



Industrial Energy Consumers of Pennsylvania

February 5, 2020

The Honorable Daryl Metcalfe
Chairman
House Environmental Resources and Energy Committee

The Honorable Greg Vitali
Minority Chairman
House Environmental Resources and Energy Committee

The Industrial Energy Consumers of Pennsylvania (IECPA) is a trade association of energy intensive large manufacturing companies with over 25,000 employees across the state. **Our issue is not with the underlying goals of reducing carbon emissions, but rather the unnecessary cost that would be imposed on electric generators in Pennsylvania associated with a carbon cap and trade program like the Regional Greenhouse Gas Initiative (RGGI). A RGGI program will increase the cost of electricity to Pennsylvania residents, commercial businesses and large energy intensive, trade exposed manufacturers.**

IECPA member companies operate manufacturing facilities with significant expenditures dedicated to electricity costs. Moreover, because these manufacturing businesses are exposed to global trade, they cannot merely pass additional costs on to their customers without risking the loss of those customers to their global competition. For these companies, this places them at a competitive disadvantage to facilities in other states and countries that do not incur the cost of a RGGI like program. This will result in manufacturing moving production and the associated jobs out of Pennsylvania. The CATO Institute published a study that compared the RGGI states to a sample of five non-RGGI states (Illinois, Ohio, Oregon, Pennsylvania, and Texas) that deregulated electric supply in a manner similar to the RGGI states, and also had significant RPS requirements. That study found “The comparison states economies grew 2.5 times faster than the RGGI states. Data from the U.S. Bureau of Economic Analysis show that the RGGI states lost 35 percent of energy intensive businesses (primary metals, food processing, paper products, petroleum refining, and chemicals), the comparison states only lost 4 percent. The RGGI states lost 13 percent of overall goods production, while the comparison states grew by over 15 percent.”¹

As the legislature considers RGGI or any such carbon cap-and-trade program, we ask that you consider the following:

The overall cost of the RGGI program in Pennsylvania would not be comparable to any of the other states in the RGGI program.

Pennsylvania is an energy producing state and would be penalized for that energy production. Looking at the annual amount of RGGI auction revenues collected in each participating state spread over the Electric Power sector CO₂ emissions in those states results in a cost of \$3.35 per metric ton. When applied to 82.1 metric tons of Electric Power sector CO₂ emissions in Pennsylvania, the financial impact just from the RGGI carbon allowance auction on PA would be approx. \$275 million per year in additional cost to electric generators that will be passed along to consumers. However, this does not even consider the costs of additional secondary market CO₂ allowances that generators may need to purchase or the increased cost to electric generators to reduce CO₂ emissions to comply with RGGI.

¹ “A Review of the Regional Green Gas Initiative” by David T. Stevenson, CATO Institute, August 10, 2017
https://www.cato.org/sites/cato.org/files/pubs/pdf/working-paper-45_1.pdf



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Table 4. 2016 State energy-related carbon dioxide emissions by sector

Million metric tons of carbon dioxide

State	Commercial	Electric Power	Residential	Industrial	Transportation	Total
Connecticut	3.9	7.0	6.3	1.9	15.3	34.3
Delaware	0.9	3.6	0.8	3.4	4.6	13.3
Maine	1.6	1.5	2.9	1.5	8.9	16.5
Maryland	5.2	17.2	5.5	2.2	27.6	57.6
Massachusetts	7.0	10.7	11.4	3.4	31.7	64.2
New Hampshire	1.4	2.4	2.5	0.8	6.7	13.8
New York	21.7	27.7	30.6	8.3	75.4	163.7
Pennsylvania	10.7	82.1	18.4	45.6	60.7	217.4
Rhode Island	0.9	2.6	1.8	0.6	3.9	9.8
Vermont	0.9	0.0	1.3	0.4	3.4	6.0

Source: Energy Information Administration (EIA)

According to Jeff Berman, manager of emissions and clean energy at S&P Global Platts Analytics², the cost of the RGGI program would result in:

- About \$6/MWh added to coal-fired power cost
- About \$2/MWh added to gas-fired generation

Carbon dioxide emissions in Pennsylvania have decreased just as much on a percentage basis as the other states participating in RGGI and have decreased MORE than other RGGI states on an absolute basis without the added cost of the RGGI program!

