agencies and stakeholders to assist with state planning under the United States Environmental Protection Agency’s (“EPA”) final rules regarding greenhouse gas emissions from existing power plants under Section 111(d) of the Clean Air Act (the “Clean Power Plan”). This Declaration is also intended to provide my understanding of the state’s successful participation in RGGI and my expectation based on that experience that Delaware is well positioned to achieve the Clean Power Plan emission reduction goals for the state.

5. On December 3, 2015, the Commission voted by a vote of 4-0 to authorize me to sign this Declaration.

Delaware Public Service Commission

6. Created in 1949 to regulate investor-owned public utilities, the Delaware Public Service Commission has “exclusive original supervision and regulation of all public utilities and also over their rates, property rights, equipment, facilities, service territories and franchises,” including “the regulation of the rates, terms and conditions ... and, in so regulating, the Commission shall consider the interests of subscribers, if any, ... as well as the interests of the consumer of the public utility service.”¹ The Commission is made up of five part-time Commissioners, appointed by the Governor and confirmed by the State Senate. The Commissioners are supported and assisted by a staff of full-time state employees. The Commission makes its decisions at formal meetings that are open to the public.

Commission Activities to Address Climate Change and Advance Renewable Energy

7. With respect to climate change and greenhouse gas emissions, the Delaware General Assembly has found that:

Climate change poses serious potential risks to human health and terrestrial and aquatic ecosystems globally, regionally and in the State...

¹ 26 *Del. C.* § 201(a).

It is in the interest of the State to protect human health and terrestrial and aquatic ecosystems by taking actions to stabilize and to limit the CO₂ [carbon dioxide] contributions from the State...

A CO₂ reduction program focusing on fossil fuel-fired electricity generation, and the development of a CO₂ allowance trading program, will create a strong incentive for the creation and deployment of more efficient fuel-burning technologies, renewable resources and end-use efficiency resources, which will lead to lower dependence on imported fossil fuels.²

8. The Commission, along with other Delaware agencies and stakeholders, has devoted considerable attention to the challenge of mitigating the impacts of climate change through reducing emissions and advancing renewable energy sources.

9. The Commission also has played a significant role in the implementation of RGGI. For example, the Delaware General Assembly authorized my ongoing participation in RGGI, as the Chair of the Public Service Commission, to represent Delaware's interests to implement and participate in RGGI.

10. In July 2005, the Delaware General Assembly enacted the Renewable Energy Portfolio Standards Act.³ The General Assembly stated that the purpose of the Renewable Energy Portfolio Standards Act was to establish a market for electricity from renewable resources in Delaware and to lower the cost to consumers of electricity from these resources. The Public Service Commission was

² 7 *Del. C.* § 6043.

³ *See* 26 *Del. C.* § 351 *et seq.*

charged with assuring compliance with the Renewable Energy Portfolio Standards (“RPS”) and establishing regulations. The Public Service Commission promulgated “Rules and Procedures to Implement the Renewable Energy Portfolio Standard” (“RPS Rules”) in 2006 and has revised the RPS Rules from time to time.⁴

11. In August 2014, legislation enabling Delaware electric and gas utilities to provide cost-effective energy efficiency programs to their customers and to help Delaware meet the requirements of the Energy Efficiency Resource Standard was enacted.⁵ This legislation created the Energy Efficiency Advisory Council (EEAC). The EEAC, in collaboration with the Public Service Commission Staff and the Public Advocate, will recommend energy efficiency, peak demand reduction, and emission-reducing fuel switching programs. Local jobs will be created by driving investments in energy efficiency that displace more expensive energy supply purchases.

⁴ See 26 *Del. Admin. C.* § 3008.

⁵ 79 *Del. Laws* ch. 395.

RGGI Experience

12. Delaware's experience with RGGI has prepared the state to comply with the Clean Power Plan. Delaware has implemented RGGI,⁶ which limits the carbon emissions of fossil fuel-fired power plants in the RGGI states, including in Delaware. In December 2005, the Governor of Delaware along with the Governors of Connecticut, Maine, New Hampshire, New Jersey, New York and Vermont, signed a Memorandum of Understanding that explained the overall goal of RGGI.⁷ RGGI creates a cap-and-trade program aimed at reducing emissions in participating states, while maintaining economic growth and maintaining a safe and reliable electric power system. RGGI is the nation's first mandatory greenhouse gas pollution program for carbon dioxide (CO₂) emissions. RGGI is composed of individual CO₂ budget trading programs in each state. Delaware has invested the majority of its CO₂ allowance proceeds in energy efficiency and renewable energy programs.

13. After a comprehensive 2012 Program Review, the nine RGGI states implemented a new RGGI cap of 91 million short tons of CO₂, which will decline 2.5 percent each year from 2015 to 2020.

⁶ See 7 *Del. Admin. C.* § 1147 (Dec. 11, 2008).

⁷ Maryland and Massachusetts joined RGGI before it was implemented in 2009. New Jersey withdrew from RGGI at the end of 2011.

14. RGGI has been a successful program in Delaware. Auction proceeds are invested in clean energy and energy efficiency programs that benefit the state's customers and help reduce emissions. According to a recent analysis by the Analysis Group for RGGI, Inc., between 2012 and 2014, RGGI created almost 1,000 jobs in Delaware and generated more than \$100 million in economic activity in the state.

Clean Power Plan

15. Working with Commission Staff and representatives of other states participating in RGGI, I have followed EPA's development of the Clean Power Plan.

16. I have reviewed the final Clean Power Plan regulations. The regulations establish CO₂ emission performance rates for electric generating units, including power plants in Delaware. The regulations also define guidelines for states to use in preparing state plans to achieve state-specific emission reduction goals. The regulations provide flexibility for states to select from among a number of potential state plan types, including mass-based trading programs like RGGI.

17. As part of the required periodic review of the RGGI program, the RGGI States, including Delaware, are currently working together with the intent of developing state plans under the Clean Power Plan that utilize the structure of the RGGI program. The RGGI States are currently soliciting stakeholder input on

Clean Power Plan compliance. The Commission is participating in some of these stakeholder activities, along with the Delaware Department of Natural Resources and Environmental Control (DNREC). DNREC held an informal listening session on the Clean Power Plan to hear public comments on November 10, 2015 and is accepting comments on Delaware's compliance with the Clean Power Plan through December 31, 2015.

18. I understand that the Clean Power Plan regulations require that states provide an initial submission with an extension request or final plan to EPA by September 6, 2016, with a final plan due by September 6, 2018, if a state was granted an extension in 2016. Based on Delaware's experience implementing the RGGI program, I am confident that Delaware will be able to comply with the state planning requirements of the Clean Power Plan in a timely fashion.

19. The state legislation implementing RGGI contemplates that the state "may transition" to a federal program equivalent to RGGI and authorizes the state to amend its RGGI regulations to transition to the federal program.⁸

20. Based on Delaware's experience with RGGI, the Commission does not anticipate that the Clean Power Plan will adversely affect electric reliability:

⁸ 7 *Del. C.* § 6047.

- a. Delaware power plants that are subject to RGGI participate in the PJM wholesale electric market and are able to include CO₂ allowance costs in the bids they make when they offer their generation for economic dispatch, much as they can include other environmental compliance and variable costs in their bids. Assuming that Delaware adopts a mass-based state plan, it is likely that this practice will continue without any disruption to the PJM wholesale electric markets.
- b. Implementing RGGI has not adversely affected electric reliability in Delaware in any way. Based on this experience, the Commission is confident that the Clean Power Plan will not adversely affect electric reliability in the state.
- c. Various studies of the RGGI program have shown that it has modestly decreased electric bills for customers by increasing deployment of cost effective energy efficiency measures, which help lower overall electric demand and costs.
- d. Based on my understanding of Delaware's Clean Power Plan goals and the affected electric generating units in the state, Delaware is on track to meet its Clean Power Plan interim and final compliance goals.

21. The Commission and its Staff regularly and routinely work with DNREC to understand and help implement federal environmental requirements, including regulations promulgated by EPA under the Clean Air Act. Commission Staff participates on certain RGGI committees and is a participant in meetings for Executive Order 41: Preparing Delaware for Emerging Climate Impacts and Seizing Economic Opportunities from Reducing Emissions, which was issued September 12, 2013.⁹ Executive Order 41 directs state agencies to address both the causes and consequences of climate change in a coordinated and cost-effective manner by developing recommendations. The Commission fully expects this kind of collaboration as Delaware prepares its state plan under the Clean Power Plan.

