



Testimony of Secretary Patrick McDonnell

Department of Environmental Protection

Joint Hearing of Senate Environmental Resources and Energy Committee and

Senate Transportation Committee

Transportation and Climate Initiative

January 29, 2020

Good morning Chairman Yaw, Chairman Santarsiero, Chairwoman Ward, Chairman Sabatina and members of the committee. I would like to thank you for the opportunity to discuss the administration's participation in the Transportation and Climate Initiative.

The Transportation and Climate Initiative (TCI) is a bipartisan and collaborative effort of 12 Northeastern and Mid-Atlantic states and District of Columbia to develop a regional cap-and-invest program to reduce greenhouse gas (GHG) emissions from the transportation sector. Each state is jointly represented by their environmental and transportation agencies.

Regionally (and nationally), the transportation sector is the number one emitter of greenhouse gas emissions. However, due to Pennsylvania's large electricity and industrial sectors, the transportation sector ranks as the third largest category of GHG emissions in Pennsylvania, responsible for 61 million metric tons of CO₂ emissions in 2016, or 23% of all emissions. Nationally, Pennsylvania ranks sixth for the most emissions from transportation and the only state ranked higher in the region is New York.

As many of you are aware, climate change has led to more flooding, more heat and respiratory illnesses, more vector-borne diseases and pests, and more disruptions to agricultural systems right here in Pennsylvania. Notably:

- Since 1900, Pennsylvania has warmed by 1.8 degrees Fahrenheit.
- Annual precipitation has increased 10% on average, with some areas seeing a 20% increase over the same time period.
- From 1958 through 2010, the Northeast U.S. saw more than a 70% increase in the amount of precipitation falling during very heavy events.

The impacts of climate change are vast and what was predicted 10 years ago is being confirmed today. The projections are even more dire. By 2050, Pennsylvania is expected to warm by 5.4 degrees F. The Pennsylvania that we know will not be the same Pennsylvania that our children or our grandchildren will know. By the middle of this century, Philadelphia will feel like Richmond and Pittsburgh will feel like Washington, D.C. Precipitation patterns will also be increased by another 8% by 2050, with a winter precipitation increase of 14%.

Climate change is not just an environmental issue. In June 2019, 70 medical and public health groups, including the American Medical Association, American Nurses Association, American Academy of Pediatrics, American Lung Association, and American Heart Association issued a call to action asking the U.S. government, business and leaders to address climate change. They stated:

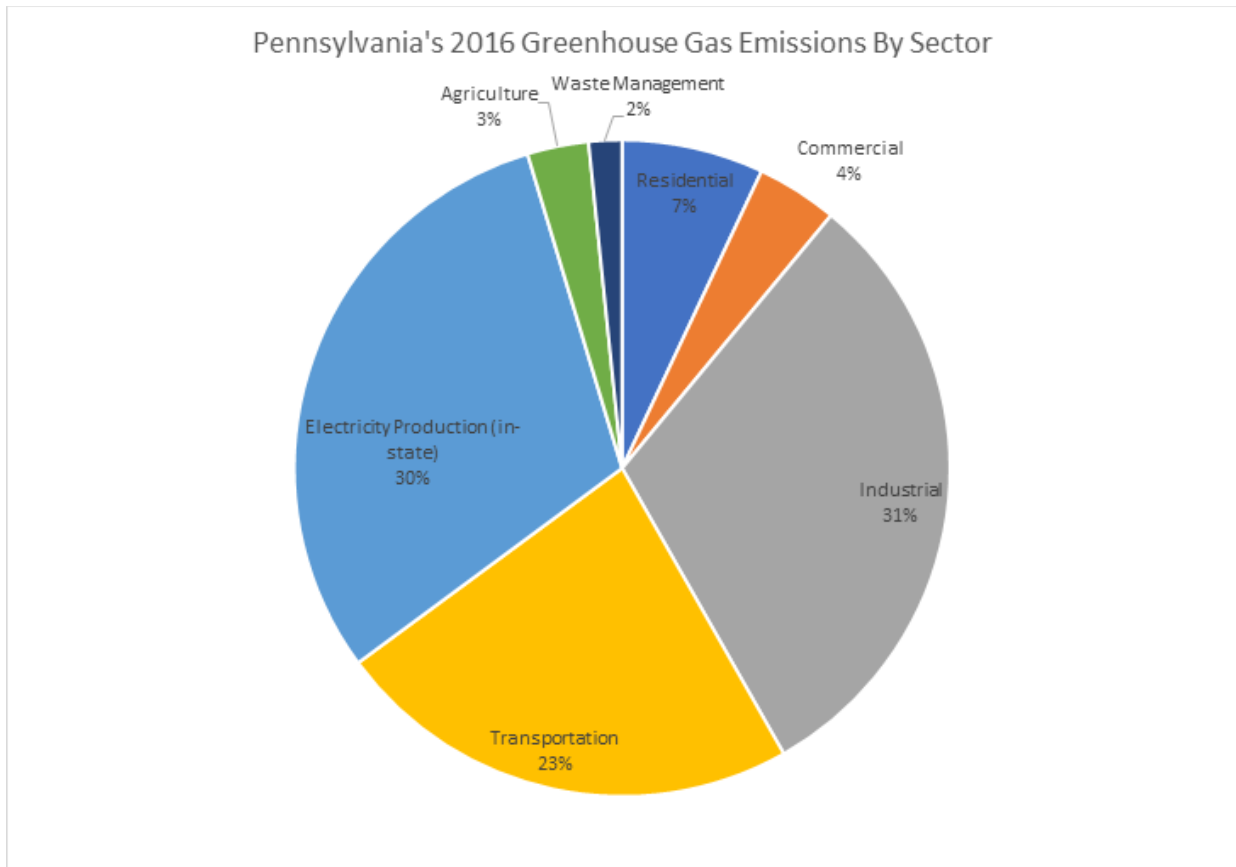
“Climate change is one of the greatest threats to health America has ever faced—it is a true public health emergency. The health, safety and wellbeing of millions of people in the U.S. have already been harmed by human caused climate change, and health risks in the future are dire without urgent action to fight climate change. Climate change also exacerbates health inequities—disproportionately harming the most vulnerable among us— thus equity must be central to climate action. Therefore, we call on government, business, and civil society leaders and candidates for elected office to recognize climate change as a health emergency and to prioritize the actions in this Climate, Health and Equity Policy Action Agenda.... Building healthy energy, transportation, land use, and agriculture systems now will deliver immediate and sustained health benefits to all and reduce future health risks from climate change.”