Table 2. State energy-related carbon dioxide emissions by year, adjusted (2005–2016)

million metric tons of carbon dioxide

State	Change (2005–2016)	
	Percent	Absolute
Connecticut	-23.0%	-10.3
Delaware	-21.5%	-3.7
Maine	-29.6%	-7.0
Maryland	-30.6%	-25.5
Massachusetts	-24.8%	-21.3
New Hampshire	-36.0%	-7.8
New York	-22.7%	-48.3
Pennsylvania	-22.8%	-64.7
Rhode Island	-13.9%	-1.6
Vermont	-13.5%	-0.9

Source: United States total, *Monthly Energy Review*,

Source: EIA, State Energy Data System, and EIA calculations made for this analysis.

² “Joining RGGI to boost Pennsylvania gas-, coal-fired power prices, double emissions traded”, Oct. 4, 2019
<https://www.spglobal.com/platts/en/market-insights/latest-news/coal/100419-joining-rggi-to-boost-pennsylvania-gas-coal-fired-power-prices-double-emissions-traded>



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Pennsylvania has already taken steps and passed laws to increase renewable energy supply and improve energy efficiency. More importantly Pennsylvania's competitive electricity market continues to add lower carbon dioxide emitting generation while decreasing cost to customers!

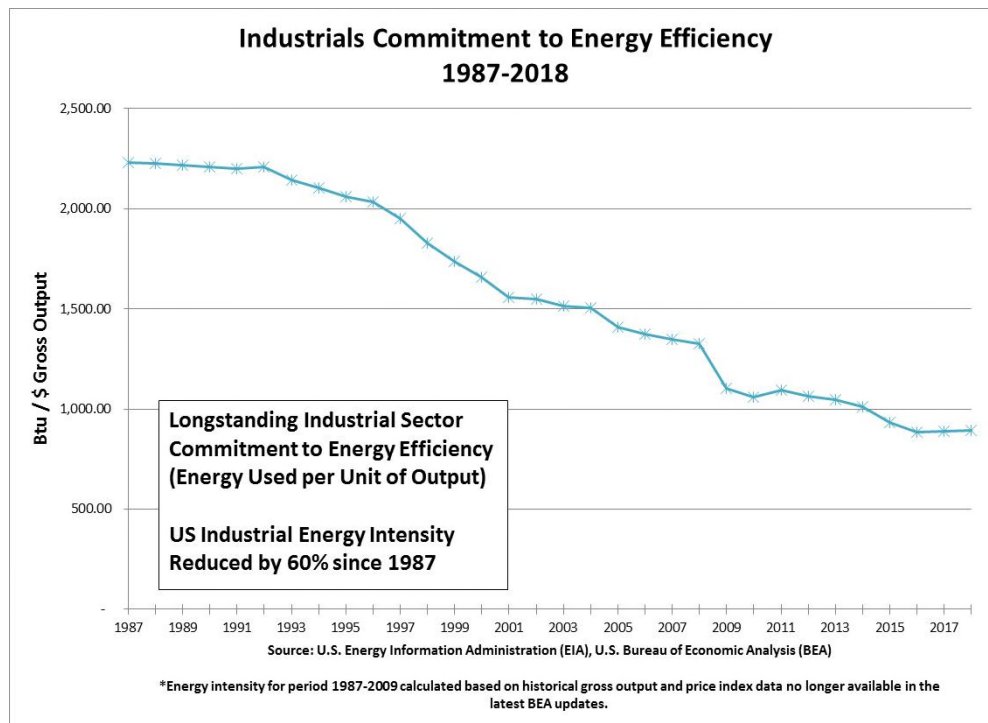
Joining RGGI and incurring the increased cost associated with the initiative needs to be analyzed closely as the data suggest that the carbon reduction goals sought by the Commonwealth can be achieved without the adoption of a regional framework. Additionally, the Federal Energy Regulatory Commission's (FERC) recent order on PJM's Minimum Offer Price Rule adds further uncertainty to the ultimate cost impact of a RGGI program to utility customers.

However, if after considering these facts the legislature decides to move forward with RGGI or a RGGI like carbon cap-and-trade program, the impact to electricity prices to energy intensive manufacturing must be studied and cost control mechanisms such as direct allocation of auction revenues to energy intensive manufacturing must be provided.

For instance, Maine's RGGI program has a set aside of a certain amount of CO2 offset allowances to serve as a buffer for CO2 credit cost control.

"(2) Cost Containment Reserve (CCR) allocation. The Department shall allocate CO2 CCR allowances, separate from and additional to the CO2 Budget Trading Program base budget set forth in subsection 2(A) of this Chapter to the auction account. The CCR allocation is for the purpose of containing the cost of CO2 allowances."³

Industrial / manufacturing customers have already achieved the greatest reduction of their CO₂ emissions associated with energy usage through their commitment to energy efficiency and should not be penalized by a RGGI program.

