

Natural Gas Q&A

Rock Energy Cooperative operates about 175 miles of natural gas pipeline in northern Illinois with nearly 9,000 services. Our distribution system is regularly monitored and inspected for corrosion and leaks to ensure safe and reliable service. Please review this safety information so you can help us prevent pipeline damage, learn how to recognize a natural gas emergency, and take the appropriate action if an accident occurs.

What is natural gas?

Natural gas is an economical and reliable source of energy that is completely safe when used properly. It is formed when layers of buried plants and animals are exposed to intense heat and pressure over millions of years. Because natural gas is lighter than air, it rises and dissipates into the atmosphere if it escapes from a pipeline. Underground, however, it may follow the path of least resistance, accumulating in a confined space or traveling to an ignition source. Natural gas is easily ignited by heat, sparks, or flames and can cause explosions.

How is it transported?

Pipelines are the safest and most economical method of transporting natural gas, according to the National Transportation Safety Board. Because pipelines are buried underground, warning signs are used to indicate their presence along the right-of-way. The signs are clearly marked with the operator's name and emergency phone number. The pipeline right-of-way must remain free of structures, vegetation, and any other obstructions. Maintaining a right-of-way free of encroachments is essential to ensuring the safety and integrity of pipelines.

How can I prevent pipeline damage?

Damage from digging is the most common cause of underground natural gas leaks. Even a small scratch in the pipeline coating may result in corrosion that could lead to a leak. Always call 811 before you dig or excavate to avoid hitting a natural gas pipeline or other buried utility line. Illinois law requires people to call at least two business days before any digging project. Utilities then will send a representative to the site so all underground lines can be marked. The call and service are absolutely free. Remember that Rock Energy Cooperative maintains buried gas pipes up to your meter. All pipes beyond that are the member's responsibility and should be periodically inspected for corrosion and leaks.



How can I recognize a leak?



By smell: Gas providers add a chemical that makes natural gas smell like rotten eggs so any leaks can be easily detected.



By sound: An unusual hissing, roaring, or whistling sound along a natural gas line or coming from an appliance might signify a leak.



By sight: Unexplained dead grass, bubbling water, and blowing dirt near a meter or along the pipeline route are signs of a leak.

What should I do if I suspect a leak?

If you smell a faint odor:

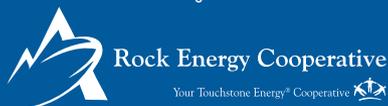
- ✓ Make sure all gas appliances and burners on your stove are turned off completely. If the odor is eliminated when you turn off an appliance, call a repair person because the problem most likely is isolated to that one appliance. Rock Energy provides natural gas to your home or business but does not have a service department that repairs malfunctioning appliances.
- ✓ Open one or more windows and wait a few minutes for the odor to dissipate before investigating further.
- ✓ Check the pilot lights on your gas furnace, water heater, stove, and oven.
- ✓ Don't try to relight a gas appliance while you can still smell gas.
- ✓ If you need assistance relighting the pilot light, call a heating or plumbing contractor.

If you smell a strong odor:

- ✓ Leave the area immediately.
- ✓ Do not use a phone until you're safely away from the suspected leak. Then call Rock Energy Cooperative at 866-752-4550 or contact your gas provider.
- ✓ Do not light a match or turn on or off any switches, flashlights, garage door openers, or other appliances because an electric arc might ignite the gas.

How can I get more information?

If you have any questions about natural gas safety, we would be happy to provide you with further information. Just call us at 866-752-4550. We also encourage you to visit these websites to get more information about pipeline safety.



Rock Energy: www.rock.coop

Call 811: www.call811.com

Diggers Hotline: www.diggershotline.com

JULIE (Joint Utility Locating Information for Excavators): www.illinois1call.com

National Pipeline Mapping System: www.npms.phmsa.dot.gov





Shane L. Larson,
Chief Executive Officer

More Power to You MAINTAINING RELIABILITY VITAL AS GENERATION SOURCES CHANGE

Many aspects of the energy industry have evolved in recent years, but perhaps the biggest change is occurring in the resources used to produce your electricity.

