



pennsylvania environmental council

Department of Environmental Protection  
Policy Office  
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March 29, 2016

To whom it may concern:

On behalf of the Pennsylvania Environmental Council (PEC), I am writing to express our support of the state's efforts to address greenhouse gas (GHG) emissions, and to submit the following comments on the *Draft 2015 Climate Change Action Plan Update*.

We commend the Climate Change Advisory Committee for drafting such a comprehensive update. One concern we have is that the plan does not set a target for GHG reductions. While not explicitly required by law, without a specific target, and timeline for achieving it, the recommendations in the plan are of limited significance. Only with a meaningful, and actual target, can decision makers then assess what combination of actions from the plan will be the most cost-effective means for achieving sufficient GHG reductions.

There is general consensus among experts that the goals of the Clean Power Plan will not be sufficient to achieve the carbon reductions necessary to prevent irreparable harm from climate change. Strategies chosen to meet a twenty or thirty-percent goal may not be the most cost-effective options for reaching a fifty or eighty percent target. In fact, they could lock us into pathways that make it more expensive to eventually achieve deeper reductions.

At a minimum, the state should be focusing on a goal of 80% reduction in GHG emissions by mid-century. PEC recommends a strategy of *deep decarbonization*, with a particular focus on electricity generation and use, which has historically been the largest

contributor of GHG emissions in the state accounting for over one-third of statewide gross GHG emissions in 2012.

The results of the Center for Climate Strategies' macroeconomic analysis dispel the myth that climate protection is at odds with economic goals. While not all actions are ranked equally, most recommendations result in increased household and individual welfare.

Comments on specific recommendations within the plan follow. Thank you for the opportunity to review and comment on this plan.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Davitt B. Woodwell', with a long horizontal flourish extending to the right.

Davitt B. Woodwell  
President and CEO

Enclosure

## **Renewable Energy**

We support the recommendation to increase the generation of renewable energy in the state, including increasing the Alternative Energy Portfolio Standard (AEPS) targets. Any re-visitation of AEPS should ensure that only non-emitting or carbon-neutral sources are included in Tier I or II.

However, it is important to understand that because of the intermittency of renewable sources like solar and wind, increases in renewable sources do not always result in GHG reductions. To guarantee carbon reductions, we must ensure that the base load power during times renewables are not available is as clean as possible. It is important that clean energy incentives are structured to achieve the best possible overall fuel mix, and do not have the unintended impact of disadvantaging existing zero- and low-emitting sources, including nuclear.

Obviously there are co-benefits to Pennsylvanians of increased renewable energy opportunities, such as clean job creation, air quality improvements, and cost-savings. However, the purpose of this plan is to prevent further climate change, and as such, the recommendations contained herein should prioritize reductions in GHG emissions.

To the extent that programs and incentives are offered to encourage solar photovoltaics, it is our understanding that the availability of low-interest, long-term financing may be more effective in increasing adoption of solar technology than a limited time rebate program such as PA Sunshine. We urge the DEP to consider whether a more cost-effective program might be developed to attract private capital. One example could include state support in the form of a loan loss reserve fund for independent lenders, such as credit unions and community banks, to create financing options specifically for solar.

Feed-in-tariffs (FIT) could also be an effective mechanism for attracting private capital for distributed renewable energy. However, they must be carefully structured to ensure costs stay under control, and that rates are reviewed and adjusted on a regular basis in line with any rise or fall of both grid electricity rates and solar equipment costs – not only to limit costs to ratepayers, but also to continue to drive innovation in the industry. We strongly encourage the state to seek expert advice on whether a FIT is the most cost-effective mechanism for achieving GHG reductions, which is the intent of this plan.

Finally, we strongly support the adoption of community solar enabling legislation to allow for full development of our state's solar resources. This legislation would align well with existing solarize campaigns and the recommendation to create a solar exchange.

## **Address Methane leaks**

Given Pennsylvania's extraordinary natural gas footprint, it is imperative that the state undertake a comprehensive approach to reducing methane emissions from active and abandoned wells. Pennsylvania is currently the second largest producer of natural gas in the country, and our landscape is littered with an untold number of orphaned and abandoned wells from more than a century of unregulated development.

PEC supports the Methane Reduction Strategy announced by Governor Wolf on January 19, 2016. This Strategy will bring the Commonwealth in line with other leading states like

Colorado for unconventional sources of emissions. However, Pennsylvania must pursue a similar strategy with conventional oil and gas operations. Timing is critical for this effort, as methane's most damaging contributions to climate change occur within the first twenty years.

The Commonwealth should also pursue renewed funding for identifying and plugging abandoned and orphaned wells. There are efforts in other producing states, like Oklahoma, where operators have a vested role in well identification and plugging. Pennsylvania should consider incentives to active operators to help locate and address abandoned wells.

### **Energy Efficiency and Conservation**

We encourage the state to focus on those measures that have the least cost and greatest certainty of reducing emissions. The Act 129 Energy Efficiency and Conservation Program has been very successful, resulting in a return on investment of \$2.40 for every dollar invested. We support the plan's recommendations to expand to a 4<sup>th</sup> and 5<sup>th</sup> phase, to remove the 2% spending cap, and to expand to natural gas utilities. Natural gas accounts for 51% of home heating and is currently not addressed by Act 129.

We strongly support the recommendation to adopt and use the most up-to-date building code, as well as an emphasis on combined heat and power and multi-family properties. Several recommendations relate to providing consumers with better information, such as providing information on energy usage compared to neighbors, or instituting an energy disclosure for change in property ownership.

