



An Extended Guide · No. 1637

Planning Your Fuel and Runtime

How long it runs, and
how much to have ready

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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. How long your generator runs on a tank depends heavily on what you ask it to power, and pushing it harder than you need burns fuel faster while adding to the same heat and exhaust we already treat carefully.

Let's plan your fuel and your runtime

How long will a tank of fuel actually last you? It's one of the most common questions I get, and the honest answer is 'it depends' — but that doesn't mean you can't plan for it well. This guide gives you a way to think it through, using your own generator's numbers, not a guess off the internet.

I'm Bill, and I run Bill's Home Tech here in Portage County, Ohio. I won't hand you a made-up gallons-per-hour figure in this guide, because it would very likely be wrong for your machine — instead I'll show you where the real number lives and how to use it.

We'll cover what actually drives runtime, how to read your manual, why running things in turns stretches your fuel, and how to plan a refuel window so you're never caught rushing.

★ There's no silly question here

If you're staring at your generator's manual and not sure how to apply the numbers to your own household, that's exactly the kind of thing I'm glad to help with. Call or text me at (330) 200-8042.

The whole guide, on one page

If you remember only these things, you'll plan your fuel and runtime with real confidence.

- ❑ Runtime depends mainly on the load you're powering — lighter loads stretch a tank much further.
- ❑ Your owner's manual gives runtime figures at specific loads for your exact generator — read it rather than guessing.
- ❑ Load cycling — running things in turns instead of all at once — makes a tank last noticeably longer.
- ❑ Plan a fuel reserve for the outage you realistically expect, plus a modest cushion.
- ❑ Plan refuel windows ahead of time so you're never forced to fuel a hot, running unit.
- ❑ Propane runtime is set by the tank size, not a freshness clock — keep enough full cylinders on hand.

✓ Your manual, not a guess

Every generator is a little different. Whenever a specific number matters, your owner's manual is the one accurate source for your machine.

Why I won't hand you a gallons-per-hour figure

This is worth explaining up front, because it's a little different from what you might expect.

Runtime varies too much by generator model, by load, and by conditions for any general guide to state a single figure as fact. The honest and accurate source is your own owner's manual, which was tested on your exact engine and generator, not a general-purpose estimate.

A number quoted here that doesn't match your machine could leave you short on fuel at the worst possible time. Staying general on the specifics, and pointing you to the real source, is genuinely the safer and more honest answer.

✓ Your manual has the real numbers

Look for a runtime or fuel-consumption table in your owner's manual — most list figures at a couple of different load levels.

What actually drives runtime: the load

Once you understand this one idea, the rest of this guide makes sense.

A generator burns fuel to make power, so the harder it's working, the faster it burns through a tank. A heavier load — more things running, or things that draw more power — shortens runtime. A lighter load stretches it considerably further.

- Lighter loads: a fridge, some lights, and charging small devices.
- Heavier loads: several large appliances at once, or equipment like a well pump or air conditioner running alongside everything else.
- The same generator can run for very different lengths of time on the same tank, depending entirely on what it's asked to power.

✓ Less load, more time

If stretching your fuel matters to you, the single biggest lever you control is how much you ask the generator to power at once.

Inverter generators and why they sip fuel

If you own, or are considering, an inverter generator, this page matters especially for you.

An inverter generator can automatically adjust its engine speed to match the actual load, rather than always running at a fixed, full speed the way many conventional generators do. Powering a light load lets the engine throttle down and sip fuel, which can stretch a tank considerably further than you might expect.

If you're not sure whether your generator does this, check your owner's manual — it's often described as an 'eco mode' or similar feature, and the manual's runtime table usually shows just how big the difference is between a light load and a full one.

✓ A genuine advantage for light loads

If most of what you power during a typical outage is light — a fridge, some lights, some charging — an inverter generator's throttling can be a real fuel-stretching advantage.

Reading your manual's runtime table

This table is the single most useful page in your generator's manual for planning purposes.

Most manuals list runtime at a couple of different load levels, often described in the manual's own terms, such as a lighter, everyday load and a heavier, fuller load. Find the load level closest to what you'd realistically run, and use that figure as your planning baseline.

