



Testimony

Submitted on behalf of the
Pennsylvania Chamber of Business and Industry

The Rising Price of Energy in Pennsylvania

Before the:
Pennsylvania House Republican Policy Committee

Presented by:
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Chairman Kail and members of the House GOP Policy Committee,

Thank you for the opportunity to join you today. 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. Our nearly 10,000 members are of all sizes and of all commercial and industrial sectors.

It is an honor to appear before you this afternoon to discuss our state's energy resources and the challenges and opportunities before us. The abundant natural resources of our state have led this country through every major energy transition that has occurred in the past 165 years, from the first oil well drilled in this country in Titusville in 1859, to the first delivery of natural gas to a major metro in Pittsburgh in 1884, to the first commercial nuclear plant in Shippingport in 1958, to today's prolific production of shale gas and many exciting innovations in advanced manufacturing and distributed energy resources.

We are presently the nation's largest exporter of natural gas and electricity, the second largest exporter of coal to international markets, and the second largest producer of electricity from nuclear power. We are home to universities who are producing globally recognized engineering talent and trade schools who train and develop highly in-demand technical talent. We are host the headquarters of PJM, which manages delivery of power to 65 million Americans in 13 states across what is the world's largest organized grid from offices in southeastern Pennsylvania. We are also home to several of the last remaining refineries in the northeast, and are proud to count among the Chamber's members companies who are leading in areas like advanced manufacturing, renewable power, distributed energy resources, robotics, electrified heavy trucking, carbon capture, and hydrogen production.

Our state's energy resources have helped dramatically improve the nation's energy security, as well as that of our allies, as well as significantly reducing our emissions. Among all states, we are second in the reduction of greenhouse gas emissions since 2005, and we are for the first time in decades monitoring attainment statewide for all but one federal ambient air quality standards.

Permitting delays impede the confidence of lending institutions to close a business loan, and the overall delay and uncertainty from our dysfunctional approach to building infrastructure and energy projects in this country leads to underinvestment into development of the resources needed to power our economy. A tax and regulatory approach that sends a strong signal to invest and that improves on the efficiency of government will lead to greater opportunity for Pennsylvanian families and our businesses, helping them grow and expand here. Further, recent events within the electricity grid, as well as grid regulators noting the challenge that increasing deployment of intermittent resources is presenting to reliability, underscore the need for our state to continue lead on energy policy and ensure reliability and the affordable delivery of power through competitive markets and a diverse fleet of power generation resources.

My testimony will discuss in greater detail these contributions, as well as the opportunity and challenges ahead.

Competitive Markets and Private Sector Leadership Have Delivered Significant Economic and Environmental Progress in Pennsylvania and the United States

The PA Chamber encourages lawmakers on both sides of the aisle to come together to produce durable, bipartisan policy that applies and develops upon Pennsylvania's successful leveraging of our historic leadership positions in energy and industry through competitive markets to produce electricity, natural gas and a host of goods and commodities in an increasingly affordable and sustainable manner. In an increasingly unstable geopolitical environment that is layered over increasing global demand for energy, Pennsylvania should empower America for continued leadership in an increasingly competitive and dynamic global marketplace.

Among all states, Pennsylvania ranks second in total energy production, second in natural gas production, second in installed nuclear capacity, third in coal production, third in electricity production and eighth in manufacturing output. Pennsylvania is also the largest net-exporter of electricity of any state and is the largest producer on the 13-state PJM grid, where prices are at generational lows and GHG emissions have fallen 34% across the region since 2005.

Pennsylvania's energy assets have contributed to significant nationwide decreases in commodity costs for gas and electricity and in emissions of NAAQS and greenhouse gasses. Our state has helped position the United States as a leader in sustainable economic growth, as our nation has outpaced other developed countries in keeping energy prices low while growing the economy and reducing emissions.