In addition to these measures, two that were not mentioned specifically in the plan, but should be considered, are greater adoption of the Home Energy Score (HES), and integration of energy-related fields into multi-list services. The HES was developed by the Department of Energy to be similar to a miles-per-gallon rating on a vehicle, indicating how expensive a home is to operate. The HES and/or other energy-related information can feed into the regional multi-list service (MLS), which provides realtors and homebuyers with information on the home, and allows appraisers to assess the value of energy-features when identifying comparable properties. These two measures are important steps to recognizing the value of energy efficiency in the market.

Finally, while the proposed Re-Light Pennsylvania program has potential to result in short-term electricity savings, we caution program developers to ensure it does not have the unintended effect of reducing potential overall savings. Because lighting typically has the shortest payback of all building efficiency projects, bundling lighting projects with retrofits that may have longer payback periods, such as HVAC replacements or improvements to the building envelope, can improve the overall economics of the building project and lead to a more efficient building, as compared to picking out the lowest-hanging fruit first. For the so-called MUSH sector (municipal, university, schools, and hospital), the existing PennSEF program offers an excellent opportunity to complete comprehensive projects using performance-contracting.

### **Energy Efficiency Financing**

While energy efficiency improvements can result in significant monetary savings, the upfront cost can be an insurmountable barrier for many projects. We are greatly encouraged by recommended actions in the plan such as funding the Keystone HELP/WHEEL programs, and greater use of energy efficient mortgages, on-bill repayment, property assessed clean energy (PACE), and performance contracting. We urge the state to consider efforts specifically to market these programs to “middle-income” homeowners – those individuals and families who do not qualify for low-income programs, but do not have access to capital or financing to make improvements on their own.

In addition to creating financing tools, the state can play an important role in integrating information on a building’s energy use into real estate transactions. While energy disclosure requirements at the time of sale are one option, voluntary options also exist, such as including “green” and energy-related fields in the multi-service listing (MLS), the regional database of available properties. Having improved information allows actors in real estate transactions to make more informed decisions. As mentioned above, it also provides an avenue for appraisers to identify comparable properties on which to justify the increased value of a home or building resulting from energy improvements, which today are not recognized in many MLS databases.

### **Transportation**

The transportation sector accounts for nearly one-quarter of gross GHG emissions in Pennsylvania. Emissions reductions can result from reduction in vehicle miles traveled, mode switching, fuel switching, and smart land use planning. We are disappointed that there was not more of a focus in the plan on expanding the utility and use of public transit. Effective and affordable public transportation serves to reduce the carbon footprints not only of transit riders, but also of other cars and trucks, as better transit allows for fewer vehicles on the road, easing congestion and minimizing idling.

In addition, the portion of the plan that refers to bicycles focuses on commuters; however, the largest opportunity for reducing car travel exists by encouraging “non-commute” trips—shopping, errands, and leisure. The majority of these trips occur within two miles of home, a reasonable distance for most people to consider biking, if they feel “safe.” For many cyclists, community trails feel much safer than city streets.

While grant funding for trail infrastructure is offered by both the Pennsylvania Department of Transportation (PennDOT), through federal funds, and the Pennsylvania Department of Conservation and Natural Resources (DCNR), these are usually seen as “either/or” funding sources. Leveraging the two, and improving coordination between the two agencies, could lead to greater impacts. Trail projects can often be realized for smaller funding investments than larger infrastructure efforts, but current transportation planning does not currently prioritize these projects.

Finally, Pennsylvania would benefit from a “Complete Streets Policy,” whereby all transportation projects must show that planned projects have considered bicycle and pedestrian accommodations. The City of Portland, Oregon estimates the climate benefits of its complete streets program to be a per capita GHG reduction of 12.5%. Currently, several

counties and municipalities have complete streets programs, but a statewide policy would change regional planning efforts across the Commonwealth for the better.

### **Forests**

Preserving and increasing Pennsylvania forestland is critical to the storage of carbon dioxide. According to the plan, “in 2015, state forests sequestered 4.7 million tons of carbon, while storing (above ground) 143 million tons. Forest soils are also important reservoirs for storing below, ground carbon.” Additionally, urban forests help to combat the heat island effect, and can be strategically planted to shade buildings to reduce cooling needs and create wind breaks.

It is important to remember that private landowners own and manage 70% of Pennsylvania’s forests and woodlots. Focusing on state-owned forestland is important, but not enough. Independent forest owners must be engaged in climate protection efforts.

Finally, we urge the state to consider forestry efforts that not only sequester carbon or climate protection, but also are strategically located to address other environmental challenges. Examples include riparian plantings, particularly in the Chesapeake Bay watershed, and plantings in urban areas, both of which will improve water quality by reducing runoff and help the state and its municipalities to meet Federal mandates

### **Agriculture**

As agriculture only accounts for approximately 3% of GHG emissions in Pennsylvania, we urge the state to put more emphasis on carbon-reducing actions across other sectors. To the extent that actions are taken within agriculture to reduce GHG emissions, they should be in concert with efforts to diminish waterway impacts from farm operations. For example, the use of no-till and crop rotation farming practices not only enables the soil to sequester more carbon, but reducing erosion and sedimentation. The increased use of manure digesters has the potential to lead to reduced run-off of nutrients, by improving manure management.

### **Carbon Capture and Storage (CCS)**

While efforts to develop CCS should not draw attention away from a long-term goal of developing less carbon-intensive electricity sources, by most accounts we will need to utilize coal and natural gas for at least the next two decades to meet a portion of our electricity needs. Capturing the carbon from the burning of these fuels is imperative. CCS should be seen as a bridge to achieving a renewable energy future. We encourage the state to tap into the research and expertise at Pennsylvania based institutions such as Carnegie Mellon University and the National Energy Technology Lab in southwestern Pennsylvania to determine how CCS best fits into an overall fuel mix.