



An Extended Guide · No. 1466

Solar Generator or Gas Generator for a Well-Water Home?

An honest plan for the country,
where the well pump rules

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✓ The best news first — this one is safe indoors

Here is the best news about a solar generator, and the reason it earns a place in your home: despite the word 'generator,' it has no engine. At its heart is a big rechargeable battery in a case — a power station — and the panels simply refill it from the sun. It burns no fuel, so it gives off no exhaust and no carbon monoxide — the invisible, deadly gas that makes a gas generator a strictly outdoors-only machine. That means the power station part is safe to use right inside your home, in any room, with the windows closed — beside your chair, on the nightstand, next to a medical device. (The panels sit outside in the sun; the station stays indoors where it is dry.) A few simple habits keep it that way: charge it with the gear it came with, give it a little air while it works (don't bury it under a blanket or shut it in a tight cabinet), keep it away from water and from baking heat, and never use one that is cracked, soaked, or swollen. Out here on a well, that indoor safety is exactly the role a solar generator plays best — it is the quiet, fume-free indoor half of a good rural plan, while a gas generator handles the well pump outside.

An honest backup plan for a well-water home

Country living is a fine thing, but the power lines run longer out here, and the outages tend to run longer with them — and when the power quits on a well, your water quits too. This guide gives you the honest picture of where a solar generator fits, and where it does not.

I'm Bill, and I help a lot of folks out past the edge of town here in Portage County. I'll give you the straight story, because on a well the wrong assumption is a thirsty one: a solar generator is a genuinely valuable part of a country backup plan, but on its own it is not the whole plan, and it cannot run your well pump. Knowing that clearly is what makes the rest simple.

So we'll walk through it one calm step at a time — the central truth about the well pump, why you need water put by, when a gas generator earns its place, and how the two machines make a strong team out here. Think of it as me sitting at your kitchen table, with nothing to sell you.

★ Let's plan for your place

Every country property is a little different — the well, the animals, how long your outages run. Tell me about yours and I'll help you build a backup plan that fits. Call or text (330) 200-8042.

The honest short version for a well home

If you read only one page, this is the whole rural picture in brief.

- ❑ When the power's out on a well, your water is out too — no tap for drinking, cooking, flushing, or the animals.
- ❑ A portable solar generator cannot run a 240-volt well pump — no amount of battery, panel, or sun changes that. Running the pump is a gas generator's job.
- ❑ So for water in an outage you need a gas generator, a good store of water put by, or — wisest of all — both.
- ❑ A solar generator is superb for the quiet indoor essentials: phones, the internet, medical devices, lights, and a CPAP overnight.
- ❑ The strong rural setup is usually both machines — a gas generator for the pump and heavy loads, a solar generator for the silent indoor half.
- ❑ Store drinking water no matter what; out here, outages run long.

✓ The one line to hold onto

On a well, the solar generator is the calm indoor half of your plan — not the whole plan by itself. Pair it with a gas generator for the pump, keep water put by, and you're genuinely ready.

When the power quits, so does your water

This is the fact that shapes every rural backup plan, so let's say it plainly before anything else.

A private well brings your water up with an electric pump sitting deep in the ground. No electricity, no pump — and no pump means no water coming out of any tap in the house. Not for drinking, not for cooking, not for washing, not for flushing the toilet, and not for the animals if you keep them. In town, city water keeps flowing no matter what the power does; out here on a well, it simply stops.

That's why a rural plan can't be only about lights and phones. It has to answer the water question first. Everything else in this guide — the gas generator, the stored water, the solar generator for the indoor essentials — is built around that one hard truth.

! Water is the rural question

In the country, the first thing an outage takes is your water, not just your lights. Plan your water first, and the rest of the plan falls into place around it.

Why a solar generator can't run the well pump

I won't soften this one, because believing otherwise leaves you without water when you need it most.

Most home well pumps run on 240 volts — twice the voltage of an ordinary wall outlet — and they need a big jolt of power just to start turning. That combination, 240 volts and a heavy starting surge, is beyond what a portable solar generator can deliver. In plain terms: a solar generator will not run your well pump.

And this isn't something you can buy your way around with a bigger battery or more panels. No amount of battery, panel, or sunshine changes the 240-volt fact. Running a well pump in an outage is a gas generator's job — a gas generator sized for the pump's surge and connected properly by a licensed electrician. I'll come back to that.

