



An Extended Guide · No. 1625

Natural Gas at Home: The Basics and Staying Safe

What it is, and how
to stay safe around it

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! Read this first — carbon monoxide is the real danger

A running generator's exhaust contains carbon monoxide — an invisible, odorless gas that can kill in minutes. Never run a generator indoors, in a garage, in a shed, or on a porch, not even with the door open and a fan going. Run it outside only, well away from the house — the safety agencies say at least 20 feet — with the exhaust pointed away from every window, door, and vent. Put battery-backup carbon-monoxide alarms on each floor and outside the bedrooms. If an alarm sounds, or anyone feels dizzy, sick, or sleepy, get everyone into fresh air first and ask questions later. Any generator that burns fuel — including one fed by natural gas — still produces carbon monoxide, so the same outdoor-only rule and CO alarms apply even though there is no tank of fuel sitting in the garage.

Let's talk about natural gas at home

Natural gas is one of the more comfortable ways to power a standby generator, mostly because there's no tank to watch and no fuel to haul. But 'no tank' doesn't mean 'no safety habits' — this guide covers what natural gas actually is, how to recognize a leak, and where the real safety attention still belongs.

I'm Bill, and I run Bill's Home Tech here in Portage County, Ohio. Folks are often surprised how simple living with natural gas is day to day, and just as surprised at how important the few safety basics remain.

We'll cover what natural gas is and how it behaves, the smell that's added so you can catch a leak, and why a natural-gas generator hookup is still a licensed pro's job, not a do-it-yourself project.

! This guide pairs with two others

Because a leak and carbon monoxide are two different dangers that both matter here, keep our gas-leak guide and our carbon monoxide guide close by as you read this one.

The whole guide, on one page

If you remember only these things about natural gas, you'll know what matters.

- ❑ Natural gas is piped in from the utility — there's no tank to store or refill at your house.
- ❑ The utility adds a distinctive rotten-egg smell so a leak is noticeable.
- ❑ Natural gas is lighter than air and tends to rise; propane is heavier than air and tends to sink and pool low.
- ❑ A natural-gas-fed generator hookup is a permanent, professionally installed job — not a DIY project.
- ❑ Burning any fuel, including natural gas, can produce carbon monoxide — CO alarms and the outdoor-only rule still apply.
- ❑ If you ever smell gas, leave first, then call the utility or 911 from a safe distance.

✓ No tank doesn't mean no habits

Natural gas trades fuel storage worries for a different set of habits — knowing the smell, knowing where to go, and knowing who to call. This guide covers all three.

What natural gas actually is

It's simpler than it sounds, and understanding it helps everything else in this guide make sense.

Natural gas arrives at your home through an underground pipe from the utility company, arriving continuously as long as service is connected. There's no can to fill, no cylinder to swap, and no tank sitting in the yard — the gas company handles delivery all the way to a meter at your house.

That's part of why a natural-gas-fed generator appeals to a lot of homeowners: as long as the utility's service keeps flowing, so does your fuel. There's nothing to store and nothing to run out of on your end.

✓ This is different from propane

Propane usually lives in a tank on your property that gets refilled or exchanged. Natural gas skips the tank entirely because the utility is, in effect, your fuel supply. Our propane tanks guide covers that side if you're weighing the two.

The smell that keeps you safe

Natural gas is naturally odorless — so the utility fixes that on purpose.

In its natural state, the gas piped to your home has essentially no smell of its own. The utility adds a distinctive, sulfur-like odorant — the smell most people describe as rotten eggs — specifically so that a leak announces itself. It's one of the simplest and most effective safety measures in your whole house.

That smell is the main warning sign you're listening for. You don't need special equipment to notice it, just an ordinary sense of smell and a willingness to take it seriously the moment you catch it.

! Trust your nose

If you smell that rotten-egg odor, don't second-guess it or go looking for the source. Our gas-leak guide covers exactly what to do the moment you notice it.

Lighter than air: why that matters

Here's a genuinely useful fact a lot of people never learn: natural gas and propane don't behave the same way once they escape.

Natural gas is lighter than air, so it tends to rise and disperse upward and outward rather than pool. Propane is heavier than air, so it tends to sink and collect low — in a basement corner, along the floor, or in a crawl space. Knowing which one you're dealing with can help you understand where a leak might gather.