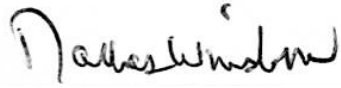
22. A stay of the Clean Power Plan will complicate the Commission's energy planning because it could significantly postpone the integration of the state's planning work under the Clean Power Plan with other state energy and climate planning efforts while a stay is pending.

I declare under penalty of perjury that the foregoing is true and correct.

⁹ Available at <http://governor.delaware.gov/orders/EO041.pdf>.

Approved by a Commission vote of 4-0.

Executed on December 3, 2015.

A handwritten signature in black ink, appearing to read "Dallas Winslow". The signature is written in a cursive, flowing style.

Dallas Winslow
Chairman
Delaware Public Service Commission

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of West Virginia, et al.,

Petitioners,

v.

**United States Environmental
Protection Agency, et al.,**

Respondents.

Case No. 15-1363 (and
consolidated cases)

**DECLARATION OF AUDREY ZIBELMAN, CHAIR
NEW YORK STATE PUBLIC SERVICE COMMISSION**

I, Audrey Zibelman, hereby declare:

1. I am Chair of the New York State Public Service Commission (“Commission”) and chief executive officer of the New York State Department of Public Service (“Department”). The Commission is the entity within New York State government that is tasked with the regulatory oversight of public utilities, including electric generation facilities, pursuant to the New York Public Service Law (“PSL”). PSL §§2(12, 13), 4, 5(1)(b), 64-77. I have served in this role since 2013.

2. My duties as Chair of the Commission include organization and oversight of the Department, including directing counsel to the Commission to

represent and appear for the people of the State of New York and the Commission in all actions and proceedings under the PSL and/or within the jurisdiction of the Commission. The Commission has jurisdiction over, among other things, the generation, conveyance, transportation, sale and distribution of electric power, and corporations and other entities owning electric corporations in New York. PSL §§5, 7, 12.

3. I also serve as a member of the Board of Directors of Regional Greenhouse Gas Initiative, Inc., which helps administer the Regional Greenhouse Gas Initiative (“RGGI”), the nation’s first multi-state regulatory program specifically designed to reduce carbon dioxide emissions from electric power generating facilities.

4. I have personal knowledge and experience regarding the steps the Department has taken to date that would implement the final Clean Power Plan rule enacted by Respondent United States Environmental Protection Agency (“EPA”) pursuant to 42 U.S.C. §7411(d), *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Final Rule*, 80 FR 64,662 (Oct. 23, 2015) (“Clean Power Plan”).

5. I make this declaration in order to respond to Petitioners’ contentions that implementing the Clean Power Plan will negatively impact electric reliability and pricing, will strain state governmental resources, and will require interstate

coordination that is likely to be impractical. To the contrary, New York, acting in concert with eight other Northeastern states through RGGI, has already fulfilled many of the Clean Power Plan's obligations, and has done so without incurring deleterious impacts upon reliability or prices. Moreover, implementing carbon pollution reduction regulations in New York has not consumed an inordinate amount of Commission resources.

6. Initiated in 2005 by founding state governors, RGGI became effective in New York through regulations promulgated in 2008. 6 NYCRR Part 242. In 2005, electric generation from coal-fired units in New York amounted to approximately 21,184 gigawatt-hours (GWh), or 14 percent of the total electricity generated in New York. By 2012, however, production of electricity from New York coal-fired generators had decreased to approximately 4,281 GWh for the year, or 3 percent of the total electricity generated in New York that year. This represents a decrease of almost 80 percent from the 2005 levels. This substantial reduction has not caused any detrimental effects upon electric system reliability, given the processes described in paragraph 12 below.

7. Conversely, the amount of electricity produced by natural gas has roughly doubled since 2005. This is not only due to increased deployment of existing facilities, but also because approximately 4,400 megawatts (MW) of new

gas generation (based on nameplate rating) have been constructed in New York since that year.

8. In addition, approximately 2,400 MW of renewable electric generation has been developed in New York since the commencement of RGGI. An additional 330 MW of “behind-the-meter” renewable generation has also been deployed by individual consumers.

9. Furthermore, the Commission has built upon RGGI with additional programs. In 2007, it initiated the Energy Efficiency Portfolio Standard, the goal of which is to balance cost impacts, resource diversity, and environmental effects by decreasing New York State’s energy use through increased conservation and efficiency. In 2014, it commenced efforts to implement Governor Andrew M. Cuomo’s Reforming the Energy Vision initiative, which will further reduce carbon emissions through improved grid and load management, thereby optimizing the use of cleaner and more efficient generation technologies – including but not limited to customer-deployed generation resources.

10. And, since 2008, New York energy prices – both wholesale and retail – have generally declined, based on pricing data collected and maintained by the New York Independent System Operator, Inc. (NYISO).

11. The move away from coal and toward natural gas and renewable energy such as wind and solar is also consistent with competitive market trends.

Natural gas prices have been deregulated, which has led to new gas supplies and substantially decreasing gas prices. Meanwhile, coal commodity prices have remained relatively flat. Rather than resisting this market trend, New York has taken advantage of it, enabling electric consumers to enjoy the consequential economic and environmental benefits.

12. Since 2005, New York has had a collaborative, orderly process in place to ensure that when an existing generator proposes to cease providing service, for example to comply with a federal or state environmental regulation, system reliability is not jeopardized. That process requires generating facility owners to notify the Commission 180 days in advance of a proposed retirement of a facility with a capability greater than or equal to 80 MW. Filing this notice triggers a system reliability study, conducted jointly by NYISO and any affected utilities, to determine whether the proposed retirement would impair reliable operation of the system. If the study concludes that continued operation of the facility is not needed for system reliability, then it may retire. Otherwise, the facility may be directed to continue operating subject to an agreement that specifies the terms and conditions of operation as needed to support system reliability, and the compensation to be provided.¹

¹ Case 05-E-0889, *Proceeding on Motion of the Commission to Establish Policies and Procedures Regarding Generator Unit Retirements*, Order Adopting Notice Requirements (issued December 20, 2005).

13. Generator retirement is not irreversible. In recent times, retired coal-fired generators in New York have been, or are proposed to be, returned to service by retrofitting them to run on natural gas. In particular, the Danskammer Generating Station in Newburgh, New York was returned to service in October 2014. Also, the Commission approved a ratepayer-funded coal-to-gas repowering of the Dunkirk Generating Station in Dunkirk, New York, at a cost of less than fifty cents per month to an average residential electric consumer.


14. Further, in contrast to Petitioners' assertions, implementing carbon pollution regulations in New York has not required the Commission to regularly issue generator-specific directives. Inasmuch as RGGI is built around a system of carbon emission allowance trading among electric generators (as explained more fully in the accompanying Declaration of Jared Snyder), it is a market-driven program, rather than command-and-control.

15. New York has already reduced its electric power sector carbon emissions by more than 40 percent from 2005 levels, and it intends to continue reducing emissions further. But I believe that the problem of greenhouse gas emissions is too serious to be left to individual states; rather, it demands an intense, coordinated and equitable national effort. Any delay in implementing the Clean Power Plan would therefore be inequitable to the states which have already

reduced their carbon emissions, and would likewise be contrary to the interests of the general public.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on December 3, 2015.

_____

Audrey Zibelman
Chair, New York State Public Service Commission

**UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA**

STATE OF WEST VIRGINIA,)	
<i>et al.</i>)	
)	
Petitioners,)	
)	
v.)	Docket No. 15-1363
)	
UNITED STATES ENVIROMENTAL)	
PROTECTION AGENCY, and REGINA A.)	
MCCARTHY, Administrator, United States)	
Environmental Protection Agency)	
)	
Respondents.)	

**DECLARATION OF MAYOR SUZANNE JONES
ON BEHALF OF THE CITY OF BOULDER, COLORADO**

I, Suzanne Jones, declare as follows:

1. I am the Mayor of the City of Boulder, and I have first-hand knowledge of the facts set forth below.

BACKGROUND

2. The City of Boulder (hereafter the “City”) is the home rule municipality that is the county seat and the most populous municipality of Boulder County and the 11th most populous municipality in Colorado.
3. The City is home of the main campus of the University of Colorado, the state's largest university, and is home to a high concentration of climate scientists working at 13 different federal labs on related topics. More than a dozen of these scientists from the

National Center for Atmospheric Research, the National Oceanic and Atmospheric Administration, and the University of Colorado, contributed to the 2013 Intergovernmental Panel on Climate Change Fifth Assessment Report.

