



MEMBERS UPDATE

December, 2017

Emergency Power 101

10 Best Backup Generators

How to Safeguard Your SHTF Plan

Top 5 Duty Pistols on a Budget

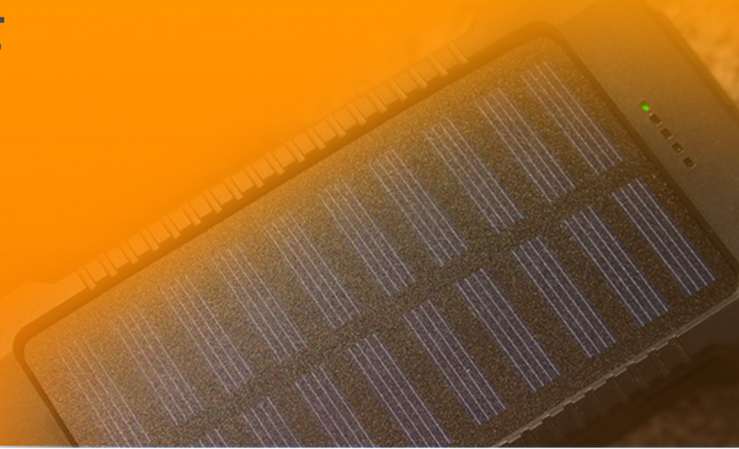



MY CRISIS GEAR

POCKET POWER PLANT



- POWER UP AND CHARGE TWO DEVICES AT THE SAME TIME!
- WATERPROOF, DUST PROOF, IMPACT PROOF
- COMES WITH BUILT IN LED FLASHLIGHT
- CHARGE YOUR DEVICES ANYWHERE
- WEIGHS ALMOST NOTHING!



At last... it's quick and easy to charge your devices while hiking, hunting, fishing or camping.

Use your "Pocket Power Plant" to power up any compatible USB-chargeable devices.



www.MyCrisisGear.com/ppp

CONTENT



02

Top 5 Duty Pistols Under \$550

There's never been a better time to be a fan of semi-auto handguns. The value and quality in this segment is at an all-time high. Any one of these pistols can be designated as "the last pistol you'll ever need."



07

Safeguard Your Emergency Plan

Desperate times make for desperate people. If you've invested the time to build out your SHTF plan, it's just as important that you take the time to make sure your "lifeboat" isn't compromised when you need it most.



12

Emergency Power 101

As important as electricity is to our everyday lives, it's scary to think of how uninformed the average Joe is on how it works. If you're a little hazy on the difference between a watt and a volt, don't worry. This article is for you.



16

10 Best Backup Generators

Just because the power is down, that doesn't mean your home has to go dark. There are dozens of highly capable options for your emergency power plan. We'll help you sort through which one is best for you.



Bang for Your Buck:

Top 5 Semiautomatic Duty Pistols Under \$550



These are good times indeed for the pistol shooters of the world. We are, without a doubt, witnessing an extraordinary moment in handgun history. Never before have there been so many exceptionally reliable, accurate, and accessible handguns on the market, and at such reasonable prices.

Technological breakthroughs, combined with a nearly insatiable consumer demand, have lured just about every major firearms manufacturer into an arms race of sorts -- a "small arms race" if you will -- and we are the beneficiaries.

Polymer framed handguns with high capacity magazines have become the new gold standard, giving shooters lightweight, highly dependable pistols that require relatively little in the way of maintenance.

Spurred on in part by the Department of Defense's MHS (Modular Handgun System) contract competition, the pace of progress in the semi-auto handgun category has only accelerated over the past several years. Now that the award has been handed out (to the SIG P320, which is over our budget), all that research and development is now going straight to the consumer.

2 Look, we know a lot of you will be in the market for a new toy after Christmas. Maybe you've got some cash, gift cards, or a bonus check burning a hole in your pocket.

