

Oil and Natural Gas a Boon to the Tri-State Region

Sitting atop the Marcellus and Utica shale formations, the states of Ohio, Pennsylvania, and West Virginia comprise a resource-rich region that has historically been a significant American energy hub. Advances in drilling and hydraulic fracturing have enhanced natural gas production in the Tri-State Region, saving energy consumers more than \$75 billion from 2006 to 2016.¹

How do these savings translate into our everyday lives?

Affordable energy from oil and natural gas ensures that we are able to light our homes at night and heat them during cool autumn days. Energy also powers the vast majority of the 9.9 million cars and trucks traveling the highways and rural routes to commute to work, deliver food and supplies, or simply run errands across the Tri-State Region.² Energy is also necessary for new industries looking to make a home in our region, paving the way for the manufacturing of products like plastics and other materials that are essential for ensuring safe and sterile medical equipment, and the production of materials needed for the latest components in smartphone and nanotechnologies. Affordable energy is also important to our regional farmers who rely on energy to grow, produce, and transport their crops to stores across the region.

All of this is possible because of the abundant energy produced right here in the Tri-State Region. Local energy further support our local and state economies by providing jobs for our friends and neighbors as well as generating billions of dollars annually to fund our schools, hospitals, roads, and communities through the collection of taxes and fees.

Even with low energy costs, on average, residents from the Tri-State Region spent \$3,424 to meet their energy needs in 2016.³ And for the 3.5 million individuals living at or below the poverty line⁴ - a number roughly equivalent to the state population of Connecticut - this translates to more than one-quarter of their income going towards energy expenses.⁵

It's not just lower income families that face energy insecurity. Across the nation, more and more families are living paycheck to paycheck - with little to no savings. A

Thanks to advances in drilling and hydraulic fracturing, which enhanced natural gas production across the Tri-State region, local energy consumers saved more than \$75 billion from 2006 to 2016.



**\$75
BILLION**

Natural gas and oil production in the Tri-State Region helped save energy consumers more than \$75 billion over 10 years.



January 2018 survey by Bankrate found only 39 percent of Americans had \$1,000 saved to cover a financial emergency.⁶ CNBC recently reported that “69 percent of Americans had less than \$1,000 in total savings and 34 percent had no savings at all.”⁷

Unfortunately, this trend is growing, with many American families struggling daily to pay for rising energy costs. According to a 2015 survey by the U.S. Energy Information Administration, nearly one-third of American households struggled to pay their energy bills to light, heat, and cool their homes. The survey found that roughly “one in three households reported reducing or forgoing basic necessities like food and medicine to pay an energy bill, and 14 percent reported receiving a disconnection notice for their energy service. Households also used less energy than they would prefer to – 11 percent of households surveyed reported keeping their home at an unhealthy or unsafe temperature.”⁸

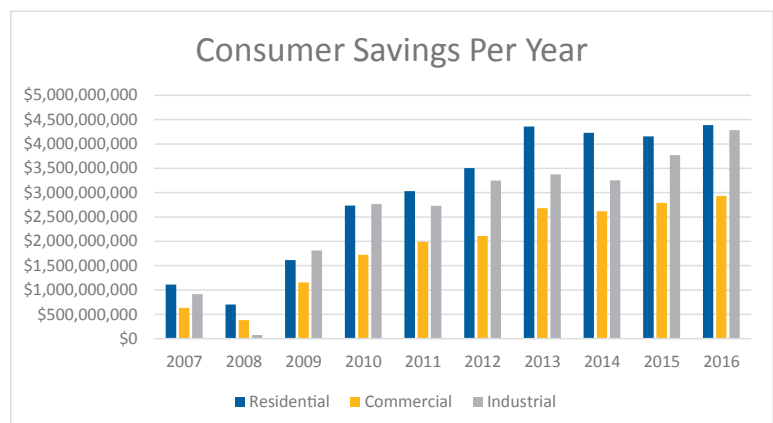
Affordable Appalachian Energy

In the last decade, oil and natural gas production have helped provide affordable energy to Ohio, Pennsylvania, and West Virginia consumers. Expanded natural gas production across the Tri-State Region saved consumers more than \$75 billion between 2006 and 2016 due to increased resource availability. Residential users alone saved almost \$29.8 billion, while commercial and industrial users saved a combined \$45.2 billion.ⁱ

Natural gas production in Ohio, Pennsylvania, and West Virginia jumped from just 2 percent of total U.S. production in 2008 to 27 percent of total U.S. production in October 2017.⁹ This places the region on par with production levels in Texas. Energy consumption in the Tri-State Region has increased as well, primarily in electric power generation. New gas-fired power plants are being built as a result of utilities retiring coal-fired units, and more pipelines have been permitted as a result to help alleviate capacity constraints and transport this much needed energy to markets. These pipelines are critical to supplying energy to petrochemical facilities in the region – especially the two new cracker facilities under-development in Beaver County, Pennsylvania and Belmont County, Ohio. These two facilities alone are driving billions of dollars in investment to the region along with jobs and long-term economic growth.

Growing the Tri-State Economies

The growth in oil and gas development across the region has contributed significantly to improving and expanding our road networks, funding our schools, and enhancing our communities’ emergency services. In 2015, the oil and gas



Source: Energy Information Administration; calculations developed by Orion Strategies



industry's total economic value added, including employee compensation, proprietors' income, income to capital owners from property and indirect business taxes across the Tri-State Region totaled \$90.3 billion while employing over 656,000 workers.

