



TESTIMONY OF JACKSON MORRIS ON THE CLEAN POWER PLAN

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Good morning, my name is Jackson Morris, Director of Eastern Energy at the Natural Resources Defense Council (NRDC), and resident of Montour County. I'd like to begin by thanking DEP for allowing me this opportunity to provide testimony.

NRDC is a nonprofit environmental organization with more than 1.4 million members and online activists, including nearly 54,000 in Pennsylvania. Since our founding in 1970, our lawyers, scientists, and other environmental specialists have worked to protect the world's natural resources, its public health, and the environment. NRDC's top institutional priority is curbing global warming emissions and building the clean energy future. I'm also a father of three, and my top personal priority is taking care of my kids.

For both those reasons I'm here to support the EPA's proposed Clean Power Plan, and provide NRDC's perspective on the opportunities for Pennsylvania to comply in a manner that maximizes job creation, consumer savings, and public health benefits. The Clean Power Plan is the largest single step ever taken to reduce global warming emissions in this country. By reducing emissions we will reduce the risk of climate impacts for our children, including the droughts, severe storms and the climate-change-related health impacts that we are already experiencing in Pennsylvania and across the country.

Here's the good news: in its proposal EPA has afforded states an almost unprecedented level of flexibility on how to meet their carbon reduction targets, and if the state pursues a constructive compliance plan, by 2020 alone, according to NRDC modeling, the proposed guidelines can create more than 5,100 new jobs in the Keystone State, contribute \$456 million in energy savings to Pennsylvania families and businesses, and significantly cut pollution in ways that will help prevent thousands of asthma attacks, heart attacks, lung cancer diagnoses and other illnesses.

And by cutting the carbon emissions that are turbocharging our weather, these standards will be a step toward moderating a trend of increasingly extreme weather events such as floods, heat waves, and wildfires. These events not only disrupt our daily lives, but result in huge costs to our economy—in 2012 alone, extreme weather cost our country more than \$140 billion, and taxpayers picked up nearly \$100 billion of the cost of cleanup, according to an NRDC analysis.

How We Got Here

I believe it's important to briefly ground this discussion in the scientific, legal and regulatory reality in which it is unfolding. The science of climate change is conclusive—over 97% of the scientific community agrees that the planet is warming, and that human activity is the primary driver of this trend. Existing power plants are the single largest source category of these emissions in the nation, and the Clean Air Act requires that EPA regulate them, just as they already do for pollutants like NO_x, SO_x, and mercury. Since 2007, the Supreme Court has repeatedly upheld EPA's ability to regulate carbon, including most recently in a June 23rd decision. As explained by my colleague David Doniger, the most important message from that decision is that the Supreme Court stands behind its prior decisions that EPA has the authority and responsibility to curb dangerous carbon pollution. In 2007 the Court decided in *Massachusetts v. EPA* that EPA can set carbon pollution standards for motor vehicles under Section 202 of the Act. And in 2011 the Court held in *American Electric Power v. Connecticut* that EPA can do the same for new and existing power plants under Section 111 –

this is the authority EPA invoked in the carbon pollution standards proposed on June 2nd. While we fully anticipate future legal challenges going forward, the case law clearly indicates that EPA is on sound legal footing as it moves forward with carbon regulations.

Now I will briefly summarize how Pennsylvania's target was set.

To know what these standards will mean, it's necessary to understand how they work. In setting them, the EPA conducted extensive "bottom up" analyses that took into account the unique starting points, energy mixes and resource opportunities in each state, and utilized the results to establish state-by-state emissions targets.

EPA has taken into consideration the carbon pollution reductions we can make in four areas or "building blocks": 1) improved coal-plant efficiency (getting more electricity out a ton of coal); 2) using existing (and already in the works) underutilized gas plants more effectively ; 3) growing renewable energy like wind and solar under existing state policies—such as Pennsylvania's Alternative Energy Portfolio Standard (AEPS), and retaining 6% of existing nuclear generation; and, 4) ramping up the energy efficiency savings from utility programs such as the weatherization and upgraded appliance rebates delivered through Act 129 implementation that help families, businesses and industry save energy and the money they spend on it.

Based on this formula, Pennsylvania has a carbon intensity reduction target of 32% in 2030 from 2012 levels.

The starting point is based on an "adjusted" 2012 rate of 1,540 pounds per megawatt hour (lbs/MWh) declining to 1,052 lbs/MWh in 2030. There's also a 2020-2029 "interim" target of 1,179 lbs/MWh to be sure we are on the necessary declining glide path to hit our final goal.

