



An Extended Guide · No. 1410

Backing Up a Sump Pump

Keeping the basement
dry when the storm hits

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! Read this first — this is a licensed electrician's job

A whole-home battery ties into your home's main electrical panel, and that makes the installation real electrical work — a job for a licensed electrician, done with a permit, and often with your utility's approval before it is switched on. It is not a do-it-yourself project. The happy news, and one of a battery's real advantages, is that once it is installed it runs silently and gives off no exhaust and no carbon monoxide, so unlike a generator it is safe indoors or in the garage. But the battery still stores a great deal of energy, so leave the wiring, the mounting, and any service to the pros, and follow the installer's and maker's instructions. I help you plan it and line up a trustworthy licensed electrician — I do not do the wiring myself. For a sump pump, that means the electrician wires the sump's circuit onto the battery's backup panel, so the pump keeps running even when the same storm that flooded the yard also knocked out the grid.

Keeping the basement dry when the storm hits

A sump pump has one job — keep water out of your basement — and it has to do it during exactly the storms that so often take the power down with them. That's the whole reason backup matters. This guide explains, in plain English, how a battery keeps that pump running when you need it most.

I'm Bill, and I run Bill's Home Tech here in Portage County, Ohio. I've spent 30+ years helping folks make sense of the gear in their homes. A flooded basement is a heartbreak and an expense, and it tends to happen at the worst possible moment, so this is a worry worth planning around.

We won't chase numbers or push a brand. I don't sell batteries and earn no commission. We'll cover why the sump and the storm outage go hand in hand, how a battery backs up the pump, and how a couple of layers of protection give you real peace of mind.

★ A dry basement is worth planning for

If you've ever bailed out a basement by flashlight, you know the stakes. Call or text me at (330) 200-8042 and I'll help you think through backup honestly — free, and with no sales pitch.

The whole guide, on one page

If you remember only these things, you already understand backing up a sump pump with a battery.

- ❑ Storms are when a sump pump is needed most — and they're also when the power most often goes out. That overlap is the whole problem.
- ❑ A sump pump is a motor, so it draws an extra jolt of power each time it starts. That starting surge is the thing to size a battery for.
- ❑ A whole-home battery can back up the sump's circuit, keeping it pumping right through an outage.
- ❑ There are also dedicated battery backups made just for a sump, which sit at the pit as a separate layer of protection.
- ❑ The two together — a whole-home battery plus a dedicated backup — give you belt-and-suspenders security for a wet basement.
- ❑ A sump pump's surge is real but much smaller than a well pump's, so it's an easier load for a battery to handle.

✓ The one-sentence version

Storms cause both the flooding and the outage, so a battery that keeps your sump pump running is protecting your basement exactly when it counts.

Why a sump pump and a battery belong together

Of all the things to back up, a sump pump makes some of the clearest sense, and it comes down to timing.

Think about when your sump pump works hardest: a heavy, soaking storm, when the ground is saturated and water is seeping toward your foundation. Now think about when the power most often fails: that very same storm, with its wind and lightning knocking out the lines.

So the moment your basement most needs the pump running is the moment it's most likely to lose power. Without backup, the pump goes silent right when the water is rising — and a quiet sump pump in a storm is how basements flood. A battery closes that gap.

✓ The overlap is the whole point

A sump pump without backup power is a bit like an umbrella that folds up in the rain. Keeping it running through the storm-driven outage is precisely the job a battery is well suited to do.

What a sump pump actually does

If you've never given yours much thought, here's the plain picture of how it protects your home.

A sump pump sits in a small pit — the sump — usually at the lowest point of your basement or crawlspace. As groundwater rises, it collects in that pit. When the water reaches a certain level, a float switch flips the pump on, and it pushes the water up and out away from your foundation.

Then it clicks off and waits for the water to rise again. During a heavy storm it may cycle on and off many times as the groundwater keeps coming. It's a simple, tireless little machine — as long as it has power to run.

