A photograph of a white Gothic Revival church with a steeple, set against a blue-tinted sky. The church has arched windows and a central entrance with steps.

Worship Facility Energy Guide

Facts, Tips, and Information

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Introduction

UGI Energy Services

UGI Energy Services (UGIES) serves the energy needs of churches, synagogues, mosques, temples, and other worship facilities. UGIES is a wholly-owned subsidiary of UGI Corporation, a Fortune 500 Company.

UGIES reliably supplies and markets natural gas, liquid fuels, and electricity to over 40,000 customers across the Mid-Atlantic and Northeastern U.S. We are a supplier, marketer, and midstream services provider – one backed by over 100 years of natural gas experience, plus our own expanding energy infrastructure. Along with buying and selling energy commodities at the wholesale level, UGIES owns and operates key electric generation and midstream natural gas assets throughout Pennsylvania.

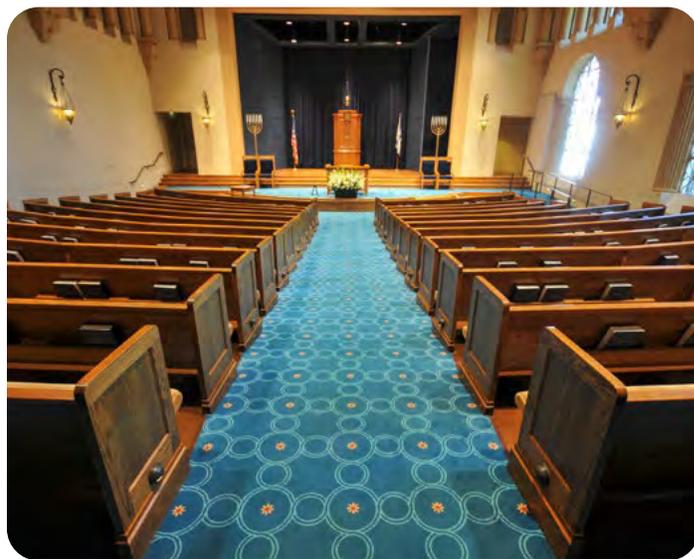
What You Need to Know About Natural Gas for Your Worship Facility

Considering procuring natural gas services for your worship facility? Before you get started, or if you're a first-time natural gas user, there are some things you should know.

What is Natural Gas, and What Are Its Commercial Applications?

Natural gas is, in essence, a flammable fossil fuel in gaseous form. Natural gas has evolved to meet various purposes that can benefit your faith community. Gas can be used to heat your worship facility and related buildings, for water heating, to provide power for backup generators and industry-grade equipment.

Having natural gas hooked up to your facility also means that you can take advantage of an on-demand, tankless water heater. This type of water heating reduces energy because you only heat water as it is needed. You're no longer paying to keep a large tank of water warm at all times. Plus you'll save a little space by not having that big tank in the basement or utility room. Considering that your worship facility is probably only used a few times a week, this can turn into significant savings on your energy bills.



Benefits of Natural Gas

Choosing Natural Gas to Heat Your Worship Facility

As a heating source for your worship facility, natural gas is typically the preferred option for the following reasons:

- **Reduced Operation Costs** – By changing to gas, you can reduce overall operation costs. Gas is more cost-effective, more cost-stable, and considerably outperforms both propane and electric energy.
- **Reliable Access to Power** – In the face of outages, storms, and other complications, natural gas access typically remains uninterrupted, allowing your worship facility to stay open no matter the situation at hand.
- **A Clean Fuel Source** – The ignition of natural gas is a nearly perfect form of combustion, producing a clean and even form of energy that leaves no residues, soot, or other unpleasant byproducts.

The state of Pennsylvania is becoming one of the most productive gas resources in the U.S. and around the world. This abundance of natural gas so close to home allows us to offer lower prices and reduces our dependence on foreign energy.

With a domestic supply of natural gas that is projected to last for decades to come, natural gas prices are expected to remain at record lows for the foreseeable future.

Anyone who's been through winter in the Eastern U.S. knows how brutally cold it can be! With the extreme cold temperatures and continuous wintry conditions, your worship facility may need alternative energy options to maximize savings. Natural gas, oil, propane, and electricity are all fuel options that can be used to heat worship facilities throughout the northeast, but which option is right for your needs?

When selecting which fuel to heat your worship facility, you should not only consider the cost but also the energy efficiency of the fuel source – either natural gas, oil, propane, or electricity.



When Are People in Your Place of Worship?

For most faith communities, the biggest obstacle to energy efficiency is that your building is using energy all the time – but most places of worship are only occupied 20% - 30% of the week. Here are some ways to organize your energy schedule to align with your community's schedule, which creates a win-win for your people and your budget.