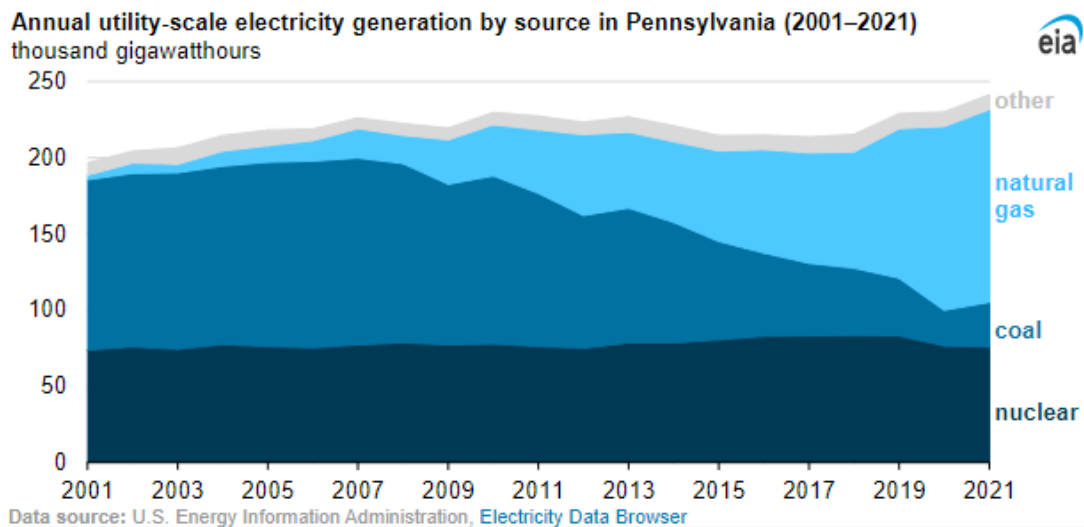
Pennsylvania's contributions to growing the economy while reducing energy prices and emissions have positioned the United States for leadership in sustainable growth. As EPA's Acting Assistant Administrator Joseph Goffman noted in a recent memo to regional offices, "ongoing changes in electricity generation mean that the emission reduction goals that the [Obama administration's Clean Power Plan] for 2030 have already been achieved."¹

This progress on the environment has come while we have increased production of energy in this state. As the table below from the United States Energy Information Administration notes², electricity generation in Pennsylvania is at an all-time high.

¹ Memorandum to EPA Regional Administrators: Status of Affordable Clean Energy Rule and Clean Power Plan. United States Environmental Protection Agency Office of Air and Radiation. Feb. 12, 2021.

https://www.epa.gov/sites/default/files/2021-02/documents/ace_letter_021121.doc_signed.pdf

² EIA Today in Energy, Jan. 26, 2023. <https://www.eia.gov/todayinenergy/detail.php?id=55319>



This increase in power generation has come both as a result of neighboring states enacting regressive, uncompetitive policies that increases their reliance on our power generation. For example, during an extreme cold weather snap leading up to last Christmas, states to our south and east were in need of imported electricity. Pennsylvania, through the entire energy crunch, was exporting sufficient power to make up for neighboring states' shortfalls. The PJM grid as a whole was also exporting power to neighboring grids whose demand exceeded supply. While the high demand for power resulted in cost increases, we in Pennsylvania and PJM were able to avoid the blackouts southern states saw thanks to the contributions of our energy sector, demand-side reductions, and grid management.

States like New Jersey and Maryland having to import power in December 2022 was not a one-off event. As the Independent Fiscal Office noted in a March 14, 2022 research brief and as show in the excerpted table below, Pennsylvania's power generation sector has produced, remarkably, an increase in output with a decrease in emission. The same cannot be said for many neighboring states, some of whom, despite participating in RGGI, have fleets that are more carbon-intensive than Pennsylvania. Measured on emitted CO₂ per unit of electricity, Pennsylvania's power generations sector is cleaner than RGGI states like Maryland and Massachusetts and much less emissions intensive than Ohio (whose power sector is 64% more emissions intensive than PA's) and West Virginia (which is 161% higher).³ West Virginia and Ohio are not in RGGI, but would stand to benefit from an increase in production from their energy sector should Pennsylvania disadvantage itself through enactment of an energy tax that not all states in the PJM grid pay.

