



FOSSIL FUELS IN EVERYDAY AMERICAN PRODUCTS

While the left has waged war on traditional fossil fuels and is attempting to replace them with alternative sources of energy, they fail to account for the non-fuel-related roles that oil and gas play in our economy. Without these fossil fuels, Americans would no longer have certain pharmaceuticals, cosmetics, clothing, cement, steel, and other necessities containing petrochemicals. The Department of Energy estimates there are over 6,000 everyday products and high-tech devices derived from oil and natural gas.¹

What are Petrochemicals?

Petrochemical Product Flow Chart

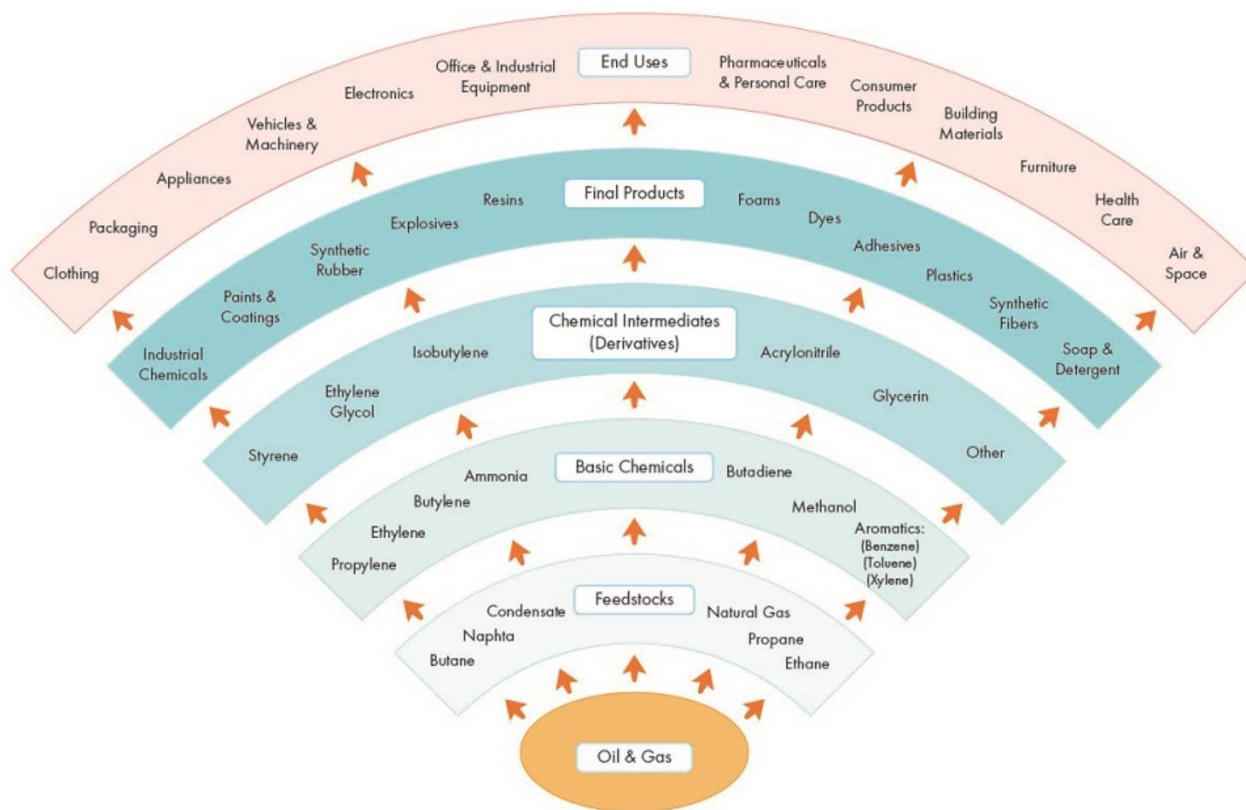


Figure 1²

- Fossil fuels themselves are mixtures of chemicals. While their organic compounds are extracted and used for transportation, electricity, and heating through the refinement process, additional chemicals derived from this process are called petrochemicals and are leveraged to make thousands of everyday products.
- There are six basic petrochemicals: ethylene, propylene, butylene, benzene, toluene, and xylene.³ These are formed from feedstocks such as propane and ethane and are eventually converted into products like plastics and foams.⁴