! Don't count on any battery for the well

Please don't plan to run your well on a solar generator. It can't, and believing it can leaves you dry in an outage. For the pump, think gas generator; for water in the meantime, think stored jugs.

Two honest ways to have water in an outage

Since the solar generator can't pump your well, water in an outage comes down to two approaches — and the wisest homes use both.

- **A gas generator for the pump:** sized for the pump's big starting surge and wired in by a licensed electrician, it runs the well long enough to fill your pressure tank and your containers, then rests.
- **A good store of water put by:** jugs and containers filled ahead of time, so you have drinking, cooking, and flushing water on hand the moment the power goes — no machine required.
- **Both, ideally:** stored water covers you from the first minute and through the night; the gas generator refills the tank and your jugs during the day. Together they never leave you dry.

✓ Belt and suspenders on water

Stored water is your instant, no-fuss supply; the gas generator is how you make more. Keep both and a long rural outage never costs you your water.

The best rural plan is usually both machines

For most well homes, the happiest answer isn't one machine or the other — it's two, each doing exactly what it does best.

A gas generator, run safely outdoors, handles the heavy lifting: the 240-volt well pump through a proper hookup, and other big loads besides. A solar generator handles the quiet indoor half — a CPAP by the bed, the phones and internet, lights through the house, a medical device — all silent and fume-free, right inside where you are.

Split the work this way and each machine plays to its strengths. You aren't dragging a noisy engine's worth of fumes toward the house just to charge a phone, and you aren't asking a battery to do a job it physically can't. The gas generator does the big, occasional work; the solar generator does the steady, gentle, all-hours work.

★ I'll help you build the pair

For a well home I usually suggest exactly this pairing, sized to your place. I'll help you choose both and line you up with a licensed electrician for the generator's pump hookup. Call (330) 200-8042.

Why the two machines work so nicely together

The pairing isn't just about covering both jobs — it's genuinely efficient, and a great deal more pleasant to live with.

Here's the rhythm of it. You run the gas generator for a while — long enough to fill the pressure tank, cool the fridge back down, and top off your water containers — and then you shut it off. The heavy work is done in a burst. Meanwhile the solar generator hums along quietly indoors, carrying your essentials, and refills itself from the sun during the day.

That means you're not running a loud, thirsty engine all night just to keep a lamp and a CPAP going. The gas generator rests; the silent solar generator carries the night. Come morning, the sun tops the solar unit back up, and you fire the gas generator only when the tank needs filling again. It saves fuel, spares your ears, and is far kinder at bedtime.

✓ Heavy work in bursts, quiet work all night

Let the gas generator do the big jobs in short stretches, and let the solar generator carry the calm indoor essentials the rest of the time. That division is the whole secret to an easy rural outage.

What the solar generator does beautifully

With the well pump set aside honestly, a solar generator earns its keep in all the other ways that matter out here — quietly, and safely indoors.

- **Keeps you reachable:** phones charged and, where the signal reaches, the internet and a medical-alert base — which matters more when help is farther away.
- **Runs medical devices:** a CPAP overnight or other small equipment, quietly and safely right in the bedroom. Our medical-equipment guide goes into the layers.
- **Lights the house:** lamps for hours, far safer than candles in an old farmhouse.
- **Keeps the fridge cold in cycles** and covers the small comforts — the outage-essentials guide has the full list of what to plan for indoors.

✓ Its rural job is 'everything but the pump'

Think of the solar generator out here as covering the quiet indoor life — communication, medical, light, cold food — while the gas generator takes the well and the heavy loads. Together they cover the whole picture.

What the gas generator is for — and its one strict rule

The gas generator is the muscle of a rural plan: it runs the well pump and the other heavy loads a battery can't. But it comes with a safety rule you must never bend.

A gas generator can run the 240-volt well pump, and it can refuel from a can any hour of the day or night, rain or shine. That's its great strength. To power the pump it has to be connected to your home's wiring through a transfer switch or an interlock — a job for a licensed electrician, never a makeshift cord. More on that hookup shortly.

The rule that matters most, though, is where it runs. A gas engine gives off carbon monoxide, and that is not a thing to take lightly, out here or anywhere.