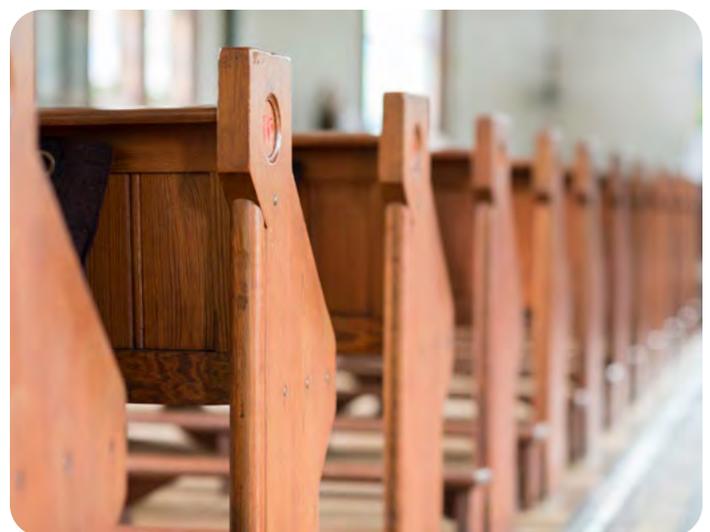
- **Change Schedules** - Combine activities to reduce the worship facility's occupied hours. Can various groups and activities happen at the same time, but in different parts of the building? Can you reschedule janitorial services from night to daytime? It's a current trend in many business settings, because it allows you to reduce temperature and lighting usage in the long term. Consider moving morning services to later in the day, or moving evening events to earlier in the day to take advantage of natural lighting.
- **Use Programmable Thermostats.** You can save about 8% per year by using a programmable thermostat instead of a manual thermostat, according to ENERGY STAR. Instead of relying on your staff and volunteers to remember to reset the temperature when they leave, you can program the thermostat to keep people comfortable when the building is occupied and use less energy in the off-hours.
- **Turn the Lights Out.** Always turn off the lights when a room is unoccupied. Encourage staff and community members to be proactive about this, and even put up signs near the light switches as reminders.
- **Install Motion Switches in Bathrooms.** Take the "lights out" rule to the next level and make it automatic using motion light sensors. They can be set to keep the lights on up to 20 minutes at a time.

- **Use the Sleep Mode.** For your office staff, encourage using the sleep mode on their computers. That way, when they leave their desks for any length of time, their computer will automatically go into a power-saving mode.

In addition to looking at occupancy trends, you can take other steps to automatically reduce energy usage.

For example:

- Ceiling fans can keep people cool without having to turn on the air conditioner.
- An on-demand hot water heater can meet your hot water needs more efficiently than your existing water heater tank.
- Replace old refrigerators or other appliances with energy-saving models.



Heating Your Worship Facility with Oil or Propane

Using Oil to Heat Your Worship Facility

Although oil is a traditional form of heating across the Eastern U.S., you can expect to pay significantly more by selecting oil for your worship facility.

Oil heating is:

- **Costly** – While all energy costs can fluctuate, oil has traditionally been an expensive heating option.
- **Imported from Abroad** – Oil often comes from regions that are economically and politically unstable. This instability means that the price of oil is also extremely unstable.
- **Stored in Tanks** – This means that once the oil tank is empty, your worship facility will become cold until the next fill-up. Because the price of oil tends to spike in the winter when you need it most, you could be looking at a very large bill.

Using Propane to Heat Your Worship Facility

Propane is a heating fuel that is produced from natural gas, so it is inherently more costly due to the increase in energy resources required to yield the fuel.

Some important things to note about using propane to heat your worship facility include:

- **Similar to Natural Gas** – While there are several differences between natural gas and propane, both are clean-burning.
- **Storage Tanks** – Unlike natural gas, propane is stored on-site in storage tanks. These can take up some room, and you will need to make sure that you do not run out of propane, especially in the winter when using it for heating, or at any busy time when using propane for cooking. It is best to schedule automatic deliveries to avoid this situation.
- **Volatile Seasonal Fluctuations in Price** – Costs often spike unexpectedly and disproportionately compared to normal supply and demand fluctuations.
- **Higher Cost at Peak Season** – Propane can be difficult to obtain during the heating season, which means that prices can spike right when you are using the most propane.

8-10%

Gas-powered furnaces often achieve 8-10% higher efficiency ratings than oil models.

Heating Your Worship Facility with Electricity



Electricity is the only heating option that is available to everyone as an option. Here are some things you should know if warming your worship facility with electric heating.

- **Heat and Cool with One System** – Today's heat pumps can provide both forced-air heating and central air conditioning in one system.
- **Heating without the Ductwork** – If you have a space in your facility that needs to be heated (or cooled) but do not have existing ductwork, ductless mini-splits can offer you the advantages of high-efficiency heating and cooling without all of the construction required to retrofit ductwork into your worship facility.
- **Efficiencies** – While natural gas furnaces and boilers typically achieve the highest energy efficiency, newer models of electric heat pumps are seeing some excellent efficiency ratings.
- **Costly** – Similar to other fuel source options, electric prices can fluctuate throughout the year. Your best option to protect your worship facility from this uncertainty is to lock-in your price for the year by shopping for your electricity supplier.

Deregulation and Energy Choice

What Does Energy Deregulation Mean for You?

Energy deregulation means that you, the consumer, can enjoy the freedom to purchase your natural gas or electricity from any energy supplier that you feel best suits your needs. Also referred to as Energy Choice, Energy Deregulation gives you the ability to “shop” for your natural gas and electricity.

It is important to find a company that can provide you with the best options, pricing plans, convenience, and flexibility. The deregulation of natural gas and electricity puts the power of choice in your hands.

How Does Electricity Deregulation Work?

