



An Extended Guide · No. 1490

A Simple Solar Backup Plan for an Outage

Before, during, and
after the power goes out

Tech Made Simple — Service Made Personal

BillsHomeTech.com · (330) 200-8042 · Atwater, Ohio

Free & printable — share it with someone who needs it



Book a visit —
billshometech.com/book

! Read this first — solar is safe, with a few easy habits

Here's the good news first: a portable solar panel is one of the safest ways to make your own power. There's no fuel, no flame, no engine, and no carbon monoxide, so it's welcome right on a patio, a balcony, or the grass — no fumes to worry about. A panel sitting in the sun is still quietly making real electricity, though, so a few gentle habits keep it trouble-free: keep the plugs and connectors dry, never let the two bare metal ends touch each other, and don't use a panel or cable that's cracked, frayed, or chewed. Always plug a portable panel into a power station or battery — never straight into your home's wall outlets or breaker panel. Set it where no one will trip over the cord, and if anything ever looks scorched or feels too hot to touch, unplug it and let it cool. Because a solar panel is quiet and clean, your whole outage plan can sit right on the patio or balcony — there is nothing to vent and nothing to store fuel for.

Let's make a plan before you need it

The power will go out someday — a storm, a downed line, a blown transformer. The good news is that a little planning now, done calmly at the kitchen table, turns that day from scary into simply inconvenient.

I'm Bill, and I run Bill's Home Tech here in Portage County, Ohio. A question I hear a lot is 'what do I actually do when the lights go out?' This guide is my answer, laid out in three easy parts: before, during, and after.

We'll keep it plain and doable. A portable panel and a power station won't run your whole house, but they'll keep the things that matter most going — phones, lights, the internet box, and small devices — while you wait out the storm.

★ A plan beats a scramble

The families who ride out an outage calmly are the ones who thought it through beforehand. If you'd like help building your plan, that's exactly what I do — call or text me at (330) 200-8042.

The whole plan, on one page

If you remember only these, you're most of the way to a calm outage.

- ❑ Before: pair a panel with a power station, and keep that station charged full from the wall.
- ❑ Before: keep cables and adapters together, scout a sunny spot, and write down what must keep running.
- ❑ During: set the panel in the sun, aim it, and run your essentials from the station — adding them one at a time.
- ❑ During: keep the station in the shade, re-aim the panel through the day, and be patient when it's gray.
- ❑ After: recharge the station, let the panel dry, fold it, and put it away for next time.
- ❑ On a well? Store drinking water — a portable panel and station cannot run your well pump.

✓ The one habit that never fails

Charge your station full from the wall before a storm, then let the sun top it back up afterward. That way even a gray first day never leaves you waiting on the clouds.

The plan comes in three easy parts

You don't have to hold it all in your head. Think of it as three short chapters, and take them one at a time.

Before the outage is where most of the work lives — and it's the pleasant kind you do on a calm afternoon. During the outage is mostly routine once you're set up. After is just tidying up so you're ready for next time.

Part	When	The main idea
Before	On a calm day	Get matched, charged, and ready
During	Power is out	Set out the panel, run essentials
After	Power's back	Recharge, dry, fold, and store

✓ **Most of it is 'before'**

The secret to a calm outage is front-loading the effort. Do the 'before' steps once, on your own schedule, and the 'during' part becomes almost boring — which is exactly what you want.

Before: start with a matched pair

The foundation of the whole plan is a panel and a power station that fit each other. Get this right once and everything after is easy.

The station is the battery in a box that actually powers your devices; the panel just refills it from the sun. They need to match — the right connector, a voltage that fits the station's window, and a sensible size. Our how-they-work guide explains the pairing, and the buying-the-right-size guide helps you land on the right fit.

If you're starting fresh, a matched kit — a station and panel sold to go together — removes all the guesswork. Size it to your must-run list, not to the biggest thing on the shelf. Bigger than you need just costs more and weighs more to carry out.

