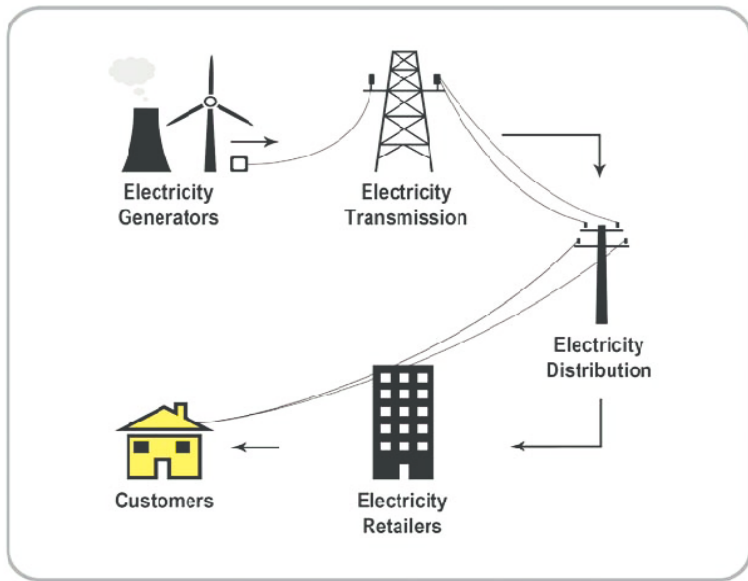




Electricity supply has 3 main components:

1) GENERATORS

- Capacity – kW (to meet customer Demand)
- Energy – kWh (to meet customer Usage)

2) TRANSMISSION

3) DISTRIBUTION

- 1 cent per kWh increase in the electricity rate cost Pennsylvania customers (residential, commercial and industrial) \$1.4 billion per year.
- However, unlike residential and most commercial customers, electricity costs are 30% to 70% of industrial manufacturing costs.

EIA Avg Retail Price of Electricity State Ranking Highest Cost 1 to Lowest Cost 50			
Source: U.S. Energy Information Administration			
description	units	2023	Rank
All sectors : Hawaii	cents per kilowatthour	38.7	1
All sectors : California	cents per kilowatthour	24.73	2
All sectors : Connecticut	cents per kilowatthour	24.21	3
All sectors : New Hampshire	cents per kilowatthour	22.98	4
All sectors : Massachusetts	cents per kilowatthour	22.97	5
All sectors : Rhode Island	cents per kilowatthour	21.97	6
All sectors : Alaska	cents per kilowatthour	21.39	7
All sectors : Maine	cents per kilowatthour	20.95	8
All sectors : New York	cents per kilowatthour	18.32	9
All sectors : Vermont	cents per kilowatthour	17.52	10
All sectors : New Jersey	cents per kilowatthour	15.41	11
All sectors : Maryland	cents per kilowatthour	14.37	12
All sectors : Michigan	cents per kilowatthour	13.66	13
All sectors : Florida	cents per kilowatthour	13.51	14
All sectors : Nevada	cents per kilowatthour	13.01	15
All sectors : Delaware	cents per kilowatthour	12.96	16
All sectors : Wisconsin	cents per kilowatthour	12.63	17
All sectors : Pennsylvania	cents per kilowatthour	12.54	18
All sectors : Minnesota	cents per kilowatthour	12.17	19
All sectors : Arizona	cents per kilowatthour	12.14	20
All sectors : Illinois	cents per kilowatthour	11.91	21
All sectors : Colorado	cents per kilowatthour	11.77	22
All sectors : Indiana	cents per kilowatthour	11.5	23
All sectors : Alabama	cents per kilowatthour	11.5	24
All sectors : Georgia	cents per kilowatthour	11.36	25
All sectors : Ohio	cents per kilowatthour	11.12	26
All sectors : Kansas	cents per kilowatthour	11.12	27
All sectors : Mississippi	cents per kilowatthour	11.1	28
All sectors : Missouri	cents per kilowatthour	11.01	29
All sectors : Virginia	cents per kilowatthour	10.92	30
All sectors : Montana	cents per kilowatthour	10.91	31
All sectors : North Carolina	cents per kilowatthour	10.86	32
All sectors : Tennessee	cents per kilowatthour	10.79	33
All sectors : South Carolina	cents per kilowatthour	10.76	34
All sectors : South Dakota	cents per kilowatthour	10.42	35
All sectors : West Virginia	cents per kilowatthour	10.27	36
All sectors : Oregon	cents per kilowatthour	10.23	37
All sectors : Kentucky	cents per kilowatthour	10.05	38
All sectors : Texas	cents per kilowatthour	9.99	39
All sectors : Arkansas	cents per kilowatthour	9.74	40
All sectors : New Mexico	cents per kilowatthour	9.67	41
All sectors : Washington	cents per kilowatthour	9.61	42
All sectors : Iowa	cents per kilowatthour	9.43	43
All sectors : Oklahoma	cents per kilowatthour	9.4	44
All sectors : Nebraska	cents per kilowatthour	9.19	45
All sectors : Idaho	cents per kilowatthour	9.12	46
All sectors : Utah	cents per kilowatthour	9.03	47
All sectors : Louisiana	cents per kilowatthour	8.88	48
All sectors : Wyoming	cents per kilowatthour	8.34	49
All sectors : North Dakota	cents per kilowatthour	7.92	50