- Locate the runtime or fuel-consumption section, usually near the specifications.
- Match the load level shown to what you'd actually power during an outage.
- Treat the figure as a helpful baseline, not an exact guarantee — real-world conditions shift it a little.
- If you've lost the manual, the manufacturer's website or customer support can usually help.

★ I'm glad to help you read it

If you have the manual in hand but aren't sure which figure applies to your household, that's an easy thing to work through together. Call (330) 200-8042.

Load cycling: run things in turns

This is one of the simplest habits in this whole guide set, and one of the most effective.

You don't have to run everything at once. Running the fridge for a while, then the furnace, then charging phones, rather than powering all of it simultaneously, asks less of the generator at any given moment — and that lighter, cycled load makes your fuel last noticeably longer. Our guide on how much fuel to keep and how to rotate it touches on this same idea from the supply side.

- Group your needs into a rotation: cold storage, then heat, then small electronics.
- Let each item run for a reasonable stretch before switching to the next.
- Save your heaviest, occasional needs for their own turn rather than adding them on top of everything else.

✓ A free way to stretch your fuel

Load cycling costs nothing and requires no equipment — just a little planning about what runs when.

Building a reserve around the outage you expect

Once you know roughly how your generator behaves, sizing a reserve gets much easier.

Think in terms of days, not an exact fuel figure: how many days of outage do you want to be ready for, and could you safely refill during that stretch? Plan enough fuel for that realistic outage, plus a modest cushion — our guide on how much fuel to keep and how to rotate it covers sizing that reserve, and our storm fuel-prep guide covers getting it topped off calmly before a forecast storm.

Resist the pull toward a much bigger number 'just in case.' A reserve you can actually store safely and rotate is worth more than one so large it becomes its own hazard.

✓ Days, not gallons

Thinking in days of coverage, rather than chasing an exact fuel figure, is the calmer and more realistic way to plan.

Plan your refuel windows before you need them

This is where runtime planning meets one of the most important safety rules in this entire guide set.

If you have a sense of how long a tank lasts at the load you're running, you can plan to shut the generator off and refuel during a natural lull — before it runs dry — rather than scrambling the moment it sputters out. That planning is exactly what makes it easy to always refuel only when the unit is off and cool, as our guide on refueling only when it's off and cool covers in full.

Without a plan, low fuel tends to arrive as a surprise, and surprises are exactly when people are tempted to rush a refuel before the engine has properly cooled.

! Planning removes the temptation to rush

A generator that goes quiet because you shut it off on your own schedule is a calm, safe pause. One that runs dry unexpectedly invites exactly the shortcut this guide set warns against.

Propane runtime: by the tank, not the clock

If your generator runs on propane, planning looks a little different.

Propane runtime comes down mostly to the size of the cylinder or tank and the load you're running, not a freshness clock the way gasoline's shelf life works. Our guide on matching the right fuel to your generator, our propane cylinder storage guide, and our propane tanks guide cover the sizing and supply side in full.

The planning idea is the same either way: know roughly how long your setup runs at your realistic load, and keep enough cylinders or tank capacity on hand for the outage you expect.

✓ Same planning, different fuel

Whether it's gasoline or propane, the planning question is identical: how long does this last at the load I actually run, and do I have enough of it ready.

Two kinds of homes, two sets of needs

How much runtime planning you need, and how big a reserve makes sense, depends a good deal on where you live.

If you live in town or the suburbs

In town or a close-in suburb, outages tend to run shorter, and a station is usually a short trip if you do need more fuel.

- Shorter typical outages mean less pressure to plan for many days of runtime at once.
- A smaller, well-rotated reserve usually covers the realistic outage length.
- Load cycling still helps — it just needs to stretch a shorter outage rather than a long one.
- A quick refuel run to a nearby station is a reasonable backup plan for an in-town home.

If you are out in the country on a well

Out in the country, outages can run for days rather than hours, and a well pump is often one of the biggest loads in the house, since without power the well stops too.