- The fuel and petrochemical industries contribute nearly \$600 billion to the U.S. economy and provide jobs for more than 3 million Americans.⁵
- Unfortunately, the petrochemical industry faces headwinds, mainly due to the progressive energy policies of the Biden administration. [For more information on Biden's energy policies, see RPC's guide, *The Cost of Biden's Green Energy Cronyism*.⁶]
 - Recent economic research estimates that the U.S. has underproduced between 2 and 3 million barrels of oil daily due to production restrictions since Biden took office.⁷ Producer prices in petroleum and coal products manufacturing have increased 74 percent since January 2021.⁸
 - Regulatory constraints in the petrochemical manufacturing industry are growing rapidly. Manufacturing is already one of the heaviest regulated sectors of the U.S. economy, and regulations are growing faster in petrochemicals than in any other manufacturing subsector.⁹

Petrochemicals in American Lives

- *Fertilizers*
 - Fertilizers are of massive importance to American farming and, thus, our food supply. U.S. agriculture supports 17.2 million jobs and approximately \$1.75 trillion annually in U.S. GDP as well.¹⁰
 - Fertilizer prices account for about one-fifth of U.S. farming costs and are over one-third of costs for corn and wheat producers.¹¹
 - Elevated prices lead to higher food inflation in America. While fertilizer cost has returned to levels before the Spring 2022 spike (in which prices were roughly 120% higher than the previous year),¹² many are concerned that food availability, in general, could be impacted if fertilizer costs and shortages become unreasonably high again.¹³
 - Natural gas is the primary feedstock for ammonia, the building block for all nitrogen fertilizers. In 2022, when the cost of natural gas soared in Europe, 70% of European ammonia production was shut down. If America's energy policy continues to abandon natural gas, we could face a similar ammonia shortage.
- *Asphalt*
 - Asphalt is the sticky black residue that is left over from the processing of crude oil.¹⁴ Due to its low cost, easy maintenance, and better traction, asphalt is the best option for paving our highways, roads, driveways, and even home roofs.¹⁵
 - The cost of asphalt has skyrocketed since the beginning of the Biden administration. Since January 2021, the cost of asphalt has increased by over 24%, drastically increasing the cost of road and home construction and maintenance for Americans.¹⁶
- *Pharmaceuticals and Medical Products*
 - From prescription medicine to products made from plastic, the pharmaceutical industry heavily relies on petrochemicals. As there are relatively few substitutes for petroleum in pharmaceuticals, it would be very difficult to produce drugs and supplies at the scale needed to accommodate the standard of medical treatment to which we are accustomed without leveraging fossil fuels.¹⁷
 - Nearly 99% of pharmaceutical feedstocks and reagents are derived from petrochemicals.¹⁸
 - For example, the main ingredient from aspirin is acetylsalicylic acid, which is made from several chemicals, including cumene, phenol, and benzene.¹⁹
 - Even drugs that come from natural sources, like antibiotics, are often purified or prepared using petrochemicals.²⁰
 - Pill capsules, ointments, and creams generally require these fossil fuel feedstocks as well.
 - Medical plastics and synthetic rubbers can only be made through the chemical treatments of crude oil and natural gas processing. These make up dozens of pieces of equipment found in a hospital or doctor's office, such as:²¹
 - Stethoscopes
 - Plastic Syringes
 - IV bags, pumps, and tubing
 - Walkers and canes

- Tourniquets
- Exam Gloves

- Catheters
- Sterile packaging

Essential American products rely on petrochemical feedstocks, from critical crop fertilizers to life-saving drugs to basic construction materials used in homes and offices. American day-to-day lives would be far worse without leveraging their benefit.

Publ. October 18, 2023

¹ Products Made from Oil and Natural Gas. U.S. Department of Energy.