4. The City has a long history of innovative initiatives related to sustainability and climate change and to assisting other communities as an innovation partner.

CLIMATE-RELATED THREATS TO THE BOULDER REGION

5. According to the National Climatic Data Center, the frequency of billion-dollar extreme weather events from severe storms, flooding, droughts and wildfires has increased dramatically in recent years, trending from an average of less than three events per year in the 1980s to an average of nearly ten events per year from 2010 to 2014.
6. Global climate change is one of the most significant threats facing local communities and will affect Boulder's ability to deliver services including fire protection and other emergency services, flood control and public works projects, and health care and social services for vulnerable populations.
7. A 2015 report by the University of Colorado Boulder and Colorado State University to the Colorado Energy office states that Colorado's climate has warmed in recent decades, and climate models unanimously project this warming trend will continue into the future. Although the actual pace of warming is dependent on the rate of worldwide greenhouse gas emissions, climate change has impacted and will continue to impact Colorado's resources in a variety of ways, including more rapid snowmelt, longer and more severe droughts, and longer growing seasons.
8. The City has seen several significant impacts from climate change. These include increased risk of wildfires, devastating flooding, and loss of snowpack for water storage.

9. Since 1989, Boulder County has experienced four major wildland fires, the last of which was the Fourmile Canyon fire in 2010. The Fourmile Canyon fire destroyed over 6,000 acres of forest and 168 homes. The City's principal water treatment facility is in the region affected by the fire and was placed at risk.
10. In September 2013, the City experienced a flood that caused damages estimated as high as \$150 million. In our region, four people died, 1,202 people were airlifted from their homes, and 345 homes were destroyed. Over a period of eight days, Boulder received an unprecedented 17.15 inches of rain. To put this into context, Boulder's annual average precipitation is just 19.14 inches. In September, Boulder normally averages just 1.61 inches of rain.
11. This disaster was so widespread and devastating that the Boulder County Board of Commissioners declared a county-wide disaster, the Governor declared the flood a state disaster, and the President declared the flood a national disaster.
12. Perhaps the most significant long-term impact of climate change to Boulder is the potential for impacts to water supply. Increased temperatures will require larger amounts of water to sustain outdoor uses such as agriculture and urban tree canopies. Approximately 89% of the water consumption in Colorado is associated with agriculture so even a modest increase in agricultural water needs will have a significant impact on overall water demands in the state.
13. Like most water users in Colorado, Boulder's water supply infrastructure depends on the accumulation of snowpack in the Rocky Mountains during winter months followed by a predictable melting and runoff into storage reservoirs throughout the rest of the year. A significant shift from snow to rain or in the timing of runoff would result in a shortfall in

water supply because reservoirs are not sized to hold water supply that historically was held in the snowpack.

14. Although virtually any aspect of Boulder's economy could be affected by changes in the climate, specific industries that rely on natural resources—agriculture, tourism and recreation, and mining and extraction—are particularly vulnerable. Reduced snowpack is an obvious sensitivity in the ski sector, but also important are earlier melt as well as seasonal shifts in temperature, which can exacerbate wildfire potential, negatively affect plants and wildlife, and increase public exposure to vector-borne diseases.
15. While Boulder's vulnerabilities to climate related risks are not entirely unique, Boulder was selected as one of 100 global cities to participate in the Rockefeller 100 Resilient Cities initiative to design replicable methodologies that will enable communities to quickly assess risks, identify opportunities, and implement a short- and long-term vision.

BOULDER'S EFFORTS TO ADDRESS IMPACTS FROM CLIMATE CHANGE

16. I and the City of Boulder understand that restraining global warming to an increase of no more than 2 degrees Celsius over the pre-industrial average will require changes in how the world produces and uses energy to power its cities and factories, heats and cools buildings, as well as move people and goods in airplanes, trains, cars, ships and trucks.
17. Since 2006, Boulder City Council has maintained climate change as one of its top three priorities for action. This support has resulted in staffing resources and a commitment to engage in policy reform at the local, regional and state level.
18. In 2002, Boulder became one of the first cities in the nation to support the Kyoto Protocol when the Boulder City Council passed Resolution 906. This commitment

established the goal of reducing the city's greenhouse gas emissions to 7% below 1990 levels by 2012.

19. In November 2006, Boulder voters approved Ballot Issue No. 202, the Climate Action Plan Tax, the nation's first "Carbon Tax." The tax has allowed the community to develop innovative, nationally acclaimed programs that help the community reduce energy use and greenhouse gas emissions—programs like EnergySmart, curbside composting, and expansion of Boulder's bike trail system.
20. Since its inception, the carbon tax has funded more than \$8 million in incentives to Boulder residents and businesses through an extensive suite of services and regulations. Much of the first generation of carbon tax funded efforts have focused on conservation and efficiency efforts, particularly in the built environment where electricity and natural gas make up almost 80% of emissions.
21. In 2010, Boulder collaborated with Boulder County, Denver, and Garfield County to apply for and receive \$25 million in federal Better Buildings funding to roll out energy advising programs for residents and businesses. Since 2010, more than 7,500 City of Boulder housing units and 2,300 businesses have participated in energy upgrades resulting in over \$20M in energy related private investments and significant reductions in emissions from building energy use.
22. Energy-related activities represent more than 95% of Boulder's emissions, encompassing three energy related emissions sources: electricity (coal and natural gas), natural gas for heating and other processes/uses, and petroleum. For those efforts, we look forward to the increasing availability of electricity from renewable sources under

Colorado's Renewable Portfolio Standards, one of the most stringent in the country. We also recognize more must be done.

23. These City programs and community action permitted Boulder to avoid 147,000 metric tons of emissions between 2005 and 2012, despite significant economic growth.
24. Boulder added more than 2,600 jobs and \$529 Million in revenue in the 2005 to 2012 timeframe. A 2014 *NerdWallet* study ranked Boulder No. 1 in the country for economic growth. The study analyzed U.S. Census Bureau data for more than 500 of the largest American cities. In addition, Boulder was recently ranked #1 in the U.S. for workforce education levels in the poll of "Best Places for Business" by *Forbes*.
25. While efficiency and conservation efforts remain effective, it is essential that communities shift dependency away from fossil fuels and change the energy source.
26. Like most communities, the majority of Boulder's emissions come from burning fossil fuels to produce electricity.
27. Through the approval of multiple ballot measures between 2010 and 2013, Boulder voters directed the City to explore different options that could deliver safe, reliable, local and clean energy to the community.
28. Boulder is currently evaluating the legal, technical and financial feasibility of creating a locally owned electric utility through municipalization.
29. Boulder's municipalization effort is guided by an energy localization framework that is defined by three primary goals: Democratization, Decentralization and Decarbonization.
30. As such, local clean energy generation is a cornerstone of Boulder's long-term strategy. The City owns and operates eight hydroelectric facilities with the combined capacity of 15 megawatts. Boulder also has one of the highest levels of installed solar per capita in

the country, with more than 1,900 solar installations on Boulder homes and businesses with a current combined capacity of over 16 megawatts.

31. In response to increasing natural disasters in the region, including the flooding in Boulder, the Colorado Legislature passed HB13-1293 during its 2013 session, which declared that “climate change presents serious, diverse, and ongoing issues for the state’s people, economy, and environment.” Among other provisions, the bill required the governor to submit an annual report to a number of committees within the legislature “on climate change issues generally, the current climate action plan...and the specific ways in which climate change affects the state.”
32. While Boulder is committed to reducing emissions, it is equally important to Boulder to ensure its resilience from climate-related impacts. Through its ongoing work with the Rockefeller Foundation and the Western Adaptation Alliance, Boulder continues to prioritize the critical linkages between mitigation and resilience building.
33. Boulder has established six near-term priorities for building resilience including efforts to:
 - Complete flood infrastructure design and implementation based on the experience of our recent 100 year+ flood event.
 - Update the design and infrastructure related to storm water, wastewater and drinking water, particularly in high flood/fire risk zones.
 - Increase fire hazard mitigation treatments, particularly in high vulnerability zones.
 - Continue to diversify transportation options to increase mobility and access, particularly for lower income residents.

