



**Testimony of**  
**David Callahan, President**  
**Marcellus Shale Coalition**  
**Before the**  
**House Environmental Resources & Energy Committee**

**March 28, 2022**

Good afternoon, Chairman Metcalfe, Democratic Chairman Vitali, and members of the committee. My name is David Callahan, and I serve as President of the Marcellus Shale Coalition (MSC). The MSC is a state-wide trade association representing more than 115 energy companies from the upstream, midstream, and downstream sectors, and those who supply goods and services to the industry. Our members are fully committed to working with local, county, state and federal government officials to facilitate the safe development of natural gas resources in the Marcellus, Utica and related geologic formations. I appreciate the opportunity to be with you today and to share some thoughts on the critical role that oil and natural gas products play in our everyday lives.

You have a distinguished group of speakers today who are well-equipped to speak to this issue, particularly as it relates to the role of oil and refined petroleum products in our daily lives. I will focus my comments on the role of natural gas and natural gas liquids, which are abundant in Pennsylvania. Pennsylvania's shale basin is unique in this regard as well; while many other basins across the country contain both oil and natural gas, Pennsylvania's unconventional shale fields are almost exclusively natural gas and related natural gas liquids. Consequently, Pennsylvania's industry is much more susceptible to changes within these particular markets, as producers do not have the flexibility to shift between targeting oil or natural gas depending on the current market conditions as they do in other basins.

Understandably, when people think of natural gas, they tend to think of several of its highest profile uses, including heating for homes, businesses, schools and elsewhere, and use for electric power generation. Approximately 50% of Pennsylvania homes use natural gas for heating, while in 2021, 53% of the electricity generated in Pennsylvania came from natural gas – up from only about 5% just twenty years ago.<sup>1</sup> Increasingly, these foundational energy needs of our society are being met by abundant, domestic and affordable Pennsylvania natural gas.

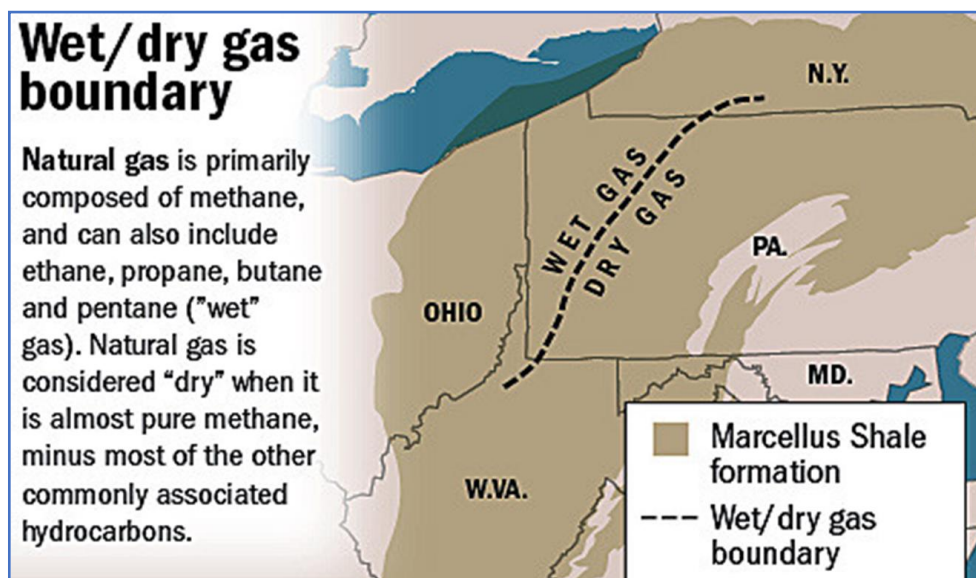
But natural gas liquids are also present in our everyday lives – from the clothes we wear, to the vehicles we drive, to the electronics that power our lives, schools and hospitals. They are also integral components of our healthcare system and have been instrumental throughout the response to the COVID pandemic, as I will discuss later.

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<sup>1</sup> U.S. Energy Information Administration – Electricity Data Browser – Net Generation 2021

Simply put, natural gas liquids are the stuff from which stuff is made.

While many of you may be familiar with natural gas liquids, a quick overview may be helpful. For starters, natural gas in its general term is actually a composite made up of several different hydrocarbons. The most commonly known of these, of course, is methane, which is used to cook our food, heat our homes, and fuel electric generation stations. Other hydrocarbons that are part of this natural gas mixture include ethane, propane and butane, just to name a few. Regions with relatively higher amounts of these other gases are referred to as “wet gas” regions. The ratio of these gases in the mixture varies significantly, based upon the geologic age of the producing formation.