Under the rule, once EPA sets the final target, the states themselves are in the driver's seat to chase it—each one will need to submit a state plan that includes a recipe for what volume of reductions they will deliver from

each block as well as any reductions a state plans to deliver from outside those 4 blocks (it is important to note that the blocks were used to set state targets—they are *not* a prescription for how a state must comply).

The Role of Clean Energy in Compliance

In Pennsylvania, we already have some good, ongoing models that will help us meet our proposed target. In fact, since EPA used fairly conservative assumptions to generate its estimates of our renewable energy and energy efficiency potential, Pennsylvania could harvest significantly greater cost-effective carbon reductions, with increasing benefits.

On energy efficiency, the state's energy efficiency law, Pennsylvania Act 129, enacted in 2008, has already delivered huge cash and energy savings to customers and is set to deliver many more. Customers of the state's largest distribution utility—PECO—have saved roughly \$331 million since the law was first implemented; and customers of PPL—my own utility—have saved roughly \$428 million.

There's huge potential to do more on efficiency in Pennsylvania. The state's own analysis shows we can cost-effectively cut more than 27% of our forecasted energy use over the next 10 years, using currently available technology. (By contrast, EPA assumes cumulative energy savings in 2029 of just over 11%). And as my colleague Sheryl Carter lays out, EPA's assumptions or a gradual ramp up to 1.5% annual savings from energy efficiency are conservative in both terms of pace (as illustrated in the figure below, many states such as Arizona, Michigan and Ohio have gone from virtually zero to 1.5% in just a few years) and ultimate savings levels (best practices in leading states such as Massachusetts have demonstrated annual savings in excess of 2%). Furthermore, EPA estimates the cost of acquiring energy efficiency to be nearly double what many leading analysts estimate. Collectively, these conservative assumptions mean that the potential for cost-effective carbon reductions from Building Block 4 are significantly *underestimated*, and Pennsylvania could capture far greater reductions from this resource with a rapidly scaled up Act 129 portfolio.



On the renewable energy front, while the state's Alternative Energy Portfolio Standard definitely needs to be strengthened, Pennsylvania is well-positioned to ramp up. Even in its current relatively modest form, the standard has already driven the installation of more than 1,300 megawatts of wind power—Pennsylvania has 25 wind farms—providing 1.5% of the state's energy in 2013 and powering the equivalent of 300,000 homes.

A solid solar power foundation has been established as well. There are more than 440 solar companies in our state, employing 2,900 workers, and our installed solar capacity is 11th in the nation.

It is important to recognize that both of the aforementioned renewable and efficiency programs are under the jurisdiction of the Public Utilities Commission (PUC), while the obligation for submitting a State Plan to EPA falls to DEP. This dynamic means it will be very important that the two agencies closely coordinate on crafting Pennsylvania's plan. Doing so will ensure the final submission is well-designed and can be implemented in a manner that is enforceable and maximizes the state's vast renewables and energy efficiency potential.

EPA also leaves it up to states whether to enter into multi-state, regional agreements for compliance, and affords states pursuing such agreements an extra two years to submit their plans in order to work through the necessary negotiations to structure them. I will now briefly expand on this option, and explain why we believe it makes sense for Pennsylvania to consider it.

Regional Approaches

Pennsylvania is the second largest producer of electricity (behind Texas), and is the number one net exporter of electricity nationally—in 2011 roughly 35% of all power generated was exported. As a result, a significant volume of the carbon emissions from our power plant fleet is attributable to power consumed somewhere else. NRDC strongly supports EPA's proposal to allow states to pursue regional, multi-state approaches to compliance. As the Regional Greenhouse Gas Initiative (or "RGGI") has demonstrated, a regional approach has a number of advantages. These include but are not limited to greater flexibility for compliance entities, better alignment with energy markets—as electricity flows don't stop at state borders—and lower net costs for compliance, which benefits consumers. In fact, a recent report from the Analysis Group found that "RGGI produced in total \$1.6 billion in net present economic value (NPV) for the [RGGI] region." Such interstate value might be achieved by linking the energy-intensive states of Ohio, West Virginia, and Pennsylvania (and potentially Illinois, New Jersey, Maryland and Delaware), and their assets to achieve these benefits at the lowest cost (states entering in to such agreements need not be geographically contiguous).

