



An Extended Guide · No. 1268

Gasoline vs. Propane vs. Natural Gas: Which Fuel, When

Which fuel to reach for, and when

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! Before you begin — a quick safety note.

This guide covers work involving engine exhaust and stored fuel, which can cause serious injury, fire, or property damage if something goes wrong. It's here for general information only, not professional advice. If you're not completely comfortable — or if your local codes require a licensed pro — please stop and hire a qualified generator installer. Turn off the power at the breaker before any electrical step. Never work on gas lines yourself; if you smell gas, leave right away and call your gas company or 911. There's no shame in calling a pro — that's often the smart, safe choice. You follow this guide at your own risk. — Bill

A Note From Bill

If you've already got a dual-fuel or tri-fuel generator — or you're deciding on one — sooner or later you'll ask the same question I hear all the time: “which fuel should I actually use?” That's exactly what this guide is for.

I'm not going to tell you there's one right answer, because there isn't. Gasoline, propane, and natural gas each pull their weight in different situations. My job here is to lay out the honest trade-offs so you can make the call with confidence, whether that's tonight or during the next storm.

What you'll get out of this guide

- The honest trade-offs between gasoline, propane, and natural gas
- Why the power rating changes depending on which fuel you use
- Which fuel tends to hold up best in a long outage
- How your town or country setting changes the calculus
- The safety habits that matter no matter which fuel you pick

★ New to dual-fuel generators?

If terms like “dual-fuel” and “tri-fuel” are still new to you, the first guide in this series covers the basics from the ground up. This one picks up from there. Questions anytime — (330) 200-8042.

The Whole Comparison in One Page

Short on time? Here's the entire fuel comparison distilled down.

- ❑ Gasoline makes the most power and is easy to find on a normal day — but it goes stale, and gas stations can be dark in a wide outage.
- ❑ Propane makes a little less power (often around 10% less than gasoline) but stores for years and is ready and waiting in a tank.
- ❑ Natural gas makes the least power of the three, but if your home has it, it never runs out as long as the gas system is up.
- ❑ None of these is “best.” The right one depends on your outage length, your storage space, and whether you have a gas line.
- ❑ Whichever fuel you run, the same safety rules apply: outdoors only, far from the house, and handled with care.

✓ Keep more than one option

Most households do best leaning on one fuel as their go-to and keeping a second on hand as backup. You don't have to pick a permanent favorite.

Three Fuels, Three Personalities

Before comparing numbers, it helps to know each fuel's general reputation — the way you'd size up three different tools in a toolbox.

Fuel	In a word
Gasoline	The familiar one — powerful, but needs tending
Propane	The patient one — sits ready for years
Natural gas	The hands-off one — as long as the pipe flows

None of these fuels is out to get you, and none is a miracle either. The trick is matching the fuel's personality to what your household actually needs.

★ **My honest read**

If I had to bet on one fuel to save the day for most families around here, it's propane. It waits patiently, it's easy to keep on hand, and it doesn't ask much of you.

Why the Wattage Number Changes With the Fuel

This surprises a lot of folks: the same generator doesn't make quite the same power on every fuel.

The big number printed on a generator's box is almost always its **gasoline** rating. Switch to propane and you'll typically get a bit less — **roughly 5 to 15% less, often around 10%** — because propane simply carries a little less energy per gallon burned. Switch to natural gas and the drop is a little more, since natural gas carries less energy for its volume than propane does.

- Gasoline: the highest number on the box
- Propane: typically about 10% less than the gasoline number (varies by model)
- Natural gas: lower again — check your unit's own natural-gas rating, not the gasoline one

! Size against the fuel you'll actually use

If propane or natural gas is your real plan for an outage, size your generator — and your expectations — against **that** fuel's rating, not the bigger gasoline headline. There's a whole guide in this series on sizing.

Which Fuel Can You Actually Get When It Counts?

Power on paper doesn't matter if you can't get your hands on the fuel. This is where propane and natural gas really earn their keep.

