



Pennsylvania Manufacturers' Association

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Environmental Resources and Energy Committee
Public Hearing on Uses of Oil and Gas Byproducts

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Thank you, Chairman Metcalfe, Chairman Vitali, and members of the committee for allowing me to testify today. I'm David N. Taylor, President and CEO of the Pennsylvania Manufacturers' Association, the statewide nonprofit trade organization representing the people who make things here in the commonwealth.

Today's topic is an especially important one that I am pleased to address: the way that energy enables the chemistry and manufacturing that upholds our American civilization and with it our very high and ever-rising standard of living.

To begin, I want to emphasize two truths that I consider to be self-evident:

- In every way that matters, energy is life, and
- There are tradeoffs to everything

Without energy from naturally occurring hydrocarbons and petrochemical manufacturing, our civilization would revert to that lived by the native Americans. Even in colonial and revolutionary times, there were forges, foundries, and iron works emitting carbon from wood and coal to create metal that would be made into tools. One of America's most famous placenames reflects this industrial heritage: Valley Forge, Pennsylvania.

Since the dawn of the Industrial Revolution, American life expectancy has more than doubled from 35.1 years in 1865 to 78.81 years in 2020.¹ This miraculous positive change was driven initially by industrial progress in agriculture followed by many later advancements including in sanitation and health care.

As the Library of Congress describes it: "Americans who were born in the 1840s and 1850s would experience enormous changes in their lifetimes. Some of these changes resulted from a sweeping technological revolution. Their major source of light, for example, would change from candles, to kerosene lamps, and then to electric light bulbs. They would see their transportation evolve from walking and horse power to steam-powered locomotives, to electric trolley cars, to gasoline-powered automobiles. Born into a society in which the vast majority of people were involved in agriculture, they experienced an industrial revolution that radically changed the ways millions of people worked and where they lived."²

The increased energy density of farming with petroleum-fueled tractors and harvesters, rather than implements pulled by animals, liberated a major percentage of farm yield away from feeding work animals toward feeding human beings. Labor saved by deploying machinery liberated millions of Americans to enter the non-agricultural workforce, increasing capacity and production in other sectors of the economy. Greater efficiency in agricultural production combined with greater output led to much more affordable grocery costs for individuals and families, reducing the percentage cost burden of food on household budgets. To this day, America has some of the lowest food costs in the world.

And to this day, the affordability and availability of food in America depends on affordable, available energy. In her report from the 2022 Pennsylvania Farm Show, Pittsburgh-based reporter Salena Zito found rising energy costs the primary concern of farmers. Dairy farmer Lolly Leshner of Berks County told Zito, "My tractor has 385 horsepower to plow the field, to plant the grain, to harvest the grain, so we spend thousands and thousands of dollars on fuel just for that tractor..."

¹[https://population.un.org/wpp/Download/Files/1_Indicators%20\(Standard\)/EXCEL_FILES/3_Mortality/WPP2019_MORT_F07_1_LIFE_EXPECTANCY_0_BOTH_SEXES.xlsx](https://population.un.org/wpp/Download/Files/1_Indicators%20(Standard)/EXCEL_FILES/3_Mortality/WPP2019_MORT_F07_1_LIFE_EXPECTANCY_0_BOTH_SEXES.xlsx)

² <https://www.loc.gov/classroom-materials/united-states-history-primary-source-timeline/rise-of-industrial-america-1876-1900/overview/>

We are having a very hard time even buying fertilizer,” meaning urea, which is petroleum-based, to supplement the farm’s fertilizer from manure.

Zito concludes, “everything on a farm has a petroleum connection: it’s not just the fertilizers, but getting the cows’ feed to the farm and getting their milk to market.”³

And what is true of agriculture is true of everything else in our society, especially manufacturing. Unless you grew it or whittled it yourself, every item you own or use or touch, every tool and machine used to make those items, and every input used to make those tools and machines was created using a process powered by hydrocarbons and catalyzed by chemistry.

Every package on a store shelf or ordered from an online retailer is delivered by a truck. Along with the petroleum that powers them, those trucks are manufactured with materials that had to be mined, forged, molded, or fabricated using processes that were powered by hydrocarbons and catalyzed by chemistry. The items inside the packages, the packages themselves, and the printing and labeling on the packages are all made via manufacturing processes that are powered by hydrocarbons and catalyzed by chemistry.

Petrochemical manufacturing is a towering achievement of modern civilization. It provides everything from lifesaving medical supplies and pharmaceuticals to everyday comforts like cosmetics, sunglasses, and toys. The colorful paints, inks, and dyes that brighten our lives come from these chemicals, as well as the high-impact plastics that protect us in our cars even as they increase fuel efficiency.

In fact, the benefits of chemistry and petrochemicals are so all-encompassing that they are almost invisible, which is why it has become possible for us to take them for granted. Plastic kitchen trash bags, antibacterial cleaning sprays and wipes, shatterproof containers of every type, nylon and rayon fabrics, protective coatings for eyeglasses – these everyday items are so universal that we have stopped appreciating how remarkable they are, to the point that we don’t consider what life would be like without them.

Pennsylvania has a world-historic opportunity to become a national leader in the production of goods using these important inputs. The Shell polyethylene facility that is about to become operational in Beaver County and the Nocera sulfur-free fuels plant that will break ground in Luzerne County are harbingers of Pennsylvania’s strong manufacturing future if we choose to embrace a pro-production agenda in Harrisburg.

As was mentioned at the Farm Show, fertilizer is essential for American food security and today the U.S. imports much of it from overseas, including from Russia and China.⁴ Attracting a fertilizer manufacturing facility using Pennsylvania natural gas would be a major victory for our farmers, manufacturing workers, and the community that would host that new plant. These kinds of opportunities are almost without limit if our policymakers in state government choose to make Pennsylvania the kind of place where investors want to locate.

I would also note that rising energy prices are a main driver of inflation today, just as they were in the 1970s. Because every step of production requires energy, higher energy costs total up to much

³ (<https://www.post-gazette.com/opinion/insight/2022/01/23/From-the-Pa-Farm-Show-Energy-costs-are-top-concern/stories/202201230024>)

⁴ (<https://www.ers.usda.gov/amber-waves/2004/february/us-increasingly-imports-nitrogen-and-potash-fertilizer/>)

higher costs for finished goods. Maximizing domestic energy production now would be the most effective step policymakers could take to fight inflation, which is a thief that steals from everyone.

So to return to the question of today's hearing: could we live without oil and gas byproducts? The answer is no, or at least not nearly so well nor so long.

Thank you again for allowing me to testify. I will do my best to answer your questions.