! A gas generator runs outdoors only — always

Carbon monoxide is invisible, odorless, and deadly, and it kills dozens of people a year, usually from a generator run too close to the house. Run a gas generator outdoors only — the safety agencies say at least 20 feet from the house, never in a garage or shed even with the door open, with the exhaust pointed away from every window and vent. Put battery-powered carbon monoxide alarms inside. The solar generator, by contrast, is safe right indoors.

Two kinds of homes, two sets of needs

Out here, what you need depends less on your zip code than on one plain thing: where your water comes from. That single answer decides whether a solar generator can carry the plan alone, or needs a gas generator alongside it.

If you live in town or the suburbs

Whether you're in a village, on the edge of town, or out in the country hooked to a rural water district, the deciding question is the same — and it's your water, not your address. If your water comes from a main or a district rather than a private well, it keeps flowing from the utility whether your power is on or not. With no pump of your own to run, the big 240-volt problem simply isn't yours, and a solar generator alone may well cover your essentials.

- Water from a main or a district means no private pump for you to power in an outage.
- That takes the one job a solar generator can't do off your list entirely.
- A solar generator easily carries the indoor essentials — lights, phones, the internet, a CPAP — through a typical outage.
- It's still wise to keep some drinking water put by, since any water system can have its own hiccups.

If you are out in the country on a well

If your water comes from a private well on your own property, an electric pump brings it up — and that changes everything. When the power quits, that 240-volt pump quits with it, and a solar generator can't run it, sun or no sun. For water you'll want a gas generator for the pump, a good store of water put by, or — wisest of all — both, with a solar generator handling the quiet indoor half.

- The 240-volt well pump is a gas generator's job, wired in by a licensed electrician — never a solar generator's.
- Store drinking water ahead of time; it's the single most important rural step.
- Keep the solar generator for the indoor essentials — medical devices, phones, lights — quiet and safe inside.
- The strong setup is both machines: gas for the pump and heavy loads, solar for the calm indoor half.

★ Not sure which describes your place?

Tell me where your water comes from — a private well, a rural district, or a town main — and how long your outages tend to run, and I'll help you see exactly what you need. Call (330) 200-8042.

Store water no matter what you decide

Whatever machines you end up with, stored water is the foundation of a well-home outage plan. It's cheap, it's simple, and it matters enormously.

- **Drinking and cooking water:** keep a supply of bottled or jugged water set aside, and rotate it now and then so it stays fresh.
- **Water for flushing:** a few filled jugs or buckets let you flush by pouring straight into the bowl — easy to forget until you need it.
- **Water for the animals:** plan extra if you have livestock or pets that depend on the well.
- **A little more than you think:** rural outages run long, so err on the generous side every time.

! Stored water is a safety item, not a nicety

For a well home, keep an adequate supply of safe drinking water on hand for everyone in the household for several days, and make sure the whole family knows where it is. Even the best gas generator can fail to start; stored water never does.

When a solar generator alone may be enough

Not every country home is on a private well, and not every home needs a gas generator. Here's when the quiet solar unit can carry the plan by itself.

The deciding factor is that 240-volt well pump. If you don't have one to run, the single job a solar generator can't do simply isn't on your list — and a solar generator, refilled by the sun, can comfortably cover your essentials through even a long outage.

- **You're on a water main or a rural water district:** the water keeps coming from the utility, so there's no private pump for you to power.
- **You keep stored or gravity-fed water** and only need the indoor essentials — lights, phones, the internet, a medical device.
- **Your heavy loads are few:** no big 240-volt equipment you must keep running when the power's down.

✓ No private pump changes everything

Take the 240-volt well pump off the list and a solar generator often becomes plenty on its own. It's the pump, more than anything, that calls for a gas generator too.

When you truly do need a gas generator

On the other hand, some rural homes genuinely need the gas generator, and it's better to know that plainly than to hope your way around it.

If your water depends on a private well you have to keep pumping, a gas generator isn't a luxury — it's how you keep water flowing through a long outage. The same goes for other big 240-volt loads a battery can't carry. Our solar-vs-gas-generator guide lays the full comparison out side by side.

- **A private well you must keep pumping:** the clearest reason of all — the 240-volt pump is a gas generator's job.
- **Other heavy 240-volt loads:** the kinds of big equipment that draw far more than a portable battery can give.
- **Long, frequent outages** where you'd otherwise run a battery dry before the sun could refill it.