- **Gasoline** depends on a working gas station — and gas pumps need electricity too. In a wide, multi-day outage, station after station can be dark or have lines out to the road.
- **Propane** just sits in your tank, ready, whether the power's been out an hour or a week. No errands required if you planned ahead.
- **Natural gas** keeps flowing through the pipe as long as the gas utility's system is intact — you never have to think about “running out” at all.

This is the single biggest reason so many households choose a dual- or tri-fuel unit in the first place: it lets you lean on whichever fuel is actually available, instead of being stuck.

✓ Picture the third day

A generator that runs great for the first few hours is easy. Picture day three of an outage instead — that's when the fuel you can still get matters most.

What It Takes to Keep Fuel on Hand

How a fuel behaves sitting in your garage or yard is just as important as how it behaves in the engine.

Fuel	On the shelf
Gasoline	Good for a few months untreated; a fuel stabilizer stretches that well beyond a year
Propane	Essentially stores forever — no expiration to worry about
Natural gas	Nothing to store at all; it arrives through the pipe

If you like the idea of a fuel supply you can set up once and mostly forget, propane and natural gas both have real appeal. Gasoline asks more of you: fresh fuel, a stabilizer, and a bit of rotation. There's a full guide in this series just on storing fuel safely.

✓ **Little and often, or big and rare**

Gasoline rewards buying a little at a time and using it up. Propane rewards buying a bigger tank once and topping it off occasionally. Plan around which habit suits you.

The Everyday Trade-Offs

Prices shift too much for me to quote you numbers that would still be true next year — but the general shape of the trade-off holds steady.

- **Gasoline** is usually the cheapest fuel to buy per trip to the pump, but the running-around (and the stale-fuel waste if you forget a can in the shed) adds real hassle.
- **Propane** costs a bit more pound for pound, but a refill or exchange is a once-in-a-while errand instead of a constant one — and nothing goes to waste sitting in the tank.
- **Natural gas** is billed like your furnace already is — no separate fuel errand at all, though the hookup itself is a one-time professional cost.

Rather than chase exact prices, think about which kind of “cost” you'd rather pay: a few more dollars for convenience, or more errands to save a little.

★ I won't push you toward the expensive option

Plenty of my customers do just fine on gasoline alone for short outages. I'll help you weigh it honestly against your own budget and habits — no sales pitch.

How Each Fuel Handles an Ohio Winter

Cold weather treats each fuel a little differently — worth knowing before the first ice storm of the season.

- **Gasoline** generally starts fine in the cold, as long as it's fresh.
- **Propane** has to vaporize to feed the engine, and that process slows down as temperatures drop — a small tank can struggle to keep up on a bitter night.
- **Natural gas** arrives already vaporized through the pipe, so cold doesn't affect its delivery the way it affects a propane tank.

None of this rules propane out for winter — it just means a bigger, fuller tank matters more in January than it does in July. There's a dedicated guide in this series on cold-weather propane if that's your plan.

✓ Keep the tank fuller in winter

A propane tank that's kept reasonably full holds its pressure better in the cold than one running low. Simple habit, real payoff.

Choosing a Fuel in Town or the Suburbs

Town and suburban households usually have an option country homes don't: natural gas at the curb. That changes the math.

- **Check for a gas line first.** If your furnace or stove already runs on natural gas, a tri-fuel generator can tap that same hands-off supply.
- **Outages tend to be shorter.** A few hours to a day is common, so even gasoline alone can be perfectly workable if that's all you have.
- **Neighbors are close.** Whichever fuel you choose, keep the generator's noise and exhaust well away from windows and doors — yours and theirs.
- **Propane still shines for storms.** A couple of tanks kept in the garage or shed cover the in-between: longer than gasoline lasts, no hookup required.

A common town setup leans on natural gas or propane as the go-to, with a little fresh gasoline kept around for quick, short-notice needs.

✓ Renting or in a condo?

If a generator isn't practical where you live, a battery power station charged ahead of a storm covers phones, a lamp, and small medical devices without any fuel at all.

Choosing a Fuel When You're Rural or on a Well

Out in the country, the fuel question gets more serious — because for a well-water home, the generator isn't just about comfort, it's about running water.