✓ Know where yours is and how it sounds

It's worth knowing where your sump pit is and what the pump sounds like when it runs normally. That way, during a storm, you'll notice quickly if it goes quiet when it shouldn't — a cue to check your backup.

The jolt when the pump starts

Like any motor, a sump pump asks for a bit extra at the very moment it kicks on. That surge is the thing to plan for.

When the float switch flips the pump on, the motor draws a brief surge of power — more than it uses once it's running steadily. A battery and inverter have to be able to supply that instantaneous jolt, not just the gentler running power, each of the many times the pump cycles in a storm.

The good news is that a sump pump's surge, while real, is modest next to the giants of the house. A 240-volt well pump, by contrast, draws a much larger starting surge — often several times its running power — which is a far bigger ask. Our well-pump guide covers that heavier load in full.

✓ Surge is the installer's measurement

You don't size any of this yourself. Your installer accounts for the pump's starting surge so the battery can start it reliably, storm after storm. For a sump pump, that's usually a very manageable number.

The storm problem, stated plainly

This is the heart of why sump backup matters, and it deserves a page of its own.

A sump pump running on ordinary grid power is fine — until the storm takes the grid down. Then the water keeps rising with nothing to move it. In a hard storm, a basement can take on water surprisingly fast once the pump stops, and the damage to floors, walls, and belongings adds up quickly.

This is why so many flooded basements happen during power outages, not in spite of them. The outage isn't a side issue; it's often the direct cause of the flood. Backup power turns that chain of events around.

! No power plus rising water is the danger

The dangerous combination is simple: a storm knocks out the grid, and the groundwater keeps rising with no pump to move it. A battery on the sump circuit breaks that chain — but plan it before the storm, not during one. You can't wire in backup while the water is coming up.

Backing up the sump on a whole-home battery

The most seamless way to protect the pump is to put it on your home battery's backup panel.

When you back up essential circuits, a licensed electrician moves the circuits you care about onto a small backup panel the battery looks after. The sump pump is a natural one to include — alongside the fridge, some lights, and the internet — so it keeps running automatically through an outage with no action from you.

Because the switchover is instant and silent, the pump never even notices the grid went down. It just keeps cycling on and off as the water rises and falls, exactly as it does on a normal day, while the storm rages and the neighbors' lights are dark.

✓ Put the sump on your must-run list

When you jot down what you'd want running in an outage, the sump pump belongs near the top if your basement ever takes on water. Name it early so it's planned into the system from the start, surge and all.

Dedicated battery sump backups

There's a second kind of backup made specifically for the sump, and it's worth knowing about even if you have a whole-home battery.

A dedicated battery sump backup is a separate, self-contained system that lives right at the sump pit. It has its own battery and often its own second pump, and it kicks in automatically if the main pump loses power or can't keep up. It does one job only: keep the pit from overflowing.

Because it's built for that single purpose and sits right at the pit, it's a focused, independent layer of protection. It isn't a substitute for a whole-home battery's broader backup, but as a dedicated last line for the sump, many folks find it a real comfort.

✓ Keep it general and let a pro advise

Dedicated backups come in several styles, and the right one depends on your pit, your pump, and how much water you get. That's a conversation for an installer or plumber who can see your setup — I can help you weigh the options plainly.

Two layers are better than one

For a basement that genuinely floods, the strongest peace of mind comes from more than one line of defense.

- **Whole-home battery on the sump circuit:** keeps the main pump running through an outage, along with your other essentials.
- **A dedicated sump backup at the pit:** an independent last line that steps in if the main pump fails or is overwhelmed.
- **A water alarm in the basement:** a cheap little sensor that shrieks the moment water reaches the floor, so you get early warning.
- **A clear, unfrozen discharge line:** even a perfect pump can't help if the pipe carrying water away is blocked or frozen shut.

✓ Match the layers to your risk

A home that floods every big storm deserves all the layers; a rarely-damp basement may need only one. The point is to be honest about your risk and protect to match it — not to buy everything, and not to skip what you clearly need.