! On a well, plan for the pump honestly

If you're on a private well and rely on it, don't let a run of short outages fool you. Sooner or later a long one comes, and that's when the gas generator for the pump earns every bit of its keep.

Wiring the gas generator in, done right

Since the gas generator carries the well pump, it has to connect to your home's wiring the proper way. This is the one part I don't do myself.

To run a 240-volt well pump, a gas generator needs to feed your home's circuits through a transfer switch or an interlock — a small piece of equipment, installed at your electrical panel, that safely keeps the generator and the utility power from ever meeting. That protects your home's wiring, your pump, and the line workers out fixing the outage. It is never something to rig up with a homemade cord.

That panel work is a licensed electrician's job, plain and simple. I'm a tech helper, not an electrician, so I don't do it myself — but I do line one up for you. I'll help you pick the right gas generator and solar generator, then bring in a trustworthy local electrician for the pump hookup, and keep the whole thing moving so you're not left chasing it.

★ I coordinate the licensed electrician

One call to me and I'll get it going: the right machines chosen, and a licensed electrician lined up for the transfer switch or interlock. I stay in it start to finish so nothing falls through the cracks. (330) 200-8042.

Sizing each machine to your place

The two machines are sized in two different ways, because they're doing two different jobs. Here's the plain idea of each — no numbers to memorize.

Sizing the gas generator

The gas generator has to be big enough to start and run your well pump, and that starting surge is what matters most. An electrician or your well company can tell you what your particular pump needs. If you want it to run other heavy things too, that's added on top of the pump.

Sizing the solar generator

The solar generator is sized to your indoor essentials instead — the handful of quiet things you want running through an outage, and how long you need them to last between refills from the sun. It's a gentler, simpler question, and our sizing guide walks you right through it.

✓ Two jobs, two sizes

Size the gas generator to the pump's surge; size the solar generator to your indoor essentials. Get each one right for its own job and you won't overbuy either.

What a well-home outage actually looks like

Put the pieces together and a rural outage stops being a scramble. Here's how a well-planned one tends to go.

The power goes out in the afternoon. You already have water put by, so nobody's caught short at the tap. As evening comes you switch on the solar generator indoors — a lamp or two, the phones, the internet, and later the CPAP by the bed — all quiet, all safe inside. You sleep with no engine roaring out in the yard.

In the morning, you roll the gas generator out well away from the house, start it, and let it run the well pump for a stretch — filling the pressure tank and your water jugs, cooling the fridge back down — then shut it off. The sun climbs, and the solar generator refills from its panels for another quiet night. That's the rhythm: heavy work by day in short bursts, calm essentials all night long.

✓ A rhythm, not an emergency

With water stored, a gas generator for the pump, and a solar generator for the indoors, a rural outage becomes a routine you settle into — not a crisis you fight.

Common rural mistakes to avoid

A few missteps trip up well homes in particular. Here's how to skip them.

- **Expecting a solar generator to run the well pump.** It can't — 240 volts and a big surge is a gas generator's job. Plan the pump separately.
- **Not storing water.** The single most important rural step, and the easiest to forget until you're thirsty.
- **Planning for a short outage.** Out here they run long — plan a way to refill the solar unit, and enough water and fuel to ride it out.
- **Running the gas generator too close to the house.** Carbon monoxide is deadly; it belongs well away from the house, outdoors only.
- **Leaving the solar generator in a cold barn.** Keep it in the heated house so it's ready and unharmed when you need it.

! The one assumption to drop

The mistake that catches folks is assuming some battery, if it's just big enough, will handle the well. It won't. Build the plan around stored water and a gas generator for the pump, with the solar generator for everything else.

Questions worth asking the pros

A few quick questions to the right people make your rural plan solid. Jot the answers down.

- Is my well pump 120-volt or 240-volt, and how big is it? (Ask your well company.)
- What size gas generator and what hookup would my pump need? (Ask a licensed electrician.)
- Does my well have any option for a hand-pump or manual backup? (Ask a well professional.)
- How much stored water should my household and animals keep for a long outage?
- Which indoor essentials do I most want a solar generator to carry?