Key Takeaway:

Electricity Rates in PA are high compared to other states = 18th most expensive rates compared to other 50 states!



2001 to 2023 Electricity Average Retail Rate Percentage Change

Key Takeaway: Electricity Rates in EVERY RGGI State are increasing faster than in Pennsylvania

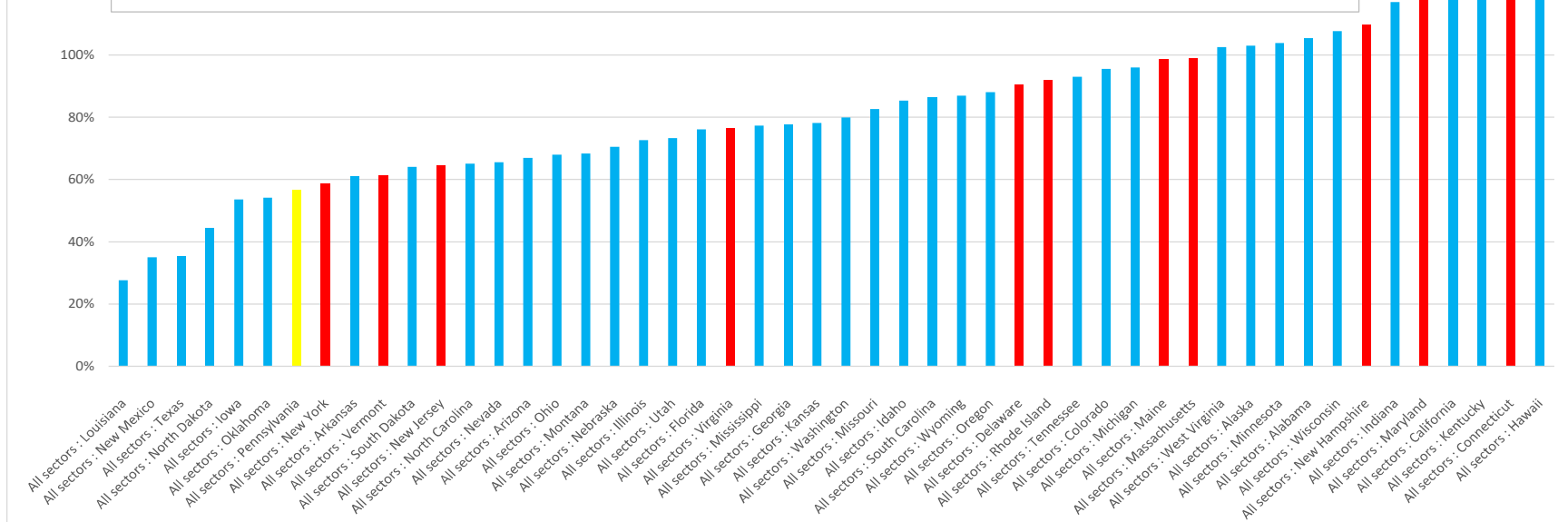
When states joined RGGI

2005: Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York, and Vermont signed the MOU

2007: Massachusetts, Rhode Island, and Maryland joined RGGI

2018: New Jersey rejoined RGGI under an executive order

2021: Virginia joined RGGI, but left as of 2024



Source: EIA



Industrial Energy Consumers of Pennsylvania

Key Takeaway:

RGGI or a PA specific carbon cap and trade program will increase the cost of electricity in PA!

