



Testimony of the Pennsylvania Coal Alliance
before the Pennsylvania House and Senate Coal
Caucuses

RE: Public Hearing on EPA's Proposed "Clean
Power Plan"

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Good morning chairmen, members of the House and Senate Coal Caucuses, thank you for the opportunity to testify on this very important issue.

My name is John Pippy and I am CEO of the Pennsylvania Coal Alliance (PCA).

PCA represents the interests of more than 300 mine operators and businesses statewide that rely on the welfare of the bituminous coal industry. The Alliance's producing members account for about 90 percent of Pennsylvania's annual coal production.

The Pennsylvania Economy League reports that the Commonwealth's coal mining industry supports more than 36,000 jobs and adds over \$4 billion annually to the state economy. Coal industry jobs pay an average salary of \$79,127, with a collective statewide annual income exceeding \$2 billion. On the local level, taxes from the industry support infrastructure updates, community programs, schools and more, preserving the quality of life for many Pennsylvanians.

The coal industry in Pennsylvania is viewed as a leader in reclamation efforts, addressing environmental impacts from the crude mining practices of generations past. The industry pays a per ton tax that goes into a federally administered fund and is returned to the states under a statutorily-designed formula. Since the inception of this tax, Pennsylvania coal operators alone have paid almost \$600 million into the fund and the total dollar amount Pennsylvania has received from the fund within this time span exceeds \$1.1 billion. This money is used toward returning previously mined lands back to sound natural habitats; in many cases to an even healthier state than they began. From this program alone, to date, 67,211 acres of previously abandoned mine lands have been fully recovered in Pennsylvania at no cost to the Commonwealth or its taxpayers.

Coal accounts for about 40 percent of the electricity generated in Pennsylvania and the steam coal market represents about 80 percent of our market for coal. Any law or regulation that deliberately or unintentionally impedes coal usage by electric generators not only threatens the affordability and reliability of electricity to ratepayers but will also cause severe economic consequences to coal production, jobs and livelihoods, local tax bases and the overall state economy.

The Environmental Protection Agency (EPA) has taken advantage of the cyclical market conditions created by the influx of cheap natural gas and a decrease in electric demand to introduce the harshest regulation on the coal industry to date. While the price of natural gas is sure to fluctuate and the demand for electricity to rise as the economy strengthens, the EPA's proposed "Clean Power Plan" will be the cheap shot that cripples the industry from rebounding when the demand market returns.

The Pennsylvania Public Utility Commission (PUC) submitted comments of opposition and stated, "...the EPA has not given sufficient consideration to the impacts its proposal will have on organized electricity markets and the challenges that the proposal presents to system reliability and the economy."

At the May 2015 DEP Quarterly meeting, PUC Commissioner Powelson presented that this rule, as proposed will have significant impacts on grid reliability, wholesale markets, retail electric prices and regional generation composition.

Under the proposed plan, Pennsylvania's average interim emission rate goal (2020-2029) is 1,179 lbs/MWH and its final emission goal is 1,052 lbs/MWH. To achieve the final goal, Pennsylvania would have to reduce carbon emissions by 32 percent over 2012 levels.

Pennsylvania's Energy Market

Pennsylvania is one of the top three electricity-generating states in the nation and boasts a strong and diverse electric portfolio enabling the Commonwealth to export energy, while keeping prices low for residents and businesses. Coal provides a strong supply of baseload electricity, safeguarding ratepayers against spikes in demand and rapid price increases. This allows energy-intensive industries such as manufacturing to be able to forecast pricing and do business in Pennsylvania because of the predictable and reliable market. Pennsylvania has maintained a stable and reliable supply of electricity at competitively-priced rates, not only lower than the national average, but 17 – 37 percent lower than its northeastern neighboring states. This can be attributed to the fact that about 97 percent of its generation mix comes from lower cost and indigenous energy sources – coal, natural gas and nuclear power.

Additionally, Pennsylvania has an energy portfolio standard and law that requires its electric distribution companies to adopt plans to reduce energy demand and consumption within their service territories. Pennsylvania utilities are also required to purchase a percentage of renewable energy, regardless of the current market prices.

The proposed rule would prematurely transfer utilities away from coal to less reliable sources of electricity. The EPA is blatantly circumventing state's rights by mandating energy policies disguised as environmental regulation. According to the PUC, this conflicts with the Federal Energy Regulatory Commission's responsibility under the Federal Power Act to regulate wholesale electricity markets.

The proposed rule has been peddled as flexible and achievable, but as made clear by comments of opposition submitted by the industry, utilities and grid operators nationwide, the interim steps for an achievable and realistic regulation have been overstepped. The rule calls for a 30 percent reduction of carbon emissions by 2030 and gives states one year to determine the path to achieve this goal. Coal-fired power plants have already decreased other emissions from coal, by 85 percent per electric unit – meeting and exceeding previous EPA regulated air quality emissions mandated by the National Ambient Air Quality Standards.