<https://www.energy.gov/sites/prod/files/2019/11/f68/Products%20Made%20From%20Oil%20and%20Natural%20Gas%20Infographic.pdf>

² Market Snapshot: Petrochemical products in everyday life. Canada Energy Regulator. <https://www.cer-rec.gc.ca/en/data-analysis/energy-markets/market-snapshots/2018/market-snapshot-petrochemical-products-in-everyday-life.html>

³ Petrochemicals. American Fuel & Petrochemical Manufacturers. <https://www.afpm.org/industries/products/petrochemicals>

⁴ E. Allison, B. Mandler. Non-Fuel Products of Oil and Gas. American Geosciences Institute.

<https://www.americangeosciences.org/geoscience-currents/non-fuel-products-oil-and-gas>

⁵ Economic Impact. American Fuel & Petrochemical Manufacturers. <https://www.afpm.org/industries/contributions/economic-impact>

⁶ The Cost of Biden's "Green Energy Cronyism". House Republican Policy Committee. https://republicanpolicy.house.gov/sites/evo-subsites/republicanpolicy.house.gov/files/evo-media-document/ira-battery-production-tax-credit-v2-final-clean_0.pdf

⁷ The Cost of Biden's War on Oil and Gas: Nearly \$100 Billion a Year in Lost Output. The Committee to Unleash Prosperity.

<https://committeetounleashprosperity.com/the-cost-of-bidens-war-on-oil-and-gas-nearly-100-billion-a-year-in-lost-output/>

⁸ Producer Price Index by Industry: Petroleum and Coal Products Manufacturing. Federal Reserve Bank of St. Louis,

<https://fred.stlouisfed.org/series/PCU32413241>

⁹ Patrick McLaughlin, Jonathan Nelson, Oliver Sherouse. Regulatory Accumulation in the Manufacturing Sector. Mercatus Center.

<https://www.mercatus.org/research/data-visualizations/regulatory-accumulation-manufacturing-sector>

¹⁰ New Report: Natural Gas Critical to Agriculture Sector. American Gas Association. <https://www.aga.org/news/news-releases/new-report-natural-gas-critical-to-agriculture-sector/>

¹¹ Impacts and Repercussions of Price Increases on the Global Fertilizer Market. U.S. Department of Agriculture – Foreign Agricultural Service. <https://www.fas.usda.gov/data/impacts-and-repercussions-price-increases-global-fertilizer-market>

¹² Producer Price Index by Industry: Nitrogenous Fertilizer Manufacturing. Federal Reserve Bank of St. Louis.

<https://fred.stlouisfed.org/series/PCU325311325311>

¹³ Food prices hit record level as fertilizer costs/availability reduce farm output. Independent Commodity Intelligence Services.

<https://www.icis.com/chemicals-and-the-economy/2023/03/food-prices-hit-record-level-as-fertilizer-costs-availability-reduce-farm-output>

¹⁴ Terence S. Arnold. What's in Your Asphalt? U.S. Department of Transportation – Federal Highway Administration.

<https://highways.dot.gov/public-roads/september-2017/whats-your-asphalt>

¹⁵ Melissa Petruzzello. Why Are Roads Made of Asphalt? Britannica. <https://www.britannica.com/story/why-are-roads-made-of-asphalt>

¹⁶ Producer Price Index by Industry: Asphalt Paving and Roofing Materials Manufacturing. Federal Reserve of St. Louis.

<https://fred.stlouisfed.org/series/PCU3241232412>

¹⁷ Jeremy Hess, Daniel Bednarz, Jaeyong Bae, Jessica Pierce. Petroleum and Health Care: Evaluating and Managing Health Care's Vulnerability to Petroleum Supply Shifts. National Library of Medicine. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3154246/>

¹⁸ *Id*

¹⁹ Agnes Zalewski. Petroleum in Real Life: Pills. Canadian Association of Petroleum Producers. <https://context.capp.ca/articles/2019/feature-petroleum-in-real-life-pills/>

²⁰ *Id*

²¹ Advanced Plastics in Modern Medicine: Only Possible with Hydraulic Fracturing Improving Lives, Saving Lives. Pennsylvania Independent Oil & Gas Association. <https://pioga.org/wp-content/uploads/2020/03/PIOGA-Modern-Medicine-Petro-2020-1.pdf>