BILL'S HOME TECH

Home & Small Business Tech Solutions

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Do I Need a Battery? Honest Talk About Backup Power

Plain solar won't run in an outage — here's how to decide if backup power is worth paying extra for

Plain-English solar help from:
Bill's Home Tech
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Tech Made Simple. Service Made Personal.

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SUMMARY

The 60-Second Version

Ordinary grid-tied solar does not power your home during an outage — it shuts off automatically to protect the crews repairing the lines. To have backup power you need a battery or a backup-capable inverter, which is a significant extra cost, often several thousand dollars. A battery does two things: it provides backup during outages, and in Ohio it lets you store cheap-to-export midday solar for evening use — but the self-use savings alone rarely pay for it quickly, so the real reason to buy one is usually backup and peace of mind.

Right-size backup to your true essentials (fridge, lights, heat's fan, communications, any medical equipment) for a realistic number of hours, and compare honestly against a generator. If a battery isn't right now, ask for a battery-ready design. Bill sells neither solar nor batteries and will help you decide on your real needs.

1 The Short Version

Here is a fact that surprises almost everyone: ordinary solar panels do not keep your lights on during a power outage. When the grid goes down, a normal grid-tied solar system shuts off automatically — for the safety of the line crews repairing the wires. To have backup power when the power is out, you need a battery (or a special backup-capable inverter), and that is a real added cost.

So the honest question is not "should I get the free backup that comes with solar" — there is no such thing — but "is backup power worth paying extra for, for me?" This guide walks through that decision calmly, with no sales pressure. Bill does not sell solar or batteries and has no stake in your choice.

- Plain grid-tied solar does NOT power your home during an outage — it shuts off for safety.
- Backup power requires a battery or a backup-capable inverter — a significant extra cost.

- Decide based on how much outages actually bother you, not on a sales pitch.
- In Ohio, a battery also helps you keep more of your own solar, since exporting pays little.

> **TIP**
> Before adding a battery, ask yourself a simple question: how often does your power actually go out, and how much does it matter when it does? Your honest answer should drive this decision far more than any salesperson's urgency.

2 Why Solar Shuts Off in an Outage

It feels backwards that a house covered in solar panels goes dark when the grid fails, but there is a good safety reason. If your panels kept pushing power into the wires during an outage, they could send electricity back onto lines that repair crews believe are dead — a serious danger to the people fixing them. So grid-tied systems are built to shut off the moment the grid goes down.

This is not a flaw or a cheap corner cut; it is a safety feature required for everyone's protection. It simply means that solar alone does not equal backup power. The only way to keep running during an outage is to add equipment that can safely disconnect from the grid and power your home on its own — a battery system.

> **GOOD TO KNOW**
> This automatic shutoff is called anti-islanding, and it protects line workers. Knowing it exists explains why "I have solar, so I'll be fine in a blackout" is a myth — unless you have added a battery or backup-capable inverter designed to run safely on its own.

3 What a Battery Actually Does

A home battery stores electricity — either from your panels or the grid — so you can use it later. It serves two main purposes, and it helps to separate them, because they lead to different decisions. One is backup power during an outage; the other is using more of your own solar instead of exporting it cheaply.

- Backup: it can keep chosen parts of your home running when the grid is down.
- Self-use: it can store your midday solar surplus for use in the evening.
- It does not make your panels produce more — it just manages when you use the power.
- It is a separate, significant cost on top of the solar itself.

Understanding these two jobs helps you judge a pitch. If someone sells a battery purely on money savings, be cautious — in most cases the backup and peace-of-mind value is the stronger reason, with self-use as a helpful bonus. We will look at both honestly.

4 Reason 1: Backup Power

For most people who add a battery, backup power is the real motivation. If the power goes out, a battery can keep essential things running — lights, the refrigerator, a furnace fan, medical equipment, internet — for some hours, depending on the battery's size and how much you draw. That can be genuinely valuable, especially for certain households.

How valuable depends entirely on you. If outages in your area are rare and brief, the value is modest. If they are frequent or long, or if someone in the home relies on powered medical equipment, backup can matter a great deal. This is a personal judgment about resilience and peace of mind, not a pure dollars-and-cents calculation.

WATCH OUT

If someone in your home depends on powered medical equipment, backup power can be about more than comfort. That is a situation where a battery or other backup deserves serious thought — and I am glad to help you plan it sensibly rather than leave it to a sales pitch.

