



Testimony

Submitted on behalf of the
Pennsylvania Chamber of Business and Industry

Public Hearing on the Regional Greenhouse Gas Initiative

Before the:
House Environmental Resources and Energy Committee

Presented by:
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Harrisburg, PA
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Testimony of Kevin Sunday, Pennsylvania Chamber of Business and Industry
Before the House Environmental Resources and Energy Committee
RE: Public Hearing on the Regional Greenhouse Gas Initiative
Feb. 5, 2020

Chairman Metcalfe, Chairman Vitali and members of the House Environmental Resources and Energy Committee,

Thank you for the opportunity to present on behalf of the Pennsylvania Chamber of Business and Industry (PA Chamber) our perspective on Pennsylvania's proposed participation in the Regional Greenhouse Gas Initiative (RGGI).

My name is Kevin Sunday, Director of Government Affairs for the Pennsylvania Chamber of Business and Industry, the largest, broad-based business advocacy organization in the Commonwealth. The nearly 10,000 members of the PA Chamber represent all industrial and commercial categories and sizes; all of them rely on not just a reliable, affordable supply of energy, but a rational, predictable and well-functioning regulatory environment in which to operate.

My testimony this morning will encompass a brief overview of the PA Chamber's policies on energy and environmental issues, followed by a discussion of the emissions reductions and associated improvements in air quality that have occurred over the past several decades. Then, this testimony will outline a few areas of concern with respect to RGGI, including the obligations expected for Pennsylvania by RGGI states as a condition for joining, the potential economic impacts to the power generation and industrial sectors and the shifting of investment to neighboring states who do not participate in RGGI.

Pennsylvania Chamber of Business and Industry Statement of Policy on Environmental and Environmental Regulation

For the past several decades, the PA Chamber has been actively involved in issues relating to stewardship of Pennsylvania's environmental resources and development of its energy assets, bringing the perspective of the regulated community to the development and refinement of the state environmental regulations and the implementation of various federal requirements.

As a statement of policy, the PA Chamber believes that environmental stewardship and economic growth are mutually-compatible objectives, and that environmental and natural resources laws and regulatory programs should be framed and implemented to concurrently meet these twin objectives. We seek environmental laws, regulations and policies that:

- (1) are based on sound science and a careful assessment of environmental objectives, risks, alternatives, costs, and economic and other impacts;
- (2) set environmental protection goals, while allowing and encouraging flexibility and creativity in their achievement;
- (3) allow market-based approaches to seek attainment of environmental goals in the most cost-effective manner;
- (4) measure success based on environmental health and quality metrics rather than fines and penalties; and
- (5) do not impose costs which are unjustified compared to actual benefits achieved;

With regard to greenhouse gas emissions, we support efforts in Pennsylvania which balance societal environmental, energy, and economic objectives, fit rationally within any national or international strategy which may take shape, and capitalize on the availability of Pennsylvania's diverse natural resources to facilitate economic development in the Commonwealth.

We recognize that a changing climate will present significant challenges to Pennsylvania and the United States, and that anthropogenic activities are a contributing factor. Addressing this challenge will necessarily involve the private sector to develop innovative solutions, practices and technologies; however, we must be judicious in

proceeding in a manner that continues to leverage Pennsylvania's historic strengths as an energy producer and a leader in manufacturing, allowing businesses and consumers the choice to develop and utilize the energy solution that works best for them, while still pursuing the desired environmental result. As this testimony will further make clear, competitive markets have delivered considerable environmental benefit while also driving down costs for consumers.

In Partnership with a Predictable Regulatory Approach, Pennsylvania Businesses and Industry Have Achieved Significant Emissions Reductions – A Trend which is Expected to Continue

The PA Chamber advocates for cost-effective air laws, regulations and policies based on sound principles that are reasonable and technologically and economically feasible to protect and enhance public health and the environment without placing in-state businesses at a competitive disadvantage. The PA Chamber supports regulatory policy which balance societal environmental, energy, and economic objectives, fit rationally within any finally adopted and applicable national or international strategy, and capitalize on the availability of Pennsylvania's diverse natural resources to facilitate economic development in the Commonwealth.