- Expand “localized” energy such as distributed generation and micro-grid development to decrease vulnerability and increase stability and reliability of critical power systems during extreme weather or other disruption events starting first with critical community services such as public safety, public health, and basic governance functions.
- Identify cross-cutting opportunities between essential functions that prioritize resilience planning.

31. Recognizing that many other cities will continue to face similar challenges, Boulder is harmonizing its climate mitigation and adaptation strategies to grow technological, financial and social innovations that can be useful to others. For Boulder, growing mitigation and resilience efforts is a core theme in our future economic development strategy.

BOULDER’S SUPPORT FOR THE CLEAN POWER PLAN AND OPPOSITION TO STAYING THE RULE

34. On Aug. 3, 2015, President Obama unveiled the final Clean Power Plan, setting the first-ever national limits on carbon pollution from power plants — the nation’s largest source of these emissions, making clear that it is no longer acceptable to put unlimited amounts of climate pollution into our air.

35. The Clean Power Plan will reduce carbon emissions from power plants — and in doing so create new opportunities to continue development of the strong, vibrant clean energy economy that is creating prosperity, including in Boulder and other cities.

36. The third National Climate Assessment shows that cities will continue to bear the brunt of environmental, public health, and safety impacts associated with climate change;

therefore, Boulder has a significant interest in the outcome of the legal issues related to the Clean Power Plan—particularly in ensuring that EPA has the authority to promulgate flexible, nationwide standards to reduce carbon pollution, such as the Clean Power Plan standards under Section 111(d).

37. The Clean Power Plan and related actions will provide broad benefits and critical support to communities—in particular vulnerable communities like Boulder—across the nation by reducing carbon pollution from power plants and allowing communities to focus on efforts to build local resilience.
38. A stay of the Clean Power Plan could hamper the ability of the United States to argue for international reductions in emissions at the 2015 United Nations Conference of Parties in Paris and undermine efforts to implement commitments made at those talks. Allowing the rule to take effect shows the world that the United States is committed to leading global efforts to address climate change.
39. For this reason, the City has joined other cities and counties that are part of the Local Climate Leaders Circle, a group of local elected officials that will be in Paris for the climate negotiations, in sending a letter to EPA expressing opposition to requests for administrative stays of the Clean Power Plan. A copy of that letter is attached to this declaration as Exhibit A.
40. Because of the urgent threats to the City and our region posed by climate change, the City stands in strong opposition to any requests that the EPA’s Clean Power Plan rule be stayed during the period of litigation.

Under penalty of perjury under the laws of the United States, I hereby declare that the foregoing facts are true and correct.

A handwritten signature in black ink, appearing to read "Suzanne Jones", written in a cursive style.

By: _____

Suzanne Jones

Mayor

EXHIBIT A

Mayor Matt Appelbaum,
Boulder, CO

Mayor Ralph Becker
Salt Lake City, UT

Mayor Frank Cownie
Des Moines, IA

Mayor George Heartwell
Grand Rapids, MI

Mayor Jeri Muoio
West Palm Beach, FL

Council Member Pam O'Connor
Santa Monica, CA

Mayor Bill Peduto
Pittsburgh, PA

Council Chair Larry Phillips
King County, WA

Mayor Mary Casillas Salas
Chula Vista, CA

Mayor Libby Schaaf
Oakland, CA

November 5, 2015

Administrator Gina McCarthy
US Environmental Protection Agency
Washington, DC

Administrator McCarthy:

As members of the Local Climate Leaders Circle, a group of mayors and elected officials traveling to Paris to press for necessary climate action at this year's UNFCCC Conference of Parties, we wish to express our deep concern over the current and growing threat that climate change poses to not only our own communities, but to those across the United States. We also wish to express our strong support for the EPA's Clean Power Plan and our desire to see it implemented without delay.

Cities are on the frontlines of climate change. It is cities and city leadership that most directly deal with the negative impacts of drought, flooding, wildfires, heatwaves, and other extreme weather events - impacts which science says will only be exacerbated by a warming world. Over time, climate change is expected to cause increased and lasting harm to public safety, local economies, and the critical natural resources upon which our communities depend. Data reported by the National Centers for Environmental Information show 88 extreme weather events over the past decade that resulted in damages over \$1 billion. Over the last four years, extreme weather has cost our country \$227 billion in economic losses. It is cities that most often bear the brunt of these costs and face the challenges of recovering and rebuilding from them.

Cities are also centers of climate change innovation. Hundreds of our fellow mayors and city leaders from around the country are working to develop practical, local solutions to address climate change – both to reduce emissions of harmful greenhouse gases and to protect our citizens and our communities from their effects. In many cases, cities have put in place plans that are more ambitious than those being considered at the state or national level. To succeed in reaching these goals, we also rely on leadership and strong policy signals from Washington, DC.

EXHIBIT A

This is why we applaud the positive leadership demonstrated by the Administration's Climate Action Plan and the strong step taken by EPA in issuing its final Clean Power Plan. Successful, nationwide implementation of EPA's plan to limit carbon pollution from power plants is the most important action our country can take at the moment to achieve the United States' greenhouse gas emissions reduction targets, announced in March 2015. Combined with steps the Administration is taking to limit other sources of greenhouse gas emissions, including fuel economy standards, energy efficiency standards for appliances and equipment, and incentives promoting renewable energy, the Clean Power Plan is a critical step towards building a clean energy-driven economy that can power our cities and prevent the worst impacts of climate change from threatening our communities.

The Clean Power Plan also provides the foundation for U.S. credibility and leadership on the global response to climate change. This December, leaders from around the world will gather in Paris to forge a collective response to climate change in a new international agreement. The members of the Local Climate Leaders Circle, along with our fellow mayors from cities around the world, will also be in Paris to advocate for an aggressive outcome, one that moves toward the trajectory the science calls for to protect our communities and further supports action at the local level. We are well aware that the severity of the challenges that cities such as Atlanta and Salt Lake City and West Palm Beach will face in the future could well be determined by what happens in Paris this fall.

We believe that any delay in implementing the Clean Power Plan will considerably undermine the ability of the U.S. to negotiate with other countries for a meaningful agreement in Paris. In fact, opponents of the Clean Power Plan have explicitly acknowledged this nexus as among their primary motivations to push for a stay of the rule in advance of Paris – i.e. to derail the talks and prevent an agreement from being achieved.

The United States is in a strong negotiating position this year, because it is backed by Administration accomplishments in adopting carbon reducing policies, of which the Clean Power Plan is a cornerstone. Indeed, the announcement of the Clean Power Plan has already contributed to breakthrough agreements between the U.S. and China resulting in unprecedented commitments to action from the Chinese government and unprecedented cooperation between the world's two largest emitters of carbon pollution. Among these breakthroughs are new commitments by Chinese cities to begin cutting emissions as many as ten years ahead of their national government, announced during a conference hosted by the Mayor of Los Angeles earlier this fall. It has taken five years of planning in the international process to get to this critical moment when a successful outcome is achievable. Strong U.S. leadership and a credible U.S. contribution are prerequisites for such a successful outcome. If we miss this window of opportunity, it may well take another five years to set the stage – time which the science makes clear we simply do not have if we hope to avert the worst impacts of climate change.

We believe, as the President stated when announcing the Clean Power Plan, that “there is such a thing as being too late.” Were the Clean Power Plan to merely appear to the international community to be jeopardized, such as by a stay, the United States position would be significantly weakened. Without a strong United States position, other nations could pull back, including but not limited to China. A stay of the Clean Power Plan would cause significant and irreparable harm to the U.S. position, thus hampering the likelihood that the international process will reach an adequate agreement. As a result, U.S. cities and towns will face increased risks associated with the severity and the costs of future climate change impacts.

EXHIBIT A

For the sake of our communities and our country, we strongly support the actions the Administration is taking to ensure the United States does its part to reduce greenhouse gas emissions, including the Clean Power Plan, and strongly oppose efforts to stay, delay or block those actions, particularly at this critical moment.