★ Match it to your list, not the label

The best setup is the one that fits your home and what you'd actually want running — no more, no less. Tell me your list and I'll help you size it without overspending. First visit is a flat \$99. Call (330) 200-8042.

Before: charge the station full from the wall

If you do just one thing from this whole guide, make it this. It's the golden rule, and it costs you nothing but a little foresight.

Keep your power station topped up from a wall outlet, and charge it all the way full when a storm is in the forecast. That stored power is what carries you through — especially through the first cloudy day or two when the panel can't do much.

Here's the honest reason why. Solar leans on the sun, and the sky doesn't take requests. If the outage starts on a gray, rainy day, a panel alone might only trickle. A full battery means you're never waiting on the clouds — the panel just extends what you already have. Our cloudy-day guide is candid about what to expect.

! Don't count on solar alone through a storm

The mistake I most want you to avoid is counting on the panel to power you through from empty. Charge the station full first; treat the sun as a welcome refill, not the whole supply.

Before: keep your cables and adapters together

An outage is no time to hunt for the right cable in a dark drawer. A few minutes of tidying now saves real frustration later.

Keep the panel's cable, any adapter it needs to reach the station's solar input, and the station's own wall charger all in one place — ideally in a labeled bag or bin with the panel itself. Our connectors and compatibility guide explains which adapter bridges which plug, so you can confirm you have the right one before you ever need it.

While you're at it, test the whole chain on a sunny afternoon: plug it all together and watch the station's 'solar in' reading come to life. Practicing once, in calm daylight, means no surprises when it's raining and the lights are off.

✓ One bag, one home

Store the panel, its cables, the adapters, and the wall charger together, in one spot everyone in the house knows. A plan you can't find in the dark isn't much of a plan.

Before: scout your sunny spot

Know where the sun lands before you need it. On the day of an outage, you'll want to set the panel down and get right to work.

Walk your yard, balcony, or driveway on a sunny day and notice where the sun sits longest and strongest, with open sky and no shade from buildings, fences, or trees. A spot that faces generally south, here in Ohio, tends to do best. Our sun-angle guide goes deeper on aiming and tilting.

Remember the sun travels across the sky, so a morning-sunny corner may fall into shade by afternoon. Note a spot that stays clear as long as possible, and keep in mind you'll move and re-aim the panel through the day.

✓ Look for open sky

The best spot isn't just sunny now — it has open sky overhead and few things nearby to cast a creeping shadow. Scout it once and you'll know exactly where to head when the power drops.

Before: write your must-run list

The heart of a good plan is a short, honest list of what truly has to keep running. Everything else is a nice-to-have.

Sit down and write it out — on paper, kept with the panel. Start with the essentials and be realistic. A modest list, run from a charged station and refilled by the sun, will carry you a long way.

- **Phones and a tablet** — to reach family, check on neighbors, and get real information.
- **A lamp or two** — so evenings feel normal instead of nerve-wracking.
- **The internet box and Wi-Fi** — to stay connected if the network's up.
- **Any medical device** that must run — more on that on the next page.
- **Small comforts** — a fan, a radio, charging hearing aids.

✓ Rank it, top to bottom

Put the list in order of what matters most. If a long outage stretches your power, you'll run the top of the list first and let the rest wait for sun. Clarity now is calm later.

Before: water and medical needs

Two things deserve special care in your planning, because getting them right ahead of time matters most of all.

If you're on a private well, store drinking water before the outage. Your well pump is 240-volt and cannot run on a portable panel and station — that takes a generator or a large system and an electrician. Solar will still keep your phones and lights going, but it won't bring water up the well, so lay in what you'll need to drink and cook with.

If anyone in the home relies on a powered medical device, treat solar as one layer of the plan, never the whole plan. Charge the station full from the wall before a storm, keep the device maker's approved battery backups, and ask your equipment supplier and doctor how best to prepare. Our emergency phone-and-medical charging guide walks through this with the care it deserves.