Climate change will impact human health in a number of ways. It will likely increase ground-level ozone, small airborne particulates, and pollen and mold concentrations. Ozone is an irritant that causes respiratory issues, aggravates asthma, causes respiratory infections, and increased mortality. Higher plant growth, more pollen produced by each plant, increased allergenicity of the pollen grains, and a longer pollen season can also be expected. In Pennsylvania, mosquito and tick-borne diseases are spreading to new communities and impacting people’s lives. Penn State recently released a report that shows that the out of control tick problem right here in Pennsylvania is related to climate change.

Pennsylvania has also recently experienced major impacts from the increase in precipitation and landslides as 2018 was the wettest year on record. In one year, PennDOT saw over \$125 million in emergency expenses to replace damaged infrastructure and cash-strapped local municipalities are dealing with the same.

On January 8, 2019, Governor Wolf signed Executive Order 2019-01 – Commonwealth Leadership in Addressing Climate Change and Promoting Energy Conservation and Sustainable Governance. This E.O. states Pennsylvania shall strive to reduce net GHG emissions from 2005 levels by 26% by 2025 and 80% by 2050. Governor Wolf also announced that Pennsylvania joined the U.S. Climate Alliance. This is an agreement between U.S. states to commit to reducing emissions 26% by 2025 and 80% by 2050, which is what the U.S. committed to doing in the Paris Climate Accord. Pennsylvania was the 24th state to join the Alliance.

Pennsylvania’s emissions have shown a relative decrease of 13 percent in the gross emissions from 2000 to 2015. The sectors with the largest contribution to the commonwealth’s GHG emissions are the transportation, industrial, and electricity production sectors, all of which combine to account for approximately 84 percent of Pennsylvania’s emissions. Recently, we have seen the industrial sector, which includes natural gas production and coal mining, become the leading emissions producing sector. The electricity sector, totaling slightly less than the Industrial sector, has seen decreasing emissions primarily due to flat electricity demand and fuel switching from coal to natural gas.



Despite the encouraging trend of decreasing overall emissions, more must be done to make the reductions necessary to effectively combat climate change. In fact, DEP projects overall emissions to increase from 2015 levels by 2025 and even more so by 2050 if no additional policies are implemented.¹

In order to reach the climate goals set forth by Governor Wolf, focus needs to be prioritized to reduce emissions in the transportation industry. There needs to be both a technological and

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<http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=1454161&DocName=2018%20PA%20CLIMATE%20ACTION%20PLAN.PDF%20%20%20%3cspan%20style%3D%22color:blue%3b%22%3e%28NEW%29%3c%2Fspan%3e>

behavioral change to reduce our emissions from driving, especially as emissions from transportation are projected to increase with more people driving and more commercial vehicle traffic moving goods on our roadways.

Transportation emissions can directly impact human health. In recent years, technological and policy advancements accelerated the availability and utilization of emission free transportation options, especially electric vehicles, or EVs. EVs do not produce any tailpipe emissions and over their lifecycle are much cleaner than gasoline powered vehicles. By 2023, each mile driven by an EV passenger car compared to a gasoline-powered vehicle would emit 50 percent less greenhouse gases based on the anticipated regional electricity mix.

