Abundance of Natural Gas Helps Indiana Maintain its Competitive Edge

The Crossroads of America - Indiana - remains essential to the movement of commodities overland and through inland waterways to households and businesses the world over. More than just a crossroads for products originating in other states, Indiana is a manufacturing and agricultural powerhouse in its own right. Access to affordable, reliable energy – from transportation fuels to propane and natural gas that is used in residential and industrial processes throughout the state – makes it possible for Hoosiers to prosper.

The availability and reliability of affordable natural gas contributed to economic growth prior to the pandemic, and ensured families continued to save money on utility bills and businesses continue to remain competitive.

$4.6 BILLION

Residential users in Indiana saved over $4.6 billion between 2009-2019

Although COVID-19 has created barriers to the economic growth and prosperity Indiana has seen over the past decade, families, farmers, and businesses have risen to meet the challenge. Farmers and processors continued to meet the demand for food by families while manufacturers shifted production to ventilators and PPE in factories across the state.

The availability and reliability of affordable natural gas contributed to economic growth prior to the pandemic, and ensured families continued to save money on utility bills and businesses continue to remain competitive. In fact, energy consumers saved more than $12.7 billion between 2009 and 2019 as a result of expanded and modernized natural gas infrastructure. Residential users alone saved close to $4.6 billion. Commercial and industrial users saved more than $8.1 billion combined.[i]

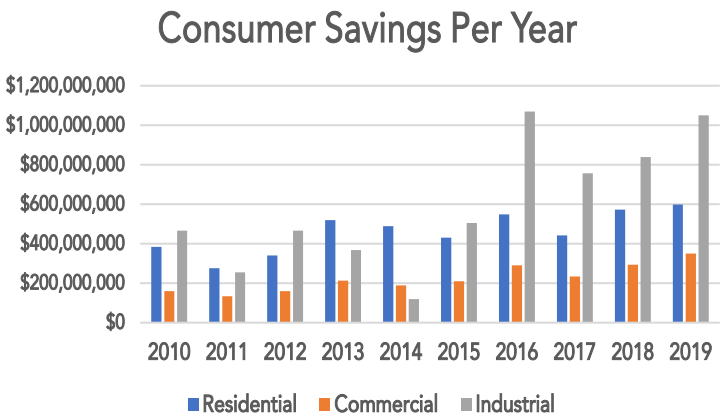
Reliable Energy, Affordable Prices: Saving Families and Businesses

The need for affordable and reliable energy has never been greater across the globe and in our country. Prior to the pandemic, Indiana families on fixed incomes and those

living below the poverty line continually labored to make ends meet, and it's only gotten worse since COVID-19. The U.S. Energy Information Administration released a survey in 2018 noting that 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."

On average, Indiana households spent $4,486 to meet their energy needs in 2018. For those living at or below the poverty line, this translates to more than 36 percent of their income going toward energy expenses. Unfortunately, in 2018 more than 871,000 Hoosiers lived in poverty – enough people to fill the Indianapolis Motor Speedway 3 times over. Although the poverty rate has decreased, the onset of the pandemic in March 2020 caused Indiana to suffer from record-breaking unemployment, as tens of thousands were furloughed, laid off, or became permanently unemployed.

More than just a concern for households, businesses across Indiana are large consumers of energy. Indiana's rich manufacturing heritage brings with it the highest concentration of manufacturing jobs in the nation, which provides 25 percent of the state's economic output and generates demand for almost half of the energy used in Indiana. In 2019 alone, over 426 billion cubic feet of natural gas was consumed during the production of pharmaceuticals and medical devices, automobiles, chemical products, and machinery.



Source: Energy Information Administration; calculations developed by Orion Strategies

Fortunately, over the past decade, smart investments have been made to ensure the safe, reliable, and affordable delivery of energy to families and businesses which have helped contain costs in uncertain times.

Natural gas plays an important role in Indiana, with consumption increasing 76 percent over the past decade as a result of more competitive prices, driven by policies that encouraged domestic energy production. Not only are Indiana's power and manufacturing sectors becoming increasingly reliant on natural gas for generating electricity or as a feedstock, but households across the state rely heavily on natural has for heating and cooking. Nearly 60 percent of households use natural gas for home heating during the winter months.

Consider where prices were just a decade ago. In 2008, industrial natural gas prices in the state hit $10.48

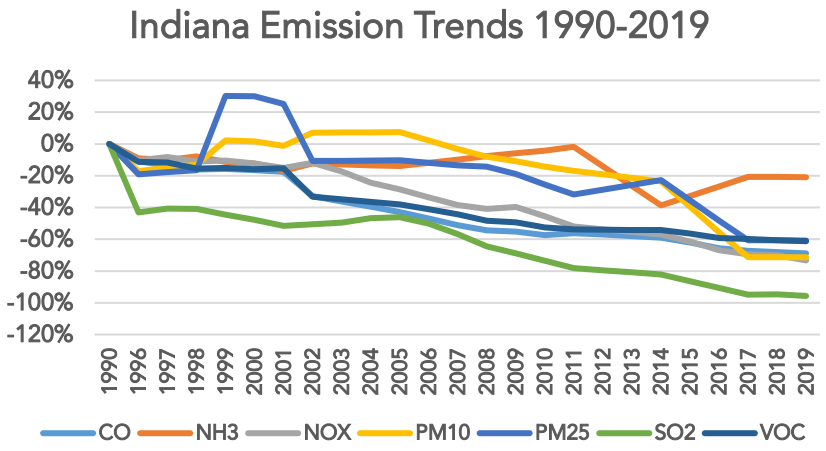
per thousand cubic feet. Fast forward to 2019 and natural gas prices dropped by almost half to $5.76 per thousand cubic feet. Meanwhile, residential natural gas users enjoyed a 31 percent price reduction over the same period.