5 Reason 2: Using More of Your Own Solar

The second reason is particular to states like Ohio. Because Ohio pays only a few cents for power you export, a battery lets you store your midday surplus and use it in the evening — keeping your own power instead of giving it away cheaply and buying it back at full price after dark. That captures value a plain grid-tied system loses.

It is a real benefit, but be clear-eyed: with export rates low, the dollar savings from self-use alone usually do not pay for the battery quickly. Most honest analyses treat better self-use as a nice bonus on top of the backup value, not as a stand-alone reason to buy a battery. Anyone claiming a battery pays for itself fast on savings alone is overselling.

GOOD TO KNOW

A battery helps most exactly where export credits are low — which is Ohio's situation. Just go in understanding that the main payoff is backup and resilience; the extra self-use savings help, but rarely cover the battery on their own in a reasonable time.

Rather not do this yourself? I'll come to your home and set it up for you — a flat $99 first visit across Portage County, Ohio and nearby communities. Outside the area? I also help remotely by phone or screen-share. Book at billshometech.com/book or call (330) 200-8042.

6 What a Battery Costs — and What It Doesn't Do

Home batteries are a substantial purchase, commonly adding many thousands of dollars to a solar project, with the exact figure depending on the battery's capacity and how your home is wired for backup. Prices move, so get current numbers in writing — but go in expecting a real, significant cost, not a minor add-on.

It is just as important to know what a battery does not do. A typical home battery does not power your entire house indefinitely; it powers chosen circuits for a limited time. It will not run central air conditioning and everything else for days on end. Sizing backup realistically — which essentials, for how long — is key to not being disappointed.

> **WATCH OUT**
>
> Be wary of a pitch that implies a single battery will run your whole home through any outage. Most backup setups power a selected set of essential circuits for a number of hours, then need the sun or the grid to recharge. Ask exactly what it will run, and for how long, in writing.

7 How Much Backup Do You Actually Need?

If you decide backup matters, the next question is how much — and the answer shapes the cost. The honest approach is to list what you truly need during an outage, rather than assuming you must power everything. A modest backup covering essentials is far cheaper than whole-home backup for days.

1. List your true essentials: refrigerator, some lights, furnace fan, phones and internet, any medical equipment.
2. Think about how long a typical outage in your area lasts.
3. Match the battery size to running those essentials for that realistic length of time.
4. Decide whether rare, long outages justify paying for much more capacity.

GOOD TO KNOW

Most people are well served by backing up essentials — fridge, a few lights, heat's fan, communications — rather than the whole house. Backing up only what you truly need keeps the cost sane and still delivers the peace of mind that matters most.

8 Batteries vs a Generator

A battery is not the only way to get backup power. A traditional generator — portable or a permanently installed standby unit — is the long-standing alternative, and for pure backup it is often cheaper per hour of run time. It is worth comparing honestly rather than assuming a battery is automatically the answer.

	Home battery	Generator
Fuel	Sun / grid, stored	Gasoline, propane, or natural gas
Noise	Silent	Noisy
Runs during long outages	Limited by stored energy	As long as you have fuel
Ongoing upkeep	Minimal	Fuel, oil, maintenance
Works with your solar	Yes, stores your solar	No, separate system

A generator can run as long as you feed it fuel, which beats a battery in a multi-day outage, but it is noisy, needs fuel on hand, and requires upkeep. A battery is silent, low-maintenance, and works hand-in-hand with your solar, but is limited by its stored energy. The right choice depends on your outages and your preferences.

9 If You Skip the Battery Now

Choosing not to buy a battery today is a perfectly reasonable decision, and it does not close the door forever. Many people install solar first and consider a battery later, especially as prices and technology change. The key is to go in with eyes open about what plain solar does and does not give you.

- Plain grid-tied solar still lowers your everyday electric bill — it just won't run in an outage.
- You can often add a battery later, though it may cost more than bundling it up front.
- If you want the option, ask whether the solar design is "battery-ready" for easier addition later.
- There is no pressure to decide backup today just because a salesperson raises it.

> **GOOD TO KNOW**
> If a battery is not right for you now but might be someday, ask the installer to make the system battery-ready and to put in writing what adding one later would involve. That keeps your options open without paying for a battery before you are sure you want one.

10 How Long a Battery Lasts and Its Upkeep

A home battery is not a buy-it-once-forever item; like any battery, it wears over time and will eventually need replacing. Most home batteries are warrantied for a number of years and a certain amount of use, after which they still work but hold less charge. It is fair to factor that lifespan into whether the battery is worth it for you.