	Natural gas	Propane
Weight vs. air	Lighter	Heavier
Tends to	Rise and disperse	Sink and pool low
Low spots matter	Less critical	Especially important

✓ **Either way, the response is the same**

This difference is useful background, but it doesn't change what you do about a suspected leak: leave the area, then call from a safe distance. Our gas-leak guide covers both fuels.

A natural-gas generator is a permanent, professional hookup

If you're picturing a generator that simply plugs into a gas line yourself, this is the page to slow down on.

Connecting a generator to your home's natural gas line is a permanent installation, done by a licensed gas fitter, usually with a permit and an inspection. It is not a project for a homeowner to take on, for the same reasons a propane hookup isn't: the line runs under pressure, and mistakes can be invisible until there's a leak.

Our guide on connecting to a home propane supply covers this kind of project in more depth — much of what it says about sizing, permits, and leaving the gas work to a licensed pro applies just as much to a natural-gas hookup.

★ I help you plan it, not pipe it

I'm a tech helper, not a licensed gas fitter. I'm glad to talk through the idea with you and help you line up a trustworthy licensed pro — I just don't do the gas work myself. Call or text me at (330) 200-8042.

Sizing, and your gas meter

A natural-gas generator hookup has to work with what your meter and service can actually deliver.

Your home's gas meter and service line have a delivery capacity, and a licensed pro checks whether that capacity can support a generator alongside everything else already running on gas — the furnace, water heater, stove, and so on. Sometimes that means an upgrade to the meter or service is part of the project.

This is squarely the pro's and the utility's territory to assess — there's no general number I can hand you that would be accurate for your house, so this is a conversation for them, not a guess on paper.

✓ Loop in the utility early

Your gas utility is often involved in a project like this alongside the installing pro. Ask your pro whether the utility needs to be part of the conversation before work begins.

The appeal: no tank, no rotation

A lot of what makes natural gas attractive for backup power comes down to what you don't have to think about.

There's no tank to keep an eye on, no delivery to schedule, and no stale fuel to worry about the way gasoline can go stale sitting in a can. As long as the utility's service is intact, your supply is there. Our guide on how much fuel to keep and how to rotate it covers just how much attention gasoline needs by comparison.

The tradeoff is that your generator's fuel now depends entirely on the utility's lines staying intact — in the rare event those are damaged in a wider disaster, natural gas service can be interrupted too, just like electricity.

✓ No fuel to store also means no storage to plan

For someone who doesn't want another fuel container to think about, natural gas removes that concern almost entirely.

Carbon monoxide still applies

No tank does not mean no exhaust — this is the safety point I most want you to walk away with.

Burning any fuel — gasoline, propane, diesel, or natural gas — produces carbon monoxide as a byproduct. A natural-gas-fed generator's exhaust is just as dangerous as any other generator's exhaust. The fuel source changes; the carbon monoxide risk does not.

That means every rule in our carbon monoxide guide still applies in full: the generator runs outside only, well away from windows and doors, and your home needs working carbon monoxide alarms regardless of what fuel is feeding it.

! Don't let 'cleaner fuel' become false security

Natural gas burns cleanly compared to some fuels, but 'cleaner' is not the same as 'safe to run indoors.' The outdoor-only rule and CO alarms are non-negotiable no matter what's in the line.

The outdoor-only rule doesn't change

This deserves its own page because it's the single most important habit in this whole guide series.

Whatever fuel powers your generator, it runs outside, never in a garage, shed, basement, or on a porch — not even with a door open and a fan running. The exhaust needs to go into open air, well away from every window, door, and vent.

- Never run a generator indoors or in any attached or enclosed space.
- Point the exhaust away from your home and your neighbors' homes.
- Install carbon monoxide alarms on every floor and outside sleeping areas.
- If an alarm sounds, or anyone feels dizzy, sick, or unusually sleepy, get to fresh air immediately.

! This rule has no exceptions

I say this in every fuel guide because it's genuinely the difference between life and death: natural gas, propane, gasoline, or diesel, the generator runs outside, full stop.

Two kinds of homes, two sets of needs

Whether natural gas is even available to you, and how you'd plan around it, depends a good deal on where you live.

If you live in town or the suburbs

In town or a close-in suburb, natural gas service is common, and a natural-gas generator hookup is often a straightforward option to ask a pro about.

- Natural gas lines are typically already run to the house for the furnace, water heater, or stove, which can simplify a generator hookup.
- City water usually keeps flowing in a power outage, easing some of the urgency.
- Check with your utility and your city about any permit requirements before work begins.
- Neighbors are closer, so a well-placed, quiet, properly vented setup matters.