Sincerely,



*Mayor Matt Appelbaum
Boulder, CO*



*Mayor Ralph Becker
Salt Lake City, UT*



*Mayor Frank Cownie
Des Moines, IA*



*Mayor George Heartwell
Grand Rapids, MI*



*Mayor Jeri Muoio
West Palm Beach, FL*



*Council Member Pam O'Connor
Santa Monica, CA*




*Mayor Bill Peduto
Pittsburgh, PA*



*Council Chair Larry Phillips
King County, WA*



*Mayor Mary Casillas Salas
Chula Vista, CA*



*Mayor Libby Schaaf
Oakland, CA*

ORAL ARGUMENT NOT YET SCHEDULED
**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of West Virginia, et al.,

Petitioners,

v.

**United States Environmental
Protection Agency, et al.,**

Respondents.

Case No. 15-1363

DECLARATION OF PHILIP K. STODDARD

I, Philip K. Stoddard declare as follows:

1. I am the Mayor of the City of South Miami, located in Miami-Dade County, Florida and I have first-hand knowledge of the facts set forth below or I have noted the source of the facts.
2. The City of South Miami is home to ~14,000 residents, and a thriving downtown commercial area on US-1, serviced directly by Metrorail link to downtown Miami and the Miami International Airport.
3. The City of South Miami (hereafter “the City”), like all of South Florida, faces an existential threat from sea level rise that is exacerbated by continued climate change. The City of Miami Beach is experimenting with a new design, featuring a street and sidewalk perched on an upper tier, 2 ½ feet above the

front doors of roadside businesses, and backed by a hulking nearby pump house, representing what one city engineer called "the street of tomorrow." These infrastructure changes come with an enormous price tag, as much as \$500 million to install 80 pumps and raise roads and seawalls across the city. Hotels are already seeing the effects with visitors cancelling reservations or cutting vacations short after heavy flooding along Miami Beach. Residents' cars are severely damaged by saltwater. These impacts will only increase for the businesses that rely on tourist dollars. Overhauling major flood canal gates and pumps along the Miami-Dade coast will be costlier. In the long term, the prospect of raising homes, roads, and buildings is estimated to run into billions of dollars.¹

4. The City of South Miami is located one-mile west of Biscayne Bay, and bounded by a major canal on the southern edge that connects directly to Biscayne Bay, and bisected by a second canal that connects to the first one. While the City of South Miami is not directly on Biscayne Bay, the City's canal areas are extremely low in elevation, already contained within FEMA flood zones, prone to storm flooding, and destined to become increasingly vulnerable to riverine flooding and storm surge as sea level continues to rise.

¹ <http://www.miamiherald.com/news/local/community/miami-dade/miami-beach/article41141856.html>

5. According to data recorded by the Rosenstiel School of Marine and Atmospheric Science (RSMAS) at the University of Miami, Biscayne Bay has experienced almost five inches of sea level rise in the past five years alone.

6. In 2015, the City hired a consultant to assess and identify critical vulnerabilities in regards to sea level rise, storm surge and inland riverine flooding, and the effect on infrastructure to the City of South Miami. The study revealed increasing vulnerabilities to septic systems, roads, bridges, and residential properties.

7. Ongoing threats to the City from the rising water table include slowed drainage during and following rains, increased flood risk, saltwater intrusion into our groundwater and soils, displacement of our drinking water supply, failure of residential septic systems.

8. Increased area flooding from sea level rise will require the City to install additional sewage infrastructure to allow for replacement of all septic systems with municipal sewer system (currently 2/3 of residences are on septic).

9. Increased flood threat caused by sea level rise will require the City to elevate roads in low-lying areas and to rebuild all bridges both higher and with greater clearance to handle flood waters.

10. Increased area flooding from sea level rise promises to directly disrupt regional transportation and commerce, threatening jobs, education systems, and the tax base that supports local government.

11. Increased area flooding from sea level rise promises to harm the City by interfering with finance markets, specifically, increasing the costs of private insurance, hindering the ability of local home-buyers to obtain 30-year mortgages, and preventing local government from bonding necessary infrastructure projects.

12. Flooding of low-lying residential neighborhoods will require the City to condemn properties, demolish homes, and restore these areas to function as estuaries and parks so as to avoid slum and blight that will harm the rest of the City.

13. Change in finance markets and loss of low-lying neighborhoods (currently holding the highest home valuations of any in the City), will harm the City's tax base and interfere with the City's ability to provide municipal services including police protection and parks programs.

14. Increased temperatures from global warming are already being experienced locally, extending the seasonal demand for air conditioning, and placing an additional financial burden on area residents.

15. Miami-Dade County has two existing nuclear power plants which are 42 years old² and are situated 20 feet above sea level³ while some emergency backup infrastructure is lower. In Florida Power and Light's ("FPL") 2012 filing with the Nuclear Regulatory Commission ("NRC") for the purpose of building two new nuclear reactors, FPL revealed that low level nuclear waste will eventually require 24,000 square feet of on-site storage space and that FPL's plan for extended storage of low level nuclear waste will not provide sufficient physical safety measures to cope with an aquatic environment due to sea level rise. The experts for Citizens Allied for Safe Energy, Inc. ("CASE") found that it would not be feasible for FPL to elevate the auxiliary extended nuclear waste storage structures. The storm surge potential at Turkey Point is estimated at 10 to 20 feet (3 to 6 meters) for a major hurricane. According to the CASE, a storm surge at 28 feet above the current mean low tide line could be experienced with sea level rise over the next 60 years.⁴ The City of South Miami is approximately 15 miles from the Turkey Point nuclear reactors and the city is very vulnerable to nuclear contamination and a meltdown of the reactors cause by a storm surge.

16. The City of South Miami, as well as much of South Florida, sits on very porous rock and, as the level of the sea rises, the pressure will cause water to

² <http://www.nrc.gov/info-finder/reactor/tp3.html> and <http://www.nrc.gov/info-finder/reactor/tp4.html>

³ <http://eyesontherise.org/app/> an application created by Florida International University.

⁴ <http://pbadupws.nrc.gov/docs/ML1116/ML1203/ML12034A220.pdf>

rise up through the ground and flood the inland areas. The City of South Miami is experiencing higher levels of flooding, which translate into less ability for stormwater to drain into the ocean through the floodwater canal system in the City. The low lying areas within the City of South Miami are prone to flooding, evidenced by their inclusion in FEMA Flood Zone AE, which is defined as areas inundated by the 100-year flood. In particular, the Twin Lakes area of South Miami has experienced flooding, which has been increasing in frequency and intensity.⁵

17. The City of South Miami has begun both Adaptation and Mitigation strategies to address the consequences of climate change induced sea level rise.

18. The City's Comprehensive Plan limits construction in flood zones.

19. The City completed a Storm Water Master Plan and updated that plan in 2012.

20. The City has budgeted and spent millions of dollars to reduce the City's storm threat rating through drainage improvements in the lowest areas of the City.

21. This year, funding for City drainage improvement and sewer upgrades was allocated directly to the City by the State Legislature but the City's line-items

⁵ <http://www.southmiamifl.gov/documentcenter/view/158>

were vetoed by Governor Scott, placing the financial burden directly on City residents.

22. Notwithstanding the governor's veto of state funding, the City has begun implementation of numerous drainage, sewer and stormwater management projects to alleviate the results of sea level rise, one of which is the allocation of up to \$187,030⁶ towards the construction of the Twin Lakes Roadway & Drainage Improvements.⁷

23. The City has initiated engineering studies to replace residential septic systems with municipal sewer hookups that will be less vulnerable to failure caused by sea level rise-mediated flooding and rise in the water table.

24. City residents pay the bulk of their property taxes to Miami-Dade County, which has begun a multi-billion-dollar redesign of the entire County-wide sewer system, desalination projects to provide drinking water, and a groundwater modeling study.

25. The City has initiated a series of Climate Mitigation projects including initiatives for financing and group pricing on rooftop solar installations, green fleet conversion, and plans to replace energy-inefficient municipal buildings with more efficient ones. The rate of solar adoption has doubled, with residents reporting high return on investment. The City's green fleet initiative has already returned

⁶ <http://www.southmiamifl.gov/documentcenter/view/1411>

⁷ <http://www.miamiherald.com/news/local/community/miami-dade/miami-beach/article41141856.html>

budget savings. The City recognizes that the Clean Power Plan will provide additional incentives for renewable energy and other mitigation measures, consistent with the City's own initiatives.

26. The City recognizes that greenhouse gas emissions from human activity have been proven by the best science to be heating the oceans and atmosphere, accelerating sea level rise, and acidifying the oceans.