- **No gas line usually means propane leads.** Without natural gas at the road, propane becomes the natural go-to fuel — store a couple of tanks and you're covered for days, not hours.
- **Outages run longer out here.** Help and repair crews have farther to travel, so plan fuel around days, not hours.
- **The well pump changes the sizing conversation.** Well pumps need a strong start and full 240-volt power — and remember, propane makes a little less power than gasoline, so size for that. There's a dedicated guide on well-pump backup.
- **Gasoline still has a place.** Keep a can or two fresh for topping off between propane deliveries, but don't count on it as your only plan for a multi-day outage.

A typical country setup is a dual-fuel generator sized generously, run on propane as the everyday plan, with 240-volt capability for the well pump and a good tank on hand before storm season starts.

★ Let's make sure water's covered

Backing up a well is the job I take most seriously. Sizing it right and setting up propane properly means you're never standing at the sink wondering if water's coming. Call anytime — (330) 200-8042.

Matching Your Fuel to How Long the Lights Stay Out

One of the simplest ways to choose a fuel is to think honestly about how long your outages usually run.

Typical outage	Fuel that tends to fit
A few hours	Whatever you have on hand — gasoline is fine
Most of a day	Propane, or gasoline if you're comfortable restocking
Several days or more	Propane (a bigger tank) or natural gas, if you have it

If you genuinely don't know how long your next outage will run — and nobody does — it's reasonable to plan for the longer end. That's the whole argument for keeping more than one fuel option available.

✓ **Look at your own history**

Think back over the past few years of outages at your address. That pattern is a better guide than any rule of thumb, mine included.

Does What You're Running Change the Fuel Choice?

The fuel question and the “what am I powering” question are cousins — worth a quick look at how they connect.

- **Medical devices** that must never lose power favor a fuel you can guarantee — a well-stocked propane supply is hard to beat for peace of mind.
- **A well pump** needs its full starting surge, and since propane and natural gas both make a little less power, you'll want to size generously if that's your fuel. There's a full guide on sizing in this series.
- **A short list of basics** — fridge, some lights, phone charging — is forgiving of almost any fuel, since the loads are modest.

The heavier and more critical the load, the more it pays to lean on a fuel you can count on lasting the whole outage, not just the first few hours.

✓ When in doubt, oversize a little

A generator (and fuel supply) that's a bit more than you strictly need is a comfortable cushion. Running short is the scenario to avoid.

No Matter the Fuel, This Rule Doesn't Change

Gasoline, propane, and natural gas all produce the same danger once they're burning inside that engine: carbon monoxide. Please read this page carefully.

Carbon monoxide, or CO, is **invisible** and has **no smell**. It doesn't matter which fuel made it — breathing enough of it can make you pass out, and it kills roughly a hundred people a year in the U.S., almost always in situations that were preventable.

- Run the generator **outdoors only**, at least **20 feet** from the house, exhaust pointed away from doors, windows, and vents.
- **Never** run it in a garage, basement, shed, crawlspace, or carport — even with the door open.
- Put **battery-backup CO alarms** on every level of the house and near bedrooms, and test them.
- If an alarm sounds, or anyone feels dizzy, headachy, or sick, get **everyone outside into fresh air** immediately and call 911.

! This rule has no fuel exception

It doesn't matter whether you're burning gasoline, propane, or natural gas — the exhaust is dangerous every time. Treat all three exactly the same on this point.

Safe Habits for Each Fuel

Beyond carbon monoxide, each fuel has its own handling habits worth doing the same careful way every time.

Fuel	Handle it this way
Gasoline	Store only in approved cans, cool and ventilated, away from living space and any flame. Let a hot engine cool before refueling.
Propane	Keep cylinders outdoors, upright, away from heat sources — never in the house or a hot car. Check hose and fittings for leaks with soapy water.
Natural gas	The hookup is a licensed pro's job. Know where your home's gas shutoff is, just in case.

! If you ever smell gas

Propane and natural gas both have a rotten-egg smell added on purpose so leaks are noticeable. If you smell it, don't flip switches or light anything — get away and call your gas company or 911 from a safe distance.

