Department of Environmental Protection
Policy Office
Rachel Carson State Office Building
P. O. Box 2063
Harrisburg, PA 17105-2063

March 30, 2016

To whom it may concern:

On behalf of the ReEnergize Pittsburgh coalition, we are writing to express our support of the state's efforts to address greenhouse gas (GHG) emissions and to respectfully submit the following comments on the *Draft 2015 Climate Change Action Plan Update.*

ReEnergize Pittsburgh is a coalition of non-profits, utilities, realtors, energy auditors, and representatives of local government, working together to increase access to and demand for energy efficiency and healthy homes, increasing quality of life for homeowners and renters of all income levels throughout Western Pennsylvania. We bring together diverse stakeholders aligned around this goal, collaborating to leverage resources, share information, and coordinate services in order to increase energy literacy among residents and empower them to make informed energy decisions, leading to a cleaner healthier environment. More information on this initiative is available at reenergizepgh.org.

Energy efficiency represents the cleanest, cheapest, and fastest method of emissions reduction. The cheapest kilowatt is the one that is not used. The benefits of demand-side energy efficiency include reduced energy costs for consumers, reduced demand on the grid, job creation, workforce development, and improved health of our citizens and our environment. We applaud the DEP for including recommended actions related to energy efficiency in this plan.

Buildings in the United States account for 39% of total energy consumption and 38% of total carbon dioxide emissions. The older building stock of Pennsylvania's buildings, with many built prior to the implementation of building codes in the mid-1970s, further exacerbates the environmental impact of buildings.

Increasing energy efficiency in Pennsylvania's buildings is a win-win for the state. Not only do energy savings reduce greenhouse gas emissions, but also have the opportunity to grow the economy. A 2014 KEEA study shows that the Commonwealth is home to over 4,200 clean energy businesses, many of which are small, local businesses that combined employ a total of over 57,000 workers. Pennsylvania is already home to more than a dozen

manufacturers of energy efficient products, solar PV modules, wind turbines, and solar thermal collectors.

We offer the attached comments specific to residential energy efficiency. The ReEnergize Pittsburgh Coalition and its individual member organizations stand ready to assist the Climate Advisory Committee and the Department of Environmental Protection in further investigating any of these recommendations. Please do not hesitate to contact us if we can support your efforts.

Thank you for the opportunity to review and comment on this plan.

Sincerely,

Jeaneen Zappa
Steering Committee
ReEnergize Pittsburgh convener

Lindsay Baxter
Chair, Policy Committee

Act 129 Expansion

We support the plan's recommendations to expand to a 4th and 5th phase of Act 129, to continue driving energy efficiency improvements across all customer classes. The Act 129 Energy Efficiency and Conservation Program has been very successful, resulting in a return on investment of $2.97 for every dollar invested over the first phase of the program. That is a conservative figure that does not account for associated water and natural gas savings, nor does it include environmental and public health benefits.

Further, we support the recommendation to remove the 2% spending limit for energy efficiency and conservation programs as it is a barrier for increased consumer engagement. The 2% spending cap is in reality a declining cap because it is based on 2006 numbers and does not take inflation into consideration. It is also quite restrictive and prevents the Electric Distribution Companies (EDCs) from achieving deeper energy efficiency savings through comprehensive measures. Considering that consumers are already tripling their investment, it does not make good business sense to keep such a restrictive spending cap.

Finally, we very much agree that the program should be expanded to include natural gas utilities. Natural gas accounts for 51% of home heating and is currently not addressed by Act 129. That results in a large amount of energy savings potential that we are failing to capture. By including natural gas, consumers will be able to cut down their heating bills while simultaneously reducing GHG emissions. In the most recent Northeast Energy Efficiency Partnership (NEEP) 2016 Regional Roundup of Energy Efficiency Policy, Pennsylvania is one of two states noted as "lagging," and is the only state in the region to not have an energy efficiency program covering natural gas distribution utilities.

Although not included in the draft Climate Change Action Plan, we would like to offer a recommendation related to increasing the effectiveness of energy efficiency programs. We recommend supporting the reform of cost-effectiveness testing. Many states are applying methodologies and assumptions that do not capture the full value of efficiency resources, leading to under-investment in energy efficiency, and higher costs to utility customers and society.

The National Efficiency Screening Project (NESP) is a group of organizations and individuals that are working together to improve the way that electricity and natural gas energy efficiency resources are screened for cost-effectiveness. The purpose of this initiative is to improve efficiency screening practices throughout the United States, and to help inform decision-makers regarding which efficiency resources are in the public interest and what level of investment is appropriate. NESP has prepared an initial framework called the Resource Value Framework (RVF) and is in the process of designing a new Standard Practice Manual to assist states in improving their efficiency screening.

Building Code Compliance and Updates

We strongly support the recommendation to adopt and use the most up-to-date building code. Up-to-date building codes save Pennsylvanians money through improved energy efficiency. In fact, according to the U.S. Department of Energy, the 2015 Universal Construction Code (UCC) would save consumers between $4,000-$24,000 over the course of a 30-year mortgage (as compared to the 2009 UCC), all while reducing air pollution and greenhouse gas emissions.

The UCC also includes provisions to improve resiliency in the face of increasing natural disasters and flooding. The state's 2015 Pennsylvania Climate Impacts Assessment Update indicates flooding, such as that seen during Hurricane Sandy and Hurricane Ivan, will increase. The costs of these disasters are borne by our state's homeowners and taxpayers. The 2015 codes include many flood-related provisions, including changes to the 2015 International Residential Code supported by the U.S. Federal Emergency Management Agency's Superstorm Sandy analysis report.