If you are out in the country on a well

Out in the country, natural gas lines often don't reach at all, which is why propane and diesel are more common choices for rural backup power.

- If natural gas service isn't available at your property, our propane tanks and home propane supply guides cover the more common rural alternative.
- A well means power loss also means water loss, so reliable backup fuel of some kind matters even more.
- Ask your utility directly whether natural gas service reaches your road before planning around it.
- If you already have natural gas service, the same pro-installed, permitted process applies regardless of how rural your property is.

★ Not sure what's available to you?

Tell me your address and what you're hoping to power, and I'll help you figure out whether natural gas is realistically an option before you call a pro. Call (330) 200-8042.

Signs of a possible leak

The smell is the main signal, but a few other clues are worth knowing.

- The distinctive rotten-egg smell, indoors or outdoors.
- A hissing sound near a gas line, meter, or appliance connection.
- Bubbling in a puddle, or a patch of dead or dying plants, near a buried gas line.
- An unexplained physical reaction like dizziness or nausea in your home that eases once you're outside.

Any one of these is worth taking seriously. You don't need all of them at once to justify leaving the house and calling for help.

✓ When in doubt, leave

You'll never regret stepping outside and making a call that turns out to be nothing. Trust the signal and let the utility or emergency responders confirm it.

If you smell gas: leave first, then call

This is worth its own page and worth memorizing, because there's no time to look it up once it matters.

If you ever smell that rotten-egg odor in or around your home, do not flip a light switch, light a match, use a phone inside, or do anything else that could create a spark. Get everyone out of the house and away from the area right away.

! Leave first, then call

Once you're at a safe distance, call your gas utility's emergency line and 911. Don't go back inside until you're told it's safe. Our gas-leak guide covers this in full detail, including how it differs slightly for a propane leak.

This response is the same whether the smell is faint or strong. There's no version of this where investigating it yourself is the right move.

Working with your gas utility

Your utility is a resource, not just a biller — lean on them.

Gas utilities take leak reports seriously and treat them urgently, any time of day. If you smell gas, calling them (from a safe distance, after you've left the house) is exactly the right move, even if it turns out to be a false alarm.

Utilities are also a good resource for questions about whether service reaches your property, what a generator hookup involves on their end, and general safety information for your area.

✓ Keep the number somewhere handy

Store your gas utility's emergency number in your phone and on paper somewhere you'd actually find it in a hurry — not just in an app you'd have to search for.

Natural gas vs. propane, side by side

Both are common choices for backup power, and neither is simply 'better' — they fit different situations.

	Natural gas	Propane
Fuel storage	None — piped in	Tank on property
Availability	Where lines reach	Nearly anywhere
Weight vs. air	Lighter, rises	Heavier, sinks low
Hookup	Licensed pro	Licensed pro

If you have natural gas service already, it's often the simpler path for a fixed hookup. If you don't, propane fills a similar role with its own tank. Either way, the installation itself is licensed-pro work.

✓ **Some generators handle either, or both**

Dual-fuel and tri-fuel generators can often use more than one of these. Our guide on matching the right fuel to your generator explains how to check what yours supports.

Common mistakes people make

A handful of avoidable habits account for most of the natural-gas-related trouble I hear about.

- **Assuming 'no tank' means 'no safety habits'** — the leak and CO risks are just as real.
- **Running any generator indoors**, thinking a cleaner-burning fuel makes it safer — it doesn't.
- **Ignoring a faint gas smell** instead of leaving and calling.
- **Attempting a DIY hookup** to save time or money on what is genuinely licensed pro work.
- **Not knowing whether natural gas service even reaches the property** before planning around it.

! The DIY hookup is the costliest mistake here

Skipping the licensed pro and the permit on a gas hookup isn't a shortcut — it's a real safety risk that can also leave you without recourse if something goes wrong.

Questions worth asking

Whether you're calling the utility, a licensed pro, or me, these get you real answers.

Q: Does natural gas service reach my property?

Your gas utility can tell you directly. If it doesn't reach you, propane is the more common alternative for backup power — see our propane tanks guide.

Q: Can I install a natural-gas generator hookup myself?

No — this is licensed gas fitter work, usually done under permit, for the same pressure and leak-risk reasons as a propane hookup.

Q: Is natural gas safer than propane?

Neither is inherently safer — they behave a little differently (natural gas rises, propane sinks low), but both require the same respect: know the smell, and leave first if you notice it.

Q: Does a natural-gas generator still make carbon monoxide?