27. On May 1, 2012, the City Commission unanimously approved a Resolution # 91-12-13648, which instructed the City to send a letter to EPA Administrator Lisa P. Jackson, supporting the EPA's increased efforts to reduce greenhouse gas pollution under the Clean Air Act, a copy of that resolution is attached as **Exhibit A**.


28. On October 6, 2015, the City of South Miami unanimously passed Resolution # 167-15-14506 expressing its strongest supporting the EPA's Clean Power Plan as a way of significantly reducing greenhouse gas emissions that threaten the City through climate change and sea level rise. A copy of Resolution # 167-15-14506 is attached as **Exhibit B**.

29. The City has joined other cities and counties in South Florida facing similar global-warming-related threats in sending a letter to the EPA expressing opposition to requests for administrative stays of the Clean Power Plan. A copy of that letter is attached to this declaration as **Exhibit C**.

30. Because of the urgent threats to the City and our region posed by sea level rise, the City stands in strong opposition to any requests that the EPA's Clean Power Plan be stayed during the period of legal challenge or litigation.

Under penalty of perjury under the laws of the United States, I hereby declare that the foregoing facts are true and correct.

By:



PHILIP K. STODDARD
MAYOR

EXHIBIT A

EXHIBIT A

RESOLUTION NO: 91-12-13648

A Resolution of the City of South Miami to the Environmental Protection Agency Administrator Lisa P. Jackson in support of reducing greenhouse gas pollution under the Clean Air Act.

WHEREAS, the decade from 2000 to 2010 was the warmest on record¹, and 2005 and 2010 tied for the hottest years on record²; and

WHEREAS, the current level of CO₂ in the atmosphere is approximately 392 parts per million³ (ppm); and

WHEREAS, one of the world's leading climate scientists, Dr. James Hansen, stated in 2008: "If humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted, paleoclimate evidence and climate change suggest that CO₂ will need to be reduced from its current 385 ppm to at most 350 ppm⁴; and

WHEREAS, the Environmental Protection Agency determined that current and future greenhouse gas concentrations endanger public health⁵, and according to the Global Humanitarian Forum climate change is already responsible every year for some 300,000 deaths, 325 million people seriously affected, and economic losses worldwide of U.S. \$125 billion⁶; and

WHEREAS, extreme weather events, most notably heat waves and precipitation extremes, are striking with increased frequency⁷, with deadly consequences for people and wildlife; in the United States in 2011 alone, a record 14 weather and climate disasters occurred, including droughts, heat waves, and floods, that cost at least \$US 1 billion each in damages and loss of human lives⁸; and

WHEREAS, climate change is affecting food security by lowering the growth and yields of important crops⁹, and droughts, floods and changes in snowpack are altering water supplies¹⁰; and

WHEREAS, scientists have concluded that by 2100 as many as a tenth of all species may be on the verge of extinction due to climate change¹¹; and

WHEREAS, the world's land-based ice is rapidly melting, threatening water supplies in many regions and raising sea levels¹², and Arctic summer sea ice extent has decreased to about half what it was several decades ago¹³, with an accompanying drastic reduction in sea-ice thickness and volume¹⁴, which is severely jeopardizing ice-dependent animals¹⁵; and

WHEREAS, sea level is rising faster along the U.S. East Coast than it has for at least 2,000 years¹⁶, is accelerating in pace¹⁷, and could rise by one to two meters in this century, threatening millions of Americans with severe flooding¹⁸; and

WHEREAS, for four decades, the Clean Air Act has protected the air we breathe through a proven, comprehensive, successful system of pollution control that saves lives and creates economic benefits exceeding its costs by many times¹⁹; and

WHEREAS, with the Clean Air Act, air quality in this country has improved significantly since 1970, despite major growth both in our economy and industrial production; and

WHEREAS, between 1970 and 1990, the six main pollutants covered by the Clean Air Act — particulate matter and ground-level ozone (both of which contribute to smog and asthma), carbon

monoxide, lead, sulfur and nitrogen oxides (the pollutants that cause acid rain) — were reduced by between 47 percent and 93 percent, and airborne lead was virtually eliminated; and

WHEREAS, the Clean Air Act has produced economic benefits valued at \$2 trillion, equivalent to 30 times the cost of regulation; and

WHEREAS, the U.S. Supreme Court ruled in *Massachusetts vs. EPA* (2007) that greenhouse gases are “air pollutants” as defined by the Clean Air Act and the Environmental Protection Agency has the authority to regulate them; and

WHEREAS, climate change threatens to put much of South Florida underwater in the next century; and

WHEREAS, The City of South Miami prides itself on being a leader in the fight against climate change and for clean air, having signed the Mayors’ Climate Protection Agreement, and working to promote tree canopy;

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COMMISSION OF THE CITY OF SOUTH MIAMI, FLORIDA:

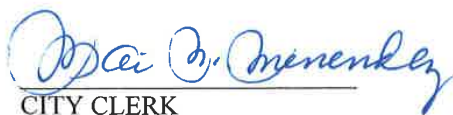
Section 1. Climate change is not an abstract problem for the future or one that will only affect far-distant places but rather climate change is happening now, we are causing it, and the longer we wait to act, the more we lose and the more difficult the problem will be to solve; and we, the City of South Miami Commission, on behalf of the residents of the City, do hereby urge the administrator of the Environmental Protection Agency, Lisa P. Jackson, and President Barack Obama to move swiftly to fully employ and enforce the Clean Air Act to do our part to reduce carbon in our atmosphere to no more than 350 parts per million.

Section 2. The City Clerk shall forward a copy of this resolution to Lisa P. Jackson of the Environmental Protection Agency and President Barack Obama.

Section 3. This Resolution shall take effect upon adoption.

Passed and adopted this 1st day of May 2012.

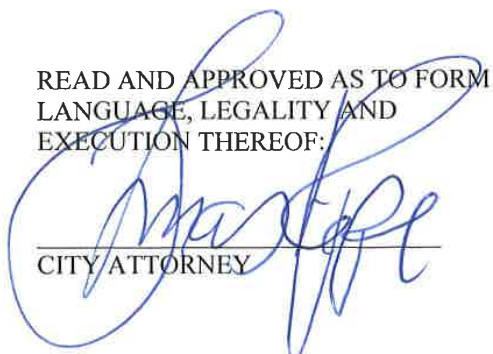
ATTEST:


CITY CLERK

APPROVED:


MAYOR

READ AND APPROVED AS TO FORM
LANGUAGE, LEGALITY AND
EXECUTION THEREOF:


CITY ATTORNEY

COMMISSION VOTE:	5-0
Mayor Stoddard:	Yea
Vice Mayor Liebman:	Yea
Commissioner Newman:	Yea
Commissioner Harris:	Yea
Commissioner Welsh:	Yea

