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Thank you for the opportunity to participate in this discussion on harms of energy taxes.

Taxes on energy redound through the entire economy, they are not just a tax on the energy producer itself. Energy taxes are passed through directly to consumers of course in the form of increased energy costs -- higher prices at the pump, higher gas bills to heat homes -- but it doesn't end there. Energy, whether fuel or electricity, is the foundational input for virtually every step on a value chain. Transportation of food to processing and then to the grocery store is powered by oil. Refrigeration of that food requires electricity. Manufacturing facilities require often vast amounts of electricity. The transportation of those manufactured goods requires fuel. Energy taxes raise costs at every step of the process, so the cost of a product at the grocery store or the mall has been hit multiple times by an energy tax. This compounding effect means that energy taxes should always be instituted carefully if at all even in normal times. When inflation is still elevated, as today, energy taxes are perhaps the worst kind of intervention to pursue.

One of the most timely energy taxes for this discussion is of course the Regional Greenhouse Gas Initiative (RGGI). While the court definition of RGGI as a fee or a tax obviously matters for the legislative debate, for the purposes of economic discussion it is very clearly a tax on energy. Taxing electricity production necessarily increases the cost of electricity. A review of the first eight years of RGGI implementation found that electricity costs increased 64% faster in RGGI states than in non-RGGI states.[1] This is a completely unsurprising outcome. And building renewable generation capacity, which is one of the goals of RGGI, is not an antidote to this, because on a grid wide level, wind and solar electricity generation are not cheap.

While wind and solar generation once built do not have ongoing fuel costs, and thus appear "cheap" at the point of generation, they are not free or cheap for the grid as a whole. Upfront costs for materials are only the start, wind and solar require more spending on transmission, they require spending on some sort of backup capacity for when the wind is not blowing and the sun not shining, there are balancing costs to the grid to manage the sudden on and off nature of intermittent sources, and wind and solar have to be replaced in 20 years or less. This raises the overall cost of electricity as the percentage of generation from renewables, especially wind, increases. Real world examples bear this out. In Europe for 2023, Denmark (56%), Ireland (36%), and Germany (31%) were the three countries with the highest wind generation percentages.[2] In the first half of 2024, the three countries with the highest retail electricity prices, in order, were Germany, Ireland, and Denmark.[3] In the US over the last 10 years we have seen prices for natural gas and coal, which still provide more than 60% of electricity generation,

[1] https://www.cato.org/cato-journal/winter-2018/review-regional-greenhouse-gas-initiative#electricity-demand
[2] https://windeurope.org/intelligence-platform/product/wind-energy-in-europe-2023-statistics-and-the-outlook-for-2024-2030/#:~:text=Denmark%20and%20Ireland%20had%20the,%25)%20and%20Greece%20(20%25)
[3] https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Electricity_price_statistics

at long term lows. Yet US electricity prices have not declined, they have actually gradually continued to increase. Pennsylvania has seen this same phenomenon: even as natural gas generation has increased to 57% of the state generation and gas prices have largely remained well below $5 per thousand cubic feet,[4] state electricity prices have steadily increased.

This is why I would characterize renewables mandates as another form of energy tax. Gov. Shapiro's energy plan to tax conventional generation while mandating 50% renewables is thus a twofer energy tax. There is the direct tax on natural gas and coal generation that will raise electricity costs, but then there is also the mandate to buy expensive wind and solar generation. Consumers will see the renewables tax in the form of higher electricity bills, though the revenue will bypass the state treasury and funnel directly to wind and solar developers and their Wall Street financiers. Renewables mandates are not benign, they are a tax, it's just a tax that that a politician can get good press for increasing.

There are system wide impacts outside the borders of Pennsylvania that also function as an energy tax on citizens. Governor Shapiro with great fanfare announced his lawsuit against the PJM interconnection over the high cost of last year's capacity auctions. But those capacity auctions are not PJM hoarding money or ripping off customers. PJM doesn't make profits. Those costs are PJM desperately attempting to maintain the reliability of the electric grid as Gov. Shapiro and many of the governors of neighboring states continue to subsidize and mandate wind and solar electricity generation onto the grid. Shapiro and the other governors are trying to blame PJM for the obvious and predicted effects of their own policy actions.

Operating in the background of course are federal level policies which also destabilize the electric grid. The generous subsidization of wind and solar generation, recently extended indefinitely by the mis-named Inflation Reduction Act, will continue to impose challenges on state level policymakers. With federal policy subsidizing unreliable electricity, it will be difficult and perhaps impossible for PJM and other regional transmission organizations to maintain reliable electric service through managed electricity markets.

These harmful federal policies only reinforce the need for sanity at the state level. New taxes on reliable generation at the state level are the absolute last thing needed.

[4] https://www.eia.gov/dnav/ng/hist/n3045pa3m.htm