Yes. Burning any fuel produces carbon monoxide. The outdoor-only rule and working CO alarms apply no matter what fuel is in the line.

✓ There's no silly question

Gas safety questions can feel like something you're supposed to already know. Ask until you're confident — that's exactly how you stay safe.

It's not just the generator

If you have natural gas service, your generator is likely just one of several things sharing that line.

Furnaces, water heaters, stoves, and clothes dryers commonly run on natural gas too, often for years without a second thought. The same smell-and-leave awareness that applies to a generator hookup applies to every one of them.

It's worth knowing, in general terms, where your home's main gas shutoff is located, so that in an emergency you or a responder can act quickly. Your utility or a licensed pro can show you exactly where yours is.

✓ Know your shutoff before you need it

Finding your gas shutoff valve during an emergency is much harder than finding it on a calm afternoon. Ask your pro or utility to point it out to you.

Making sure this matches your generator

A natural-gas hookup only helps if your generator is actually built to use it.

Some generators run on gasoline only, some are built for natural gas or propane, and some dual-fuel or tri-fuel models can use more than one. Before you plan a fixed natural-gas hookup around your generator, confirm it's genuinely compatible — our guide on matching the right fuel to your generator walks through how to check.

If you're shopping for a generator with a natural-gas hookup already in mind, mention that early to whoever you buy from and to the pro doing the installation.

✓ Check before you commit

It's far easier to confirm compatibility before the gas line is run than to discover a mismatch afterward.

Common Questions

The natural-gas questions I hear most often, answered plainly.

Q: Why don't I need to store fuel for a natural-gas generator?

Because the gas is piped in continuously by the utility rather than stored in a tank or can at your home. As long as utility service is intact, the supply is there.

Q: What does the smell in natural gas actually mean?

Natural gas has essentially no smell on its own. The utility adds a distinctive odorant so that a leak is noticeable — it's a safety feature, not a flaw.

Q: Do propane and natural gas really behave differently if they leak?

Yes — natural gas is lighter than air and tends to rise, while propane is heavier than air and tends to sink and pool low. Either way, the response to a suspected leak is the same: leave, then call.

Q: Can a natural-gas generator still cause carbon monoxide poisoning?

Yes. Any fuel-burning generator produces carbon monoxide. It must run outdoors, well away from windows and doors, with working CO alarms in the home regardless of fuel type.

★ Still have a question on your mind?

That's what I'm here for. Call or text me at (330) 200-8042 and I'll give you a plain, honest answer, and help you figure out what's realistic for your home.

How this fits with the rest

Natural gas is one piece of the fuel picture — here's how it connects to the rest of this set.

This guide covered what natural gas is, how it behaves, and the safety habits that still matter even without a tank to manage. For the hookup process itself, our guide on connecting to a home propane supply covers much of the same pro-installed, permitted territory. If propane fits your property better, our propane tanks guide is the natural next read.

And no matter which fuel feeds your generator, our carbon monoxide guide and our gas-leak guide belong in your regular reading — the habits they cover are universal.

★ One call covers all of it

You don't have to sort out which guide answers which question. Call or text me at (330) 200-8042, describe your setup, and I'll help you think it through.

You don't have to do this alone

You just have to remember that a friendly, patient person is one call away.

I hope this guide made natural gas at home and staying safe around it feel a little less daunting and a lot more doable. Keep it in a drawer with your other home papers, come back to a page whenever you need it, and don't worry about memorizing anything.

When you'd rather have a hand, that's exactly what I do. I come to your home, work at your pace, and never make you feel rushed or silly for asking. A first visit is a flat \$99, and for the parts that don't need me on-site I can often help right on your screen for \$49. Every visit comes with a 30-day, come-back-free guarantee. I don't do the licensed electrical or gas work myself — for that I'll help you line up a trustworthy local pro.