Two kinds of homes, two sets of needs

Sump backup looks different for a close-in home with a finished basement than for a rural home where the well pump and the sump both matter — and where a high water table can keep a pump busy.

If you live in town or the suburbs

In town or the suburbs, outages tend to be shorter, and city water keeps flowing. Here the sump is usually about protecting a finished basement and the belongings in it, and a battery on the sump circuit is a tidy solution.

- A finished basement — carpet, drywall, furniture — makes even a little flooding expensive, so keeping the pump alive earns its keep.
- Shorter outages mean a battery often carries the sump comfortably through the storm that caused them.
- The sump is a light enough load to sit happily alongside the fridge and a few lights on the same backup panel.
- A dedicated backup at the pit adds a second layer for homes that flood in the worst storms.

If you are out in the country on a well

Out in the country, the well pump and the sump both come into play, and they compete for the same battery. A high water table can also mean the sump runs often, so backup is doubly worth having.

- A 240-volt well pump is a much heavier load than the sump; backing up both is a bigger job for the installer to size together.
- When the power's out the well is out, so store drinking water — water coming in the basement and no water at the tap can happen at once.
- A high water table or a spring-fed area can keep a sump cycling hard, so a reliable backup matters more here than most places.
- Longer rural outages can outlast a battery, so a dedicated sump backup or a generator may round out the plan.

★ Wet basement or a busy sump?

Tell me how often your sump runs and whether you're on a well, and I'll help you picture the right layers of protection. Call (330) 200-8042.

Sizing a battery for the sump's surge

Sizing is the installer's job, but it helps to know what they're accounting for so the quote makes sense.

Two things matter for the sump. First, the starting surge — the battery must be able to deliver that brief jolt every time the pump kicks on. Second, the cycling — in a long storm the pump may run again and again, so there has to be enough stored charge to keep answering the call.

A sump pump is a gentle enough load that this is usually straightforward, especially compared to the heavy hitters. But it's still a real calculation, not a guess, and it's part of why I'll never toss out a size or a number myself. Our sizing guide covers capacity versus runtime honestly.

✓ Tell the installer how wet you get

How hard your sump works in a storm shapes the sizing. If your basement floods easily or your pump runs constantly in wet weather, say so plainly — it helps the installer plan enough capacity for the long storms.

Who needs this most: wet basements and high water tables

Sump backup isn't equally urgent for every home. Here's how to tell where you fall.

If your sump pump runs often — in every heavy rain, or seemingly all the time in wet seasons — you likely have a high water table or a damp lot, and backup power is close to essential for you. A pump that busy is doing real work, and losing it in a storm would show quickly.

If your pump rarely runs and your basement stays dry, the urgency is lower, though a single layer of backup can still be cheap insurance against the one freak storm. Knowing which camp you're in keeps you from over- or under-protecting.

✓ Let the pump's habits guide you

Watch how often your sump runs over a wet week or two. A pump that cycles constantly is telling you backup matters; one that almost never stirs is telling you it's a lower priority. The pump's own behavior is your best guide.

The float switch and repeated cycling

Understanding how the pump turns itself on and off explains why a storm is such a workout for it.

The float switch is the simple sensor that turns the pump on when the water rises and off when it drops. In a heavy storm, water can pour into the pit fast enough that the pump cycles on and off over and over, each start asking for that little surge of power.

So during the worst storms, your battery isn't powering one long, steady run — it's answering many quick starts. A well-sized system handles that rhythm without complaint, which is exactly what the installer plans for when they account for both the surge and the cycling.

✓ A sticky float is a common gremlin

If a sump pump ever fails to start or won't shut off, a stuck float switch is a frequent culprit — not the battery. It's a good thing to have checked as part of keeping the whole setup storm-ready.

Setting honest expectations

A battery is a wonderful safeguard for the sump, and knowing its honest limit keeps you protected rather than complacent.