The mix of energy sources for generating electricity in the United States has changed over time, especially in recent years. Natural gas and renewable energy sources like wind and solar account for an increasing share of U.S. electricity generation, while coal-fired electricity generation has declined.

As you probably know, Rock Energy does not generate any electricity. Instead, we purchase it from Alliant Energy and distribute it to members like you. We are asked from time to time how much of that electricity is produced from renewable sources.

The graphic on this page shows that Alliant has been transitioning to a cleaner mix of renewable resources. Renewables accounted for just 5 percent of the energy mix in 2005, compared to 16 percent in 2017. By 2024, that number is expected to more than double when 33 percent of its electricity will be produced by renewable resources.

Nationwide, coal-fired power plants accounted for about 42 percent of total electricity generating capacity in 1990, according to data from the U.S. Department of Energy. By the end of 2017, that figure had decreased to 24 percent. Over the same period, the share of natural gas-fired electricity generating capacity more than doubled from 17 percent in 1990 to 42 percent in 2017.

Renewable electricity generation from sources other than hydropower has steadily increased, mainly because of additions to wind and solar generating capacity. Wind energy's share of total electricity generation in the United States grew

from 0.2 percent in 1990 to about 8 percent in 2017. Solar power, while relatively small in terms of its share of total generation, has grown significantly from 314 megawatts in 1990 to about 26,665 megawatts at the end of 2017.

As the nation transitions to cleaner energy, reliability must be considered. Electricity produced at power plants fired by coal and natural gas are extremely dependable and easily controlled. If more electricity is needed, the plant increases production and burns more coal or natural gas.

Renewable energy, however, has a variability problem. The sun doesn't always shine, and the wind doesn't always blow. Technology is evolving to make battery storage more feasible and affordable to deal with the intermittency of wind and solar power.

Resiliency of the electric grid is one of the most popular concepts talked about in the industry today. Resiliency is many things: It's reliability in your electric service. It's our ability to efficiently restore your power. It's being able to meet the demands of new technology. And it's how we serve you with various generation sources without skipping a beat.

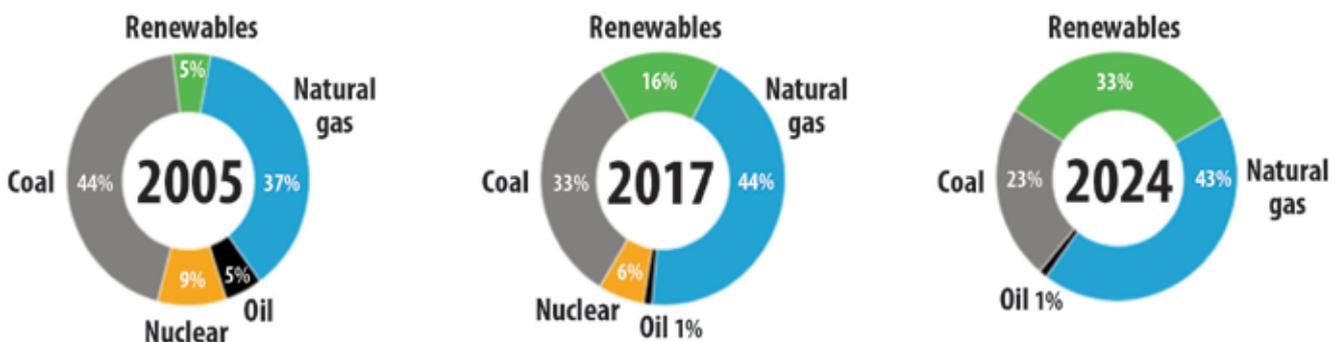
A resilient grid is flexible and adaptable by allowing different types of generation, such as wind, solar, coal, natural gas, and hydro, to work together seamlessly to provide you with safe and reliable power. It's how we deliver on our promise to improve the quality of life for our members.

In addition to the above considerations, price must be a factor in how the overall generation mix is deployed and retired. All utility-scale generation sources are significant, long-term investments that will impact consumers for decades; so each generation decision must be weighed carefully.