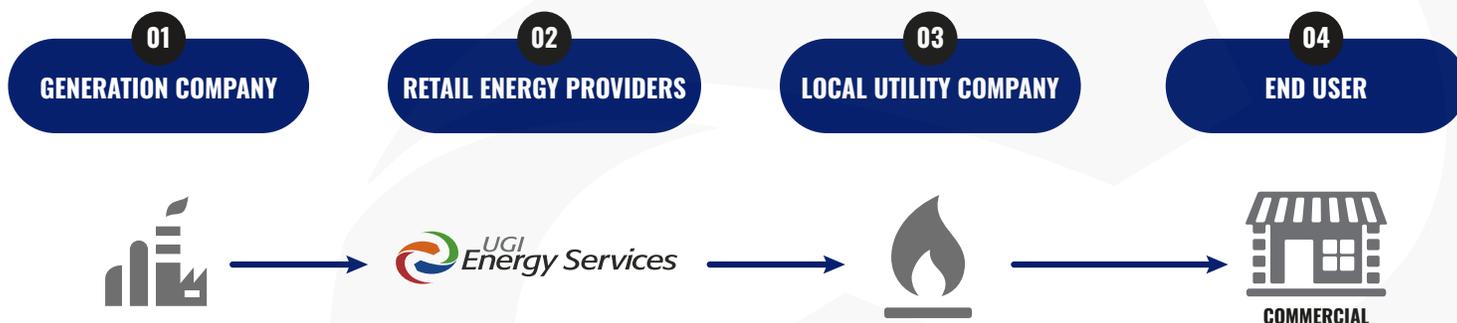
The deregulation of electricity provides consumers with more choices and creates competition among suppliers to keep costs down. The purpose of deregulated electricity is to lower prices and increase customer satisfaction by introducing competition into the marketplace.

Most electricity offers are either a fixed pricing option or an indexed (variable) pricing option. Fixed pricing is an excellent option for customers who must meet specific budget criteria with a constant price for a specific period, as it lets you lock in your rates for a specified length of time.

How Does Natural Gas Deregulation Work?

Many worship facility staff choose natural gas as their main source of energy – but once upon a time, it was less of a choice. In Pennsylvania, the government regulated natural gas and worship facilities had no choice in price, plan, or provider. In 1999, the Natural Gas Choice and Competition Act was signed into law, which gave Pennsylvania natural gas consumers the right to choose their supplier of natural gas. Other states enacted similar acts around the same time.

This deregulation of natural gas provided consumers with more choices, and created competition among suppliers to keep costs down. When suppliers have to compete for customers, the price of natural gas is naturally driven down. Before choosing a natural gas supplier, you can now compare the prices and benefits of each company, and make your decision accordingly.



Energy Shopping for Your Worship Facility

The Benefits of Natural Gas and Electricity Deregulation

Thanks to Natural Gas Choice and Electricity Generation Customer Choice, you have more of a say in choosing the best plan for you and your worship facility – but that is not all! Several benefits of deregulation include:

- **Flexibility** – You have the opportunity to shop around, compare rates, and find reliable, quality service that fits your needs. If you ever need to switch companies or find a lower, more affordable rate, that can be done in a deregulated industry.
- **Affordability** – Having the ability to compare rates means you can discover and decide on a rate that is within your budget. Often, you can choose a company with fixed rates that will let you lock in a low price.
- **Autonomy** – You have the power to choose the energy company you want to work with. If the price or service is not up to par, you can switch providers.

Switching is Easy

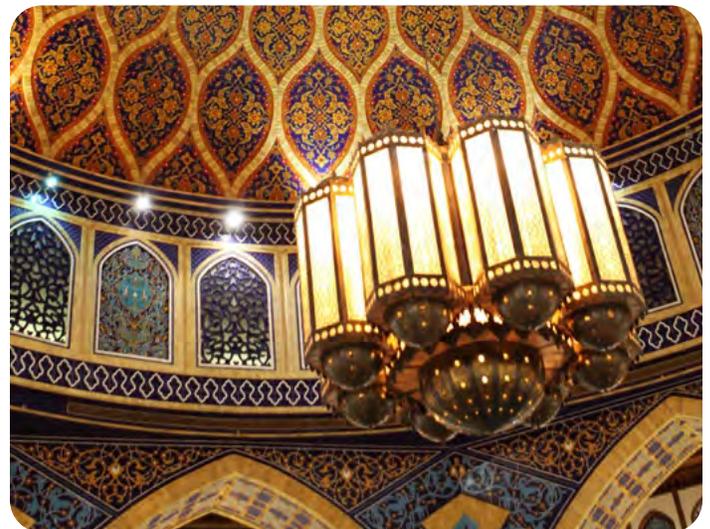
Making the switch to a new energy provider is a simple process. Once you reach out to our team, we will work directly with you to evaluate your current bills and energy usage, and offer you several pricing options to best fit your unique needs. You can request a quote online from our website at www.ugies.com. Once you find an option that works best for you, you can just sit back and wait for your new rate to appear on your bills. It really is that easy!

No Interruption in Service

Switching energy providers is seamless. UGIES will communicate with your utility to have you switched on the next available date, with absolutely no interruption in service. The only thing you will notice is your new rate on your bill.

Affordable Natural Gas and Electricity

When you choose UGIES as your supplier, you won't find any more surprises on your energy bill. We offer fixed-rate plans designed to give you the most for your money. With a low fixed-rate on your energy, you can be assured that you will not pay more than you expect – even when the energy market pricing rises, a fixed-rate plan keeps your prices at that same low rate for the term of your agreement.