A battery holds a finite charge, so it keeps the sump pumping for a good stretch, not forever. In a truly extreme, days-long storm with relentless water and no solar to refill, even a well-sized battery can eventually run low. That's the honest edge of what stored power can do.

This is exactly why layers matter — a dedicated backup, a water alarm, and a plan for the rare worst case. And it's why, for homes in serious flood country, a generator sometimes joins the picture to carry the long, heavy storms. Match the protection to the risk you actually face.

! Don't assume; test and layer

A battery on the sump is a strong safeguard, but never assume it makes flooding impossible. Keep the backup layers, test the setup, and stay alert during the worst storms. Stored power buys generous time — it isn't an endless supply.

Test your setup before the storm, not during it

A backup you've never tested is a backup you're only hoping works. A few minutes now saves a soaked basement later.

- ❑ Pour a bucket of water into the sump pit and watch the pump switch on, run, and shut off as the water drops.
- ❑ If it's safe and simple to do, test that the pump still runs when the system is on battery — so you know the backup truly carries it.
- ❑ Check that the discharge line outside is clear, aimed away from the house, and not kinked or frozen.
- ❑ Make sure any dedicated backup is charged and its own switch works, per the maker's instructions.
- ❑ Do this at the start of storm season and again now and then — a stuck float or a dead backup battery is far better found on a dry day.

★ I'll help you test it in plain sight

If you'd rather not fuss with buckets and switches alone, I'm glad to walk through a test with you and show you what a healthy setup looks and sounds like. Call (330) 200-8042.

A simple storm-readiness checklist

Tape this near the sump. When a big storm is coming, a quick run through it puts your mind at ease.

- ☐ The sump pump is on the battery's backup panel, or has a dedicated backup ready.
- ☐ The battery is charged and its app, if you have one, shows it healthy.
- ☐ The discharge line is clear and pointed away from the foundation.
- ☐ A water alarm is in place and its battery is good.
- ☐ You know where the sump is and what the pump sounds like when it runs.
- ☐ Valuables are up off the basement floor if serious flooding is possible.

✓ Readiness beats reaction every time

The whole aim is to have nothing left to do when the storm arrives. A little preparation on a calm day is worth far more than any scramble by flashlight when the water's already rising.

Battery-powered versus water-powered backups

You may hear about a different kind of backup that needs no electricity at all. Here's the plain comparison.

Most sump backups are battery-powered — a stored charge runs a backup pump, which is where a home battery fits so naturally. There's also a water-powered style that uses the pressure of city water to move sump water out, needing no electricity, though it does use municipal water while it runs.

The catch is that a water-powered backup relies on city water pressure, so it isn't an option for a rural home on a well — when the power's out, the well is out, and so is the pressure. For most homes, a battery-backed sump, on its own or through a whole-home battery, is the simpler, more flexible path.

✓ Let your water source guide the choice

On city water, a water-powered backup is one option among several to discuss with a plumber. On a well, lean on battery power. Either way, keep it as a layer in the plan, and let a pro who sees your setup advise the specifics.

Questions worth asking before you decide

Whether you're talking with an installer or with me, these questions keep the plan clear and honest.

Q: Can you put my sump pump on the battery's backup panel?

For most homes this is straightforward. Say how hard your sump works in a storm so the installer plans enough capacity for the long, wet stretches.

Q: Will the battery handle the pump's starting surge every time?

It should — that's part of sizing. Ask them to confirm the system can start the sump reliably through many cycles, not just once.

Q: Should I also have a dedicated sump backup?

For a basement that genuinely floods, a second, independent layer is worth discussing. Ask how a dedicated backup would work alongside your home battery.

Q: How long could it keep the sump running in a bad storm?

There's no honest single number without knowing your pump and your water. Ask for a realistic picture, and remember the layers cover you if a storm is extreme.

✓ There's no silly question

This is about protecting your home from water damage. Ask until you're sure — a good installer, or I, should welcome every single one.

A few myths, cleared up

Some common beliefs about sump pumps and backup just aren't so. Let's set them straight.