ENDNOTES

- ¹ Press Release, National Aeronautic Space Association, *NASA Research Finds Last Decade was Warmest on Record, 2009 One of the Warmest Years* (Jan. 21, 2010), www.nasa.gov/home/hqnews/2010/jan/HQ_10-017_Warmest_temps.html.
- ² National Oceanic and Atmospheric Administration, NOAA: *2010 Tied for Warmest Year on Record*, www.noaa.gov/stories/2011/20110112_globalstats.html (last visited on 3/30/12).
- ³ Co2now.org, *What the World Needs to Watch*, <http://co2now.org> (last visited on 3/30/12); Earth System Research Laboratory of NOAA, *Trends in Atmospheric Carbon Dioxide*, www.esrl.noaa.gov/gmd/ccgg/trends/ (last visited on 4/2/12).
- ⁴ J. Hansen et al., *Target atmospheric CO₂: Where should humanity aim?*, *Open Atmos. Sci.* 2, 217 (2008), <http://pubs.giss.nasa.gov/abs/ha00410c.html>.
- ⁵ U.S. Environmental Protection Agency, *Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act*, 74 Federal Register 66496-66546 (Dec. 15, 2009) (to be codified at 40 C.F.R. ch. 1), <http://epa.gov/climatechange/endangerment.html> (last visited 4/2/12).
- ⁶ Global Humanitarian Forum, *The Anatomy of a Silent Crisis* (2009), www.eird.org/publicaciones/humanimpactreport.pdf, p.1 of pdf.
- ⁷ Intergovernmental Panel on Climate Change (IPCC), *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX)* (2012), <http://ipcc-wg2.gov/SREX/>; U.S. Global Change Research Program, *Global Climate Change Impacts in the US: Global Climate Change* (2009), <http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/full-report/global-climate-change>; D. Coumou and S. Rahmstorf, *A decade of weather extremes*, *Nature Climate Change* (2012), <http://dx.doi.org/10.1038/NCLIMATE1452>.
- ⁸ National Oceanic and Atmospheric Administration, *Extreme Weather 2011*, <http://www.noaa.gov/extreme2011/> (last visited April 2, 2012); Press Release, World Meteorological Organization, *2011: world's 10th warmest year, warmest year with La Niña on record, second-lowest Arctic sea ice extent* (2012), www.wmo.int/pages/mediacentre/press_releases/gcs_2011_en.html.
- ⁹ D.B. Lobell et al., *Climate Trends and Global Crop Production Since 1980*, *Science* 333, 616 (July 29, 2011), www.sciencemag.org/content/early/2011/05/04/science.1204531.abstract; U.S. Global Change Research Program, *Global Climate Change Impacts in the US: Agriculture* (2009), www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/full-report/climate-change-impacts-by-sector/agriculture.
- ¹⁰ U.S. Global Change Research Program, *Global Climate Change Impacts in the US: Water Resources* (2009), www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/full-report/climate-change-impacts-by-sector/water-resources.
- ¹¹ I.M.D. Maclean and R.J. Wilson, *Recent ecological responses to climate change support predictions of high extinction risk*, *PNAS* 108, 12337 (2011), <http://www.pnas.org/content/108/30/12337>, summary at <http://www.sciencedaily.com/releases/2011/07/11071110711151457.htm>.
- ¹² Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: Synthesis Report* (2007), http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_synthesis_report.htm, pp. 30, 49 of pdf.
- ¹³ J. Stroeve et al., *Arctic Sea Ice Extent Plummets in 2007*, *EOS* 89, 2 (January 8, 2008), <http://www.agu.org/pubs/crossref/2008/2008EO020001.shtml>, p. 13 of pdf.
- ¹⁴ Polar Science Center, *Arctic Sea Ice Volume Anomaly, version 2*, <http://psc.apl.washington.edu/wordpress/research/projects/arctic-sea-ice-volume-anomaly/> (last visited April 3, 2012); R. Kwok and D.A. Rothrock, *Decline in Arctic sea ice thickness from submarine and ICESat records: 1958-2008*, *Geophysical Research Letters* 36, L15501 (2009), <http://www.agu.org/pubs/crossref/2009/2009GL039035.shtml>.

¹⁵ Center for Biological Diversity and Care for the Wild International, *Extinction: It's Not Just for Polar Bears* (2010), http://www.biologicaldiversity.org/programs/climate_law_institute/the_arctic_meltdown/arctic_extinction_report.html.

¹⁶ A.C. Kemp et al., *Climate related sea-level variations over the past two millennia*, PNAS 108, 11017 (2011), <http://www.pnas.org/content/108/27/11017>, summary at <http://www.sciencedaily.com/releases/2011/06/110620183242.htm>.

¹⁷ M.A. Merrifield et al., *An Anomalous Recent Acceleration of Global Sea Level Rise*, Journal of Climate 22, 5772 (2008), <http://journals.ametsoc.org/doi/abs/10.1175/2009JCLI2985.1>.

¹⁸ B.H. Strauss, *Tidally adjusted estimates of topographic vulnerability to sea level rise and flooding for the contiguous United States*, Environmental Research Letters 7 (2012), <http://iopscience.iop.org/1748-9326/7/1/014033>, summary at <http://www.sciencedaily.com/releases/2012/03/120314111738.htm>.

¹⁹ For Clean Air Act facts, see Center for Biological Diversity, *The Clean Air Act Works* (2011), http://www.biologicaldiversity.org/programs/climate_law_institute/global_warming_litigation/clean_air_act/pdfs/CleanAirActWorks_032011.pdf; and U.S. Environmental Protection Agency, *The Benefits and Costs of the Clean Air Act, 1970 to 1990* (1997), <http://www.epa.gov/air/sect812/>; and U.S. Environmental Protection Agency, *The Benefits and Costs of the Clean Air Act, 1990 to 2010* (1999), <http://www.epa.gov/air/sect812/>.

EXHIBIT B

EXHIBIT B

RESOLUTION NO. 167-15-14506

A Resolution of the City of South Miami, Florida, (“City”) supporting the EPA’s Clean Power Plan rule as a way of significantly reducing greenhouse gas emissions that threaten the South Florida region through climate change and sea level rise and opposing any requests that the Clean Power Plan rule be stayed during any periods of legal challenge or litigation and authorizing Mayor Stoddard to issue a Declaration in support of this Resolution.

WHEREAS, The Mayor and City Commission recognize that greenhouse gas emissions from human activity have been proven by the best science to be heating the oceans and atmosphere, accelerating sea level rise, and acidifying the planet’s oceans; and

WHEREAS, all of South Florida, including the City of South Miami, is threatened existentially by sea level rise induced by global warming; and

WHEREAS, On May 1, 2012, the City Commission unanimously approved a resolution sending a letter to U.S. Environmental Protection Agency (EPA) Administrator Lisa P. Jackson, supporting the EPA’s increased efforts to reduce greenhouse gas pollution under the Clean Air Act; and

WHEREAS, On August 3, 2015, the President and EPA announced the Clean Power Plan - <http://www2.epa.gov/cleanpowerplan/clean-power-plan-final-rule> ; and

WHEREAS, the Clean Power Plan is a historic and important step in reducing carbon pollution from power plants, and one that takes real action to limit human-induced climate change; and

WHEREAS, the Clean Power Plan was shaped by years of unprecedented outreach and public engagement, resulting in a fair, flexible plan, 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; and

WHEREAS, the Clean Power Plan provides national consistency, accountability, and a level playing field, while reflecting each state’s energy mix; and

WHEREAS, the Clean Power Plan furthers international cooperation on stemming climate change by showing other nations that the United States is committed to leading global efforts to address climate change.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COMMISSION OF THE CITY OF SOUTH MIAMI, FLORIDA, THAT:

Section 1. The above recitals are found to be true and correct and are hereby adopted by reference as if incorporated and set out in full in this resolution.

Section 2. The City Commission hereby expresses its strongest support for the federal Clean Power Plan rule and strongly opposes any and all requests that the Clean Power Plan rule be stayed during any periods of legal challenge or litigation. Mayor Philip K. Stoddard is hereby authorized to sign the attached Declaration on behalf of the City of South Miami opposing any and all petitions/motions to stay the implementation of the Clean Power Plan.

Section 3. The City Clerk is hereby directed to convey this resolution to EPA Secretary Gina McCarthy, and individually to all United States and Florida State Legislators representing the City of South Miami, to the Miami-Dade County Mayor, to members of the Miami-Dade County Commission, and to all cities in Miami-Dade County.

Section 4. If any section clause, sentence, or phrase of this resolution is for any reason held invalid or unconstitutional by a court of competent jurisdiction, the holding shall not affect the validity of the remaining portions of this resolution.

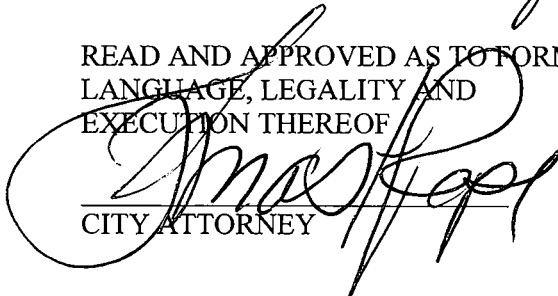
Section 5. This resolution shall take effect immediately upon adoption.

PASSED AND ADOPTED this 6th day of October, 2015.