This past track record of achieving standards demonstrates government and industry working together to set realistic goals so that the industry can continue to evolve and meet targets. The extremity of the proposed rule has caused uncertainty within the coal industry and investors are hesitant to invest funds in research and development for carbon technology. As a result, the lack of available technology makes achieving the current greenhouse gas regulations impossible in the timeframe mandated. The Pennsylvania Department of Environmental Protection (DEP) projected, based on EPA's four building blocks, that coal use by Pennsylvania's coal fleet will decrease by 68 percent.

Pennsylvania has already reduced greenhouse gas emissions by 12 percent between 2005-2012 and in PCA's comments submitted to the EPA, we asked for clarification on how its plan credits states like Pennsylvania that have made cuts to carbon emissions before 2012.

States should not be punished for taking the lead in developing long-term and sustainable energy programs that include a true all of the above strategy and promote growth in newer energy sources while maintaining access to reliable and low-cost sources of baseload energy such as coal, nuclear and natural gas.

Impediments to Coal-fired Generation

The EPA proposal further identifies four options or "building blocks" that it considers to be the best strategies for emission reductions that states could deploy in a mix-and-match fashion to meet their target reductions:

1. Heat rate efficiency improvements at electric generating units (EGUs)
 - a. This option does not address if the EPA intends to exempt such upgrades from new source review (NSR) triggering mechanisms. Without such an exemption, the NSR provisions will deter such efficiency improvements.
 - b. This is also based on the assumption that coal-fired power plants or EGUs can improve their heat rate by 6 percent. A 1-2 percent improvement is more realistic running at an efficient speed. However, if the rule is implemented as proposed, plants will run less efficiently to cut emissions, making heat rate improvement targets less realistic.
2. Load shifting/redispatch (e.g. shifting baseload generation from coal to natural gas combined cycle units)
 - a. This option assumes natural gas combined cycle units can increase to a 70 percent capacity factor when in reality, most plants have never run at this capacity and the current pipeline and grid infrastructure will not support that level of operation, particularly during times of peak usage. Major investments and aggressive build outs will be necessary to direct that level of capacity, yet the EPA has not addressed this obstacle.
 - b. According to the PUC, there will be significant regulatory delays in federal approval of interstate natural gas pipelines and concerns on permitting.
3. Renewable generation increases
 - a. Even doubling the amount of wind and solar in Pennsylvania would only account for 3 percent of total power generation and there are already strong subsidies to support growth and mandates in the Alternative Energy Portfolio Standard (AEPS) to also support their forced consumption.
 - b. The EPA's renewable portfolio standard requires Pennsylvania to reach 8 percent by the interim goal of 2020 and 16 percent by 2030 (over 35,000 GWh).
 - c. According to the PUC, this will cause conflict with state authority over renewable resources and energy efficiency programs and push early adopters before it is economically viable.
 - i. The AEPS already requires that by 2021, utilities purchase 8 percent of their overall power from renewables.
4. Demand-side energy efficiency programs to reduce the demand for electricity
 - a. This option touts that a 1.5 percent annual efficiency gain being sustained for thirteen years is "reasonably achievable" despite the Electric Power Research Institute finding that the average annual achievable energy efficiency potential is no more than 0.6 percent for states.
 - b. In the EPA's own "GHG Abatement Measures" technical support document, it shows that between 2006 and 2010, only one state (Vermont), sustained such a high energy efficiency rate.
 - i. Pennsylvania's efficiency gains were 0.19 percent between 2006 and 2008, 0.23 percent in 2009 and 0.12 percent in 2010 meaning there would be no room to expand manufacturing and other energy-intensive industries to grow and they would actually have to scale back energy consumption.
 - ii. Further efficiencies can only be achieved to a point before life style changes on consumption will need to be mandated.

Essentially, these options would turn our electric generating profile away from coal. For energy-producing states like Pennsylvania, this shift would be severe.

If Pennsylvania's compliance plan to meet the federal reduction targets relies on the agency's options to the extent that EPA deems feasible, and based on projected coal consumption levels by Pennsylvania's EGUs provided to Pennsylvania DEP, coal consumption by Pennsylvania's electric utilities would decrease by 68 percent by 2030 compared to 2012 consumption levels, dropping from 33 million tons to a little over 10 million tons. Moreover, the annual capacity factor of Pennsylvania's coal fleet would decrease from 55 percent to 17

percent over the same period. There is no way that these plants would be able to continue to run economically at such a low capacity factor.

Given the affordability and reliability of coal as a source of electricity, this regulatory attempt to displace coal will have profound and sweeping consequences, not just on the coal industry and its workers but also on those communities that host coal-fired power plants, those employed at these facilities, all energy-intensive industries and every ratepayer who depends upon the reliable provisioning of electricity at competitive rates.

The UMWA estimates that this rule could take as much as \$208 billion out of the coalfield communities over the next 20 years.

