

Testimony to DEP on Carbon Regulations under Section 111(d)

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Good afternoon, my name is Tom Schuster and I represent the Sierra Club, which has nearly 24,000 members in Pennsylvania.

Contrary to recent comments by incoming Secretary Abruzzo, climate disruption clearly poses a threat to Pennsylvania. According to the Intergovernmental Panel on Climate Change, Pennsylvania is projected to see an increase in average temperature over the next century of between 3.5 and 12.5 degrees F, and an increase in precipitation of roughly 7%. This is expected to result in more extreme weather events, which will negatively impact public health and safety, infrastructure, and agriculture. As examples of the potential economic costs of this type of climate disruption, damages from 10-year floods in Allegheny County alone could increase to nearly \$10 billion per event,<sup>1</sup> and losses due to decreased production in the dairy sector alone could cost the state 5,300 jobs and nearly \$500 million per year.<sup>2</sup> These are just two of the many issues we face; others include an increase in respiratory diseases and premature death due to the interaction of heat waves and ozone formation, introduction of new diseases, loss of ecological diversity and species extinction.

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<sup>1</sup> Choi Onelack and A. Fisher, "The Impacts of Socio-economic Development and Climate Change on Severe Weather Catastrophe Losses: Mid-Atlantic Region (MAR) and the US," *Climatic Change* 58 (2003): 149-170.

<sup>2</sup> Regional Economic Studies Institute, Calculations using modified IMPLAN™ economic model from the Regional Economic Studies Institute, Towson University (PLACE: RESI, 2008).

Pennsylvania is a disproportionately large contributor to the problem. According to the DEP's own 2009 climate change action plan, the Commonwealth is responsible for a full 1% of global carbon pollution, despite being home to less than 0.2% of the world's population. President Obama has committed the United States to a 17% reduction in CO2 emissions by 2020 compared to 2005 levels. It is unknown at this time what the EPA will require from each state in terms of emissions reduction from existing power plants, but the Sierra Club has concluded that in order to meet this target for the overall economy, the electric power sector will have to reduce emissions by approximately 35%-40% in this timeframe. These reductions are consistent with scientific consensus regarding emissions reductions necessary to avoid the most catastrophic global temperature increases.

Pennsylvania is already making progress toward this target. Between 2005 and 2011, power sector emissions of carbon dioxide declined about 10%, due to a combination of factors including Act 129 requirements to increase efficiency, federal appliance and lighting efficiency standards, clean energy mandates in the Alternative Energy Portfolio Standard, fuel switching from coal and oil to natural gas, and overall slow economic growth. An analysis by the World Resources Institute<sup>3</sup> has concluded that emissions savings from these existing policies will level off in the coming years, meaning that additional actions are needed to achieve the necessary carbon emissions reductions. But our past progress will make these reductions feasible.

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<sup>3</sup>[http://www.wri.org/sites/default/files/power\\_sector\\_opportunities\\_for\\_reducing\\_carbon\\_dioxide\\_emissions\\_pennsylvania.pdf](http://www.wri.org/sites/default/files/power_sector_opportunities_for_reducing_carbon_dioxide_emissions_pennsylvania.pdf)

Recognizing that we don't know what the emissions reduction targets EPA will require at this point, we believe that state plans to implement these reductions should contain the following elements.

First, each existing source should be responsible for achieving some level of emissions reduction on site. This is important because we interpret the intent of Section 111d to achieve actual reductions from the sources themselves. It will also help protect communities from undue concentration of associated non-carbon air pollution from specific sources if some level of emissions reduction is required by each source. We do not know what the target emissions reductions should be at this time. However, we do not expect that these reductions will be sufficient to meet the proposed overall standard.

Second, the predicted shortfall between the on-site emissions reductions and the overall standard can be met by ramping up energy efficiency and clean energy requirements statewide. The EPA has indicated so far that it will allow a large degree of flexibility with regard to how states implement the required emissions reductions. This could include higher end-use efficiency targets for utilities under Act 129, and higher requirements for Tier I energy sources in the Alternative Energy Portfolio Standards, or even Pennsylvania's participation in the Regional Greenhouse Gas Initiative. The EPA already offers guidance for how states can incorporate these types of programs into their State Implementation Plans.<sup>4</sup>

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<sup>4</sup> <http://www.epa.gov/airquality/eere/manual.html>

Third, any plan to offset existing source emissions with offsite reductions should focus on energy efficiency and zero-carbon generation, rather than on fuel switching to natural gas. Since carbon pollution limits must continue to decline over time, heavily investing in gas now will be detrimental to achieving long-term goals despite initial emissions reductions of gas relative to coal. Furthermore, natural gas extraction results in methane emissions that exacerbate climate disruption and would not be covered by this standard.

Fourth, the plan should be enforceable. The SIP should include robust provisions for citizen suits to enforce the standards. The development of the plan should also include a robust public input process so that it can incorporate the concerns of communities impacted by the rule and by the pollution it aims to reduce.

We appreciate the opportunity to share our thoughts at this early stage on how to limit carbon pollution from existing sources, and look forward to an ongoing dialogue on this critical rule. Thank you.