This approach could involve exploring what joining RGGI would entail, but is by no means the only option—alternatively Pennsylvania could engage in discussions with other interested states to establish a separate/parallel multi-state program independent of RGGI but that could draw on lessons learned in that program regarding the establishment of an auction system, allowance tracking, model rule and MOU experiences, and other components.

Now I will briefly touch on the issue of reliability.

There has been a great deal of somewhat alarmist rhetoric circulating in the wake of this past winter's polar vortex and its impact on the electric system. Some have argued that it illustrates that EPA should not implement the Clean Power Plan because it would threaten reliability. But if we begin to look at trends that have already been in motion for years in the generation sector due to market forces and already finalized mercury regulations (MATS), a different picture emerges.

A 2012 Brattle Group analysis assessing coal plant retirement trends due to various drivers found that "59 to 77 GW . . . of coal plant capacity are likely to retire instead of retrofit with environmental equipment. These retirements occur absent any future regulations restricting carbon emissions. [Brattle's] range of projected retirements drops to 21-35 GW if there were a \$1/MMBtu increase in gas price (relative to current forwards) and increase to 115-141 GW with a \$1/MMBtu decrease in gas price.... Thus, gas prices are a much more significant influence on retirements than the stringency of the remaining regulations."

The entity responsible for operating the grid and maintaining reliability in Pennsylvania and the region—PJM—has provided its perspective on this issue in various forums. As reported by my colleague John Moore, after a thorough assessment of reliability concerns related to projected retirements, PJM has determined that . . . thousands of megawatts' worth of power plants can cease operations without causing any grid reliability problems. Reflecting on the Polar Vortex in April, PJM informed FERC that it will have more than enough power to meet reliability needs after accounting for all planned retirements from companies across the region.

PJM secures necessary power supplies through an annual auction that runs three years into the future. As a result, PJM has determined that its needs through 2017 will be met by existing coal, gas, and nuclear power plants supplemented by nearly 19,000 MW of *new* power generation, energy efficiency resources, and power imports from neighboring regions of the country, plus over 12,000 MW of "demand response."^[1] The

combination of resources will more than offset the approximately 15,000 MW in expected regional coal plant retirements, leaving PJM with about 20 percent more capacity available than needed to meet projected demand.

In addition to these PJM perspectives, the Federal Energy Regulatory Commission (FERC) recently weighed in on the issue at a June 29th Congressional hearing. As summarized by my colleague Allison Clements, Acting Chairman Cheryl LaFleur has consistently embraced working with EPA and others to ensure the grid stays dependable under the plan, and the rest of the commissioners were explicit that any reliability issues related to the plan would be manageable. Commissioner Norman Bay characterized such challenges as “manageable;” Commissioner Philip Moeller, a Republican appointee, described them as “not insurmountable;” and Commissioner John Norris called the plan “feasible” and “workable.”

In summary, while more detail is needed as the rule is finalized and states come forward with compliance plans, despite the claims by opponents of the proposal, the entities who closely monitor the system and are tasked with keeping the lights on appear to believe the EPA Clean Power Plan can be implemented while also maintaining reliability.

DEP White Paper

And finally, I'd like to briefly provide NRDC's perspective on the DEP's White Paper released in April, which was the focus of DEP's testimony at a Senate Energy and Environment Committee hearing on June 27th. First, we agree wholeheartedly with the White Paper's conclusion that “States must be allowed to join with other states in multi-state or regional programs.” EPA has clearly stressed in their proposed rule that they welcome such approaches, and afford states wishing to pursue them extra time to submit State Plans.

However, beyond this point, based on our read if Pennsylvania were to submit a State Plan to EPA along the lines of what is laid out in the White Paper we believe it would be rejected, resulting in the state being subject

to a federal backstop plan, or "FIP". This assessment is also consistent with the response provided by Deputy Secretary Brisini when this very question was posed by a member of the Senate hearing in late June. Such an outcome is not in the interest of regulated entities or consumers—the better approach is for Pennsylvania to craft a smart plan that can be approved by EPA, thereby empowering the state to chart its own path in a manner that best suits the state while meeting the target.

Conclusion

EPA's proposed plan is an important step forward for the nation. NRDC is now working to build on this proposal and adopt a strong final rule next year. In the meantime, regulators—both at DEP and the PUC—can now begin exploring smart compliance options that will make us national clean-energy leaders.

The science is conclusive, the case law is clear, what remains is for Pennsylvania to seize this opportunity and devise a smart plan that maximizes job creation, bill savings for consumers, and public health benefits. We look forward to continuing to work with your committee and other state decision makers to ensure Pennsylvania pursues such an approach.

Thank you.