- Plan for more days of runtime, with a somewhat larger, still rotated reserve.
- A well pump can be a genuinely heavy load — factor it into your manual's runtime figures rather than assuming a light-load number applies.
- Load cycling matters even more here, since stretching a tank over several days adds up.
- A longer drive to fuel means planning refuel windows ahead of time is especially worthwhile.

★ Let's think through your real runtime

Tell me what you'd realistically run during an outage, and I'll help you make sense of your manual's numbers for your own household. Call (330) 200-8042.

A simple way to learn your own generator's number

Rather than trust a general figure, you can learn your machine's real behavior firsthand.

The next time you test-run your generator, time it: note how full the tank was, roughly what you had running, and how long it actually lasted. That real-world number, from your own machine under conditions close to how you'd actually use it, is more useful to you than anything a general guide could state.

You don't need to do this often — once or twice, under a realistic load, gives you a number you can trust for future planning.

✓ Your own test run beats any general estimate

A timed test under your actual conditions tells you more than a spec sheet ever could.

A few things that shift runtime a little

Beyond the load itself, a handful of everyday factors nudge runtime slightly one way or the other.

Colder outdoor temperatures, elevation, and how well-maintained the engine is generally can all shift runtime somewhat from your manual's baseline figure. None of these change the basic planning approach — they're just reasons to treat your manual's number as a helpful baseline rather than an exact guarantee.

Routine maintenance, following your owner's manual, keeps the engine running the way it was designed to and helps your real-world runtime stay close to what the manual describes.

✓ A baseline, not a guarantee

Build in a little cushion around your manual's runtime figure rather than planning to the exact minute.

Common mistakes people make

A handful of avoidable habits account for most runtime-planning trouble I see.

- **Guessing at a runtime figure** instead of checking the manual.
- **Running everything at once** and being surprised the tank empties faster than expected.
- **Never timing a real test run**, so the household has no idea what to actually expect.
- **Waiting until the tank is nearly empty** to think about refueling.
- **Assuming a well pump is a light load** without checking the manual's guidance.

! Surprises are the real risk here

None of these mistakes causes trouble on a calm day. They cause trouble during an outage, which is exactly when you can least afford a surprise.

A few loads worth planning around

Certain equipment deserves a little extra thought when you're planning runtime.

Some equipment, a well pump being the common rural example, cycles on and off and can draw more when it first starts than while it's running steadily. Running fewer big items at once, following the load-cycling idea from earlier, helps your generator — and your fuel supply — handle this kind of equipment more comfortably.

I'm a tech helper, not a licensed electrician, so I won't hand you exact power figures for your specific equipment — that's information your manual, the equipment's own documentation, or a licensed electrician can confirm for your setup.

★ I can help you think it through

If you're trying to figure out what your generator can comfortably handle alongside a big item like a well pump, I'm glad to help you think it through and line up an electrician if the wiring itself needs a look. Call (330) 200-8042.

Keep it simple: write your plan down

A plan that lives only in your memory is easy to lose track of exactly when you need it most.

Once you've worked out your generator's realistic runtime and your reserve, jot it down and keep it with your other home papers. During an actual outage, you want to be reading your own plan, not trying to remember or recalculate it under pressure.

- ❑ Your generator's runtime at the load you'd realistically run, from the manual or your own test.
- ❑ The size of your fuel reserve, and how many refuels it gives you.
- ❑ Roughly when each refuel window would fall, so you can plan it off and cool.
- ❑ Bill's number, for the day you'd rather just ask: (330) 200-8042.

✓ A drawer beats a memory

Five minutes writing this down now saves real stress during the next outage.

Questions worth asking

Whether you're reading your manual or asking me, these get you real answers.

Q: Why won't this guide just tell me how many hours my tank lasts?

Because it genuinely depends on your specific generator and load, and a wrong guess could leave you short. Your owner's manual has the real figure for your machine.

Q: Does running fewer things really make that much difference?

Yes — a lighter load asks less of the engine, and on an inverter generator especially, it can stretch a tank considerably further.

Q: How do I know how big a reserve to keep?

Think in days of outage you want to cover, plus a modest cushion, then see how many tanks that takes based on your manual's runtime figure.

Q: What's the best way to avoid a rushed, hot refuel?