³ Electricity Update for March 2022. Independent Fiscal Office, March 2022.
http://www.ifo.state.pa.us/download.cfm?file=Resources/Documents/Electricity_Update_March_2022.pdf

Table 3 - Electricity Generation Carbon Dioxide Emissions

State	Generation		Emissions		Emissions per Unit	
	2007	2021	2007	2021	2007	2021
New York	145.9	125.2	53.7	28.7	0.37	0.23
New Jersey	62.7	61.4	20.8	14.5	0.33	0.24
Connecticut	33.2	44.1	10.5	10.6	0.32	0.24
Virginia	78.4	94.3	47.2	27.3	0.60	0.29
North Carolina	130.1	131.3	79.4	40.5	0.61	0.31
Pennsylvania	226.1	241.6	129.3	81.0	0.57	0.34
Maryland	50.2	39.7	31.5	15.2	0.63	0.38
Massachusetts	47.1	19.4	25.8	8.4	0.55	0.43
Ohio	155.2	123.3	132.0	68.7	0.85	0.56
West Virginia	93.9	65.6	87.3	58.4	0.93	0.89

Note: Generation in million megawatt hours. Emissions in million metric tons.
 Source: U.S. Energy Information Administration. 2021 Emissions are estimated by the IFO based on 2021 generation and 2020 emissions per unit.

Pennsylvania’s increase in power generation is also a product of our state’s energy policy allowing for significant new investment through competitive markets. In large part, this has allowed us to build off a long history of generation from coal and nuclear and further diversify our portfolio by leveraging Marcellus shale gas, which is highly efficient from in terms of production. According to the U.S. Energy Information Administration, new daily production per rig in the Appalachian basin is 25,436 mcf/day, or two-and-a-half times the production of the next biggest producing formation in the United States – the Haynesville formation, at 10,739 mcf/day per rig.⁴

Compared to all areas of domestic production, natural gas produced in the Appalachian basin, such as from formations like Marcellus shale which produces more than a fifth of all domestic natural gas, has by far the lowest overall greenhouse gas emissions intensity, measured on a 100-year global warming potential methodology, according to the Clean Air Task Force.⁵ The emissions intensity of natural gas produced in Appalachia (4.0kg CO2e/BOE) is nearly a third of the intensity of gas produced in the Texas (11.9 CO2e/BOE in the Permian) and nearly a quarter of the intensity of gas produced in the Gulf Coast (14.3 CO2e/BOE) In other words, as a result of the environmental leadership of the private sector and a responsive regulatory approach, gas produced in Pennsylvania, Ohio and West Virginia is both the most prolific and sustainable of all domestic plays.

Recent price spikes are owing in large part to disruptions in international energy markets from Russian’s horrific invasion of Ukraine (and the resulting sanctions) as well as the significant disruption the pandemic and mitigation measures wrought in terms of new investment. But it must

⁴ Drilling Productivity Report. U.S. Energy Information Administration, Jan. 17, 2023. <https://www.eia.gov/petroleum/drilling/>

⁵ Benchmarking Methane and Other GHG Emissions. Clean Air Task Force, June 2021. https://www.catf.us/wp-content/uploads/2021/06/OilandGas_BenchmarkingReport_FINAL.pdf

not be lost on policymakers that prior to these events, production of domestic energy resources resulted in significant cost reductions for families and consumers, and that recent price forecasts for upcoming months note a very precipitous drop in natural gas prices. It is reasonable to expect such decreases will also tamp down volatility in the electricity market. Taking a long-term view, ensuring that there are strong signals from policymakers for the private sector to invest in production, generation, transmission and use of energy will be paramount to fully taking advantage of our natural resources.

High Energy Prices Impact Economic Competitiveness and the Affordability of Basic Needs

We have a historic and generational opportunity to leverage the responsible use of our natural resources into sustainable manufacturing of advanced manufacturing, including polymers and petrochemicals; localized heating and power for data centers, educational campuses and health systems; and a dynamic power generation sector that is increasingly reliant on dispatchable natural gas to fill in gaps between intermittent resources, which are continuing to be deployed to the grid in substantial volume.

The interplay of these industries will produce not just family-sustaining jobs, but new innovations that provide for greater human flourishing. This includes leveraging data centers and quantum computing to inform the design of life-saving drugs, advanced materials, and a dynamic energy grid. But given increasing interest rates and recent changes to federal tax policy that disproportionately burdens manufacturers, future private sector investment into our state in these sectors will be dampened if we layer onto these cost increases policy that causes further increases to energy.

High energy prices impact everything from the manufacturing sector to the operations of schools and healthcare system, but are regressive to lower income families. The average low-income household “spends three times more of their income on energy costs compared to the median spending of non-low income households,” according to a 2020 analysis of energy burdens by the American Council for an Energy-Efficient Economy.⁶ The gap is more pronounced for Native America, Black and Hispanic households in lower income deciles.

