

GAS

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Significantly, the gas is also cheaper that way. In the summer, Ameren goes on the open market to buy its natural gas, which fluctuates in price.

“It’s the law of supply and demand. Demand in the summer time is a lot lower. When the demand is lower the cost of that gas is lower,” Underwood said.

According to the watchdog group, the Illinois Citizens Utility Board, the state’s natural gas utilities do not profit off gas supply. Under state law, they pass on the costs of natural gas to consumers, with no markup. The companies do, however, charge for the gas delivered to homes and businesses. Traditionally, when utilities ask for delivery rate hikes, CUB challenges them.

Ameren says its delivery charge is based on what the utility says is its costs to maintain its system and make upgrades.

“We don’t make any money on the price of gas; it’s strictly a pass-through. But, when we save money, that all goes to customers – 100 percent,” Underwood said.

Ameren Illinois delivers natural gas to more than 800,000 customers, approximately 60,000 of which are business customers. The gas traverses its way through 18,400 miles of transmission/distribution pipeline.

The Freeburg operation serves some 35,000 Metro East households on peak days, with maximum field delivery on peak days of 35,000 mcf (million cubic feet) a day.

Freeburg withdraws enough gas in the winter to fill Busch stadium 83 times, Underwood said.

An engineer by trade, he has worked in gas storage for more than 17 years.

“There are usually two seasons when we do this,” he said. “Typically, between April/May and November we’re putting it in. After that we switch the operations around. From December to May, we’ll be taking it out.”

Ameren Illinois’ 12 storage fields are classified either as aquifer reservoirs or as depleted gas reservoirs. In an aquifer, natural gas replaces naturally occurring water during injection. In a depleted reservoir, previous gas production fields are repurposed for storage.

The 3,700-acre field in Freeburg became active in 1959 when it replaced a depleted reservoir.

Ameren has most of its aquifer fields in its northern territory, Underwood said.

The utility continually invests in its storage. Half of the 83 wells in Freeburg, for instance, have been upgraded with new piping and valves. Flow can be measured from each well, and the integrity of each well is checked to make sure flow is not interrupted. Regular cleanouts

are conducted. All controls in the field station have been upgraded. New odorization equipment has been installed to detect escaping gas. The emergency shutdown system has been rebuilt.

Mike Kershaw, the superintendent of gas storage operations, who answers to Underwood, manages the operations at all 12 of Ameren’s storage facilities.

“There is a lot that goes into it, there really is,” Kershaw said of the continuing improvements and projects. Kershaw is on the road a lot of the time, based out of Hillsboro.

Most of the locations are in rural settings, though less rural than they used to be.

“What we’ve run into, when the (fields) were previously developed in rural locations, the cities around them have gradually expanded closer,” Kershaw said.

The wells were built through layers of shale and sandstone, then limestone and coal, then limestone, then more shale (or cap rock), finally ending inside the underground reservoir. The gas stays in its gas form.

“It depends on where the field is or what the pressures are but normally, the injection is ‘freeflow’ in – meaning our transmission line pressures are higher than our field pressures so we can just let it flow in,” Underwood said.

In an aquifer setting any water sinks to the bottom of the reservoir as gas is injected into the well. Later, as the gas is extracted, the water helps push the gas back out.

During injection, clean natural gas is inserted, but taking the gas out of the ground is not a matter of simply reversing the process. Water and other contaminants have to be removed before the gas moves along the system.

The storage system has dehydration units to remove the water.

That’s about the only contaminant at the Freeburg facility. At other yards, hydrogen sulfide also can contaminate the gas, caused by a natural byproduct of bacteria.

“In those fields we’ll have additional towers to take the H2S out,” Underwood said.

Another step includes odorizing the gas. It comes to the storage yard with odorizer in it but some of that is stripped out in the process of injection.

“We add odor to the gas so that if a customer has a leak, they can smell it and call us, and we can respond to make sure it gets addressed.”

Some 54 people work in Ameren Illinois’ statewide gas storage sector. A gas control center is also located in Decatur that can monitor all systems around the clock.

In the wintertime, the utility’s storage fields serve about 60 percent of the overall

load, and on a peak day about half the load.