Well, listen up. You don't have to pay a dime over \$550 to purchase one of the most advanced handguns in human history. In fact, you can pick up several of these specimens for well below that mark.

All of the weapons on this list are highly capable, top-rated duty pistols. Each one is ideally suited to home defense, range work, and tactical shooting. Heck, thousands of law-enforcement and security professionals carry these weapons every day. So, without further ado, let's take a look at a few of these "Polymer Wonders."

GLOCK 23 - Gen 3



If you're in the market for a modern handgun, you absolutely cannot avoid the comparisons with the Glock lineup. Why are these weapons the basis for all comparison? It's because Glock set the bar when it comes to polymer handguns, and quite a high bar at that.

The typical spiel when you talk to someone about these guns goes like this: If you're only going to own 1 firearm, buy a Glock. We don't disagree really, though we'd readily nominate the other 4 pistols on this list for the same honorary "1 gun" award.

Either way, the respect for these Austrian made handguns is well earned. The quality, reliability, fit and finish you can expect from a Glock is pretty much second to none.

As you can tell, this isn't the most beautiful showpiece firearm imaginable; and it wasn't designed to be. In fact, the utilitarian look was a point of controversy when the first generation of Glocks started catching on.

The Glock 23 is now in its 5th generation, which is slightly over our budget of \$550. Never mind that, though, when you can pick up a generation 3 Glock for around \$450-500. One notable upgrade for the Gen 3 was the addition of the integrated rail system (for tactical lights, laser sights, etc.), in addition to finger grooves on the grip. Rewind too far, back to Gen 2, and you don't get an accessory rail.

The Glock 23 comes with 2 double stack magazines, each holding an ample 13 rounds for a 13+1 capacity. The magazine release is on the smaller side and may take a little getting used to. Aside from that, it's the exact same frame as the Glock 22, just chambered in .40S&W instead of 9mm. On a side note, you really can't go wrong with either of these mid-size guns.

As for operation and accuracy, most shooters find the 5.5lb trigger pull to be comfortable. The later model Gen 3s have gone through many stages of refinement and reliability is excellent. As far as accuracy is concerned, as it is with most Glocks, the only limiting factor is the shooter.

Retail: \$500



Springfield Armory XDM - 9mm



Since its debut in 2002, the XD series has established itself as the leading Glock alternative. In the striker-fired polymer guns department, Springfield's lineup can be considered #2 with a bullet, racking up comparable rankings for accuracy, reliability and quality.

From our perspective, it's basically a Chevy vs Ford pickup truck argument. Both are excellent pistols, and it's best to test drive both before you make a decision one way or the other.

It's probably fair to say that, "under the hood," the XD was inspired by Glock, with very similar measurements.

The controls on the XD are a little larger than the Glock's, and the trigger pull is a bit longer. If you like a trigger that you can get your finger on with a decent amount of travel before you fire, the XD might be your cup of tea.

Most XD fans point to the "grip feel" as one of the weapon's core strengths. With the 3 interchangeable back straps that come standard with the XDM models, Springfield really capitalizes on that strength. The weight on this weapon is on the lighter side for a service pistol, yet still a few ounces heavier than a comparable Glock model.

The XDM series has a few nice-to-have upgrades over its older brother. For starters, it's got an ambidextrous magazine release, higher magazine capacity, and serrations on the front of the slide for competition racking.



If firepower is your top priority, you'll probably like the fact that the 9mm XDM has a 19+1 round capacity. It comes with 2 magazines, a speed loader, holster, and magazine holster as well to sweeten the deal.

Retail \$525

Smith & Wesson M&P .40S&W M2.0

By all counts, the latest 2.0 upgrade on the already tremendously successful polymer handgun series will keep the M&P at the top of lists like this one for a long time to come.

Introduced in 2005, the first generation of the M&P 9mm was an excellent pistol in its own right and at an excellent value. Now in its second generation, Smith & Wesson answered the critics and took this weapon to an elite level.