You Don't Have to Pick Just One Fuel

One of the nicest things about a dual- or tri-fuel generator is that you're not actually locked into a single choice.

- Many households keep **propane as the everyday plan** for outages, with a little fresh gasoline on hand for quick jobs or a backup.
- Homes with a gas line often let **natural gas do the heavy lifting** for long outages and keep propane or gasoline as a fallback if the gas system is ever disrupted.
- There's no rule that says you must use all three — plenty of happy customers use exactly one fuel, forever, and that's fine too.

Think of the extra fuel options as insurance, not a requirement. You reach for them only if your first choice runs short.

★ Ask me what I'd do at your house

The right mix depends on your gas access, your storage space, and how you like to plan. I'm glad to walk through your specific situation with you.

A Few Things People Get Wrong About Generator Fuel

A little myth-busting, because some of these ideas cause real confusion.

- **“Propane is too weak to bother with.”** Not true — it's a little less power than gasoline, not dramatically less, and for most households the difference doesn't matter much.
- **“Gasoline is always the safest bet because it's everywhere.”** It's everywhere on a normal day. In a wide outage, gas stations lose power too — that's the whole reason propane and natural gas exist as options.
- **“You can blend fuels for more power.”** No — you run on one fuel at a time, selected before you start the engine, never mixed.
- **“Natural gas means unlimited power for anything.”** It means unlimited **supply**, not unlimited wattage — it's still the lowest-power option of the three.

✓ When you're not sure, ask

If something you've heard about generator fuel doesn't sound quite right, it's worth a quick call rather than guessing. I'd rather answer a “silly” question than have you find out the hard way.

Questions Worth Asking Before You Decide

Rather than a rulebook, here are the honest questions I ask customers to help them land on a go-to fuel.

- ☐ How long do my outages usually run — hours, or days?
- ☐ Do I have a natural gas line already piped to my home?
- ☐ How much space do I have to store a propane tank or two?
- ☐ Am I comfortable keeping fresh gasoline on hand and rotating it?
- ☐ What am I most worried about losing power to — the fridge, the well pump, a medical device?

There's rarely a single “correct” answer. Most households land on a primary fuel that fits their home and habits, with a secondary fuel as a safety net.

✓ Write your answers down

Once you've thought through these, jot the answers on the cheat sheet at the back of this guide. It turns a vague plan into a real one.

When Each Fuel Shines

Sometimes it's easiest to see yourself in a scenario. Here are a few common ones.

If this sounds like you...	Lean on...
Short storms, a couple hours here and there	Gasoline you already keep around
No gas line, longer outages, want peace of mind	Propane, with a couple of tanks on hand
Gas line at the house, want the hands-off option	Natural gas as your everyday fuel
Well pump, rural home, multi-day outages common	Propane sized generously, gasoline as backup

If more than one row sounds like you, that's normal — plenty of households blend two of these into their plan.

✓ **This isn't permanent**

Your lean fuel today doesn't have to be your lean fuel forever. As your home or habits change — say, you add a gas line — it's easy to shift your plan.

A Quick Word on Changing Fuels Mid-Plan

If your first-choice fuel runs low, switching to another is one of the best features of a dual- or tri-fuel unit — done the right way.

The short version: you always switch fuels with the engine **off**, using the selector, then restart on the new fuel. Never try to change the selector while it's running. There's a full guide in this series that walks through the exact steps for your model type.

✓ Practice it once, calmly

Switching fuels for the first time during an actual outage, in the dark, is not the moment to learn. Try it once on a calm afternoon so it's familiar when it counts.

When to Give Me a Call

Deciding which fuel to lean on is a decision worth talking through, not guessing at — and I'm glad to help.

- Weighing propane against natural gas for your specific home
- Sizing a generator correctly for the fuel you actually plan to use
- Setting up safe propane storage or connecting to a natural-gas line
- Backing up a well pump on the right fuel and the right size
- Walking through your own outage history to build a fuel plan that fits

I come to you, here in Portage County and nearby, and I'll give you a straight, honest answer about which fuel makes sense for your home — never a sales pitch.