! The well-pump reality

A portable panel and station cannot run a well pump — please don't count on it for water. Store drinking water, and keep any medical equipment's own backups on hand. If equipment fails and backup is low, or someone is in distress, call 911.

Two kinds of homes, two sets of needs

Your outage plan should fit where you live — how long the power tends to stay off, whether your water keeps flowing, and how much open sky you have to work with.

If you live in town or the suburbs

In town or the suburbs, outages are often shorter, and your water keeps coming from the city main whether the power's on or not. So your plan is about comfort and staying connected, not survival.

- A smaller station and one foldable panel usually cover the essentials — phones, lights, the internet box.
- A balcony, patio, or driveway is all the room you need; mind shade from nearby buildings and any HOA or lease rules.
- City water keeps flowing, so focus your plan on devices, light, and staying reachable.
- Top up the station between sunny spells, and you'll ride most outages without much fuss.

If you are out in the country on a well

Out in the country, outages tend to run longer — but you have open sky and plenty of sun, which suits solar well. Just plan around the two things it can't do for you.

- More space and sun make a larger station and panel worthwhile for a longer haul.
- Store drinking water: your 240-volt well pump cannot run on portable solar, storm or no storm.
- Solar still shines here — phones, lights, the internet, medical devices, tool batteries, and cycling a freezer a bit.
- Charge the station full before weather moves in, and re-aim the panel through those long, sunny country days.

★ Let's build the plan around your home

Tell me whether you're on city water or a well, how long your outages usually last, and what you'd want kept alive — and I'll help you size and practice a plan that fits. Call (330) 200-8042.

During: set the panel out and aim it

The power's out — now the plan pays off. First job: get the panel into the sun and pointed right.

Carry the panel to your scouted spot, unfold it, and prop it on its kickstand facing the sun, with the light hitting the face square. Keep the whole face clear of shade — even a railing's shadow across a corner drags the output down. Then connect it to the station's solar input, using the adapter you set aside.

Watch for the 'solar in' light or number to confirm power is flowing, and nudge the tilt until that number peaks. Our sun-angle and step-by-step charging guides show the aiming in detail, but the panel makes it easy: tilt, watch the number, stop where it's highest.

✓ Aim by the number

Don't trust your eye for the angle — trust the station's reading. Tilt the panel slowly and stop where the 'solar in' number is highest. That's the sun's sweet spot, found in seconds.

During: run your essentials, one at a time

With the station filling, you can start powering your must-run list. Go gently and it all behaves.

Plug your devices into the station's outlets — household-style plugs for lamps and the internet box, USB ports for phones. Add them one at a time rather than all at once, so you can see how each affects the station's charge and nothing trips it.

Work down your ranked list. Run the things that matter most, and let the lower items wait for a sunny stretch. Charge phones and top up devices during the day, while the panel is actively refilling, so you're using the sun as it comes.

✓ Charge the small stuff by day

Do your phone-and-device charging while the sun is up and the panel is working, and save the stored battery for the evening. Using the sun in real time stretches your power the furthest.

During: keep the station cool and re-aim

Two small habits through the day keep everything running its best — and both are easy to forget in the moment.

Put the panel in the sun, but keep the power station in the shade. Batteries don't like heat, and a station cooking in direct sun works harder and lasts less well. A shaded porch, a cooler spot indoors near the cable, or simply the panel's own shadow will do.

And re-aim the panel a few times as the sun crosses the sky. A panel set in the morning is off-target by afternoon, and a quick nudge to follow the sun noticeably boosts what you collect. Check the 'solar in' number each time to find the new sweet spot.

✓ Panel in the sun, station in the shade

That little phrase sums it up: the panel wants all the sun it can get, and the station wants to stay cool. Keep them apart that way and both do their best work.

During: patience on the gray days

Sooner or later the outage will hand you a cloudy day. Here's how to take it in stride.

On a heavily overcast day, the panel may make only a small fraction of its sunny-day output. That's not a failure — it's just the weather, and it's exactly why you charged the station full to begin with. Lean on the stored power, run the top of your list, and let the rest wait.