Know roughly how long a tank lasts, and plan to shut off and refuel during a calm window before it runs dry, not after.

✓ There's no silly question

Runtime and fuel math can feel more complicated than it needs to be. Ask until you're confident — that's exactly how you plan well.

A simple runtime-planning checklist

Walk through this once, and you'll have a real plan instead of a guess.

- ☐ I've found the runtime table in my generator's owner's manual.
- ☐ I know roughly what load I'd realistically run during an outage.
- ☐ I understand how load cycling can stretch my fuel further.
- ☐ I've sized a fuel reserve around the outage I actually expect, plus a cushion.
- ☐ I have a rough plan for when I'd shut off and refuel, before the tank runs dry.
- ☐ I've written the plan down somewhere I'll actually find it during an outage.

★ I'll help you build this plan

If you'd like help turning your manual's numbers into a real plan for your household, that's a quick, worthwhile visit. (330) 200-8042.

Safety doesn't change, however you plan your runtime

Runtime planning is about comfort and convenience — the safety rules underneath it never move.

However long your generator runs, and however you cycle the load, it still belongs outdoors, well away from the house, with the exhaust pointed away from every window, door, and vent. Longer runtimes simply mean more total hours of exhaust, which makes working carbon monoxide alarms even more valuable, not less.

And whenever a refuel window arrives, the generator gets switched off and given time to cool before any fuel touches it — no matter how well you planned the timing or how badly you want the power back on.

! A good plan still respects every safety rule

Planning your runtime makes life easier. It never changes the outdoor-only rule, the off-and-cool rule, or the need for working carbon monoxide alarms.

Common Questions

The runtime and fuel-planning questions I hear most often, answered plainly.

Q: Can two generators of the same size run for different lengths of time?

Yes — the load, the fuel, and even outdoor conditions all play a part, which is exactly why the manual's figures for your own machine matter more than a general rule of thumb.

Q: Is it worth buying extra fuel just to extend runtime?

Only within a sensible, rotated reserve sized for the outage you expect. Our guide on how much fuel to keep and how to rotate it, and our storm fuel-prep guide, cover sizing that reserve without over-buying.

Q: Does load cycling wear out the generator faster?

No — running it at a lighter, more moderate load is generally easier on the engine than running it flat out continuously.

Q: How do I plan runtime for a well pump specifically?

Check your manual for guidance on larger, cycling loads, and consider asking a licensed electrician to confirm what your wiring and generator can comfortably handle together.

★ 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 help you make sense of your own generator's numbers.

How this fits with the rest

Runtime and fuel planning ties several other habits together — here's how the pieces connect.

This guide covered what drives runtime and how to plan around it using your own manual. For sizing and rotating the fuel itself, see our guide on how much fuel to keep and how to rotate it, and for matching the right fuel to your machine in the first place, our guide on matching the right fuel to your generator.

When a storm is on the way, our storm fuel-prep guide walks through getting ready calmly, and whenever it's time to add fuel, our guide on refueling only when it's off and cool covers that moment safely.

★ 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 build a plan that actually fits your household.

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 planning your generator's fuel and runtime 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.

★ Bill's Home Tech — real help, close to home

Call or text me at (330) 200-8042, or visit BillsHomeTech.com. Serving Atwater and all of Portage County. 30+ years of patient, plain-English tech help — and if you're ever not 100% happy with a visit, I'll make it right or refund it. That's a promise. — Bill