Finally, up-to-date codes spur innovation and investment in the manufacturing sector. Pennsylvania is home to building sector manufacturing companies like Eaton, Tyco and Lutron, contributing jobs for Pennsylvania residents and tax dollars to the municipalities in which they are located. In fact, Pennsylvania manufacturer members of the National Electrical Manufacturers Association alone represent over 14,000 jobs. We should be doing all we can to encourage this sector, rather than deferring to investment in other states that are embracing safer, greener building practices.

By failing to adopt the updated codes during the past two cycles, we have failed to achieve greater energy savings, increase the safety of our citizens, and missed out on GHG emission reductions. If we continue on this road, we are trapping Pennsylvania with outdated infrastructure for many years to come.

Access to Information

At the Regional Energy Efficiency Summit, hosted by ReEnergize Pittsburgh in the spring of 2015, attendees identified a lack of access to information and financial resources among the key barriers to energy efficiency improvements in the residential sector. We are encouraged to see several recommendations related to providing consumers with better information, such as providing customers information on energy usage compared to neighbors or instituting an energy disclosure for change in property ownership.

While energy disclosure requirements at the time of sale are one option, voluntary opportunities also exist, such as including "green" and energy-related fields in the multi-listing service (MLS), the regional database of available properties. Having improved information allows actors in real estate transactions to make more informed decisions. 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. At its 2015 annual conference, the Council of MLS announced that over half of its members now offer fields including energy-related information, yet this type of information is not yet available statewide in Pennsylvania.

The DOE's Home Energy Information Accelerator comprised of stakeholders from the real estate and appraisal industries are leading the national effort to incorporate residential energy efficiency data into the real estate value chain. This includes developing data strategies to allow automatic transfer of standardized data from residential program administrators to multiple listing services to increase the value of energy efficient homes.

A related opportunity is encouraging greater use of the Home Energy Score (HES), a rating developed by the Department of Energy to serve a similar purpose to the miles-per-gallon rating for a new vehicle, allowing purchasers to make informed decisions about the long-term costs of owning a home. HES uses an easy to interpret 1-10 scale that weighs the energy efficiency features of a home.

Similarly, BPI-2101 Standard Requirements for a Certificate of Completion for Residential Energy Efficiency Upgrades (published September 2013) provides another way of documenting home energy upgrade improvements in a home. This is a Building Performance Institute standard that is supported by the U.S. DOE's Home Performance with ENERGY STAR program.

BPI-2101 identifies a standard set of data elements for certificates that document the completion of a whole-house energy upgrade or individual energy conservation measures in the small homes sector. BPI-2101 provides homebuyers with access to consistent, comparable information about energy efficiency features in existing homes, and is aligned with several national data standards to facilitate electronic transfer of project and building information collected by energy efficiency programs to market actors in the residential real estate value chain.[1]

The HES, BPI-2101 certificate, and/or other energy-related information about a home can feed into the regional multi-list service (MLS). These measures are important steps to recognizing the value of energy efficiency in the market. As compared to a mandated energy standard, which may be politically unpalatable, these certifications and greening the MLS allow home buyers and sellers more perfect information to make rational market decisions.

Finally, in 2016, the Northeast Energy Efficiency Partnership (NEEP) led the creation of a database that will enable the automatic population of green data fields in multiple listing services in the northeast when information from rating programs like DOE's Home Energy Score is available. This database is called the Home Energy Labeling Information eXchange (HELIX). Although Pennsylvania is not a participating state in the project, it is worthwhile monitoring this project since its outcomes can be game changing for the industry.

[1] The national data standards include the Appraisal Institute's Green and Energy Efficient Addendum (Addendum), the Real Estate Transaction Standard (RETS), BPI-2100-S-2013 Standard for Home Performance-Related Data Transfer (HPXML) and BPI-2200-S-2013 Standard for Home Performance-Related Data Collection.

Energy Efficiency Financing[2]

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, including:

- Reinvest in the Keystone HELP program to make it ultimately self-sustaining;
- Incentivize the greater use of energy efficient mortgages;
- Allow for on-bill repayment
- Support enabling legislation and programs for residential property assessed clean energy (PACE)
- Permit residential and small commercial energy savings 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.

Access to Utility Consumption Data

Finally, an additional recommendation not included in the plan that should be considered is increasing access to utility consumption data, and interval meter data, where available. Access to real-time data allows new devices to interpret smart meter data to identify the energy used in the home at specific times, with some devices disaggregating the data to give more granular detail about each energy-using device in the home. This plethora of energy data can in some cases provide direct recommendations to consumers, such as adjusting the thermostat to save money or upgrading appliances to ENERGY STAR. In addition, it will be a crucial component of utilizing time-of-use pricing for electricity in the future.

In addition, we encourage the sharing of data with efficiency programs and providers, to gauge the effectiveness of various features and programming. While we respect the sensitive nature of an individual account holder's data, we urge the state's utilities to find an acceptable means of sharing data, such as aggregated totals, to allow efficiency providers, such as ReEnergize Pittsburgh members, to better communicate energy reduction and impact to stakeholders.

[2] See "A Policy Maker's Guide to Energy Upgrades" page 12-21 https://www4.eere.energy.gov/seeaction/system/files/documents/Residential%20Policymakers%20Guide_093015_v2.pdf