Price and Reliability

In addition to economic ramifications, grid operators, utilities and state regulators are worried about the reliability of our electric grid under this proposal, given the rule's focus to shift the sources of our generation mix to more volatile and intermittent fuels. While the EPA claims that alternate sources such as natural gas and nuclear will be able to meet demand, the actual grid operators, utilities and public utility commissions nationwide have publicly opposed the rule citing lack of infrastructure and a source that can supply the same baseload electricity that coal provides.

The North American Reliability Corporation, a not-for-profit which assures the reliability of the bulk power system in North America stated, *"The proposed timeline does not provide enough time to develop sufficient resources to ensure continued reliable operation of the electric grid by 2020. To attempt to do so would increase the use of controlled load shedding and potential for wide-scale, uncontrolled outages."*

In Pennsylvania, the PJM Interconnection grid which provides power to over 60 million consumers with a capacity of 142 GW, experienced demand of 141 GW on January 7, 2014 – over a 99 percent grid utilization rate. Much of this electricity came from power plants that are vulnerable to shutdowns on account of stalled investments and the industry hesitation to grow created by these aggressive regulations.

There are 1.4 million Pennsylvania households earning less than \$30,000, representing 29 percent of the state's households and 48 percent of Pennsylvania's households earning less than \$50,000. These middle and low-income families spend 19 – 22 percent of their after-tax income on energy. Even the EPA admits the proposed rule will cause a rise in the cost of electricity. According to the National Economic Research Associates, it will drive up the price of electricity 14 – 22 percent in Pennsylvania. According to the U.S. Chamber, these over-zealous regulations will cost U.S. consumers to pay nearly \$290 billion more for electricity between 2014 and 2030.

On the commercial side, all energy-intensive industries will be faced with considering the cost of doing business in Pennsylvania and respectively, the U.S. as the reliable, baseload energy becomes less available to balance out the energy market. In 2012, manufacturing employed 574,000 Pennsylvanians, accounting for 10 percent of the total workforce with average salaries 44 percent higher than nonmanufacturing sectors.

Cost versus Benefit

Last year global coal use grew by 3 percent, faster than other fossil fuel, an obvious indication that other countries are embracing, not turning away from coal. In the U.S., the destruction of the coal industry has been targeted as the silver bullet to climate change, but combined, carbon emissions from U.S. coal-fired power plants account for less than 3 percent globally, according to an analysis by the American Coalition for Clean Coal Electricity using EPA data. According to testimony from the Institute for 21st Century Energy, the Energy Information Administration reports non-U.S. carbon emissions — which already represent 82 percent of global

emissions —are projected to grow by 41 percent between 2010 and 2030. Essentially, the EPA’s proposed rule will offset the equivalent of 13.5 days of Chinese emissions in 2030, based on U.S. Department of Energy projections.

The United States is the only country among the top energy producers to have reduced carbon emissions in the last decade. As we reduce our consumption of coal, paying the annual compliance cost of \$5.4-\$7.4B in 2020, rising up to \$8.8B in 2030, according to the U.S. Chamber, developing countries will be strengthening their economies on the back of coal. Even more disconcerting is that as we are forced to divest from coal and electric rates increase, jobs in energy intensive trade-exposed industries such as steel, manufacturing and chemicals that Pennsylvania relies on will go overseas where electricity from coal-fired power plants is cheaper, but the process is far less environmentally friendly than the U.S. We will essentially be moving the emissions globally, losing the economic benefit and adding more carbon emissions to the same air. The U.S. Chamber of Commerce estimates the cost of compliance will be \$51 billion in lost gross domestic product annually.

Conditional Flexibility

EPA promotes this plan as providing maximum flexibility to the states in charting their compliance plans. Make no mistake about this plan – there is flexibility only if a state is willing to transform its source of electricity away from coal. Pennsylvania and other coal-dependent states cannot comply with this plan and maintain their robust supply of coal-fired electric generation. The way EPA has developed its proposal, these are mutually exclusive pathways.

Conclusion

Interim and achievable goals are a vital part of any industry evolution. Carbon emissions from transportation are not far behind those emitted from the production of electricity, but the transportation sector has been given incremental fuel economy goals to meet that are attainable without shuttering an entire industry. Why is coal not being afforded the same opportunity to evolve?

This rule will dictate the makeup of each state’s electric generation mix in 2020 and beyond. As such, the proposal is as much an energy policy with broad economic and social impacts, as an environmental rule. Therefore, it warrants legislative review and approval to ensure that those citizens who will literally pay the price for EPA’s energy agenda – including working families, the poor and elderly – will truly have a voice in its content.

Governor Wolf and DEP Secretary Quigley’s comments on protecting the role of coal in Pennsylvania, the jobs associated with it and Pennsylvania’s position as a net energy exporter when developing this plan have given us hope. However, as the rule is proposed, there is no potential to develop a State Implementation Plan that maintains coal’s viability in Pennsylvania. We look to you in the legislature to work with the Administration as Act 175 is carried out and the process of hearings and stakeholder involvement plays out following the publication of this rule. On behalf of all Pennsylvanians, thank you for leading on this issue and working to protect the Commonwealth from the impacts of the proposed rule.

Thank you for this opportunity to testify.