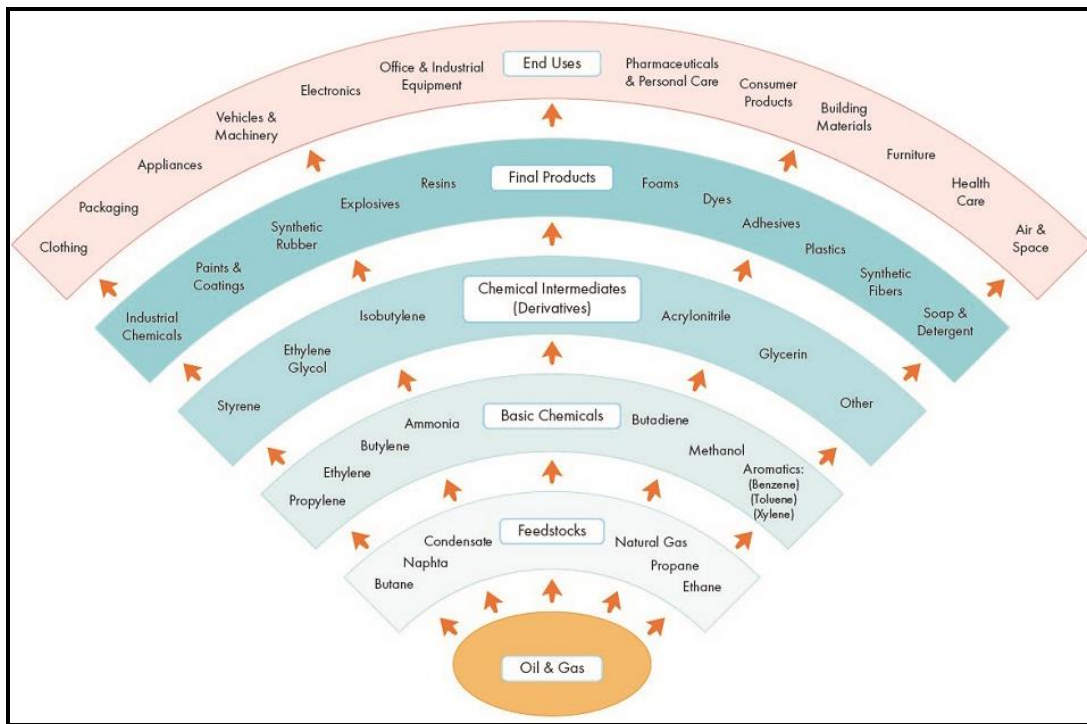


**Source:** Penn State University Extension

However, for the sake of simplicity, natural gas produced in northcentral and northeastern Pennsylvania, as well as the eastern portions of western Pennsylvania, is mostly (95% or greater) pure methane, while natural gas in far western Pennsylvania, particularly in parts of Washington, Greene and Beaver counties, may have a methane ratio in the 80%, with the balance a mixture of natural gas liquids. These liquids are separated from methane at processing plants and further separated into individual marketable products at fractionation plants, all through the manipulation of temperature and pressure.

These products have unique markets. Examples include the Shell petrochemical facility in Beaver County which will receive ethane for refinement into plastic feedstock manufacturing, while the Mariner East pipeline delivers propane for heating to southeastern Pennsylvania and ethane to the Marcus Hook refining facility in Delaware County.

The number of products that rely upon these natural gas liquids are simply too numerous to try and list. I include here in my testimony just a sampling of the natural gas liquids feedstock and their relation to products our society depends upon:

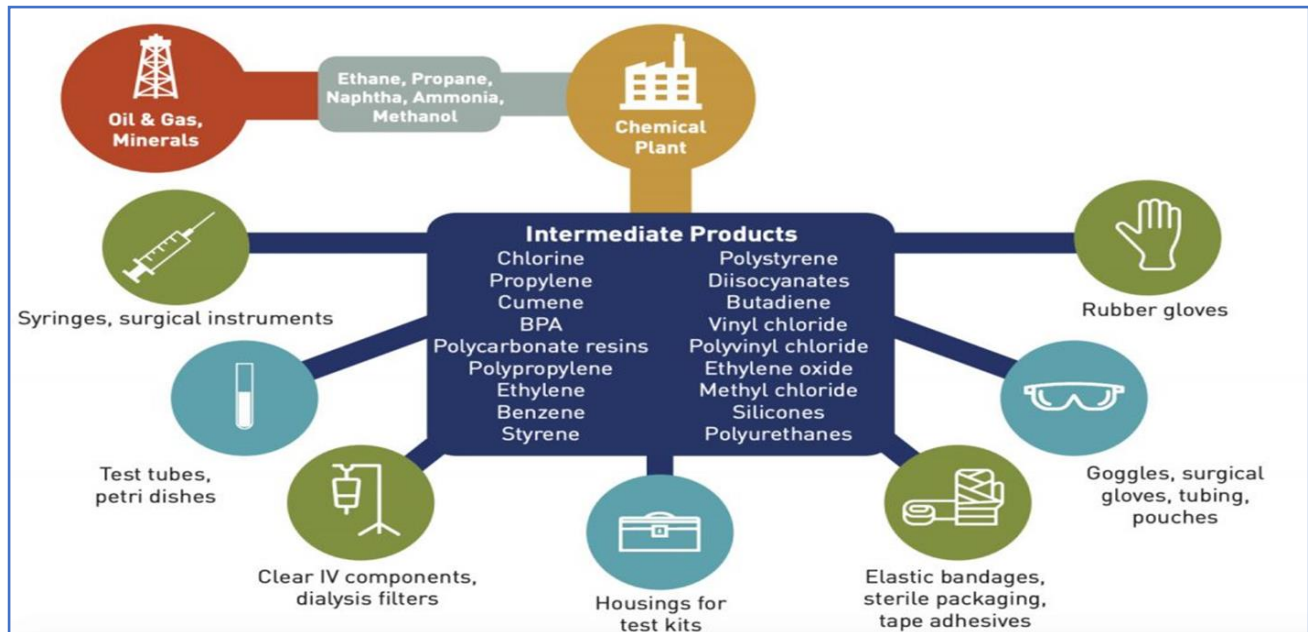


**Source:** U.S. Department of Education

While there has been significant effort put forth by some renewable energy advocates and anti-natural gas activists that society can completely wean itself off of fossil fuels simply by converting to wind, solar and other resources, it is important to note that such conversations almost exclusively focus on eliminating fossil fuels through the lens of electric power generation. It bears noting, too, that to generate solar energy you need solar panels and to generate wind energy you need wind turbines. These panels and turbines take a significant amount of natural gas liquids in order to manufacture, not to mention the fossil fuels needed to mine the rare earth elements and minerals they utilize in their own batteries and fuel cells.

Similarly, consider the concerted effort to transition our light duty vehicle fleet to electric vehicles. The best-selling vehicle 50 years ago was the VW Beetle, which weighed less than 2,000 pounds and was comprised of very little plastic in comparison to today's vehicles. A Tesla, on the other hand, weighs in excess of 5,000 pounds and is primarily made of lightweight plastic in order to help offset the heavy weight of the batteries (1000 lbs each), provide the necessary structural support and assure the aerodynamics necessary to limit drag coefficient. Needless to say, you need significant amounts of natural gas liquids in order to manufacture elective vehicles, so it is a blessing that the United States is the largest producer of natural gas liquids in the world.

As we continue to emerge from a once-in-a-century global pandemic, I would also be remiss if I did not spend a few moments touching on the role of natural gas liquids specifically in response to COVID and generally in the medical field. Simply put, natural gas liquids help to save lives each and every day. Whether it is through the manufacturing of personal protective gear, test kits, syringes, IV tubing, respirators, dialysis machines and many, many other life-saving devices, it is clear that plastic products – and the natural gas liquids that produce them – are critical to protecting the health and safety of our citizens, most especially those at greatest risk of serious illness. Below is a graphic, courtesy of the American Chemistry Council, which show just some of the medical supplies dependent upon natural gas liquids:



**Source:** American Chemistry Council

In closing, let me express my thanks and appreciation to Chairman Metcalfe and the committee for highlighting the importance of our domestic energy production in providing and enhancing the quality of life that all of our citizens deserve. Well over a decade of experience in the Commonwealth has shown that we can and are producing these critical resources safely, responsibly, and in a manner that strengthens both our economy and our national security.

Thank you again for the invitation to join you today, and I look forward to your questions.