Indiana Natural Gas Consumption: Lowering Energy Costs While Reducing Our Environmental Footprint

Since 1990, Indiana's GDP and population have both markedly increased while the state has seen emissions decline sharply – especially among the air pollutants identified by the U.S. EPA. This is due in large part to increased use of natural gas. From 1990 to 2019, Indiana's emissions of key pollutants have decreased across the board:

- 73 percent reduction in nitrogen oxides (NO_x)
- 95 percent reduction in sulfur dioxide (SO_2)
- 61 percent reduction in volatile organic compounds (VOCs)
- 68 percent reduction in carbon monoxide (CO)
- 60 percent reduction in fine particulate matter (PM2.5)
- 71 percent reduction in coarse particulate matter (PM10)

Additionally, Indiana's energy-related carbon dioxide (CO_2) emissions fell 13.8 percent from 1990-2017, according to the U.S. Energy Information Administration, while natural gas use and pipeline infrastructure expanded.



Source – State Annual Emissions Trend, EPA

Reductions in key pollutants across the board are noteworthy especially because they came as Indiana's economic growth more than tripled and its population expanded. GDP and population growth are ordinarily accompanied by rising emissions. From 1990-2019, the state's gross domestic product (GDP) grew 242 percent while its population increased by 21 percent.

Moreover, Indiana's energy consumers are also taking advantage of new emissions-reducing technologies like Renewable Natural Gas (RNG), which converts methane emissions from landfills, waste treatment facilities and

livestock farms into natural gas. This technology not only reduces harmful air emissions, it also reduces nutrients and run-off, which in turn improves water quality for Hoosiers. In March of 2020, the largest RNG plant in the state opened at the Indianapolis South Side Landfill, which is able to produce 8 million gallons every year which will partially supply shipping operations for UPS.

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This is the kind of market-driven technological solution that keeps energy affordable and available while simultaneously improving the environment. Overly broad state and local attempts to ban or restrict natural gas do the opposite: they impede environmental progress and harm our ability to deliver affordable and reliable energy produced here at home in the United States. There are countless ways to ensure we meet our fundamental energy needs and achieve our environmental goals, but outright bans on energy are not one of them. They will create more problems than they solve, first by raising costs and second, by disrupting an orderly, affordable and safe method of energy delivery upon which many Hoosiers – families, farmers and businesses large and small – rely.

Conclusion

Affordable and reliable natural gas continues to boost Indiana's families, farmers, and manufacturers while fueling environmental improvements across the state. The cost savings natural gas has delivered to Indiana's consumers continues to help families and local businesses weather economic uncertainty caused by COVID-19. At the same time, it keeps boosting the state's economic competitiveness, which attracts companies bringing critical supply chains home or seeking other economic opportunities.

[i] Calculations developed by Orion Strategies. $5.891 billion saved by industrial users, $4.595 billion saved by residential users, and $2.229 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. This EIA price was then applied to the total MMcfs consumed in Indiana, 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 2019 dollars.

[ii] https://www.eia.gov/todayinenergy/detail.php?id=37072

[iii] https://www.eia.gov/state/seds/sep_sum/html/pdf/rank_pr.pdf

[iv] https://aspe.hhs.gov/2018-poverty-guidelines

[v] https://talkpoverty.org/state-year-report/indiana-2018-report/

[vi] https://indianapublicmedia.org/news/indiana-hits-record-breaking-unemployment-rate-in-april.php

[vii] https://www.iedc.in.gov/industries/advanced-manufacturing

[viii] https://www.eia.gov/state/?sid=IN

[ix] https://www.eia.gov/dnav/ng/hist/n3035in2a.htm

[x] https://www.eia.gov/dnav/ng/hist/na1490_sin_2a.htm

[xi] https://www.eia.gov/state/print.php?sid=IN

[xii] https://www.eia.gov/dnav/ng/hist/n3035in3A.htm

[xiii] https://www.eia.gov/dnav/ng/hist/n3010in3A.htm

[xiv] https://www.epa.gov/sites/production/files/2018-07/state_tier1_caps.xlsx

[xv] https://www.eia.gov/environment/emissions/state/excel/table2.xlsx

[xvi] https://united-states.reaproject.org/analysis/comparative-trends-analysis/gross_domestic_product/tools/180000/0/

[xvii] https://www.census.gov/quickfacts/IN

[xviii] https://www.wasterecyclingmag.ca/renewable-natural-gas-rng/indianas-biggest-rng-plant-now-open/1003283468/