Gas is generally purchased from the Southwestern United States, predominantly Oklahoma and Texas. A small percentage comes from Canada or from the East.

Ameren does not own the transmission lines that pump the gas in. Those are owned by companies like Panhandle Eastern and other transmission companies that send the gas to various “gate stations” where Ameren takes over the ownership, measures the gas, then begins its own line distribution.

“About 99 percent of it is underground. That’s what’s nice about seeing a storage field,” Underwood said, noting that it’s a visible sign of Ameren serving its customers.

Not all the wells are on Ameren property. Ameren leases land as needed, much of it from farmers.

Much has been written about the volatile nature of gas prices, a situation that was reflected during the nightmare snowstorms that wrecked havoc in Texas in February 2021. Because Ameren had access to gas it had previously stored, the prices remained stable for customers here.

The U.S. electric power sector has used more coal in reaction to significantly higher natural gas prices.

The one sure method of cutting your usage is through personal habits.

“It really makes a difference where you set your thermostat,” Ameren Illinois spokesman Brian Bretsch said. “You find the temperature at which you’re comfortable. For every degree you move it back, you’re saving 3 percent on your utility usage during those winter months. The programmable thermostats are even better.”

Watchdog group wants changes

A bill has been introduced in the legislature, Senate Bill 570, to eliminate the QIP natural gas surcharge that Ameren and other utilities include on their bills as a means of recovering infrastructure costs. Sponsor Cristina Castro, D-Elgin, said she is pushing the measure as a means of transparency to make utilities more accountable for how they spend their money.

She maintains the utilities are focused on overhauling their entire systems rather than focusing on the most significant projects.

“Together, these projects are costing hundreds of millions of dollars and being paid by the companies’ customers,” she said in a Feb. 2 press conference.

The Citizens Utility Board also targeted natural gas costs in a press release.

“A year after a deep freeze across the Southern United States sparked problems in the natural gas distribution

system, Illinois consumers are still suffering under skyrocketing heating bills because of that extreme weather and other market problems,” CUB said.

CUB said the prices for major natural gas utilities in Illinois are as follows:

Ameren Illinois – 69.913¢ per therm (Up about 96 percent from February 2021.)

Consumers Gas – 56.455¢ per therm (Up about 73 percent from last February.)

Illinois Gas – 65.07¢ per therm (Up about 57 percent from last February.)

Liberty Utilities – 65.49¢ per therm (Up about 170 percent from last February.)

MidAmerican Energy – \$1.02 per therm (Up 193 percent from last February.)

Mt. Carmel – 43.41¢ per therm (Up 27 percent from last February.)

Nicor Gas – 55.00¢ per therm (Up 83 percent from last February.)

North Shore Gas – 59.31¢ per therm (Up 55 percent from last February.)

Peoples Gas – 59.58¢ per therm (Up about 103 percent from last February.)

While prices from a few companies came down a bit from January (down about 1 percent for Ameren and about 10 percent for Nicor, for example), winter prices are still much higher than they have been in more than a decade.

“For about 10 months, natural gas prices have been elevated, sparked at first by record-low temperatures that hit the nation last February. In the South, the extreme cold, connected to climate change, disabled wellheads and other parts of the nation’s natural gas delivery network just as demand went up.

“A number of other factors have contributed to the spike, including increased Liquid Natural Gas (LNG) exports to other parts of the world, such as Europe, keeping supply lower here; less gas exploration and well construction; increased use of gas for electricity generation during the hot summer; and Hurricane Ida, which knocked more than 90 percent of gas production in the Gulf of Mexico offline in late August.”

For years, CUB has been on a mission to rid Ameren Illinois, Nicor Gas and Peoples Gas bills of the “Qualified Infrastructure Plant” surcharge. The charge, which went into effect thanks to a law the General Assembly passed in 2013, allows the companies to sidestep the traditional regulatory process and take in revenue more quickly, leading to rapidly rising heating bills.

“When the utilities first got legislative approval for this surcharge, we were told it would only cost about \$13 a year on average for Peoples Gas customers. Those customers are now paying about \$13.54 a month, on average—on track for \$150 a year,” the release said.

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