Light Load vs. Heavy Load Runtime

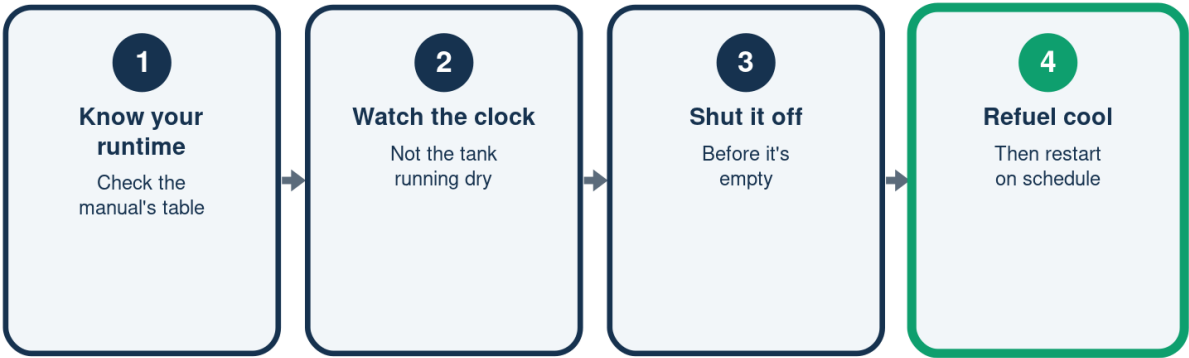
The load is the biggest lever on how long fuel lasts

	Lighter load	Heavier load
Runtime	Lasts longer	Burns faster
Typical load	Fridge, lights	Well pump, A/C
Inverter engines	Throttle down	Run near full

Your manual's table shows the real numbers for your machine.

Planning a Refuel Window

Plan it ahead so you never fuel a hot, running unit



Planning the window means you never fuel a hot, running unit.

Town vs. Rural Runtime Planning

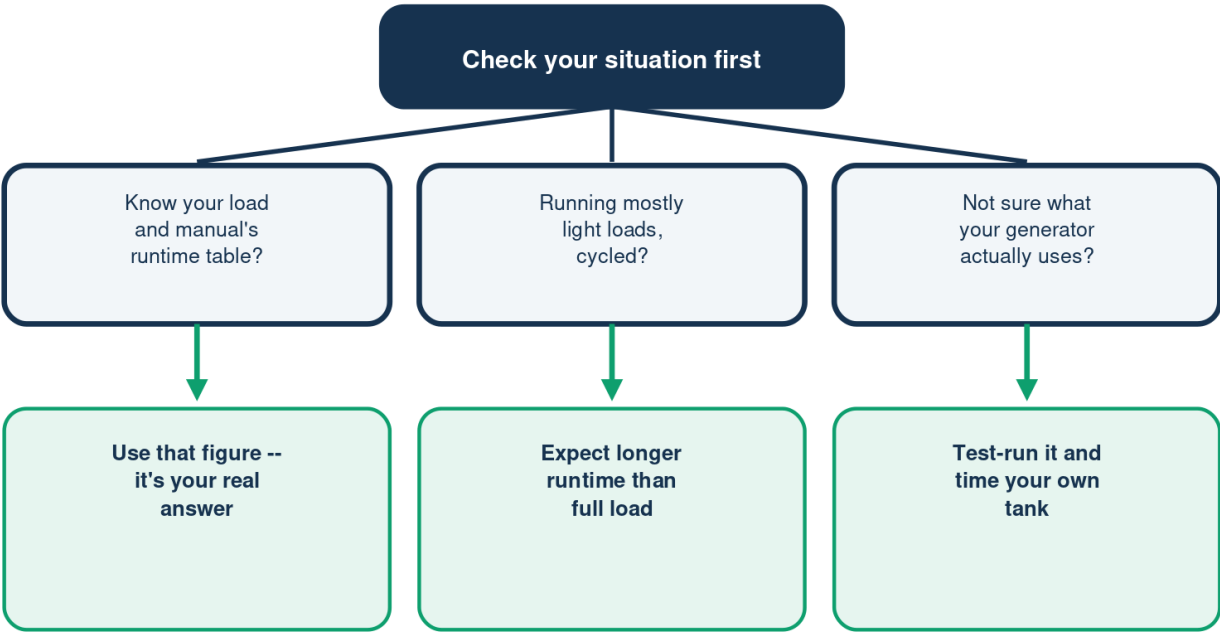
Same approach, different scale

	Town/suburb	Rural/well
Outage length	Often shorter	Can run longer
Big loads	Fewer, smaller	Well pump, more
Reserve	Modest	Larger
Refuel trips	Short drive	Real drive

Longer, harder-working outages call for a bigger cushion.

How Long Will My Fuel Last?

A quick way to think it through



When unsure, your own test run beats any general estimate.

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



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You just have to remember you can call.
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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.

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