- Batteries carry a warranty measured in years and in how much they are cycled — ask for both.
- Like a phone battery, capacity slowly fades over the years of use.
- Day-to-day upkeep is minimal, but plan for eventual replacement down the road.
- Ask what a replacement is likely to cost and when it would typically be needed.

GOOD TO KNOW

Unlike a generator, a battery needs almost no routine maintenance — no fuel, oil, or exercising. The trade-off is that it has a finite life and will someday need replacing, so weigh the warranty length against the price when you decide.

11 Questions to Ask About a Battery

If you are considering a battery, a handful of plain questions cuts through the pitch and reveals whether an offer is honest and right-sized. Ask them and insist on written answers.

1. "Exactly which circuits will this back up, and for roughly how many hours?"
2. "What does the battery add to the total price, itemized separately from the solar?"
3. "How long is the battery's warranty, and what does it cover?"
4. "Will it recharge from my panels during a daytime outage, or only from the grid?"
5. "If I skip it now, can the system be made battery-ready, and what would adding one later cost?"

WATCH OUT

Notice how these questions turn a vague "never lose power again" pitch into concrete facts: which circuits, how many hours, how much money. Concrete answers protect you; a salesperson who stays vague is telling you something.

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12 A 'Do I Actually Need One?' Decision Guide

A battery is a real, separate cost on top of the panels, so the honest question is not 'is a battery good?' but 'do the reasons for one apply to me?' Walk through these and let your own answers decide — not a salesperson's urgency.

1. Do you lose power often, or for long stretches? If outages are rare and short where you live, backup matters less. If they are frequent or long, it matters more.
2. Is there anything you truly cannot be without — a medical device, a well pump, heat in winter, a sump pump in a wet basement? If yes, backup moves up your list.
3. Does your utility pay you fairly for the solar you send back to the grid? If it does, a battery saves you less; if it pays little, storing your own power is worth more. Confirm this with your utility.
4. Can a simpler, cheaper option cover the gap — a portable generator for the rare outage? For some homes that is the better value.
5. Add it up: if outages are rare, your must-haves are few, and your utility pays fairly for exports, you may not need a battery now. The reverse points toward one.

> **WATCH OUT**
> You do not have to decide forever today. Many systems can add a battery later. Ask any installer whether the system they quote is 'battery-ready' so a future battery is a simple add, not a rebuild.

13 Sizing a Battery to What You Want to Keep On

Batteries are measured in kilowatt-hours (kWh) — think of it as the size of the tank. The right size depends on what you want to run and for how long. You do not need to do exact math, but a rough tally keeps a salesperson from selling you too much or too little.

Below is a rough daily appetite for common 'keep it on' items. Your real numbers will differ, so treat this as a sketch, not a spec.

What you want to keep on	Rough energy per day	Notes
Refrigerator	1-2 kWh	Runs on and off all day
Lights (a few LED rooms)	0.5-1 kWh	Modern bulbs use very little
Internet modem and router	0.2-0.5 kWh	Small but keeps phones and help lines reachable
Furnace or boiler fan	1-3 kWh	Heat itself may be gas, but the fan needs power
Sump or well pump	Varies, can be high in bursts	Needs enough instant power, not just a big tank
CPAP or other medical device	0.3-1 kWh	Check the device label for its own figure

Add up only the things you truly need during an outage, and you will often land in the range of a single home battery for the essentials. Wanting to run the whole house, including heavy items like central air or an electric dryer, pushes you toward more batteries and a much larger bill.

> **GOOD TO KNOW**
>
> Two different numbers matter: kilowatt-hours (how much total energy, the size of the tank) and kilowatts (how much at once, the size of the spout). A well pump or air conditioner can need a big burst to start even if it uses little over a day — so a battery has to be judged on both.

14 Whole-Home vs Essentials-Only Backup

When you ask for backup, you are really choosing between two very different things. 'Essentials-only' keeps a chosen handful of circuits alive — the fridge, some lights, the internet, maybe the furnace fan. 'Whole-home' tries to keep everything running as if nothing happened. The gap in cost between them is large.

	Essentials-only backup	Whole-home backup
What stays on	A few chosen circuits	Nearly everything
Battery needed	Often one battery	Usually several batteries
Rough cost	Lower	Much higher
Best for	Riding out common outages affordably	Homes that must not notice an outage

For most households, essentials-only backup covers what actually matters in an outage at a fraction of the cost. Whole-home backup is a comfort choice, and a pricey one; it is worth being honest with yourself about which you are really buying.