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Natural Gas vs. Propane: Two Fuels, Two Behaviors

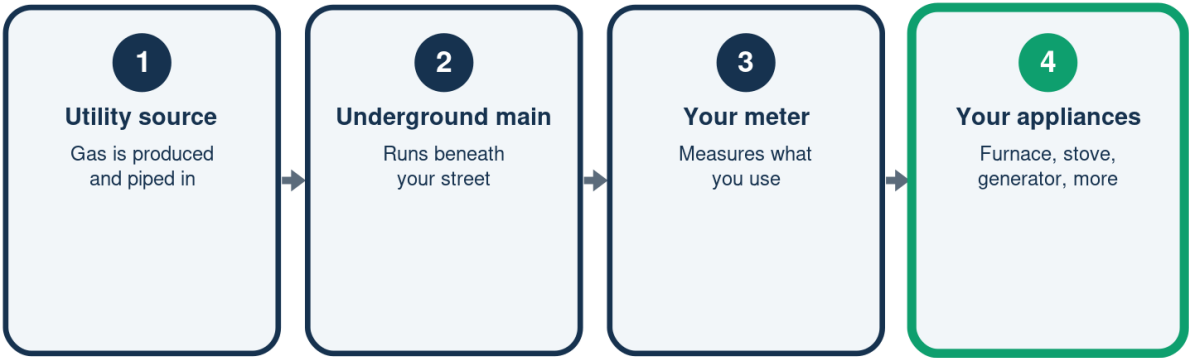
Both need respect -- they just act differently

	Natural gas	Propane
Weight vs. air	Lighter	Heavier
If it leaks	Rises, disperses	Sinks, pools low
Storage at home	None -- piped in	Tank on property
Hookup	Licensed pro	Licensed pro

Either way, a suspected leak gets the same response: leave, then call.

How Natural Gas Reaches Your Home

No tank, no delivery truck -- just a continuous line



As long as utility service is intact, so is your supply.

Piped Natural Gas vs. Stored Fuel

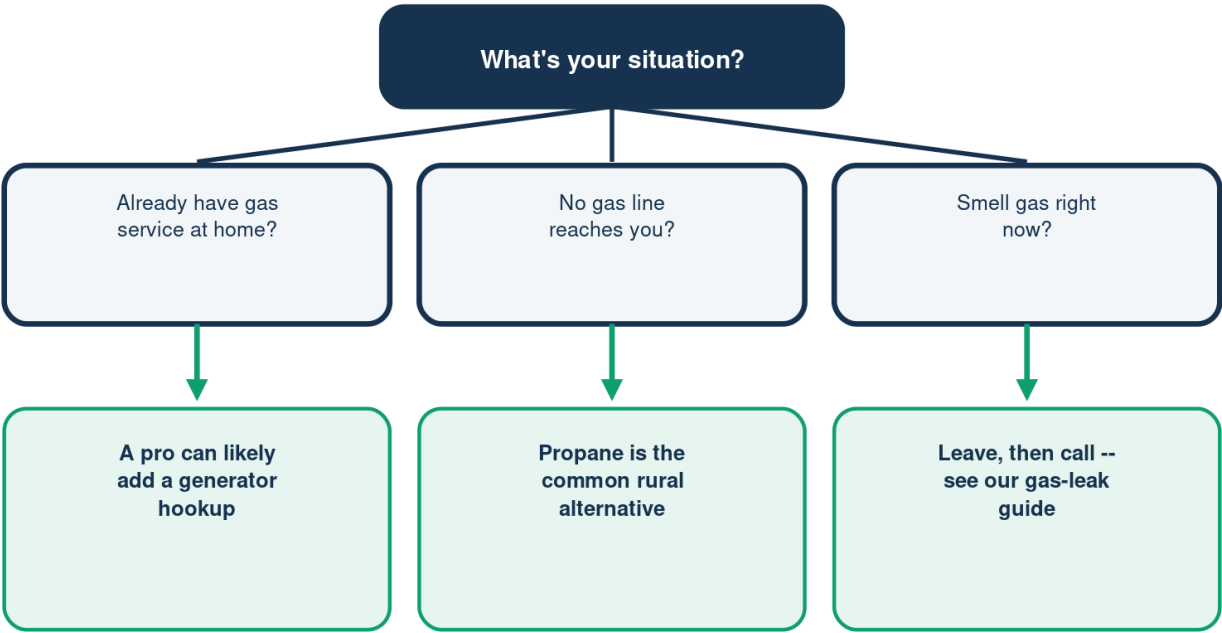
What you have to manage day to day

	Natural gas	Stored fuel
Goes stale?	Never	Gasoline can
Refill or delivery?	Not needed	Cans or tank
Storage space	None	Shed or garage
What you watch	Utility service	Level and age

Less to manage is the appeal -- the safety habits still matter.

Is Natural Gas an Option for You?

A quick gut-check before you call a pro



Never investigate a suspected leak yourself -- leave first, then call.

Illustration - a schematic, not to scale. Your setup may differ.



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A Note From Bill

A quick note from Bill.

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— *Bill*



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