Since we're already on the topic of 2.0 upgrades, let's discuss what's new. First off, once considered a weak point for the M&P, the new and improved trigger now gets a lot of praise. The break comes a little further back than it does on other pistols, but it's also very crisp. There's an audible reset to this trigger also. The



grip has been improved as well, with a high friction stippling that really keeps this gun glued in place as you fire.

The M&P 2.0 is equipped with an ambidextrous slide controls, reversible mag release, wavy serrations, and a loaded chamber indicator. Another nice touch on the M&P series that it's available in "flat dark earth" brown, if you're into that look.

The .40S&W version has a magazine capacity of 15+1 and comes with 2 very high quality magazines (color matched if you go with brown). It also comes with 4 interchangeable back straps for fitment.

At the time of this writing, the price difference between the 1st and 2nd generation M&P is roughly \$30, while the value difference feels much wider. That said, there's really no reason to go with the 1st generation. Sights, holsters, and magazines for the 1.0 and 2.0 are interchangeable, FYI.

The M&P40 is a very nice pistol. The M&P40 M2.0 is an elite level pistol with tons of cool features we didn't even get around to mentioning. Priced a bit lower than its Austrian (Glock) and Croatian (XDM) competitors, this American made pistol is an exceptional value.

Retail: \$515

Ruger SR9



It's surprisingly difficult to settle on a single semi-auto pistol in Ruger's catalog. As we see it, that's both a compliment and a backhanded compliment. Ruger has produced a very strong lineup of ultra-reliable, high value guns in this category over the years; that's the compliment. The potential downside is they don't have a single contender that's the hands-down frontrunner.

Even with the brand new, state-of-the-art Ruger American Pistol, there are plenty who won't budge from the tried and true SR series. You can count us among them.

Both pistols fit nicely in our full-sized lineup here, and there's much to like about both. But from the consumer's perspective, the SR9 is lighter, sleeker, and cheaper than the American Pistol, not to mention better looking.

The SR9 is yet another striker fired polymer gun, but with a few twists and turns courtesy of Ruger. First off, the SR9 comes equipped with steel sights, adjustable for both windage and elevation, not the typical 3-dot setup we see on most competing platforms. The SR9 is also fully ambidextrous, a nice feature if you're "wrong" handed.

A standout feature of the SR9 is its weight, a very good 26.5 ounces, which puts it right there with Glock in the efficiency department. The Ruger American Pistol, M&P 2.0, etc. are each over 30 ounces. That's not a

make or break for most shooters, especially if this will be a range/home defense gun, but the extra few ounces makes a difference when you carry.

The SR9 also gets high marks for reliability and accuracy. Introduced in 2007, the SR9 has been put through the ringer by many enthusiasts and has undergone several refinements along the way.

The SR9 has a lot of safety features in typical Ruger fashion. There's a loaded chamber indicator, magazine disconnect safety, drop safety, and a traditional safety up on the slide. The SR9 also has an adjustable 2-way back strap, basically flat or rounded; not as much variety as other manufacturers, but you still get some ability to customize.

Another factor where the SR9 has a major advantage is value. At around \$445, you get an extremely durable and well-made firearm at a really unbeatable value. If the bottom line for your decision is the bottom line, take a look at the SR9.

Retail: \$445

CZ P-09 - 9mm



You know us, we just had to throw a changeup in here. If you're looking for something a little different, not a Glock, Sig, or XDM, this hammer operated, high-capacity sidearm might fit you just right.

This relative newcomer from CZ-USA to the polymer-frame duty pistol category has been turning heads since its release and for good reason. For starters, they really made a splash with a "suppressor ready" version, including a threaded barrel and elevated sights straight out of the box. Oh yeah, and many of those versions also have glow-in-the-dark night sights.

While the suppressor-ready package is an upgrade over the standard P-09, these "suppressor ready" models are available and constitute an excellent bargain when compared to aftermarket barrels and sights. The other heralded feature with the P-09 is a 19+1 round capacity. That's a lot of shooting on one magazine, folks.