Switching Suppliers

What Are the Benefits of Choosing an Independent Supplier?

If you're tired of the costly energy bills, or you can't deal with surprise fees any longer, it's time for you to take control. By choosing an independent supplier that is separate from your utility provider, you can save money on your monthly utility bills with ease!

With natural gas and electricity deregulation, worship facility staff have the autonomy to choose what company supplies their energy. Instead of one set price, you have the opportunity to shop around and find an energy company with a low rate to meet your budget.

Switching your Worship Facility to UGI Energy Services

With UGIES's pricing options, you can avoid being surprised by your high heating costs (and instead know what to expect from your monthly energy bills). We offer various pricing options, including a fixed-rate program that adds predictability and affordability to your winter heating costs.

Variable Gas Rates



Ready to shop for your energy? If so, choose UGIES. We have been providing customers across the mid-Atlantic states with affordable energy since the inception of Energy Choice. Our fixed- and variable-rate programs are designed to help you save over time, making sure your worship facility stays warm at an affordable price.

Energy Pricing Options from UGI Energy Services

- **Fixed Pricing** – Set your price in stone with fixed pricing from UGIES. Our fixed pricing plans allow you to lock in pricing for an extended timeframe, most typically for one year.
- **Monthly Pricing** – In a deregulated market, monthly pricing gives you the flexibility to take advantage of variable market conditions.
- **Customized Energy Options** – As experts in the energy industry, we know that natural gas and electricity aren't one-size-fits-all products, so we offer unique buying options to customers of all sizes. You can choose to lock in just a portion of your energy needs or purchase for a longer or shorter period of time – whatever works best to meet your energy budget goals. Your dedicated sales representative will walk you through all of the options and help you to make an educated decision for your business.

Tips for Saving on Energy Costs

Reduce Energy Consumption

Looking for top-class energy solutions for your worship facility? [Trust the professionals at UGIES!](#)



Make the Change to LED Lighting.

Compare a 60-watt standard bulb to the LED equivalent and you're looking at 6-8 watts of power used per bulb or *less*. By swapping out all of your incandescent lights to LED, you can literally cut your worship facility's wattage consumption by hundreds or even *thousands*. Not only that, but LEDs have an average lifespan of over 50,000 hours; nearly 40 times longer than traditional bulbs.



Optimize Air Flow. Keep your HVAC vents open, and avoid closing doors to rooms that have vents, if possible. Keeping either of these closed alters the air pressure, and actually makes your AC or heating system work much harder to maintain comfort in your worship facility, vastly increasing energy consumption.



Change Your Filters. The filters on your furnace/AC unit should be changed monthly depending on how much you run your system. New, clean filters will allow your system to run more efficiently, saving you money each month.



Replace Your Old Heating or Cooling System.

If your furnace is more than 10 years old, it may be time for an upgrade. Aged appliances, especially heating and cooling systems, can be a major source of energy usage in your worship facility. You may be paying unnecessary amounts of money in extra energy costs and not even know. In many cases, your local utility may offer incentives and rebates

to help cover the cost of upgrading to an energy-efficient heating or cooling system.



Install a Programmable Thermostat.

Newer, programmable thermostats can be set to automatically adjust the heating and cooling system based on your patterns. "Smart" thermostats are now wifi-enabled, so you can adjust the temperature from almost anywhere, and see your energy usage from your smart phone or tablet.



Turn Off Lights and Appliances When Not in Use.

Computers, televisions, charging stations, and more pull power all of the time – but especially when they are always on. Before you leave the worship facility at night, power down all non-essential appliances and turn off any overhead lights or lamps. It is even recommended to unplug non-essential appliances while the worship facility is closed. Turning off and unplugging these devices and powering down lights can tremendously decrease your energy usage.



Select the right refrigerator.

When buying new refrigerators, choose AA++ rated units as they have the lowest running costs. Also, be sure to clean and maintain your refrigerator. Clean cooling coils twice a year and replace door gaskets if a dollar bill easily slips out when closed between the door's seals.

Warm-Weather Energy Tips

Spring and Summer Tips

Energy usage can skyrocket in the hot summer months. Take action in the spring to prepare your cooling system for the dog days of summer by checking out the energy saving tips below.



Schedule an AC System Tune Up – Have a reputable HVAC company come to your worship facility to perform a tune up on your central air conditioning system. This will help to keep it running as efficiently as possible during the hot summer months.



Reduce Humidity – You're probably familiar with the saying "it's not the heat, it's the humidity." This holds true in your worship facility, too. If the thermostat reads 70 degrees, but it still feels hot and sticky inside, you may want to invest in a dehumidifier. A reputable HVAC company can even install a solution that works in the entire building.



Raise Your Thermostat – In the hot summer months, it can be tempting to keep your worship facility as refreshing as an icebox, but you can still beat the heat and save money on your energy bills by turning up the thermostat a few degrees.



Utilize Fans and Window Shades – Ceiling fans will help with how cool the room actually feels (without changing the actual temperature). Window shades can prevent your worship facility from heating up during the day when the sun is the brightest and warmest. Keep your curtains or shades tightly closed to prevent your building from heating up greatly during the day.



Shut Off Idle Equipment and Lighting – Conserving energy can be as easy as turning off a light switch. This may sound simple, but countless worship facilities waste hundreds of dollars a month because they leave idle equipment running. Use timers for your outdoor lighting. You can also try using solar-powered outdoor lights that can charge themselves.