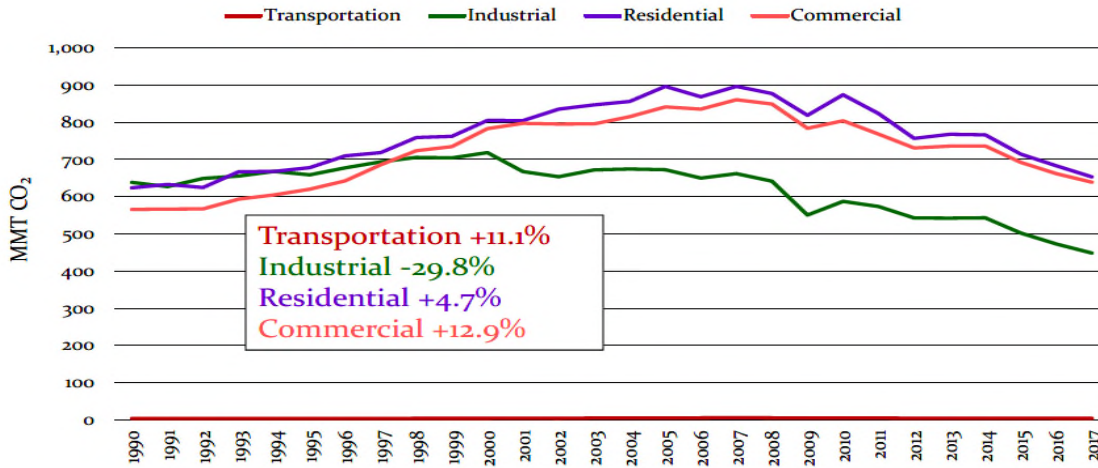


Data from the U.S. Energy Information Administration and U.S. Bureau of Economic Analysis presented in the chart here shows a steady 52% decrease in Industrial Manufacturing Energy Intensity going back to 1987. The behaviors exhibited by large industrial customers over this time are not a function of any federal or state energy efficiency program. Rather, set of the behaviors that produced this data are simply what is required to survive in an increasingly competitive global market.

³ State Statutes & Regulations: <https://www.rggi.org/program-overview-and-design/state-regulations>



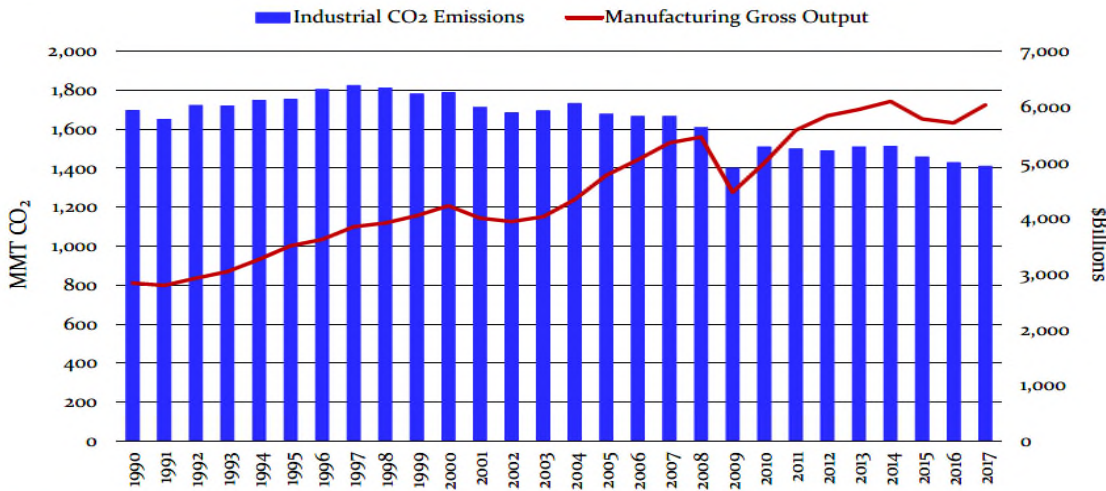
CO₂ Indirect Emissions by Sector: Industrial sector emissions are 30% below 1990



Source: Total Energy, U.S. Energy Information Administration (EIA)



Since 1990, Total Industrial Carbon Emissions Decreased 17%, while Manufacturing Gross Output went up 113%



Source: Total Energy, U.S. Energy Information Administration (EIA) and U.S. Bureau of Economic Analysis (BEA)



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Rod E. Williamson

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