★ Bill's Home Tech

Call or text (330) 200-8042. Tech Made Simple, Service Made Personal. Every visit is \$99 flat and 30-day come-back-free.

Everyday Cheat Sheet

Dog-ear this page for a quick reminder of the fuel trade-offs.

I want to...	Remember this
Get the most power	Gasoline rates highest; propane about 10% less; natural gas less still
Plan for a long outage	Propane or natural gas outlast a gasoline supply
Store fuel and forget it	Propane stores for years; natural gas needs no storage at all
Keep it simple	Gasoline needs the least setup but the most tending
Stay safe	Same CO and handling rules apply no matter the fuel
Get help deciding	Call Bill: (330) 200-8042

Words People Use

A few fuel-related terms explained simply. No quiz at the end.

Q: Derate

The industry word for a generator making less power on one fuel than another — for example, less on propane than gasoline.

Q: Vaporization

How liquid propane turns into a usable gas to feed the engine — it slows down in cold weather.

Q: Stabilizer

An additive that keeps stored gasoline from going stale as quickly.

Q: BTU

A unit of heat energy used to compare how much “oomph” different fuels carry.

Q: Fuel selector

The knob or valve on a dual- or tri-fuel generator that picks which fuel the engine burns.

Q: Carbon monoxide (CO)

The invisible, odorless gas in engine exhaust that can kill — the same danger regardless of fuel.

The Three Fuels, Head-to-Head

The honest trade-offs, side by side

	Gasoline	Propane	Natural Gas
Power output	Most	~10% less	Less still
In a wide outage	Pumps may be down	Ready & waiting	Keeps flowing
Storage	Months, needs stabilizer	Years, no expiry	Nothing to store
Cold weather	Fine if fresh	Slows, needs bigger tank	Unaffected

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

How to Pick Your Fuel

Four quick questions, one good answer

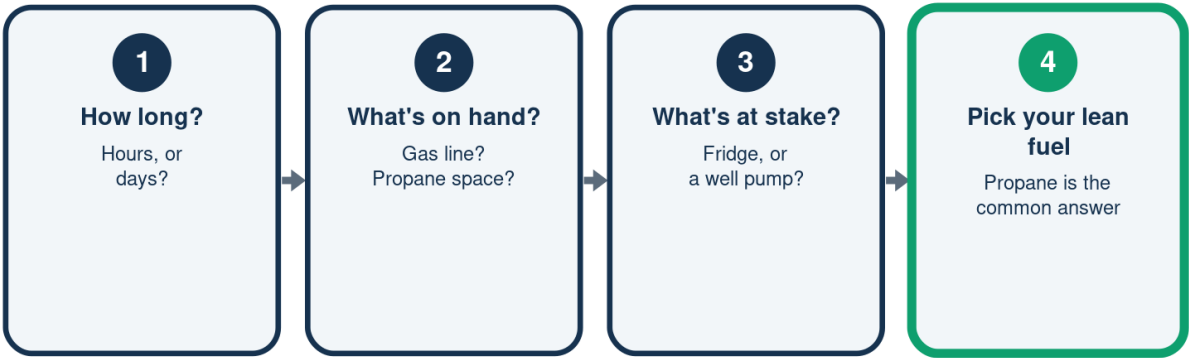
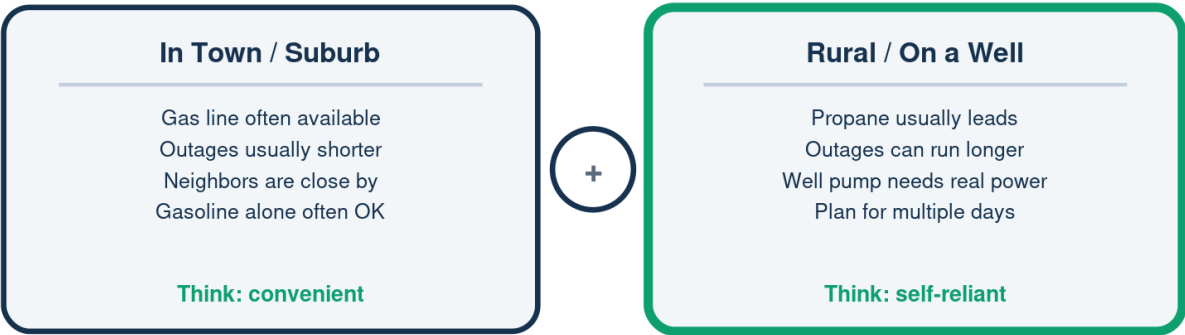


Illustration - a schematic, not to scale. Your setup may differ.