Keep Exterior Doors Closed – One of the quickest ways to see your energy bill spike is having exterior doors hang open while greeting guests or bringing supplies into the building.



Cold-Weather Energy Tips



Energy Saving Tips for Winter

Cold temperatures and winter storms are major contributors to higher energy costs during the winter season. Furnaces and boilers must work harder to maintain comfortable temperatures. In order to maximize your energy efficiency and savings during the winter, it's important to follow a few simple steps.



Lower the Temperature in Your Worship Facility – Although it's tempting to set your thermostat slightly higher during the winter, setting your thermostat to 68 degrees could result in significant savings. According to the California Energy Commission, for every degree lower in the 60- to 70-degree range, you could save up to 5% on heating costs.



Use Shades to Your Advantage – Shades help keep heat in and decrease heat loss through windows and panes. At night, keep curtains closed to prevent heat escape. During the day, open the curtains of south-facing windows to allow the heat from the sun to warm the room.



Make the Kitchen Layout Efficient – If the ice maker is next to the grill, the ice maker is going to work harder than it needs to. Separate heating and cooling appliances to reduce wasted energy.

Cold-Weather Energy Tips



Prevent Heat Loss – Doors and windows are one of the leading causes of lost heat. To minimize the amount of warm air lost, look for places where heat can escape. These locations are generally found around window frames, doors, and where pipes enter/exit a wall. (Don't forget to check under the sink and in other cabinetry, too!) Many HVAC companies now offer Energy Audits, where a certified professional will come to evaluate your worship facility for these types of inefficiencies.



Choose an Affordable Energy Provider –

Your energy provider has the biggest impact on your overall energy costs this winter.



Put Your Fans in “Reverse” Mode – Did you know most fans have a reverse or winter mode? This will help to push down warm air that tends to rise toward the ceiling, and will help your space to feel more comfortable.



Schedule HVAC Maintenance – Scheduling a routine checkup for your heating system makes sure your heating equipment is operating efficiently. Clogged air ducts, dirty air filters, and other parts not functioning properly can significantly increase utility costs during the winter.



Solutions to Control Humidity in Your Worship Facility:

- Ensuring that your system is the correct size for the building is important. Oversized systems turn on and off frequently and never run long enough to remove humidity.
- Your HVAC design is critical. You might need to create separate zones with a VRF system.
- VRF systems have the ability to run at different capacity levels. That means they can run longer at a lower capacity, which removes more humidity from the air.

Natural Gas Safety



Natural Gas Safety 101

Natural gas is a safe and easy gas to use in your worship facility. Simply follow these tips:

- Use your nose to know if you have a natural gas leak. Natural gas is naturally odorless; however, experts add a rotten egg odor to help you detect the presence of gas in the air and keep you and your congregation safe.

If you smell rotten eggs, evacuate all people from the building immediately and leave your building immediately. Call your local utility company or 9-1-1!

- Install smoke detectors and carbon monoxide detectors throughout your worship facility and regularly test them, or according to industry regulations batteries should be changed every six months. Many people choose to do this when the clocks change twice a year for Day Light Savings time. A reputable HVAC contractor can help you to install

carbon monoxide detectors in the proper locations in your worship facility.

- Keep the area around your HVAC units, appliances, and natural gas pipes clean and unblocked for proper airflow. Don't forget to shovel excessive snow off of your outdoor HVAC units and to clear snow and ice from any outdoor vents and gas meters. This should be done carefully and by hand, not with a snowblower or by roughly shoveling the area.
- Replace your fire extinguisher regularly. Each should have an expiration date on it.
- Don't ever use your natural gas stove for anything other than cooking.
- Contact a professional when you are looking to install a new natural gas appliance or are looking to move your current unit.
- Keep all cleaning products and chemicals away from your natural gas stove, furnace, or any appliance.
- Review these safety tips with your staff to keep them and your customers safe.

Natural gas is a safe fossil fuel; however, it is important to learn how to stay safe with any gas. If you're looking for more information regarding natural gas, contact the experts at UGIES! For more than a century, the UGI Family has been providing Mid-Atlantic organizations with natural gas knowledge and service.

Natural Gas Safety

What Is That Rotten Egg Smell?

While natural gas is naturally odorless, tasteless, and colorless, a nasty-smelling additive gives natural gas its well-known rotten egg smell. This safety measure helps people detect natural gas leaks and prevents potential incidents.

Detecting Natural Gas Leaks

In addition to the recognizable smell of rotten eggs, you should also use these clues to detect a natural gas leak:

- Hissing, roaring, or whistling coming from natural gas appliances
- Water bubbling or soil movement in your yard, indicating a natural gas line leak
- Dead vegetation above a natural gas line, indicating damage
- Exposed natural gas lines following a flood, fire, or earthquake

What To Do If Natural Gas Is Leaking

The most important part of keeping your congregation safe while using natural gas is to take potential leaks seriously.

If you suspect a leak:

- Don't create an ignition source. This means you shouldn't turn lights on or off, unplug electrical devices, stoves and ranges, or use a phone (landline or cell). Also, don't light any matches or use cigarette lighters. Snuff out anything currently burning to eliminate ignition sources.
- Get all people a safe distance from your building. Then, call 911 followed by your utility company.

Electricity Safety



Electricity Safety Tips

Worship facilities are large users of electrical equipment and appliances. Long-term use of this equipment without proper inspections could cause serious damage to your worship facility.