WATCH OUT

A salesperson quoting 'whole-home backup' may be quoting several batteries. Always ask how many batteries are in the price and exactly which circuits stay on, in writing, before you compare it to anyone else's quote.

15 Why a Plain Grid-Tie System Goes Dark Anyway

This surprises almost everyone, so it is worth saying plainly: a normal solar system with no battery does not keep your lights on during a power outage, even in bright sun. By law and for safety, it shuts itself off the moment the grid goes down.

- The shutoff protects the line workers repairing the grid — it stops your panels from sending power back into wires they are touching.
- This is not a defect and not something you can safely switch off; it is built in.
- To have power during an outage you need a battery, or a special backup-capable (hybrid) inverter and the wiring to go with it — a real added cost.
- If outage backup is why you want solar, say so up front, because it changes the equipment you need from day one.

GOOD TO KNOW

Some systems offer a small 'sunlight backup' outlet that works only while the sun shines, with no battery — handy for charging a phone, but not a substitute for real backup. Ask exactly what a quote means if it mentions backup without a battery.

16 The Words You'll Hear About Batteries

Battery sales talk is full of shorthand. Here is a plain-English translation of the terms you are most likely to hear, so none of them can be used to rush you.

Word you'll hear	What it really means
kilowatt-hour (kWh)	How much energy the battery holds — the size of the tank
kilowatt (kW)	How much it can deliver at one instant — the size of the spout
usable capacity	The part of the tank you actually get to use (a little is held back to protect the battery)
hybrid inverter	A single unit that handles both solar and a battery, often cheaper than adding gear later
islanding / backup capable	The system can keep running on its own when the grid is down
depth of discharge	How far down the battery can safely be drained
round-trip efficiency	How much power you get back out versus what you put in (some is always lost)

WATCH OUT

If anyone uses one of these words to make a battery sound urgent, slow the conversation down and ask them to explain it in plain terms. A good installer will do so happily; pressure to decide fast is itself a warning sign.

17 When to Call Bill

Whether to add a battery is a genuinely personal decision that mixes money, safety, and peace of mind — and it is easy for a salesperson to tug at the fear of being powerless in a storm. You do not have to sort it out alone. Bill has no stake in whether you buy a battery, so he can help you decide on your real needs.

- You want to understand what backup you would actually get for the money.
- Someone in your home relies on powered medical equipment and you need dependable backup.
- You are weighing a battery against a generator and want an honest comparison.
- A pitch implies a battery will run your whole house through any outage.
- You want to keep the option open with a battery-ready design without buying one yet.

Call Bill at (330) 200-8042. He will help you figure out whether backup power is worth it for your household, right-size it to what you truly need, and compare a battery honestly against the alternatives — with no sales stake either way.

CHEAT SHEET

Everyday Cheat Sheet

Keep this handy. Plain solar won't power your home in an outage — backup is a separate, real cost.

I want to...	Do this...
Know the big surprise	Grid-tied solar shuts off in an outage for safety — no battery, no backup
Decide if backup is worth it	Ask how often your power goes out and how much it matters when it does
Right-size backup	Back up essentials (fridge, lights, heat fan, medical) — not the whole house
Understand the money	Batteries add thousands; self-use savings alone rarely pay for one quickly
Compare to a generator	Battery is silent/low-upkeep but limited; generator runs on fuel for days
Keep options open	Ask for a "battery-ready" design and the cost to add one later
Get help	Call Bill: (330) 200-8042

BEFORE YOU GO

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 results.

HOW I CAN HELP

Your Visit — and My Promise

You don't have to remember all of it — just that a friendly, patient person is one call away, whenever you'd rather have a hand.

KEY SPECS

In your home — $99 flat for the first visit, no contracts and no surprises, with a 30-day come-back-free follow-up. In-home visits cover Portage County, Ohio and nearby communities.
Outside the area? Remotely — $49 for a screen-share session (free for Support Plan members, $39/mo), refundable if I can't fix it — and credited toward a visit if you'd rather have me in person. Book either at billshometech.com/book.

GOOD TO KNOW

My promise — If you're not 100% satisfied with your visit, I'll come back at no charge, or refund the full $99. No questions, no awkwardness. That's how I'd want to be treated.

Whenever you're ready, I'll come to your home anywhere in Portage County, Ohio and nearby communities, at your pace. Too far for a house call? I also help remotely. Book at billshometech.com/book or call (330) 200-8042. — Bill

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