ATTEST:


CITY CLERK

READ AND APPROVED AS TO FORM,
LANGUAGE, LEGALITY AND
EXECUTION THEREOF


CITY ATTORNEY

APPROVED:


MAYOR

COMMISSION VOTE:	4-0
Mayor Stoddard:	Yea
Vice Mayor Harris:	Absent
Commissioner Edmond:	Yea
Commissioner Liebman:	Yea
Commissioner Welsh:	Yea

EXHIBIT C

EXHIBIT C

Joni Armstrong Coffey
County Attorney



OFFICE OF THE COUNTY ATTORNEY
115 S. Andrews Avenue, Suite 423
Fort Lauderdale, Florida 33301

954-357-7600 · FAX 954-357-7641

December 4, 2015

Gina McCarthy
EPA Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Clean Power Plan Rule

Dear Administrator McCarthy:

We, the elected representatives of Southeast Florida listed below, write to you to express our strong support for the Clean Power Plan, the new Environmental Protection Agency ("EPA") rule restricting power plant carbon dioxide emissions pursuant to § 111(d) of the Clean Air Act, 42 U.S.C. § 7411(d). The rule is critical to the citizens of Florida. Any delay in implementing the rule poses a serious threat to the health, safety, and welfare of our residents.

We believe the Clean Power Plan, which will reduce greenhouse emissions from fossil-fueled power plants, will mitigate the harm that climate change is having on Florida's fragile environment and vulnerable communities. That harm includes damaged coastal areas, disrupted ecosystems, more severe weather events, and longer and more frequent droughts.

No other state is more threatened by climate change than Florida, surrounded on three sides by the Gulf of Mexico and the Atlantic Ocean, crisscrossed by rivers and speckled with lakes. Southeast Florida is particularly vulnerable to the predicted effects of climate change due to its extensive coastline, flat landscape, porous geology, and burgeoning coastal development. Likely climate change scenarios for the region indicate that reductions in rainfall and rising sea levels, which cause saltwater contamination, will tax the available freshwater supply. Most pressingly, scientists at the University of Miami have measured sea-level rise locally, finding that the sea level has risen about 0.97" per year over just the past five years.

In South Florida, Miami-Dade, Broward, and Palm Beach counties collectively have populations approaching six million residents. Millions of these residents live on or near the shoreline. Their safety depends on thousands of miles of canals for drainage and

Broward County Board of County Commissioners
Mark D. Bogen • Beam Furr • Dale V.C. Holness • Martin David Kiar • Chip LaMarca • Stacy Ritter • Tim Ryan • Barbara Sharief • Lois Wexler
broward.org/legal

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flood control. Local governments take this threat seriously. In January 2010, elected officials from Broward, Miami-Dade, Monroe, and Palm Beach Counties came together to execute the Southeast Florida Regional Climate Change Compact to coordinate mitigation and adaptation activities across county lines. The Compact has led to joint policies to influence climate and energy legislation, funding at state and federal levels, development of a Regional Climate Change Action Plan, and a technical foundation for regional climate issues.

Nevertheless, extreme high tides have become increasingly frequent and dramatic due to rising sea levels, over-topping seawalls, pushing up through storm water systems and contributing to flooding in communities far from the waterfront and coastal canals. King tides, the very highest tides, earlier this year were more severe and expansive than measured during any storm event in the last 20 years even though there was no accompanying rain. Emergency evacuation routes were flooded and businesses closed their doors in Broward County.

On Miami Beach, the City is experimenting with a new design featuring a street and sidewalk perched on an upper tier, 2 ½ feet above the front doors of roadside businesses, and backed by a hulking nearby pump house. This represents what one city engineer called "the street of tomorrow." This comes with an enormous price tag as much as \$500 million to install 80 pumps and raise roads and seawalls across the city. Hotels are already seeing the effects with visitors cancelling reservations or cutting vacations short after heavy flooding along Miami Beach. Residents' cars are severely damaged by saltwater. These impacts will only increase for the businesses that rely on tourist dollars. Overhauling major flood canal gates and pumps along the Miami-Dade coast will be costlier. In the long term, the prospect of raising homes, roads, and buildings is estimated to run into billions of dollars.¹

In Fort Lauderdale, extreme high tides are damaging property and infrastructure and hastening beach erosion. In November 2012, extreme high tides, coupled with a persistent onshore wind, contributed to severe sand loss and beach scouring, battering 2,300 feet of shoreline and causing four blocks of State Road A1A, an emergency evacuation route, to collapse into the sea. Temporary and permanent reconstruction costs exceeded \$10 million.

In the City of Coral Gables this past spring, the Community Recreation Department was puzzled by failed efforts to regrow turf on athletic fields. The protocols that were used just the previous year were checked and rechecked, yet turf would not grow. Eventually, the wells were tested and found to contain saltwater intrusion. The U.S. Geological Survey ("USGS") monitors the wells and found that the City's wells' chloride

¹ <http://www.miamiherald.com/news/local/community/miami-dade/miami-beach/article41141856.html>

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concentrations have been increasing. The city ultimately switched to the municipal water system which has increased cost in an amount that is yet unknown. Also and similarly to many South Florida counties and municipalities, Coral Gables is experiencing increased frequency of street flooding.

The City of South Miami, which abuts the City of Coral Gables, is about one-mile west of Biscayne Bay and bounded by a major canal on the southern edge that connects directly to Biscayne Bay, and is bisected by a second canal. The City's canal areas are extremely low in elevation, already contained within FEMA flood zones, prone to storm flooding, and destined to become increasingly vulnerable to riverine flooding and storm surge as sea level continues to rise. The City has already experienced almost five inches of sea level rise in the past five years alone. A recent study to assess and identify critical vulnerabilities regarding sea level rise and its effects on storm surge and inland riverine flooding, and the effect on infrastructure to the City of South Miami, has revealed an increasing vulnerability by septic systems, roads, bridges, and residential properties.

Due to the porous nature of the coral rock that is the City's foundation, the rising sea level is causing an elevation of the City's water table. This results in slowed drainage during and following rains, increased flood risk, saltwater intrusion into groundwater and soils, and the failure of residential septic systems (currently 2/3 of residences are on septic). As the sea level rises, the City will need to elevate its roads in low-lying areas and rebuild all bridges with greater clearance to handle flood waters.

The City of South Miami is attempting to do its part in combating climate change by initiating a series of Climate Mitigation Projects including initiatives to promote alternative sources of power, including solar installations, green fleet conversion, and plans to replace energy-inefficient municipal buildings.

Regionally, it has been estimated that \$3 billion in property value is at risk with one foot of sea level rise. A storm surge could magnify this figure significantly. Rising sea levels threaten evacuation routes, energy infrastructure, freshwater wellfields, and water and wastewater infrastructure. Fort Lauderdale recently estimated that upgrades to the city's storm water system to combat rising sea levels would reach \$1 billion.

Rising seas are driving saltwater contamination into wellfields. Models developed in collaboration with the U.S. Geological Survey (USGS) predict a loss of 35 million gallons per day in water supply capacity by 2060 (40% of Broward's coastal wellfield capacity), due entirely to sea level rise and saltwater contamination. These models characterized the wellfields operated by Broward County and the Cities of Deerfield Beach, Pompano Beach, Hollywood, Dania Beach, and Hallandale Beach. Pumps to replace gravity water control structures within the regional flood control system in Broward County alone are estimated to each cost \$50 million. Existing pump systems are inadequate to handle the

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increase in pressure caused by sea-level rise. Modeling performed by the USGS indicates that by 2060, increases in groundwater level caused by rising seas will require an existing pump to run 24 hours a day to maintain flood control elevations.

Clearly, the effects of climate change on South Florida communities will require massive investments in clean energy and innovative engineering solutions in the coming decades. We believe that the EPA rules are a significant step in protecting our communities and addressing the extremely serious environmental challenges that we are facing.

We are aware that several states and industry groups have requested that EPA stay the Clean Power Plan during the upcoming litigation, and that parties to that litigation are making similar requests in court. As a result of the harms our communities are currently facing (and will face in the future) from climate change, we urge you to resist any attempts to stay the Clean Power Plan, which could delay the necessary cuts in carbon dioxide emissions to address these harms.

Sincerely,


Broward County Mayor Marty Kiar

Elected representatives who endorse this letter:

FOR CITY OF CORAL GABLES:

Mayor Jim Cason
Vice Mayor Frank Quesada
Commissioner Patricia Keon
Commissioner Vince Lago
Commissioner Jeannett Slesnick

FOR CITY OF MIAMI

Mayor Thomás Regalado

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FOR CITY OF SOUTH MIAMI

Mayor Philip K. Soddard
Vice Mayor Walter Harris
Commissioner Josh Liebman
Commissioner Gabriel Edmond
Commissioner Robert (Bob) Welsh