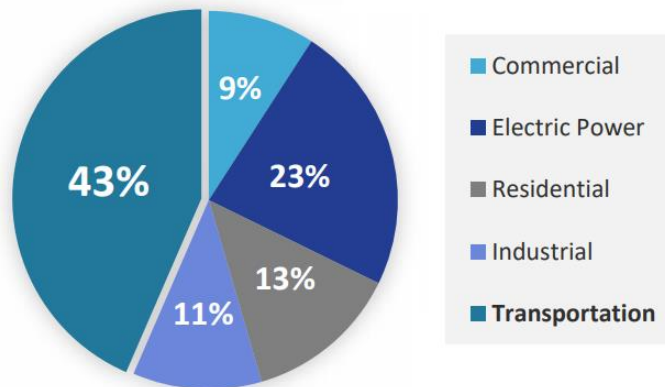
For these reasons, rapid EV adoption is occurring across the country. Since 2011, the number of distinct EV models available has grown from under 5 to over 53, increasing the available options for consumers. EV sales in the light-duty vehicle market have been growing in Pennsylvania, exploding from less than 2,000 sold in 2015 to over 6,000 sold in 2018.

Currently, Pennsylvania has 534 publicly available electric charging stations with 1,233 charging plugs. Through the Driving PA Forward program, DEP has awarded rebates for 282 level 2 charging locations, making 950 charging plugs available. Over 500 plugs are currently being installed, which will make nearly 2,000 charging plugs available by the end of this year.

Since 2016, Pennsylvania has committed to be part of the discussion in the design of the multistate TCI program. Staff from both PennDOT and DEP have been involved and represented on all TCI committees and workgroups in order to design the program with the uniqueness of Pennsylvania taken into consideration.

The Transportation and Climate Initiative, or TCI, is a regional, bi-partisan collaboration of states that seeks to reduce carbon emissions from the transportation sector and improve the lives of residents through reduce emissions, cleaner transportation options, healthier communities, and more resilient infrastructure. Pollution from transportation accounts for the largest portion of climate-changing carbon emissions in the Northeast and Mid-Atlantic region and it does not stop at state borders. Therefore, regional action is ideal to address this issue.

Sources of Carbon Dioxide Emissions in the TCI Region



2017 Data, U.S. Energy Information Administration

With this in mind late last year, 13 states and the District of Columbia announced their joint commitment to design a regional low-carbon transportation policy proposal that would cap and reduce carbon emissions from the combustion of transportation fuels through a cap-and-invest program or other pricing mechanism and would allow each TCI jurisdiction to invest proceeds from the program into cleaner and more resilient transportation infrastructure.

The current program design would require prime suppliers to purchase credits in an auction for the emissions resulting from the burning of gasoline and diesel. Similar to the Regional Greenhouse Gas Initiative (RGGI), each state would hold allowances to place into the auction market for the amount of emissions resulting from fuel sold in the state. The proceeds from that auction would then be allocated back to the state for programs that reduce pollution the transportation sector. The exact details of the program are still being developed and will be released later this year or early next year within a “Model Rule.”

Pennsylvania’s participation in this design process has benefitted the overall program. DEP and PennDOT have worked together with the other TCI jurisdictions to actively drive the agenda and shape the program design. Our input and advocacy were successful in keeping natural gas outside the cap. Additionally, we were the leading voice among the states to ensure that rural equity considerations be given full attention. We continue to push for the program design to allow qualified offset credits, such as reforestation, as a way to increase carbon capture and sequestration, which could add new value to our forestry industry. Finally, we continue to advocate for the inclusion of infrastructure resiliency investment as an eligible category to dedicate TCI auction proceeds.

The states share a commitment to work with stakeholders and communities at every step of the policy design process. TCI states continue to provide opportunities for public input and engagement, through regional stakeholder workshops, online webinars, and a public input form accessible on the TCI [website](#). In December, the TCI states released a draft memorandum of understanding (MOU) and modeling results for public input. Preliminary modeling estimates that

by 2032, the proposed program could yield monetized annual public health benefits of as much as \$10 billion, including over 1,000 fewer premature deaths, and over 1,300 fewer asthma symptoms annually region-wide, among other safety and health benefits. The summary of environmental and economic costs of the program is attached to this testimony.

We have committed to being at the table during the design process to ensure Pennsylvania has a voice, provides input, and that the program is fully understood in hopes that TCI will be an effective program to reduce greenhouse gas emissions from transportation throughout the region.

The transportation sector, especially from passenger vehicles, is a major source of the greenhouse gases driving climate change. The administration is dedicated to addressing greenhouse gas emissions from power plants through the Regional Greenhouse Gas Initiative (RGGI) and is looking to TCI as a possible way to address vehicle pollution. While the administration is committed to being a part of the TCI conversations, the administration does not support raising the gas tax in the commonwealth, so we will not make any decisions on joining until the program is fully designed.

Thank you again for inviting DEP to testify before the committees on this important topic. I am available to respond to any questions you may have.