Town Fuel Priorities vs. Country Fuel Priorities

Same three fuels, different weight

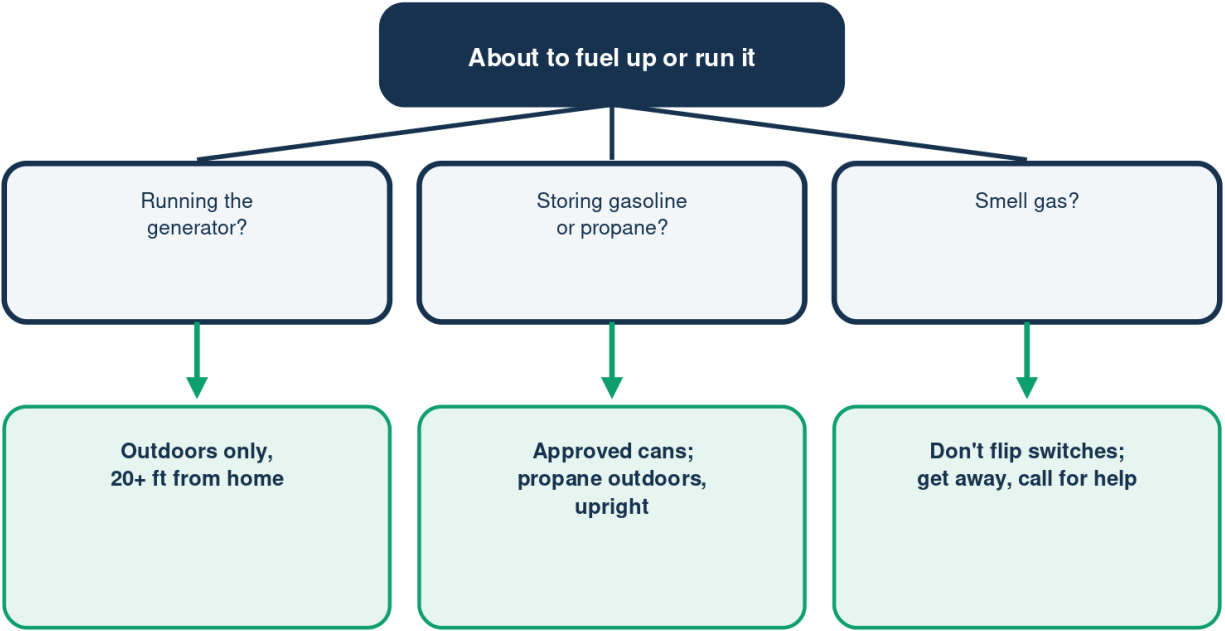


Same fuels — different priorities

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

Quick Fuel Safety Check

The same checks, every fuel, every time



If a CO alarm ever sounds: everyone outside to fresh air, then call 911.

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



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A Note From Bill

A quick note from Bill.

I write these guides to make home tech a little less frustrating, and I do my best to keep every step accurate and up to date. Still, every home, device, and setup is a bit different, so I can't promise a guide will match yours exactly or fix your particular problem. These guides are for general information only — they're not professional, legal, or financial advice, and they don't replace your device's own manual or the manufacturer's instructions. Please go slow, use your own good judgment, and use everything here at your own risk. If a step involves electrical wiring, a gas appliance, a water heater, plumbing, or climbing a ladder — or if anything just doesn't feel safe — please stop and call a licensed professional (or give me a call at 330-200-8042). Bill's Home Tech and Bill Davis can't be responsible for any damage, data loss, or injury that comes from using these guides. Thanks for reading, and stay safe out there.

— *Bill*



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