- In 2022 when PA DEP provided analysis of the cost impact of RGGI, the RGGI carbon allowance price was \$13.50.
- The most recent auction price is now \$20.05 - a 48.5% increase.
- Initial estimates of RGGI additional costs for Pennsylvania power generators at a \$13.50 allowance price were \$700 million to \$800 million per year.
- Now, those cost would likely be over \$1 billion per year!

<https://www.rggi.org/auctions/auction-results/prices-volumes>



Industrial Energy Consumers of Pennsylvania

Key Takeaway:

Non-Market, Mandated Charges like the Alternative Energy Portfolio Standard (AEPS) are adding Uncompetitive Cost to Industrial Manufacturing Customers

- From a report by PA Public Utility Commission regarding the AEPS Compliance for Reporting Year 2022-23:

Page 13 of that report provides a summary table which shows that the purchase of Alternative Energy Credits (AECs) has resulted in a cost of **\$528 million dollars**.

- Based on the number of associated Alternative Energy Credits (one credit = 1 MWh) this equals \$21.17/MWh. To put this in perspective, the PJM real-time load-weighted average LMP (i.e. market price) in 2023 was \$31.08 per MWh. **So while others have testified in the past year how clean energy is the lowest-cost source of electricity, in Pennsylvania for residential, commercial and industrial electricity customers, the AEPS program has almost doubled the cost of electricity for the clean energy sources used to comply with this AEPS policy.** This places PA industrial customers at a competitive disadvantage to other states who are adding renewable energy without these state specific added costs.

Summary Table of AEPS Compliance Costs

Tier	Credits Retired	Weighted Average Credit Price	Cost of Purchased Credits
Solar	679,794	\$42.48	\$28,295,274.99
I	10,651,534	\$23.68	\$248,743,810.00
II	13,595,818	\$19.69	\$250,656,376.04
Total	24,927,146	N/A	\$527,695,461.03



Key Takeaway:

A significant cost associated with electricity supply to Pennsylvania facilities is the Gross Receipts Tax on electricity.

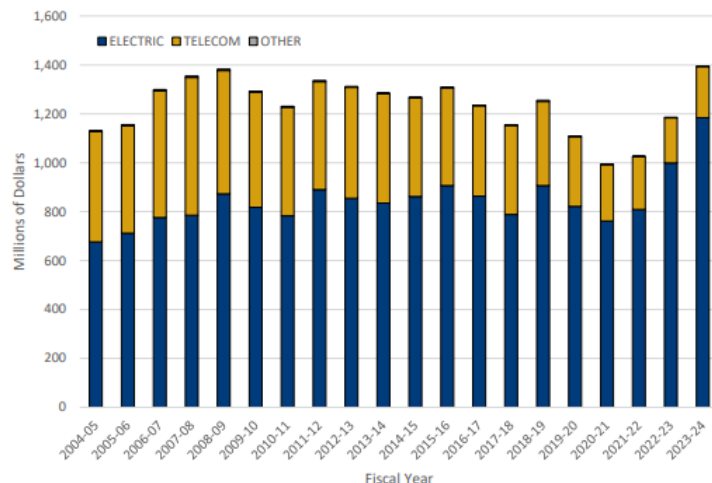
This is an additional cost which Pennsylvania businesses' competitors do not incur in other states. As noted in a recent article, a Gross Receipts Tax is rare nationwide, but not in Pennsylvania. Joseph Johns of the Tax Foundation said, "gross receipts taxes have fallen out of favor in most states and were repealed before 2000." It is time to eliminate this tax burden on energy-intensive, trade-exposed Pennsylvania manufacturers trying to remain competitive in a world-wide market.