- **'My sump pump will keep working in an outage.'** Not on its own — a plain sump pump stops the moment it loses power, which storms so often cause.
- **'A sump pump is too big a load for a battery.'** Quite the opposite. Its surge is modest, far smaller than a well pump's, so it's an easy load to back up.
- **'A battery makes flooding impossible.'** It's a strong safeguard, not a guarantee. A finite charge, a stuck float, or a blocked line can still cause trouble — so layer and test.
- **'I'll just add backup when a storm is coming.'** Backup is wiring and planning you set up on a calm day, not something to arrange as the water rises.

✓ When unsure, test it on a dry day

Almost every sump worry is settled by a simple test with a bucket of water on a calm afternoon. If the pump runs and the backup carries it, you're in good shape.

A simple way to tell if it's for you

Sump backup matters more for some homes than others. See which pattern sounds like yours.

- **Your sump runs often, or your basement has flooded:** backup power is close to essential — put the sump high on your list.
- **You have a finished basement:** even minor flooding gets expensive fast, so keeping the pump alive earns its keep.
- **Storms regularly knock out your power:** the very overlap that threatens your basement is what backup is built to break.
- **You're on a well with a high water table:** the sump and the well both matter — plan them together with your installer.
- **Your basement stays dry and the pump rarely runs:** lower priority, though one simple layer is still cheap peace of mind.

★ Let's figure out your fit together

Tell me how your basement and sump behave in a storm, and I'll help you see honestly what backup makes sense — with nothing to sell you. Call (330) 200-8042.

Common Questions

The questions I hear most from folks worried about a wet basement, answered plainly.

Q: Why does my sump pump need backup power?

Because storms cause both the flooding and the outage. The moment your basement most needs the pump is often the moment it loses grid power — backup keeps it running through that overlap.

Q: Can a home battery run my sump pump?

Yes. A whole-home battery can back up the sump's circuit, keeping it cycling through an outage. Its starting surge is modest, so it's one of the easier loads to carry.

Q: What's a dedicated sump backup?

A separate, self-contained system at the sump pit, with its own battery and often a second pump, that kicks in if the main pump loses power. It's a focused extra layer of protection.

Q: Is a sump pump a heavy load like a well pump?

No. A sump pump's surge is real but modest, and much smaller than a 240-volt well pump's, which draws several times its running power to start. The sump is far easier to back up.

Q: Will a battery keep my basement dry no matter what?

It's a strong safeguard, not a guarantee. A finite charge, a stuck float, or a blocked discharge line can still cause trouble — so keep backup layers, and test the setup on dry days.

★ Still have questions? That's what I'm here for

Getting comfortable before you spend is exactly what I love to help with. Call or text me at (330) 200-8042 and let's talk it through, no pressure.

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 backing up your sump pump 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.

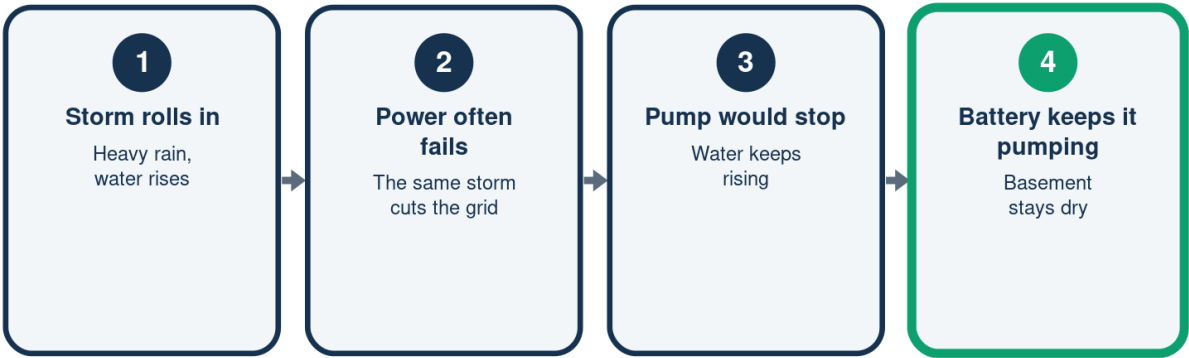
When you'd rather have a hand, that's exactly what I do. I come to your home, work at your pace, and never make you feel rushed or silly for asking. A first visit is a flat \$99, and for the parts that don't need me on-site I can often help right on your screen for \$49. Every visit comes with a 30-day, come-back-free guarantee. I don't do the licensed electrical 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