The P-09 is not a featherweight gun, weighing in at 32oz and change, roughly the same as some popular SIGs like the P226. Also like the SIGs, it's a really good looking weapon that really doesn't feel as heavy as it is (not that 2lbs is all that heavy).

As the lone hammer fired weapon on this list, it's the only one to offer hammer fans that beloved single-to-double action. The P-09 has a de-cocking mechanism for those who prefer to skip that long single-action pull. As you can see, this CZ has a big honking Picatinny rail for accessories.

Given that it's a fairly large, fairly heavy duty pistol, why not load it up with lights and lasers, right? With the money you save by choosing this gun, you can probably afford some extra goodies.

RETAIL: \$475

Home (and Bug Out Shelter) Security Tips for Preppers



Securing your home and/or bug out shelter is absolutely critical. After all, if people are able to easily access your supplies, then it's not going to matter how much you've accumulated before the SHTF.

Always remember one thing above all else: when people are scared or desperate, they stop being loyal, stop following laws and stop caring about what's right and wrong. All that matters in those moments is survival and taking care of their family.

Therefore, even people who have done absolutely nothing to prepare for a natural disaster or other catastrophe aren't going to merely sit back and allow themselves to perish. Instead, they're going to look for someone to take life-saving supplies from. Don't let that someone become you!

The first rule of securing your belongings is to make it look like you don't have anything of value. Let's begin with camouflaging your survivalist ways.



1. Don't Let People Know You're a Survivalist

We've all enjoyed watching YouTube videos hosted by dedicated preppers, but have you ever stopped to think about the impact that those videos could have on their lives later on? Just like everyone is going to try to raid the neighborhood "nut job" prepper's house after the SHTF (who won't seem like a nut job anymore to all of the Judy Judgmental types), these individuals have put themselves at risk of becoming targeted during an apocalyptic situation.

What this all boils down to is that it's better to keep your survivalist lifestyle hidden. We know, we know... you want to share your cool stuff and help educate your neighbors. You also probably want to help destigmatize preppers and impress upon others the importance of becoming prepared. But we have a secret for you: most people aren't going to listen until it's too late, and then they're just going to try to take advantage of you.

Yes, that's a very pessimistic viewpoint, but it also happens to be true. Think about your current neighbors. Some of them might be salt of the earth types who would do everything in their power to be cooperative and helpful during an emergency.

But you also have a few neighbors who are judgmental, unprepared and generally uncaring, right? They won't think twice about turning on you when starvation starts to set in. And if you're being really honest with

yourself, you probably wouldn't think twice either if the roles were reversed.

To break it down further, here's the best approach.

- Don't tell people you're a survivalist.
- Don't put prepper bumper stickers on your car.
- Don't wear prepper gear outside the house.
- Minimize your at-home gear practice, especially if someone can easily see or hear you from their home.
- Store items in the most casual, unobvious way possible. For example, if you have water barrels outside, position them so that they're in the least visible location on your property.
- Don't let people observe you stocking your garage with supplies. If possible, drive into the garage and shut the door before unloading. If you can't do that, at least carry the bags in before opening anything to provide a bit of camouflage.



2. Don't Let People Know Where Your Cabin Is

Whether people know about your cabin because they simply think it's for hunting or because you didn't follow our first piece of advice, you can help keep others away from your bug out shelter by not telling them where it is.

Be vague: say "up north" instead of the name of the city. Or, if pressed, say it's in "the X area," and be sure to pick the biggest local city that's at least 25 miles away. That way, it's not technically a lie, but it would make it very difficult for someone other than you and your family to find the shelter during an emergency.

You can also plant a circle (or square) of trees around the bug out cabin to keep people from easily stumbling upon it. Basically, make it look like they'd

be walking through a thick section of forest instead of the clearing that's right beyond your tree line. This may require planting several rows, depending on what's already there.