We truly appreciate the opportunity to serve your energy needs. If we can do anything to improve our service to you, please let us know.

MY CO-OP

Alliant Energy's transition to a cleaner energy mix





83rd Annual Meeting Monday, March 25 Eclipse Center, Beloit

Be sure to mark your calendar and join us for the meeting and dinner.



Look for complete details in next month's magazine.



Students participating in the 2018 Youth Leadership Congress at UW-River Falls learned about the value of cooperation.

YOUTH PROGRAMS BUILD STRONG CITIZENS

Rock Energy Cooperative offers two opportunities for high school students to learn more about cooperatives and the political process while developing their leadership skills.

The co-op will sponsor up to four high school juniors on the 2019 Youth Tour to Washington, D.C. The June 14–21 trip includes meetings with congressional representatives and tours of historic sites. More than 1,000 students from host cooperatives across the nation participate in the tour every year.



Another program is open to current high school freshmen, sophomores, and juniors. The Wisconsin Energy Cooperative Association's Youth Leadership Congress will take place July 24–26 at UW-River Falls. The program introduces students to cooperative business basics, demonstrates the value of cooperation in everyday life, and offers sessions to help develop leadership skills.

Applicants for both programs must be children of Rock Energy members and reside in the co-op's service territory. The deadline to apply for the Washington trip is Feb. 28, and applications for the UW-River Falls event must be received by April 12.

Rock Energy now is accepting online applications. Just go to www.rock.coop and click on the Community & Youth tab. For more information, call Barbara Uebelacker, communications director, at 866-752-4550 or email her at BarbU@rock.coop.

HELP KEEP ELECTRIC LINE WORKERS SAFE

Be patient when the power goes out. Workers need to work efficiently and safely to restore power.

ZONE IN ON SAFETY
Respect roadside work crews.

- 1 work zone crash occurs every 5.4 minutes
- 70 work zone crashes result in injuries each day
- 12 work zone crashes result in at least 1 fatality each week

Never plug a generator into a wall outlet in your home or garage. The power that back feeds into the electric line could electrocute a utility worker or neighbor.

DON'T post signs on utility poles.
Foreign objects can tear utility workers' protective clothing, which is the first line of protection from an electric shock.

Electric line workers **RANK 15** on the list of **25 MOST DANGEROUS JOBS** in America. Help keep them safe!

Learn more at safelectricity.org

MY CO-OP



DO NOT TAMPER WITH YOUR ELECTRIC METER

Meter tampering can result in electric shock, is illegal and increases electricity rates for other co-op members.



- ⊘ Never break a meter seal.
- ⊘ Never open a meter base.
- ⊘ Never remove a meter or alter an entrance cable in any manner.

If you know or suspect that someone has tampered with their meter, please contact us immediately.



ELECTRICITY THEFT: Not Worth the Risk

Every year, energy cooperatives across the country cope with thieves—folks who deliberately tamper with their meter to steal power.

Not only is this practice extremely dangerous, it's a serious crime that could result in hefty fines and jail time.

Power surging through a compromised meter can cause an electrical catastrophe, according to the Cooperative Research Network, a division of the National Rural Electric Cooperative Association.

A short circuit could produce an arc flash bright enough to cause blindness and powerful enough to launch fragments of shrapnel-like, red-hot debris. Serious injury or death from electrocution, explosion, or fire often results from meter tampering.

Electricity theft is not a victimless crime. Rock Energy Cooperative loses revenue and expends resources to investigate meter tampering. These costs are then passed on to the entire membership.

National estimates vary, but *The Washington Post* cited revenue protection officials who claim between \$1 billion and \$10 billion worth of electricity is stolen from utilities annually.

Since everyone pays for lost power, please let us know if you suspect meter tampering. Call 866-752-4550 to report possible theft of service. All information can be given anonymously.

Energy Efficiency Tip of the Month

Laundry Tip: Dry towels and heavier cottons separately from lighter-weight clothing. You'll spend less time running the dryer for lighter-weight items, which saves energy.

Source: energy.gov



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ROCK ENERGY COOPERATIVE
Empowering Members Since 1936