It should be noted that this approach to economic growth and environmental stewardship is also written into the federal Clean Air Act itself, where Section 101(b) directs EPA to implement the provisions of the Act in a manner "to promote public health and welfare and the productive capacity of [the] population."

The General Assembly struck a similar tone in its statement of policy within the Air Pollution Control Act, which predated the federal Clean Air Act by a decade. Section 2 of the APCA, the Statement of Policy, reads:

It is hereby declared to be the policy of the Commonwealth of Pennsylvania to protect the air resources of the Commonwealth to the degree necessary for the (i) protection of public health, safety and well-being of its citizens; (ii) prevention of injury to plant and animal life and to property; (iii) protection of the comfort and convenience of the public and the protection of the recreational resources of the Commonwealth; **(iv) development, attraction and expansion of industry, commerce and agriculture**; and (v) implementation of the provision of the Clean Air Act.¹ [emphasis added]

The implementing regulations of these state and federal statutes are a baseline for the operating practices of sources of emissions, but many businesses go further.

A few examples of the leadership on stewardship from among our membership include:

- Innovation into microgrids at defense and aviation facilities to improve reliability and lower operational costs
- Adoption by hospitals, educational facilities, financial institutions and manufacturers of combined heat and power to improve resiliency and lower operational costs
- Establishing and meeting zero waste goals
- Purchase and conversion of alternative-fuel vehicles in logistics and delivery fleets, included electric, propane, and natural gas derived from landfill or agricultural sectors
- Committing to significantly reducing fugitive emissions from pipeline systems and

¹ The fifth bullet related to implementation of the Clean Air Act was added as part of Act 95 of 1992, which amended the statute.

- Establishing sustainability targets for vendors and suppliers.

In terms of achieved and forecasted emissions reductions, the state's success in meeting and surpassing federal air quality obligations cannot be emphasized enough. According to DEP and EPA air quality data, the state has achieved the following significant reductions in air emissions statewide since 1996:

Nitrogen oxides	-65%
Volatile organic compounds	-36%
Particulate matter (2.5 ug/m3)	-27%
Particulate matter (10 ug/m3)	-45%
SO2	-90%
Carbon monoxide	-69%
Carbon dioxide	-21%

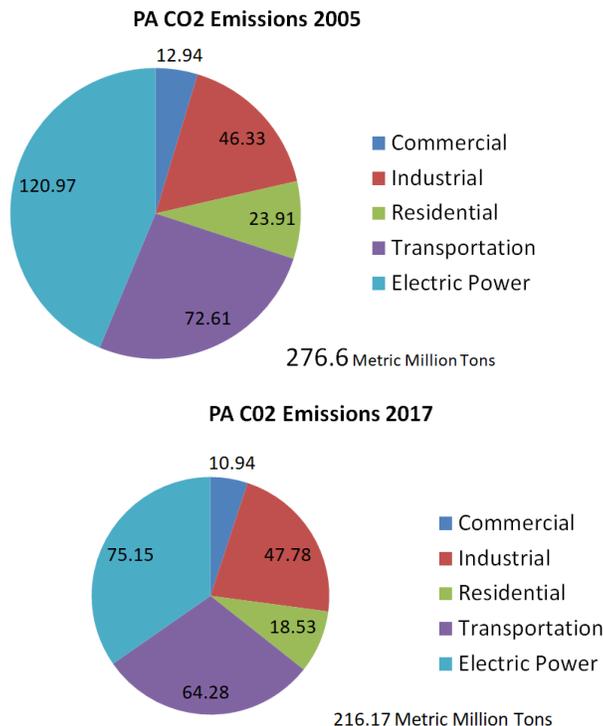
With regard to reductions in greenhouse gas emissions, since 2005 through 2018 (the most recent year for which data is available), the United States has reduced greenhouse gas emissions by about 819 million metric tons, in large part due to private sector innovation and competition, while the European Union has reduced emissions by 839 million metric tons at considerably greater costs.² EU policies – replacing nuclear with renewables, awarding massive government subsidies to particular energy sources, and imposing taxes on both carbon emissions and energy consumption – have resulted in declining household disposable income, as well as retail electric, natural gas and motor fuels prices for residential consumers are more than double that of the United States. Electricity prices for industrial customers are 75% higher and natural gas prices for industrial customers are 143% higher. Should the United States adopt these policies, household energy costs would rise by nearly \$5,000 per year and labor markets would shrink by nearly 8 million jobs, with heavy losses in the skilled trades and industrial sectors.³ We must also note that the considerably higher energy costs imposed by EU's policies do not seem to be spurring much innovation into new technologies.