When the sun breaks through, get the panel back out and let it refill what you've used. Solar is a top-up, not a guarantee for every hour of every day. Our cloudy-day guide is honest about the slow stretches and how to plan around them.

✓ Slow the draw, ride it out

On a gray day, ease off the lower items on your list and stretch the battery. A little patience through the clouds, and the next sunny hour puts you right back on your feet.

After: recharge and reset

The power's back. Before you forget the whole thing, spend a few minutes getting ready for next time.

Charge the station back to full — from the wall now that the grid's up, which is quickest, or from the sun on a bright day. A station left half-empty in the closet won't be ready when you need it, so top it off while you're thinking of it.

Give the whole setup a quick once-over, too: coil the cables loosely, wipe the panel's face if it got dusty, and check the connectors for grit or moisture. Little bits of care now mean the gear is trustworthy the next time the lights go out.

✓ Top it off right away

The easiest habit after any outage: plug the station back into the wall and bring it to full. Future you, in the next storm, will be grateful it was ready and waiting.

After: dry, fold, and store the panel

A foldable panel asks for one gentle courtesy before it goes back in the closet, and it rewards you with years of service.

If the panel got damp — dew, a passing sprinkle, or just humidity — let it dry fully before you fold it away. Folding a wet panel invites mildew in the creases. Give it a few minutes open in the air, then fold it up.

Store it cool and dry, connectors capped or kept clean, cables coiled loosely beside it — all in that one labeled spot with the station and adapters. Our care, cleaning, and storage guide covers keeping a foldable in good shape for the long haul.

✓ Dry before you fold

Three words worth remembering every time: dry before folding. It's the single habit that keeps a foldable panel fresh and mildew-free season after season.

A day without power, start to finish

Here's how a well-planned outage day tends to flow, so the whole routine feels familiar before you ever live it.

In the morning, you carry the panel to your sunny spot, aim it, and plug it into the station you'd already charged full. Phones and devices go on to charge while the sun is climbing, and the station keeps a lamp and the internet box going.

Through the midday sun — the strongest stretch — you do your heaviest charging and re-aim the panel a couple of times to follow the sun, keeping the station in the shade. As evening comes and the panel winds down, you run just the essentials from the stored power, and bring the panel in for the night.

✓ Sun by day, battery by night

The natural rhythm is simple: gather and charge hard while the sun's up, then coast on the stored battery after dark. Repeat it each day and even a long outage stays manageable.

Build your outage kit

Everything in one place, ready to grab. Here's what belongs together so your plan is never scattered.

- **The power station**, kept charged and topped up between storms.
- **The foldable panel**, with its kickstand and carry bag.
- **All the cables and adapters** — the solar cable, the right adapter, and the wall charger.
- **Your written must-run list**, ranked top to bottom.
- **Stored drinking water** if you're on a well, plus any medical device backups.
- **A flashlight and this guide**, so you can find and follow the plan in the dark.

★ I'll help you assemble it

If you'd like a hand putting the kit together and practicing the routine once in daylight, that's a great use of a visit. Call or text me at (330) 200-8042 and we'll get you set.

Common mistakes to sidestep

A handful of avoidable slip-ups cause most outage-day stress. Now you'll head them off.

- **Not charging the station full** before the storm, then counting on a cloudy day to fill it.
- **Leaving the panel flat** or in the shade, and wondering why it's barely charging.
- **Cooking the station in the sun** instead of keeping it shaded and cool.
- **Piling on every device at once** rather than adding them one at a time.
- **Forgetting water on a well**, or counting on solar to run the well pump — it can't.
- **Folding the panel away wet**, or leaving the station half-empty for next time.

✓ Every one is preventable

None of these is about bad gear — they're all about planning and habits. Get the 'before' steps right and outage day mostly takes care of itself.

Your one-page outage checklist

Tear this out, or keep the guide by the kit. When weather threatens or the lights flicker, run down this list.