GROSS RECEIPTS TAX

CASH COLLECTIONS BY SECTOR (\$M)

CASH COLLECTIONS BY SECTOR



FISCAL YEAR	ELECTRIC	TELECOM	OTHER	AFIG
2004-05	676.4	451.5	3.4	-5.4
2005-06	711.7	439.7	4.7	-5.1
2006-07	775.9	518.1	5.2	-5.9
2007-08	785.5	563.3	6.1	-6.1
2008-09	872.7	504.9	5.4	-6.2
2009-10	817.8	471.1	3.5	-5.7
2010-11	783.1	444.0	3.4	-5.4
2011-12	890.6	441.6	4.3	-6.5
2012-13	854.6	454.4	3.2	-6.0
2013-14	835.3	448.1	1.5	-5.7
2014-15	862.0	403.7	2.4	-6.3
2015-16	907.2	399.4	3.6	-5.2
2016-17	863.1	370.3	2.6	-5.4
2017-18	788.4	364.6	2.0	-5.1
2018-19	906.9	344.5	4.0	-5.3
2019-20	821.7	285.2	2.4	-5.1
2020-21	761.7	231.1	1.5	-4.3
2021-22	809.1	216.6	1.2	-4.5
2022-23	998.9	184.8	2.4	-5.1
2023-24	1,184.4	209.6	1.1	-5.9

	ELECTRIC	TELECOM	OTHER	OVERALL
AVG ANNUAL GROWTH	3.0%	-4.0%	-5.8%	1.1%

Industrial customers are 36% of electricity sales in Pennsylvania. Thus, the GRT cost industrial customers approx. \$426.4 million in 23-24 and it continues to increase!

TAX RATES: For 2012 to the present, the tax rate for the electric sector is 5.9% while the rate for telecom and other is 5.0%. Prior to 2012, rates fluctuated due to the Revenue Neutral Reconciliation (RNR) mechanism as well as the PURTA surcharge.

Source: "The Statistical Supplement for the Pennsylvania Tax Compendium November 2024 Fiscal Year 2023-24

https://www.pa.gov/content/dam/copapwp-pagov/en/revenue/documents/news-and-statistics/reportsstats/taxcompendium/statsupplement/documents/2023-24_stat_supp.pdf



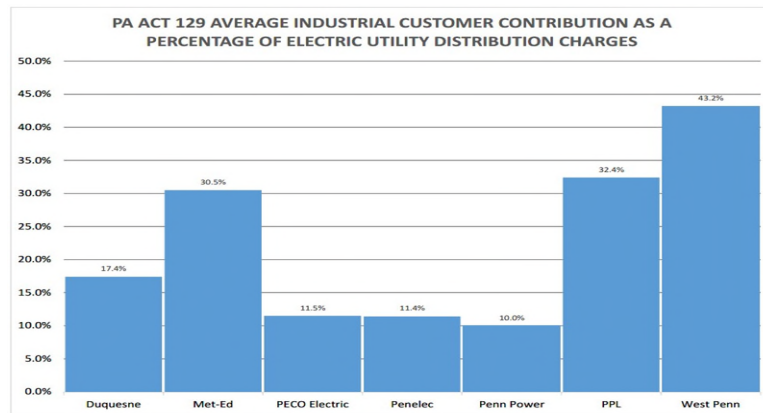
Industrial Energy Consumers of Pennsylvania

Key Takeaway:

Non-Market, Mandated Charges like the Act 129 Energy Efficiency Program are adding Uncompetitive Cost to Industrial Manufacturing Customers

Act 129 investment by industrial and manufacturing businesses has largely gone without a return to those entities that are unable to participate in utility EE&C offerings since they have already invested in their own operational improvements to be as efficient as possible and remain competitive. 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.

Act 129 charges are a significant, added cost to the electric distribution utility bill for manufacturing customers - as much as 43% of the utility bill!



*Based on PA PUC 2022 Rate Comparison Report (April 15, 2022)



Industrial Energy Consumers of Pennsylvania