

A DECADE OF

Natural Gas Production in Pennsylvania Exceeds Expectations, But Can the Boom Continue?

In a little more than 10 years, Pennsylvania has emerged as one of the top natural gas-producing states in the nation, second only to Texas. The commonwealth has come so far so fast thanks to the Marcellus Shale, but will the next decade be a boom — or a bust?

BY JILL ERCOLINO / MANAGING EDITOR

“Something is lurking beneath Pennsylvania’s surface, and it’s a big deal. A really big deal.”

Those were the first words in the first article ever written in the *Township News* about the Marcellus Shale, a prolific natural gas reserve that eventually catapulted Pennsylvania into an energy-producing powerhouse.

Published in 2008, the article documented the time when township officials in the shale region, a swath that cuts from Pennsylvania’s northeast to southwest counties and into neighboring states, were just beginning to experience the natural gas boom’s challenges and opportunities.

Companies and workers from as far away as Texas and Oklahoma were flocking to these communities, many of them small, rural, and untouched, to claim their piece of the shale. Since then, local leaders and their residents have had to quickly adjust to a new way of life that includes job opportunities,

business growth, mind-blowing royalty checks, unimaginable traffic, damaged roads, and housing shortages.

Health and environmental concerns have emerged, too, as producers continue to frack their way around the commonwealth, and pipeline companies expand their distribution network to get the gas to national and international markets.

A little more than a decade later, Pennsylvania has become the second largest natural gas-producing state, outranked only by Texas. With an estimated 12,000 unconventional gas wells, the commonwealth is also on its way to becoming a manufacturing hub for natural gas byproducts now that a \$6 billion ethane cracker plant is being built in tiny Potter Township, Beaver County.

“It’s been an extraordinary journey,” says Dave Spigelmyer, executive director of the Marcellus Shale Coalition. “I’ve

been in this business for 37 years, and this thing — the shale — is way bigger than any of us thought possible.”

“And we’ve learned as we’ve progressed,” says Jon Laughner, a Marcellus Shale and natural gas expert with Penn State Extension.

As we enter 2020, let’s look at where Pennsylvania’s natural gas boom has been and where it’s heading.

New revenue for townships

Act 13 of 2012 established a first-in-the-nation local impact fee on unconventional gas well operators, and since then, it has delivered more than \$1 billion in new revenues to local governments inside and outside of the Marcellus Shale region.

2019 is notable because it marks the largest disbursement in the fee’s history. More than \$251 million — a \$33.4 million increase over 2018 — was allocated

DRILLING



A DECADE OF DRILLING

to communities and state agencies and programs last June. Of that, \$134 million went to county and municipal governments directly affected by drilling to manage the industry's long-term effects.

"When they're fracking or building a pad, it's nothing for us to see 100 to 150 water trucks a day on some roads, which weren't built for this kind of traffic," says supervisor Butch Deter of Center Township, Greene County, which received \$1.2 million in 2019, the largest impact fee allocation to a municipality that year.

The township spent \$743,000 on materials and fuel last year to fix the damage.

"People will look at us and say we won the lottery, but we're not banking that money," supervisor Paul Cook says. "We're buying the equipment and the materials to keep up with the industry."

With the help of the impact fee, the supervisors have also lowered property taxes, improved the local park, upgraded the public sewer system, and invested in equipment and gas-related training for the local volunteer fire company.

In 2020, natural gas production and

prices are expected to dip. Townships should anticipate a lower impact fee disbursement, Dave Spigelmyer says, noting that industry fluctuations are common and should be expected. In 2016, for instance, the state distributed \$173 million in impact fees. A year later, the figure had climbed to \$209 million.

"Like the market, the impact fee is going to ebb and flow," he says, "so a drop in the impact fee isn't necessarily a trend."

Current estimates indicate the fee will be down \$22 million.

Second only to Texas

Thanks to the massive reserves in the Marcellus Shale, Pennsylvania continues to close in on Texas as the top natural gas-producing state.

The U.S. Energy Information Administration reports that Texas produced 6.8 trillion cubic feet of natural gas in 2018 while Pennsylvania was a close second with 6.2 trillion cubic feet — a phenomenal figure according to industry insiders.

"In 2008, we were producing a quarter of Pennsylvania's natural gas supply. Now, a decade or so later, we're producing 20 percent of the nation's gas supply," Spigelmyer says. "That's pretty incredible."

Analysts, however, are predicting that production will slow down in 2020.

"Companies made their investments

anticipating six- to eight- to 10-dollar gas," Penn State geologist Terry Engelder recently told StateImpact Pennsylvania. "No one ever dreamed it would stabilize to \$2 gas. There's just so much of it, particularly here in Pennsylvania, that the companies can't sell it."

Charles Nevle of IHS Markit agreed: "We can't grow production in 2020 so we're going from this really rapid growth period in 2019 to a year that will have to keep production essentially flat."

This turn of events is no indication that natural gas production in Pennsylvania and the Marcellus Shale is nearing its end, Spigelmyer says. "There's lots of natural gas to be developed," he says. "We're in the early innings of a long-innings game."

Spigelmyer, however, is concerned about calls for a nationwide ban on fracking from at least two presidential candidates concerned about the health and environmental impacts. He and others say that such a move would devastate the commonwealth's and the nation's economy.

"The effects of a ban on hydraulic fracturing would be so sweeping and widespread across the U.S. economy that no industry or region would not feel its impact," Global Energy Institute president Marty Durbin recently told reporters.