- **Ohio**
 - \$37.9 billion value added
 - 262,800 workers
- **Pennsylvania**
 - \$44.4 billion value added
 - 322,600 workers
- **West Virginia**
 - \$8 billion value added
 - 70,900 workers¹⁰

Increased natural gas production across the Appalachian Basin has also enabled Ohio, Pennsylvania, and West Virginia consumers

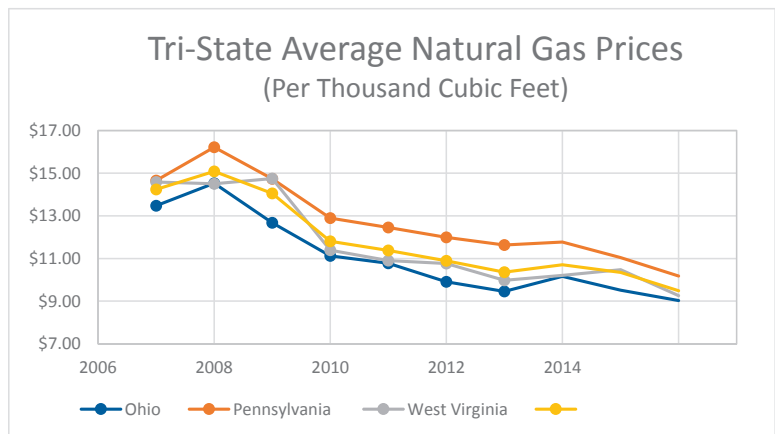
to meet energy demand within their own states and reduce dependence on gas imported from Canada and other U.S. regions. In fact, existing pipeline infrastructure has been modified to deliver oil and natural gas out of the region to other downstream markets, helping non-producing states gain access to additional sources of domestic energy. New pipeline projects have come online, and others are in the midst of permitting and construction, to further eliminate bottlenecks as supplies leave the state and the region.

Recognizing the region's abundant energy resources and the need to modernize and develop additional pipeline and refining infrastructure, the governors of Ohio, Pennsylvania, and West Virginia formed the Tri-State Shale Coalition in 2015.¹¹ The coalition's primary objective is to work collaboratively to provide job training in the oil and gas sector, lobby for road and rail infrastructure, and work to make the entire region attractive for the further development of natural gas storage hubs, industrial plants, and manufacturing facilities. These efforts have paid off with the aforementioned new cracker facilities, which will convert the region's natural gas liquids into the building blocks for plastics and resins.



70,900 WORKERS
\$8 BILLION VALUE ADDED

The growth in oil and gas development across the region has contributed significantly to improving and expanding West Virginia's economy over the last ten years.



Source: U.S. Energy Information Administration



262,800 WORKERS
\$37.9 BILLION VALUE ADDED

The growth in oil and gas development across the region has contributed significantly to improving and expanding Ohio's economy over the last ten years.



Looking Ahead

The future of the Tri-State Region's abundant energy resources, and its critical pipeline network, is under attack by out-of-state activists, some funded by large out-of-state organizations, who continue working to eliminate the production and transportation of safe, affordable sources of energy without offering any solutions to help meet consumer demand and environmental goals.

With the savings that have occurred over the last decade, our leaders must continue to come together in support of local energy production and infrastructure that will continue to help our region thrive and ensure that hard-working families, seniors, households, and small businesses can continue to enjoy the benefits that low prices are bringing to our communities.

Consumer Energy Alliance looks forward to bringing awareness of and support for the continued development of oil and natural gas, and other traditional and alternative energy sources in the Tri-State area as well as the transportation infrastructure like pipelines and transmission lines that move this energy throughout the Appalachian Basin and beyond.



322,600 WORKERS
\$44.4 BILLION VALUE ADDED

The growth in oil and gas development across the region has contributed significantly to improving and expanding Pennsylvania's economy over the last ten years.

The oil and gas industry's total economic value - including employee compensation, proprietors' income, income to capital owners from property and indirect business taxes - totaled \$90.3 billion across the Tri-State region in 2015, employing more than 656,000 workers.

- 1 Calculations developed by Orion Strategies. \$26.2 billion saved by industrial users, \$29.8 billion saved by residential users, and \$19 billion saved by commercial users. This number was calculated by using the annual average price per thousand cubic feet of natural gas for residential, commercial, and industrial consumers in Ohio, Pennsylvania, and West Virginia. This EIA price was then applied to the total MMcf consumed for each state, also sourced by EIA. The Consumer Price Index utilized by the Bureau of Labor and Statistics was applied to each year's price in order to adjust each price to 2016 dollars. 2016 was used as a cutoff date as it was the last year for which residential and industrial data were released.
- 2 <https://www.statista.com/statistics/196010/total-number-of-registered-automobiles-in-the-us-by-state/>
- 3 https://www.eia.gov/state/seds/sep_sum/html/pdf/rank_pr.pdf; average of expenditures from Ohio, Pennsylvania, and West Virginia
- 4 <https://talkpoverty.org/poverty>; aggregated data from Ohio, Pennsylvania, and West Virginia
- 5 Based upon 2018 HHS Poverty Guidelines. <https://aspe.hhs.gov/poverty-guidelines>
- 6 <https://www.bankrate.com/banking/savings/financial-security-0118/>
- 7 <https://www.cnbc.com/2018/01/18/few-americans-have-enough-savings-to-cover-a-1000-emergency.html>
- 8 <https://www.eia.gov/consumption/residential/reports/2015/energybills/>
- 9 <https://www.eia.gov/todayinenergy/detail.php?id=34692>
- 10 <https://www.api.org/~media/Files/Policy/Jobs/Oil-and-Gas-2015-Economic-Impacts-Final-Cover-07-17-2017.pdf>
- 11 <https://www.governor.pa.gov/wp-content/uploads/2018/03/3.16.18-Tri-State-Regional-Shale-Agreement-all-signatures.pdf>