3. Stick Up a Home Security Sign

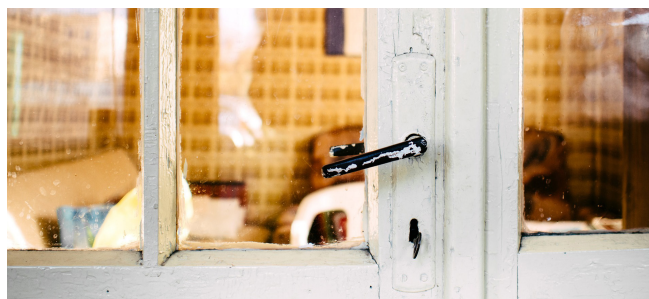
Sure, a home security sign isn't going to do much after the SHTF, especially if the electricity goes out. However, it can offer a buffer between your home and/or cabin and the rest of the world in the days leading up to an anticipated natural disaster. Criminals quite simply look for the easiest possible mark, so make your home seem like it's not worth the trouble.



4. Get a Dog

Even the sweetest, most loveable dog can become vicious when someone threatens his or her owners. Also, much like the home security sign (which doesn't even have to be legitimate), a dog helps make your home look like less of a viable option to looters.

Make sure that you add enough supplies to your bug out bag and shelter-in-place supplies to properly take care of the dog during an emergency. The last thing you want to do is make a difficult decision about whether or not to share some of your food with your family pet and loyal guardian.



5. Reinforce Your Door Frame

Most people suggest using multiple locks, and we agree that's an important home security measure. It won't really matter, though, if you have a weak wooden door frame that can be pushed in by any reasonably strong person.

Right now, while you still can, reinforce all of your entry doors with a solid, metal frame. Yes, do this at the cabin too, even if it does detract slightly from the rustic, wooden appearance of your bug out shelter.



6. Turn to Inhospitable Plants

If you were desperate enough to break into someone's house or bug out shelter, which one would be more attractive: a house with clear access to the windows or one with a bunch of prickly bushes and flowers everywhere? Obviously, you'd go for the easier route, as would almost everyone.

Planting things that are inhospitable such as the blackberry vine in the nearby picture is a fantastic way to keep people out of your house. Be sure to plant them thick enough to make window access extremely difficult. And if you ever have to jump out of a window, try to throw a blanket over the bushes first just in case you land on them.

7. Secure Your Windows

Are your glass panes thin enough to easily shatter? If you can't invest in thicker glass, you can protect your home by putting bars on the outside or inside of each window. You can also put a bar into the window's track so that no one can open it wide enough to get inside.

Something to remember about barred windows is that they remove your ability to easily exit during a fire. For this reason, installing something on the inside of the window that can be quickly removed (but only from the inside) is to your benefit. Someone may still break your glass, but the interior barrier will keep them out of your home.

Another option is to simply invest in bulletproof glass. Alternatively, you can install secure window film to reinforce your existing windows.

8. Put Up a Gate and Lock It

The easiest way to secure your family and survivalist supplies is by keeping people from getting to them, right? You can do this by putting as many barriers between you and the outside world as possible. Surrounding your property with a large, difficult to scale fence is a great place to start. Put a lock on any entry points, and make sure it's a thick one.

9. Be Friendly with Your Neighbors

Yes, we told you not to let the neighbors know that you're a survivalist, and we indicated that the selfish nature of most people will kick in hardcore during an emergency. These things are still true, but it's also wise to spend some time befriending the neighbors.

The primary reason to take this course of action is that, at least in the beginning, many people have a much harder time stealing from someone if they personally know and like them. If needed, these friendships could also help in the future formation of a neighborhood alliance.

For example, let's imagine a future scenario where the SHTF and you had to shelter in place instead of going to your bug out shelter. You still don't want your neighbors to know how many supplies you have, but what if there are several of you who are committed to defending the neighborhood from nefarious individuals? Banding together, even if just for a short while, might help all of you survive. This will be much less likely if you don't have preexisting friendships, though.