With specific regard to Pennsylvania, the state has since 2005 reduced its greenhouse gas emissions in total tons more than that of all but one other state, according to the most recently available federal EIA data.⁴ According to EPA data, Pennsylvania has reduced emissions in total 22% since 2005, with a 11.5% reduction from the transportation sector and a 38% reduction in the power generation sector. The following charts demonstrate these reductions, achieved through competitive markets.

² Data available from International Energy Agency's CO2 Emission Statistics data service and 2019 World Energy Outlook.
<https://www.iea.org/subscribe-to-data-services/co2-emissions-statistics>
<https://www.iea.org/reports/world-energy-outlook-2019>

³ What If the United States Were Forced to Pay EU Energy Prices? United States Chamber of Commerce Global Energy Institute, October 2016. https://www.globalenergyinstitute.org/sites/default/files/CoC_EUReport_FULL_v11.pdf

⁴ Energy-Related Carbon Dioxide Emissions by State, 2005-2016. U.S. Energy Information Administration.
<https://www.eia.gov/environment/emissions/state/analysis/>

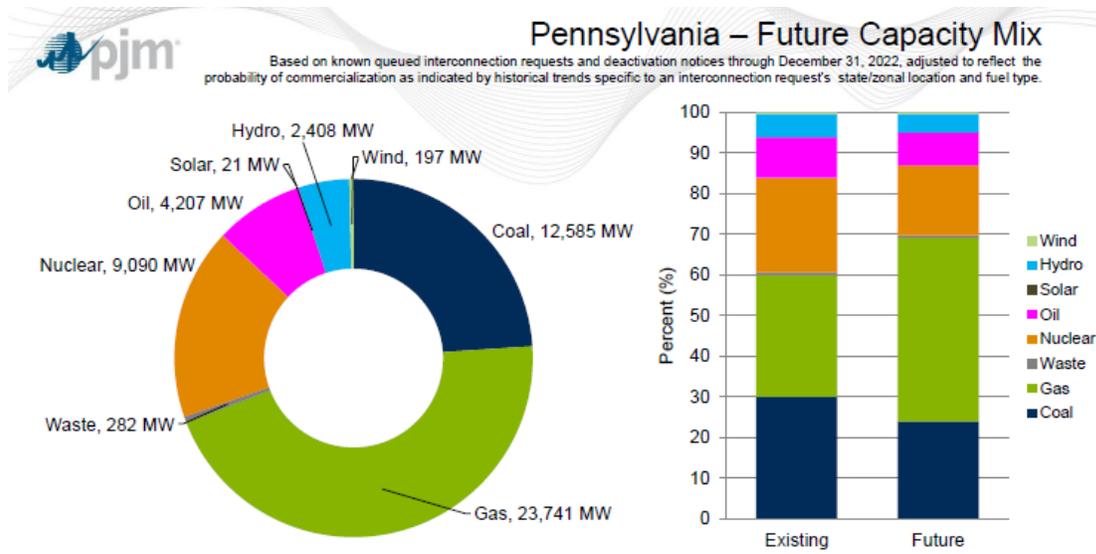
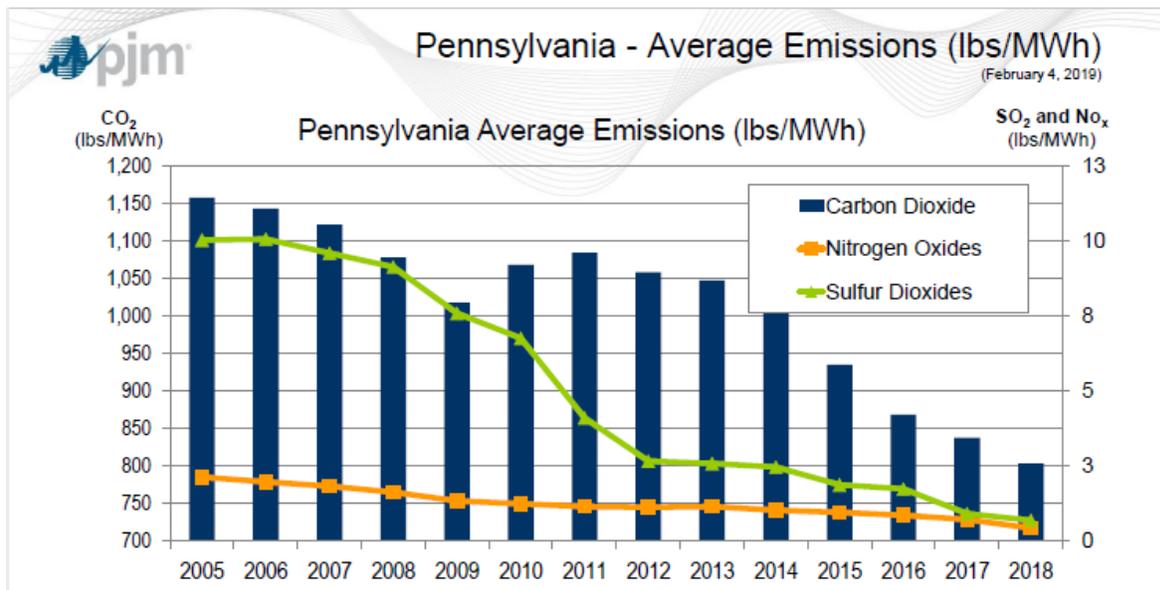