- **Water and Electricity Do Not Mix** – Turn off appliances not designed for wet areas when transferring water or cleaning equipment. If water spills or seeps in while the equipment is still plugged in to receptacle, avoid unplugging it. Never handle electric appliances with wet hands.
- **Schedule Regular Inspections** – To keep your staff safe, schedule regular inspections of electrical equipment, especially if it is an older piece of equipment. Educate your managers on this schedule to ensure the entire staff understands the importance.
- **Do Not Overload Receptacles** – To prevent shorting the circuits, don't plug more equipment into a receptacle than what it can handle. If you're unsure how to determine the maximum load, call an electrician to find this out for you.
- **Keep Your Eyes Open** – Look for frayed cords, exposed wires, water pooling around equipment, and other hazards. Educate your staff on the importance of spotting these hazards and the proper steps to take when found.
- **Provide Proper Training** – Train each staff member on how to properly use each piece of electrical equipment, what to do during an emergency, and how to keep the entire congregation safe.

CO₂ (Carbon Dioxide) Emissions (Pounds per Millions BTU of Energy)



Heating Oil

161.3



Propane

139.0



Natural Gas

117.0



A typical place of worship is only occupied **20% - 30% of the week**, which provides opportunity for energy savings



In the U.S. there are 200,000 miles of high-voltage transmission lines and 5.5 million miles of local distribution power lines.

LED light bulbs – especially ENERGY STAR rated products – use at least

75%

less energy, and last 25 times longer, than incandescent lighting.

Advantages of LED Lighting for your Worship Facility



Lifespan

2-4 times longer than most fluorescent, metal halide and sodium vapor lights.

40 times longer than the average incandescent bulb.



Energy Efficiency

LEDs consume very low amounts of power.

60-75% improvement in overall energy efficiency.



Improved Safety

LEDs emit almost no forward heat.

Can operate effectively on low-voltage electrical systems.



Design Flexibility

Can be used in virtually any application.



Dimming Capability

Able to operate at virtually any percentage of their rated power (**0-100%**).

Become more efficient as the power is reduced/dimmed.



Provide Instantaneous Turn On

Turn on and off instantaneously.

No warm up period like metal halide lamps.



Environmentally Safe

Do not contain mercury like fluorescent or mercury vapor lights.

Don't require special handling at the end of their lifespan.



Virtually Zero UV Emissions

Emit majority of energy in the visible spectrum.

Won't degrade UV sensitive items like art work.



Operate on Very Low Voltage

Suitable for outdoor applications where other lighting does not meet code.

Good for oceanfront homes where property is in a flood zone.



Operate Well in Cold and Hot Temperatures

Work in wide range of temperatures without significant degradation.

Source: <http://www.stouchlighting.com/blog/top-15-advantages-of-led-lighting>

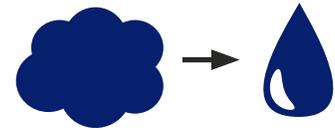
Natural gas is **colorless and odorless.**



In 200 B.C., people in China used natural gas to make salt.

Natural gas is used in over

5
MILLION
businesses.



When natural gas is cooled to 260° below zero, it changes from a gas into a liquid.



Natural gas was formed deep under the earth about 100 million years ago.

There are more than

2.1

million miles of underground gas pipelines across the U.S.

Natural gas is measured in **British Therm Units (BTUs)**, which measure the heat content. Natural gas can also be measured by volume in Cubic Feet.



In 1816, gas was used to light street lamps in Baltimore, Maryland.



Natural gas is lighter than air.

More facts can be found in the U.S. Energy Information Administration website at www.eia.gov.

Conversion Chart

Term	Definition
British Thermal Unit (BTU)	The amount of heat needed to raise one pound of water by one degree Fahrenheit
Therm (TH)	Unit of heat equivalent to 100,000 British Thermal Units (BTU's)
Dekatherm (DTH)	10 therms
Cubic Feet (CF)	The amount of gas required to fill a volume of one cubic foot (under stated conditions of temperature, pressure and water vapor)
Hundred Cubic Feet (CCF)	100 cubic feet of gas
Thousand Cubic Feet (MCF)	1,000 cubic feet of gas
Watt	The basic unit of electricity demand, equivalent to one joule per second
Kilowatt (KW)	The most common unit of electricity demand, 1,000 watts
Megawatt (MW)	1,000 KW
Kilowatt Hour (KWH)	Electricity usage equal to one KW of demand over a time period of one hour
Megawatt Hour (MWH)	1,000 KWH

Terms and Definitions

Term	Definition
Burner Tip	The point at which natural gas is used, such as a furnace, water heater or range
City Gate	A point of measuring energy usage at the point of it being delivered to the utility. As pricing is often given based on usage at the point of the meter, a conversion is needed to get the equivalent price or usage at the point of the City Gate
Commodity	The commodity portion of a natural gas bill is the natural gas product itself
Compressed Natural Gas	Natural gas after being compressed for storage in pressure vessels at 2,400-3000 pounds-per-square-inch. Natural gas stored in this manner can be used to fuel vehicles
Consolidated Bill	Billing provided by the utility that contains both the utility's charges for its services and the energy supplier's charges for the electricity or natural gas
Customer Charge	Charges to cover the costs of electrical wires, transformers, substations, and other equipment used to deliver electricity or natural gas to customers
Customer Choice	Allows customers to purchase electricity and natural gas directly from energy suppliers. The electricity or natural gas is then transported through the utility's infrastructure (wires or pipelines) to the customer. This allows customers to shop around for their energy needs
Delivery Point	The point where natural gas will be delivered. Customer's meter is considered the delivery point
Demand/Reservation Charge	Fixed monthly charge applied to contracted volume based upon the capacity to use energy
Deregulation	Another name for Customer Choice
Distribution	For electric, this includes the electrical wires, transformers, substations, and other infrastructure used to deliver electricity to customers. For natural gas, this consists of the pipelines, gas mains, and other infrastructure used to deliver natural gas to the customer