As all of this plays out, it's important to note that Pennsylvania sits atop another potentially lucrative natural gas field, the Utica Shale, which is about 2,000 to 7,000 feet below the Marcellus Shale and extends into New York, West Virginia, and Ohio, where most of the drilling has been focused.

Once thought to be the next big natural gas producer, the Utica Shale hasn't risen to the same prominence as the Marcellus, mostly because production has been hampered by its depth and the increased costs of drilling there.

Pipeline controversy

While natural gas production has been humming along in Pennsylvania, construction of interstate pipelines to deliver the product to market hasn't kept pace, especially in the southeast, where opposition is fierce.

There, much of the controversy surrounds the Mariner East 1, 2, and 2X



In 2020, natural gas production and prices are expected to dip. As a result, townships should anticipate a lower impact fee disbursement.

YOU CAN HAVE IT ALL

THE NEW 308 CR NEXT GENERATION CAT MINI EXCAVATOR

With the new 308 CR Next Generation Mini Excavator, you get class-leading performance with industry-first features. This perfect mixture of technology and operator comfort makes this machine a must have for every jobsite.

*Caterpillar Equipment available
under State Contract #4400018950*



UP TO **20%** MORE
PERFORMANCE

- Improvements in lift, swing, travel & multifunction
- Customizable operator settings



UP TO **10%** LOWER TOTAL
OWNERSHIP COST

- Improved fuel efficiency
- Longer service intervals

Industry-First Features



**STICK STEER
CONTROL**

Allows you to easily switch from traditional travel controls with levers and pedals to joystick controls with a push of a button



**CRUISE
CONTROL**

This smart technology feature provides the operator the ability to maintain optimal travel speeds to get the job done



**FULL COLOR LCD
MONITOR w/BLUETOOTH**

The full color, LCD monitor is equipped with a machine security system standard for owner peace of mind



Call or click today

844.720.4CAT

www.ClevelandBrothers.com/NextGenExcavators

**Cleveland
Brothers**

CAT

A DECADE OF DRILLING

projects, which would carry hundreds of thousands of gallons of ethane, butane, and propane across densely populated areas of Pennsylvania to an export terminal near Philadelphia.

Worried about the danger the volatile pipelines pose to nearby homes, schools, and water supplies, groups, such as Halt Mariner Now and the Mama Bear Brigade, have urged Gov. Tom Wolf to close the projects, which have already been slowed multiple times by sinkholes and court-ordered shutdowns. Sunoco, the pipelines' owner, has also been fined.

The Associated Press recently reported that the FBI is conducting a corruption investigation into the permits the Wolf administration issued for the construction of the Mariner East 2 project.

The FBI is trying to determine whether Wolf or his administration tried to force the Department of Environmental Protection to approve

construction permits and whether Wolf or his administration received anything in return for doing so. Wolf has said he isn't aware of any wrongdoing and that he supports the pipeline on principle.

"As long as they follow the rules that are in place, I think they should be allowed to proceed with their project," he told the AP in November.

In a related matter, President Donald Trump, responding to the stalled Constitution Pipeline project in Susquehanna County, signed an executive order in early 2019 to make it easier for companies to transport natural gas from Pennsylvania to the Northeast. The order also opens the doors to natural gas being transported by rail.

The U.S. Pipeline and Hazardous Materials Safety Administration also issued new pipeline safety rules last year to mixed reviews.

Impact of fracking on health

As long as there has been fracking in the commonwealth, there have been concerns about its impact not only on

the environment but also on Pennsylvanians' health.

Late last year, state officials announced that they will spend \$3.9 million on a pair of studies to explore the possible links between Ewing sarcoma, an extremely rare form of bone cancer that mainly affects children, and shale gas development.

Dozens of children and young adults in Fayette, Greene, Washington, and Westmoreland counties have been diagnosed with this and other rare cancers since 2008, when fracking started in the region. Although Ewing sarcoma has no known environmental cause, the families suspect that drilling and fracking have played a role.

One study will look at whether natural gas development leads to health problems, including asthma and birth defects. The other study will look at whether living near a fracking site increases the incidence of rare childhood cancers.

The studies will join a growing list of research into the health and environmental impacts of natural gas production. ♦



Johnston
SWEEPERS

THE WORLD'S #1 MANUFACTURER OF STREET SWEEPERS

WHICH SWEEPER IS RIGHT FOR YOU?



1-800-222-1980 | www.usmuni.com | sales@usmuni.com





Same Old Thinking Same Old Results

Take Action Call PIRMA

Cyber Coverage

Includes ransomware, breach notification and identity theft response

Loyalty to your insurance provider does not always guarantee better coverage, better rates, or better treatment. If you are open to resetting, change to PIRMA. It is not as complicated as you might think.

- Loss control grants—funds to improve safety
- Personal Auto deductible reimbursement when damaged on municipal business
- Human resource assistance—enhanced online training
- State approved online continuing education for treatment operators

Member Benefits

PIRMA is a non-profit/non-assessable risk sharing pool owned by its members.

Broadest Coverage

PIRMA offers the highest limits of coverage (\$10,000,000 per claim) with no liability deductibles and the fewest exclusions.

Claims Protection

PIRMA aggressively defends and investigates nuisance claims. Expert litigation team that fights for municipalities.

Special Events Coverage

Liability coverage for fairs, carnivals, parades, concerts, and other park and recreation events.

PIRMA

Pennsylvania Intergovernmental Risk Management Association

Since 1987, PIRMA has been Pennsylvania's recognized leader in municipal liability and property pooling.

If you would like us to tell you MORE call...

800-362-1011 | www.pirma.org