In comparison, RGGI states have since 2005 achieved the following reductions⁵:

	2005	2017	% change	Net change CO2 (mmt)
Connecticut	43.8	33.9	-22.6%	-9.9
Delaware	17.3	13.1	-24.4%	-4.2
Maine	23.0	15.6	-32.2%	-7.4
Maryland	84.2	52.7	-37.4%	-31.5
Massachusetts	84.1	64.4	-23.4%	-19.7
New Hampshire	21.1	13.6	-35.5%	-7.5
New Jersey	131.1	103.2	-21.3%	-27.9
New York	211.0	159.9	-24.2%	-51.1
Rhode Island	11.2	10.1	-9.8%	-1.1
Vermont	6.8	6.0	-12.6%	-0.9
RGGI States in Aggregate	633.6	472.4	-25.4%	-161.1

⁵ State CO2 Emissions from Fossil Fuel Combustion, 1990-2017. Environmental Protection Agency. Updated November 2019. <https://www.epa.gov/statelocalenergy/state-co2-emissions-fossil-fuel-combustion-1990-2017>

Another structural issue with regard to Pennsylvania’s potential participation in RGGI is our state’s position as a net energy exporter. Pennsylvania is the second largest producer of electricity in the nation after Texas, and is also a net exporter of power to the 13-state PJM grid, which provides power to nearly 61 million Americans and is the largest managed transmission operation in the world. Pennsylvania has been able to maintain its position as a net exporter of power while reducing emissions over the past two decades, with about one-third of its production being sent across state lines for consumption in other states. Data from PJM excerpted below demonstrates in visual form the reduction in carbon intensity and NOx and SO2 emission rates from PA sources, as well as the expected future fuel mix in 2022 when the PA would enter into RGGI under per the draft regulation released last week.