Terms and Definitions

Term	Definition
Dual Bill	When supplier and utility issue separate bills to the customer with their own charges
Electric Distribution Company (EDC)	Regulated electric utility
Energy Service Company (ESCO)	An energy supplier from which customers can purchase their natural gas or electricity in the deregulated Customer Choice market. UGI Energy Services is an ESCo
Firm Service	Natural gas service offered to consumers specified in tariffs or contracts that anticipate no interruption. Most small commercial customers are on firm service
Gross Receipt Tax (GRT)	Pennsylvania imposes a tax for electric energy used. Some utilities include this Gross Receipt Tax (GRT) in the Price to Compare. GRT charges apply to generation supply of both electric utilities and energy supplier's gross receipts. These charges are passed on to the consumer. Even though utilities may include the GRT in the Price to Compare, suppliers are not required to include the GRT in their price, so customers should verify if these charges are included when they compare prices
Line Loss	Utilities have factors to cover for the loss of gas from the city gate to the meter. This ensures the customer will receive the right amount of gas needed
Local Distribution Company (LDC)	Regulated natural gas utility

Terms and Definitions

Term	Definition
Migration Rider	An LDC can charge a Migration Rider, which is equal to the Gas Cost Adjustment (GCA). This rider is applicable on some utilities for 12 months
MT (Meter)	The meter is a point of measuring energy usage at the point of it being delivered to the consumers business. Pricing is often given based on usage at the point of the meter
Natural Gas Distribution Company (NDC or NGDS)	Regulated natural gas utility
New York Independent System Operator	NYISO regulates the wholesale of electricity through the power grid as a regional transmission organization (RTO). This covers the New York state area
PJM	PJM regulates the wholesale of electricity through the power grid as a regional transmission organization (RTO). PJM stands for Pennsylvania, Jersey, Maryland. This does not cover the New York state area
State Tax Adjustment Surcharge	A charge or credit that can reflect changes in various state taxes
Transition Charge For Electricity	This charge appears on every customer's bill to help recover an electric utility's transition or stranded costs as determined by the Public Utility Commission (PUC)
Transmission	Moving electricity from a generation facility to the distribution lines of an electric utility or moving natural gas from the source of supply to the natural gas utility

Emergency Utility Phone Numbers

Utility Name	Contact Information
Atlantic City Electric	800-833-7476
BGE	877-778-7798
Central Hudson	800-942-8274
Columbia Gas of Maryland (CMD)	800-460-4332
Columbia Gas of Ohio	800-334-4077
Columbia Gas of Pennsylvania	800-460-4332
Columbia Gas of Virginia (CGV)	800-544-5606
Con Ed	800-752-6633
Corning Gas	607-936-3755
Delmarva Power & Light (DPL) - DE & MD	800-375-7117
Dominion East Ohio	877-542-2630
Dominion North Carolina (PSNC)	877-776-2427
Duquesne Light Company	412-393-7000
Eastern Shore Natural Gas (ESNG)	302-734-6710
Elizabethtown Gas	800-242-5830
Frontier	800-537-2545
JCP&L	888-544-4877
Met-Ed	888-544-4877
National Fuel (PA)	800-365-3234
National Fuel Gas Distribution (NFGD) - NY & PA	800-444-3130
National Grid Massachusetts (Boston Gas, Colonial Gas, Essex Gas)	800-233-5325
National Grid New York - Long Island & Rockaway (Keyspan)	800-490-0045

**For natural gas leak emergencies,
leave the building immediately and contact 911.**

Utility Name	Contact Information
National Grid New York - Metro (Brooklyn, Queens, Staten Island)	718-643-4050
National Grid New York - Upstate New York (Keyspan)	800-892-2345
National Grid Rhode Island	800-640-1595
NJNG	800-221-0051
NYSEG	800-572-1121
Orange & Rockland (O&R)	800-533-5325
PECO	800-494-4000
Penelec	888-544-4877
Penn Power	888-544-4877
Peoples Natural Gas	800-400-4271
Pepco - MD & DC	877-737-2662
PGW	215-235-1212
Piedmont Gas	800-752-7504
Potomac Edison	888-544-4877
PPL Electric	800-342-5775
PSEG	800-880-7734
RG&E	800-743-1701
South Jersey Gas	800-582-7060
UGI	800-276-2722
Valley Energy (Valley Cities Gas)	570-888-6199
Virginia Natural Gas	877-572-3342
Washington Gas	844-927-4427
West Penn Power	888-544-4877

FAQ for Worship Facilities

What types of organizations can benefit by shopping for their energy provider?