High energy prices also drive up the cost of the fertilizers needed to feed a growing world. Energy economist Vaclav Smil has estimated the process to manufacture synthetic fertilizer from ammonia and nitrogen, through petrochemical feedstocks, has allowed the world to feed more than 2 billion people more than it would have otherwise. The ability for the global economy to produce additional volumes of fertilizer is contingent on the availability of these feedstocks.

The United Nations’ World Food Programme recently released a recent report on the on-going crisis of food affordability, owing in large part to disruption in energy and transportation from Russia’s horrific and illegal invasion of Ukraine. Noted the UN, the “effects of the war in Ukraine,

⁶ How High Are Household Energy Burdens? American Council for an Energy-Efficient Economy, September 2020. <https://www.aceee.org/sites/default/files/pdfs/u2006.pdf>

including higher natural gas prices, have further disrupted global fertilizer production and exports – reducing supplies, raising prices and threatening to reduce harvests. High fertilizer prices could turn the current food affordability crisis into a food availability crisis, with production of maize, rice, soybean and wheat all falling in 2022.”⁷ The UN estimates that a mere 1% increase in global food prices as a result of the energy price shock will jeopardize the food security of 10 million people in the developing world.

To Turn Pennsylvania Around, Leaders in Harrisburg Need to Work Together and Build on Recent Bipartisan Tax and Regulatory Reforms

Building 21st century advanced manufacturing operations and leveraging our energy resources into greater opportunity for our residents and businesses is only possible through a determined and bipartisan pursuit of reform to our state’s tax and regulatory structure. More than two hundred members of the state House and Senate last year voted to overhaul the state’s burdensome business tax structure and, by extension, significantly improve our state’s competitive position. Governor Josh Shapiro also campaigned on accelerating the scheduled phase-down of the corporate net income tax and streamlining permitting reviews. We support and applaud such measures, as well as the improvement of the treatment of net operating losses. We are one of a handful of states which limits the ability of companies to carry such losses forward. Manufacturers, in particular those investing heavily into expanding existing operations or in building new sites, are particularly disadvantaged by such limitations.

A more competitive tax policy is also just one element of improving the state’s competitive position to attract new investment and expand and retain what is already here. The other key element is improving time-to-market through comprehensive reform to permitting. Our organization was honored to have stood with Gov. Shapiro in the ceremonial signing of his executive order to establish a one-stop shop permitting office, and we have for several sessions supported legislative proposals to reform the state’s regulatory process. Such reforms are needed, and these include permit applications being deemed approved should the agency not render a timely decision on a complete application; providing additional resources to agencies, including the option for third-party review; and providing greater certainty to agency decisions through amending the scope of appeal on permit actions and the associated possibility of fees being awarded to litigants by courts.

Such an approach would build upon recent bipartisan action in Washington, D.C., where lawmakers of both parties have recognized red tape is costing our country too much in terms of lost investment and a modern infrastructure. Over the past few years, Congress has enacted very significant energy and permit streamlining policies, thanks to buy-in like this from Republicans in the U.S. House and Senate. The 2020 defense bill included major provisions to support American leadership in the nuclear industry, including support for the next generation of safe and effective advanced reactor designs.

⁷ Global Hunger Crisis. United Nations World Food Programme, January 2023. <https://www.wfp.org/global-hunger-crisis/>

The bipartisan infrastructure law, in addition to increased funding for bridges, highways, clean water and broadband for Pennsylvania, codified significant permitting reforms to federal environmental reviews. These reforms to cut red tape were a Trump administration policy that have become law with the signature of a Democratic president.

This progress on cutting federal tape has come as lawmakers on both sides of the aisle in Washington recognized that addressing the challenges of growing the economy, improving environmental quality and ensuring abundant, affordable energy will only happen when policy promotes innovation and building new projects in the United States. The non-partisan policy think tank Common Good estimates permitting delays on energy projects costs the nation trillions in public health costs.

Permitting delays impede the confidence of lending institutions to close a business loan, and the overall delay and uncertainty from our dysfunctional approach to building infrastructure and energy projects in this country leads to underinvestment into development of the resources needed to power our economy. A tax and regulatory approach that sends a strong signal to invest and that improves on the efficiency of government will lead to greater opportunity for Pennsylvanian families and our businesses, helping them grow and expand here.

Thank you for the opportunity to address you this morning.