The reductions in emissions of CO2 and criteria pollutants have resulted in meaningful improvements in ambient air quality, with several regions of the state now reclassified as demonstrating attainment with federal

ambient air quality standards. DEP employs a statewide network of monitors to track the state of our Commonwealth's air to inform the state's progress in meeting federal air quality standards. As DEP data and reports have noted, every monitoring station in the state is measuring attainment for the daily particulate matter standard, all but one monitoring station is measuring attainment for the annual particulate matter standard and 1-hour SO₂ standard, and all but four monitoring stations are measuring attainment of the 8-hour standard for ozone. This represents considerable progress compared to where the state was in years past, as concentrations of ozone and sulfur dioxide are a fraction of where they were 30 years ago. As one example, ambient levels of SO₂ were measured at 342 parts per billion in Beaver County in 1991. Today, the measurements are around 22 parts per billion.

Importantly, we have consistently argued in support of flexibility in regulatory approaches, because such a thoughtful design has proven to be effective as borne out by the data just shown. As one example, in 2017 DEP began implementing an air quality rule for stationary sources as part of its ozone regulations. This rule, the Reasonably Achievable Control Technology, afforded industry the opportunity to accept either a presumptive emissions limit or work with the department on a case-by-case evaluation to determine what level of control technology was *reasonable* given the facility's technical and economic circumstances. By adopting such an approach, instead of imposing unilateral obligations on a wide swath of industry, DEP took a flexible, tailored approach. The result – a 47% decrease emissions of ozone precursor emissions during the summer months, and the continued opportunity for industry to retain critical operational flexibility. This was a win for the environment and a win for the regulated community.

The Recent Draft of the RGGI Implementing Regulations Is a Starting Point for Discussions, But Raises Several Important Questions on Process and Economic Impact

When the Governor announced in October 2019 his executive order directing DEP to draft regulations to join RGGI, the PA Chamber responded as follows:

“The PA Chamber supports environmental policies that are based on sound science and allow market-based approaches to seek attainment of environmental goals while also pursuing economic growth. Time and again, Pennsylvania employers have proven their dedication to environmental awareness by developing innovative solutions to improve efficiency, savings and safety while minimizing water and energy waste at their facilities. We encourage legislative input and an analysis of costs to ratepayers and the industry in order to ensure that the Commonwealth’s approach to greenhouse gas regulations is balanced, making sure to leverage the state’s great energy assets and encourage private sector competition without stifling potential economic growth. Climate change is real and so is the need to have the business community at the table to discuss solutions and consider the tradeoffs.”

We are and will continue to raise the perspectives and concerns of our members. Recently, DEP has released a draft regulation of the implementing regulation. While we are still reviewing the details of the draft, we have several outstanding questions and concerns.

First, while the state’s Air Pollution Control Act gives DEP broad powers to regulate emissions from stationary sources, the statute also obligates DEP to submit to the General Assembly “multistate air pollution control compacts or agreements” which would seem to include any agreement to join RGGI. As discussions on this matter and appropriations hearings progress, we encourage the legislature and administration to establish mutual understanding regarding this submission process.

Second, in the draft regulations, the starting cap number (which would be the starting point for scheduled declines in allowable emissions) is omitted. We understand this is a product of on-going discussions between Pennsylvania and RGGI states. It is not readily apparent as a condition upon RGGI states approving Pennsylvania’s participation in the trading program exactly how stringent the starting cap must be, nor how flexibly DEP may implement the program. It is difficult to forecast projected costs on industry without an understanding of the starting point.

Third, in our response last October, we requested an analysis of costs to ratepayers and industry. It is our understanding that DEP has contracted with a third-party vendor to conduct economic analysis on both the RGGI model rule and the economy-wide cap and trade petition under consideration by the Environmental Quality Board. This analysis has not yet been completed, so we are without a full understanding of potential costs and benefits. It does appear the draft regulation contains provisions intended to minimize direct regulatory exposure for industrial facilities which operate generation units, which our members appreciate. However, our members operating in the industrial sector do have concern that the potential price impacts from RGGI, should the carbon price escalate, will have a negative impact on their ability to compete. A recent economic analysis from Resources For the Future and academic researchers, circulated through the National Bureau of Economic Research, found that an increased regional carbon tax in the northeast on power generation would reduce employment in participating states and boost employment in nearby, non-participating states, with the heaviest impacts felt by energy-intensive manufacturing.⁶