Almost every type of organization can benefit by purchasing their natural gas and/or electricity from an energy supplier. While the amount of savings will differ based on your specific energy consumption and usage profile, there are significant savings to be had for all. At UGIES, we have helped to save hundreds of thousands of dollars for large organizations and businesses, as well as small local businesses and faith communities.

No matter the size of your organization, you can put a good chunk of change back into your pocket by switching your energy provider. Perhaps even more important, though, is the surety of locking in a price for an extended period of time.

Worship facility staff know that sky-rocketing energy prices could very well put their faith community's financial well-being at risk, so locking in a low energy rate is a critical step in protecting their community's future.

When is the best time of year to purchase natural gas or electricity?

The answer to this question is the dreaded "it depends". The size of your worship facility, your energy usage patterns and budgetary needs all play a role in determining your best purchasing strategy.

Even two worship facilities located right next door to each other may be very unique. Maybe one cooks with natural gas while the other uses propane, or one heats with electric while the other uses gas. One may have a large open worship space while the other offers several smaller gathering areas. These two worship facilities would likely have a very different energy purchasing strategy if they are doing it correctly.

Should I work through an "energy consultant", "agent", or "broker"?

In deciding whether or not to use an agent, broker or consultant, worship facilities must consider the costs associated with doing so. Claims from energy brokers that their services "are at no cost" are simply not true. Energy brokers always add a fee, which is an upcharge or premium added to the energy supplier's price. Some energy consulting firms charge these fees directly to the worship facility, in which case the cost is very transparent. But if an energy broker states that their fee is charged to the energy supplier, realize that it will be passed through to the business in the form of a higher energy rate. For this reason, the worship facility should request that the broker divulge the fee. Some of these companies or individuals may provide value-added services for which the worship facility may decide that the additional cost is justified. Worship facilities just should keep in mind the contract law principle of "caveat emptor" ("buyer beware"), when deciding to use an energy broker.

FAQ for Worship Facilities

What is the biggest mistake that you see in the way local worship facilities purchase their energy?

The biggest mistake we often see is that worship facilities, trying to be diligent in finding the best prices, will use an RFP (Request for Proposal) process at a set time of the year every year or two. The idea here is that the worship facility will request a price from several different suppliers, and will compare prices to choose the cheapest. Often times a worship facility will even engage an energy agent to assist in this process. However, there are a few major flaws with this strategy.

The biggest problem with this strategy is that these companies are only getting the best fixed price on that particular day. While Supplier A may have a better price today, that customer may have saved significantly more by purchasing a month or two earlier, or later, when the energy market prices were lower.

Had that customer been working directly with a reputable energy supplier, their dedicated representative may have advised them as to a better time to buy or a better way to buy. For instance, it may be beneficial to layer in purchases, similar to a dollar-cost averaging hedge approach, since calling the bottom is near impossible. We often find that worship facilities benefit greatly by purchasing just a portion of their energy now, and waiting for certain conditions to be met in the market before purchasing the rest. When using the RFP process, a worship facility cannot take advantage of these value-added purchasing options.

This is not to say that the RFP process cannot work for some worship facilities. This may be the easiest process for a worship facility that does not have an employee dedicated to energy purchases, or a worship facility that will need to have an energy budget in place for the upcoming fiscal year. Just realize that by using the RFP process, the worship facility is less likely to see substantial savings, and may even pay a higher energy cost for the convenience associated with the RFP process.

If we choose a third party to deliver our worship facility's energy, will the quality be the same? Will our local utility still provide services?

Yes, the natural gas or electricity is of exactly the same quality – delivered directly to your property through the same reliable pipelines or wires. When you switch your energy provider, the only thing that will change is the contracted rate you pay for your energy usage.

Your public utility will continue to provide metering and safety services. Your utility owns the pipes or wires and distribution system that bring the energy to your facility. They get paid a fee to deliver the gas or electricity to your meter. You will continue to pay this fee to your utility.

FAQ for Worship Facilities

What should we look for when choosing an energy supplier?

As discussed above, there are many different options that should be considered when making your worship facility's energy purchases. A qualified energy supplier will offer all of these options and help you evaluate them according to your worship facility's own unique needs.

You should also make sure that you are not working with a fly-by-night company that will not be around through the end of your contract. We've seen many companies come and go in this industry, and you do not want to be left in the dark if your energy supplier turns out to be one of them. Look for a company that has been around for a while, preferably for a decade or more. Energy deregulation (the ability to "shop" for your energy provider) started in many states in the 1990's. If your energy supplier has been around since then, chances are that they are a stable company with years of expertise.

An energy supplier with expertise on your local utility's system will be able to add more value by knowing the "tariff" (the State-approved rules by which the utility and suppliers operate), which will keep you from incurring penalties related to under- or over-deliveries of energy. They may even be able to help you find ways to save money on your utility distribution charges.

You should also look for a company that specializes in deregulated energy sales. While many companies tout being in the energy supply business, often times that segment of their business is not core to its operations. You want a company whose core business is energy supply. Energy assets like natural gas storage, electricity generation, and infrastructure not only provide stability in your energy supplier, but they may also allow the company to manage your energy purchase more cost-effectively.

Overall, look for a company that has the complete package - reliable, stable, reputable, and with a strong asset base, so that you can enjoy the benefits of a one-to-one relationship for years to come.



Ready to take control of your energy costs?

Contact UGI Energy Services today to get started.

To Request a Free Quote, visit:
ugies.com/contact-ugies/request-a-quote



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