- ☐ Station charged full from the wall, and topped up when a storm's coming.
- ☐ Panel, cables, adapters, and wall charger together in their labeled spot.
- ☐ Sunny spot scouted, with open sky and room to re-aim.
- ☐ Must-run list written and ranked, kept with the kit.
- ☐ Drinking water stored if you're on a well; medical backups on hand.
- ☐ After it's over: recharge the station, dry and fold the panel, store it all.

✓ **Calm comes from the checklist**

You don't have to remember all of this under pressure — that's what the list is for. Run it top to bottom and you've done the smart things, in the right order.

Common Questions

The questions I hear most about planning for an outage with solar, answered plainly.

Q: What's the single most important step?

Charge your power station full from the wall before the storm. That stored power is what carries you through the first gray day or two, before the sun can do much.

Q: Can solar run my whole house during an outage?

No. A portable panel and station keep the essentials going — phones, lights, the internet box, small devices. The big loads, and a 240-volt well pump, need a generator or a large installed system.

Q: What if it's cloudy the entire time?

Then you lean on the battery you charged full beforehand, run the top of your list, and let the panel refill whatever it can when the sun peeks through. That's exactly why you charge full first.

Q: I'm on a well — what should I do?

Store drinking water before the outage, because portable solar cannot run your well pump. Solar is still worth having for phones, lights, and devices — just not for water.

Q: Someone here uses a medical device. How does solar fit?

As one layer, not the whole plan. Charge full first, keep the maker's approved backups, register with your utility's medical list, and ask your supplier and doctor. Our emergency phone-and-medical guide covers it with care.

★ Let's practice it once

The best plan is one you've walked through in daylight. I'm glad to help you build and rehearse yours so it's second nature. Call or text (330) 200-8042.

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 having a solar backup plan for an outage 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.

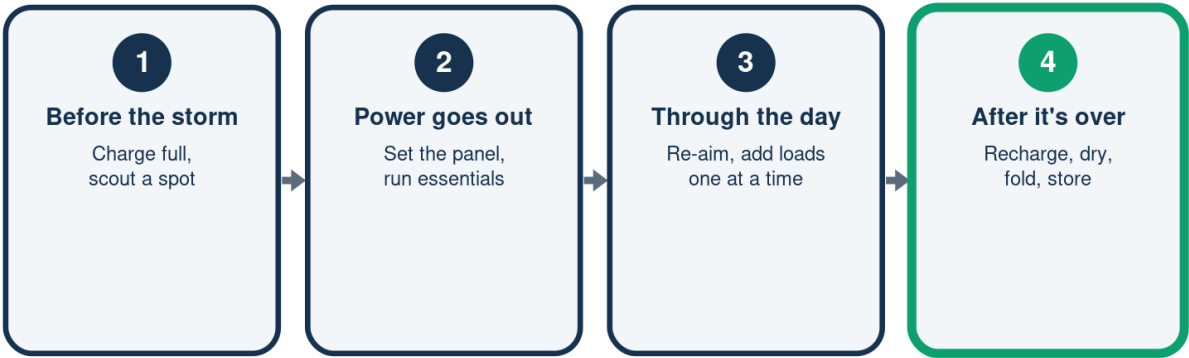
When you'd rather have a hand, that's exactly what I do. I come to your home, work at your pace, and never make you feel rushed or silly for asking. A first visit is a flat \$99, and for the parts that don't need me on-site I can often help right on your screen for \$49. Every visit comes with a 30-day, come-back-free guarantee. Most portable solar setups are simple, plug-and-play, and need no wiring at all — but if yours ever calls for a licensed electrician, 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

Your Outage Plan, Start to Finish

Three simple stages, no surprises



Most of the work is 'before' -- do it on a calm day.

Before the Power Goes Out

The get-ready list, done on a calm day

	Get ready	Why it helps
Charge full	From the wall	Beats a gray day
Ready cables	Right adapters	No scramble
Scout a spot	Open sky, sun	Most power
Store water	If on a well	Pump won't run

A full battery and a tidy kit turn a scary day into an easy one.