★ Bring me the answers

Once the well company and the electrician have weighed in, I'll help you turn it all into one working plan — the machines, the water, the recharging, and how it all fits together. Call or text (330) 200-8042.

A simple rural backup checklist

Keep this handy as you get ready. Check each box and you'll have the whole picture covered.

- ☐ I've stored enough safe drinking water for several days — for people and animals.
- ☐ I know my well pump is a gas generator's job, not a solar generator's.
- ☐ I've planned a gas generator for the pump, wired in by a licensed electrician, if I rely on the well.
- ☐ I've a solar generator for the quiet indoor essentials, kept in the heated house.
- ☐ I know how I'll refill the solar unit — from the sun, and from the wall when the power's back.
- ☐ The whole household knows the plan and where the water is kept.

★ Let's fill in your checklist together

Send me your must-run list and tell me about your well, and I'll help you size both machines and line up the electrician — no guessing, no overbuying. (330) 200-8042.

Where to go from here

Now that the big picture is clear, the rest of this series fills in each piece, one calm topic at a time.

If you're weighing the two machines, our solar-vs-gas-generator guide goes deeper on the comparison. When you're ready to shop, our sizing guide helps you land on the right size for each one. And for the indoor side, the outage-essentials guide and the medical-equipment guide help you decide exactly what you want the solar generator to carry.

There's no need to read them all at once, or in order. Pick the question that's on your mind today, and come back to the others when you need them. Every one is written the same plain way, with nothing to memorize.

✓ One question at a time

You don't have to become an expert to be ready. Learn just enough to make today's decision, and lean on the guides — or on me — for the rest whenever you like.

Common Questions

The questions I hear most from country homes on a well, answered honestly.

Q: Can a solar generator run my well pump?

No. Most well pumps are 240-volt and need a big surge to start, which is beyond any portable solar generator, whatever its size. Running the pump is a gas generator's job, through a proper hookup by a licensed electrician.

Q: Then why bother with a solar generator out here?

Because it does everything else, quietly and safely indoors — phones, the internet, medical devices, lights, a CPAP overnight. It's the calm indoor half of the plan while a gas generator handles the pump and the heavy loads.

Q: Do I really need both machines?

If you're on a private well you rely on, usually yes — a gas generator for the pump and a solar generator for the indoor essentials. If you're on a water main or rural district, a solar generator alone may well be enough.

Q: How do I get water during an outage?

Store drinking water ahead of time, and run a gas generator to power the pump and refill your tank and jugs. Ask a well professional whether a hand-pump backup suits your well. The solar generator can't pump water, so stored water is essential.

Q: Isn't running a gas generator dangerous?

Only if it's run wrong. It must be outdoors only, well away from the house — the safety agencies say at least 20 feet — with the exhaust aimed away from windows and battery carbon-monoxide alarms inside. Run that way it's safe; the solar generator, meanwhile, is fine right indoors.

★ Still have a question?

Country backup is worth getting right before the next big storm. Call or text me at (330) 200-8042 and I'll give you a straight, friendly answer.

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 backup for a rural well-water home 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 licensed electrical work myself — for anything that needs to be wired into your home, 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

Two Jobs, Two Tools

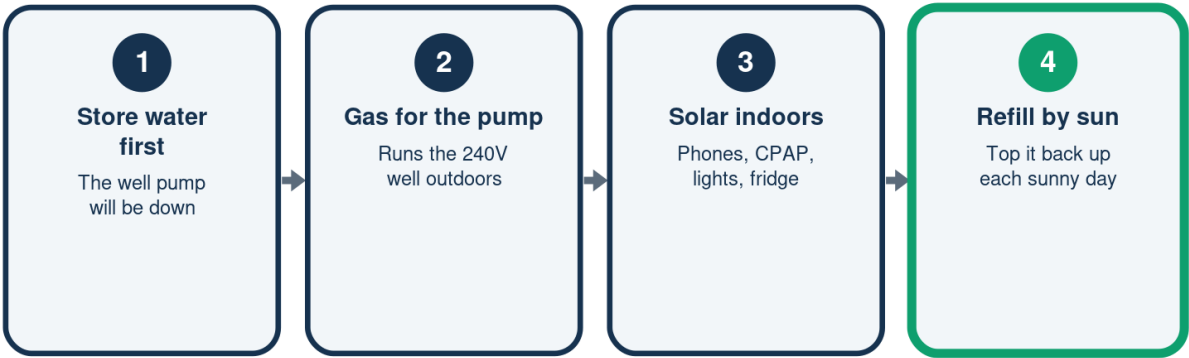
A well home really has two power jobs

	The well pump and heavy loads	Quiet indoor essentials
Best tool	A gas generator	A solar generator
Where it runs	Outdoors only	Safe indoors
How it refills	Gas or propane	Sun or wall
Runs it	The 240V pump	Phones, CPAP

Many well homes want both -- one tool for each job.