⁶ How Does State-Level Carbon Pricing in the United States Affect Industrial Competitiveness? Casey, Gray, Linn & Morgenstern, National Bureau of Economic Research. January 2020. <https://www.nber.org/papers/w26629>

While we recognize there are many factors that go into the price ratepayers pay, including transmission costs, fuel mix in a given state, consumption patterns and local geography, a comparison of average electricity prices in Pennsylvania to states participating in the Regional Greenhouse Gas Initiative will show that Pennsylvania's rates are generally lower for all classes of ratepayers than nearly all RGGI states and below the national average.

Electricity Prices (cents / kwh) as of November 2019⁷

State	Residential Price	Commercial	Industrial
Connecticut	21.64	15.65	13.2
Delaware	13.27	9.93	6.98
Maine	17.82	15.53	10.12
Maryland	12.78	9.78	7.65
Massachusetts	21.74	15.99	14.4
New Hampshire	20.24	15.81	12.89
New Jersey	15.28	14.99	9.69
New York	18	13.43	5.42
Rhode Island	21.94	15.87	15.06
Vermont	19.76	16.47	10.93
Pennsylvania	14.07	8.86	6.32
USA average	13.04	10.57	6.73

Fourth, another outstanding question is that of leakage, or the shift in economic activity to jurisdictions which do not participate in RGGI. While the regional grid operator PJM is engaged in a stakeholder process to determine how to better integrate carbon pricing into the markets and accommodate impacts due to RGGI, there is not currently an established mechanism to adjust prices to account for the flow of energy between states that do and do not participate in RGGI.

Fifth, members of the committee will recall that last year, much of the discussion around energy policy surrounded whether or not nuclear plants were able to clear the PJM capacity auctions – the market mechanism by which the regional grid operator secures commitments from power plants three years in advance. Recently, the Federal Energy Regulatory Commission has issued an order requiring PJM to amend its market rules for the capacity auctions to account for the impact of certain state-level energy policies.⁸ FERC's order can generally be said to require plants submitting bids to adjust their offers based on the value of certain policies, but there is considerable uncertainty as to the extent of which policies must be accounted for. FERC is currently in receipt of several requests for rehearing, and one major point of clarification sought by PJM and many others is whether the uplift value provided to some plants due to RGGI obligations on the part of other plants must be accounted for.

⁷ Average Price of Electricity to Ultimate Consumers by End-Use Sector. U.S. Energy Information Administration. Jan. 27, 2020. https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_6_a

⁸ FERC Directs PJM to Expand Minimum Offer Price Rule. Dec. 19, 2019. <https://www.ferc.gov/media/news-releases/2019/2019-4/12-19-19-E-1.asp#.XiQ7L2hKiUJ>

Some RGGI States Have Taken Regulatory Action to Worsen the Operating Climate of Pennsylvania Businesses and Industry

With the aforementioned success in emissions reductions on the record, we must now note that several states involved in RGGI have taken actions through the federal Clean Air Act to request more onerous regulatory obligations on Pennsylvania businesses. These states, including New York, New Jersey, Connecticut, Delaware, and Maryland, have petitioned EPA to establish more stringent emissions rules on our member companies' manufacturing and energy infrastructure facilities, alleging that it is the fault of Pennsylvania businesses that these states cannot meet their federal air quality obligations under the National Ambient Air Quality Standards. These petitions have repeatedly, and properly, been rejected by the EPA, but we must note that the state must expend considerable time and resources in responding to these petitions. Some of these same states have also attempted to unilaterally veto the construction of natural gas infrastructure that federal regulators have certified under the standard of public convenience and necessity.

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In closing, thank you for the opportunity to present this information and the perspectives of our members on this matter. We look forward to continuing to engage with the General Assembly and this administration on pro-growth policies in and beyond the energy sector. I look forward to answering any questions you may have.