Why a Sump Pump Needs Backup

The storm causes both the water and the outage



Plan the backup before the storm, never during it.

Sump Pump vs Well Pump

Why the sump is the easier load

	Sump pump	Well pump
Motor size	Smaller	Larger
Starting surge	Smaller jolt	Much bigger
Runs	As water rises	On demand
On a battery	Easier	Demanding

A 240-volt well pump is a much bigger ask — see that guide.

Two Layers of Sump Backup

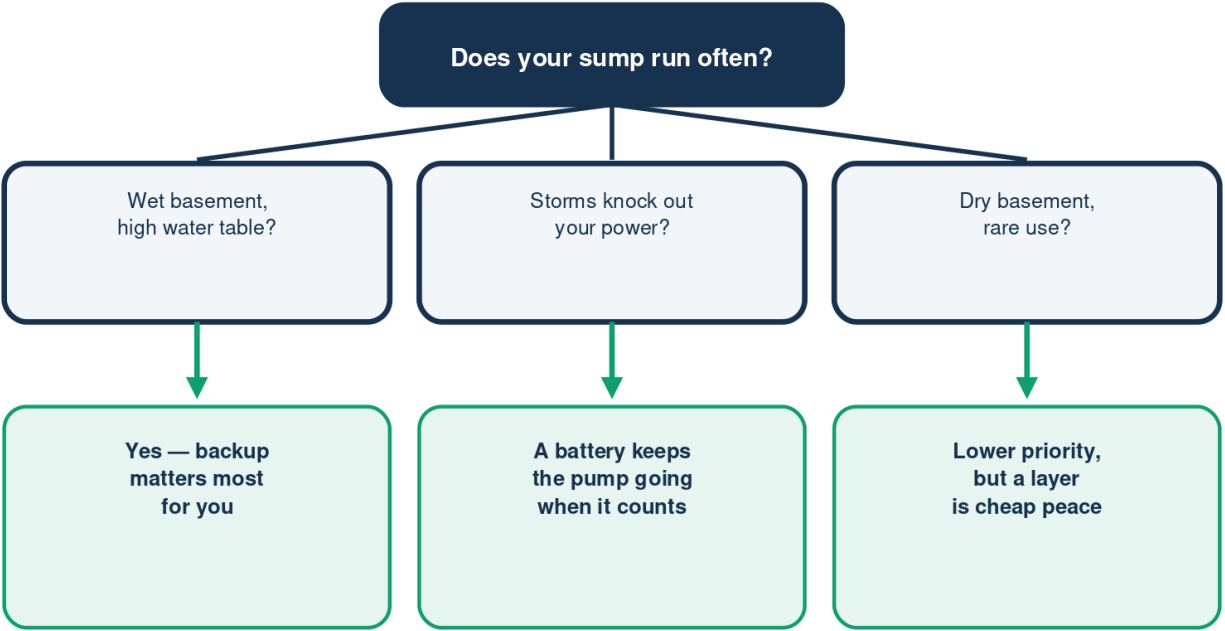
Belt and suspenders for a wet basement

	Whole-home battery	Dedicated backup
Backs up	Sump plus more	Just the sump
Lives at	Your panel	The sump pit
Runs	Many circuits	One pump
Best as	Main layer	Extra layer

Match the layers to how much water you actually get.

Do You Need Sump Backup?

Let your basement and your storms decide



Size the pump's starting surge with a licensed installer — never guess.

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



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A Note From Bill

A quick note from Bill.

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

— *Bill*



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