While the Power's Out

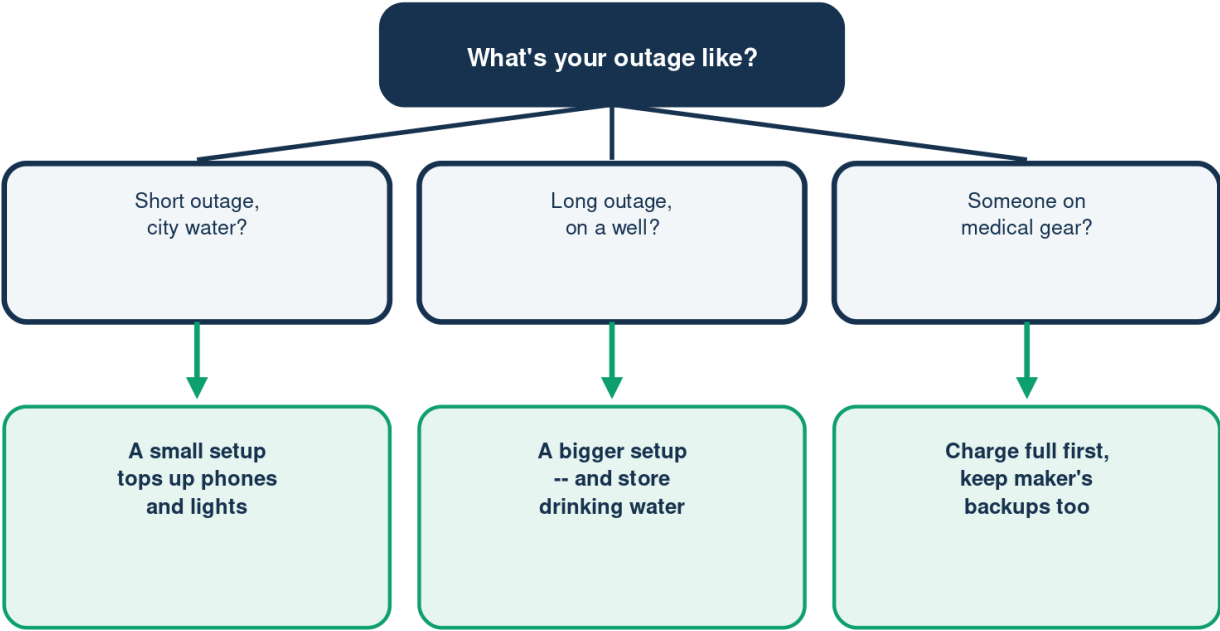
Small habits that stretch your power

	Do this	Not this
Setting up	Aim at the sun	Not lying flat
The station	Keep it shaded	Not in hot sun
Adding loads	One at a time	Not all at once
Gray days	Lean on battery	Not just solar

Panel in the sun, station in the shade, loads added gently.

What's Your Outage Like?

Plan for the outage you actually get



A portable panel and station cannot run a 240-volt well pump -- store water.

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



Need a Real Person?

You do not have to remember all of it.
You just have to remember you can call.
Friendly, in-home tech help -- I come to you.

BILL'S PROMISE

If you are not 100% happy with a visit, I will
make it right -- or refund it. No awkwardness,
no fine print. That is how I would want to be treated.

(330) 200-8042 · BillsHomeTech.com

Bill@BillsHomeTech.com · Mon–Sat 9:00 AM – 7:30 PM

— Bill

Prefer help without a visit?

Bill can screen-share and fix many things remotely — a flat \$49, free for Support Plan members.



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*



Book a visit —
billshometech.com/book

Use of these guides is subject to our Terms of Use (billshometech.com/terms-of-use).

(330) 200-8042 · BillsHomeTech.com

Bill@BillsHomeTech.com · Mon–Sat 9:00 AM – 7:30 PM

For general information only — not professional advice. Use at your own risk. For electrical, gas, water, or ladder work, please call a licensed professional. — Bill's Home Tech