A Rural Outage Plan

Four steps for a well home when the power quits



Store water first; the well pump is a gas generator's job.

Solar vs. Gas for a Well Home

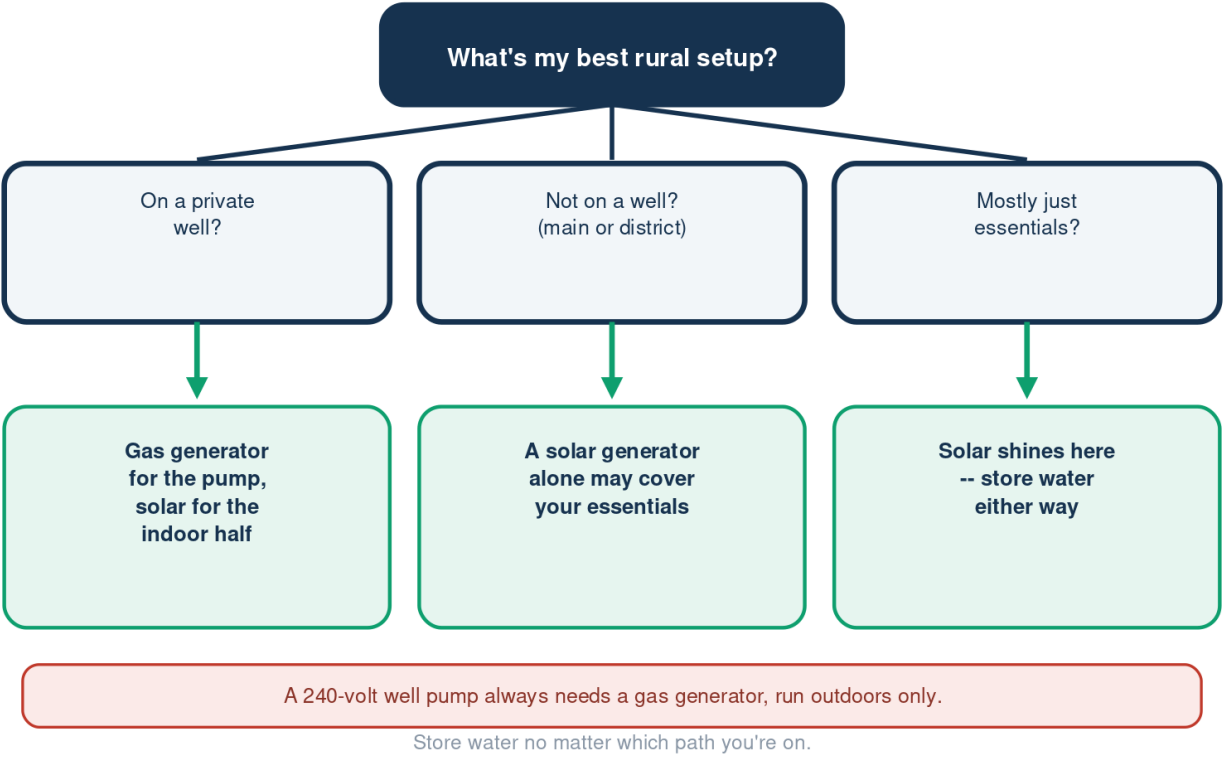
An honest side-by-side

	Solar generator	Gas generator
A 240V well pump	No	Yes, if large
Indoor essentials	Yes, safe inside	Outdoors only
Noise and fumes	Silent, none	Loud, exhaust
Refills	Sun or wall	Gas or propane

On a well, the honest answer is usually both.

What's My Best Rural Setup?

Let your water source point the way





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A Note From Bill

A quick note from Bill.

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— *Bill*



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