10. Weapons Training

It doesn't really matter where you are when the SHTF – your home, your bug out shelter or somewhere else entirely – all that matters is that you have some supplies and know how to defend yourself. We've mentioned several times before the importance of becoming intimately familiar with your primary

weapon. And no, we're not talking about some type of ammosexual lovefest.

What we mean is that you should always be able to grab, aim and shoot your gun quickly from a variety of positions, even in the dark. It's also wise to ensure you can reload your weapon with minimal light. You never know what type of situation you're going to find yourself in, but being properly trained and prepared to defend yourself and your property will go a long way toward keeping your family alive and your supplies intact.



11. Build a Safe Room (and Stock it With Supplies)

A safe room is definitely a good call, regardless of how many other security measures you have in place. This could be a room where your family stays safe while you deal with an intruder. It could also become a place of safety during a tornado or in the immediate aftermath of a nuclear explosion.

With this in mind, your safe room should be large enough to include some basic bunk beds and a two-week supply of emergency items, including food, water, lighting, a radio, a first aid kit, a weapon, plastic sheeting and duct tape.

Ensure that every family member knows how to easily and quickly access the safe room. Consider whether or not to have more than one entry/exit point. There are, of course, pros and cons to this. For example, if you have a secret entry from two closets, it will be easier to make sure everyone gets to safety.

On the other hand, there's a bigger risk that someone will find you, and it also compromises the overall stability of the room. If you live in tornado country, you're not going to want to take any risks by weakening the structure of the room.



12. Prepare Booby Traps for After the SHTF

There are many ways to fortify your home or bug out shelter by using booby traps, but it's not really a good idea to use most of them before the SHTF. At least not if you want to avoid legal entanglements. If the law stops mattering, though, your only limit will be how far your imagination goes.

Here's a few examples to get you started. Again, we DON'T advise using any of these unless the SHTF in a way that's unlikely to be recovered from in the near future. In other words, this is for a post-apocalyptic scenario such as *The Walking Dead* (the presence of zombies is optional).

- Make a spiked welcome mat. Anyone who wants to step into the house is likely to impale their foot.
- Put broken glass on all of your outside window ledges.
- Dig strategic traps throughout your property. Fill each hole with bamboo spikes, then cover them with a thin piece of sod. Anyone who steps in the wrong spot is going to be in a world of trouble!
- Just inside your fence, place a bed of spikes or nails. This is an ideal deterrent for those who jump over the fence because they'll land feet or knee down on top of your booby trap.
- Hide spring activated rat traps throughout your property.
- Hide barbed wire by placing it inside the top of the fence. Don't let it poke above the fence.
- Invest in a gas mask for each family member, along with home defense fogger spray. Spraying this fogger toward home invaders is a great way to get them to give up and retreat.



13. Share a Small Meal to Get People to Move On

Sometimes, no matter what you do, someone is going to get the drop on you. This could mean they take all of your supplies, steal your home and maybe even kill your family. With some preplanning, though, it could also lead to nothing more than a tense hour, followed by being left alone thereafter.

Here's what you need to do. Pick two or three relatively unappealing cans of food – beans are a great choice – and put them in a cupboard with a few other odds and ends. Next, you'll need to be prepared to start acting. The goal is to convince intruders that you're actually happy to share your meager food supplies with a traveler in need, but let them see how sparse your cupboard actually is.

Apologize for not being able to offer something better, then suggest splitting a can of beans before they get back on the road. If they're hungry enough, and if your acting is decent enough, they're most likely going to take you up on the offer and then scam as soon as dinner is done. Be aware that they might seek to spend the night or take any weapons you have. This means you have to keep weapons hidden so you can overpower them, if necessary.

Eventually, though, they're going to move on in search of a better food source. Your primary role in their life is to provide supplies they can steal. When those supplies run out, you and your home are no longer valuable. Meanwhile, all of the good stuff can and should be kept hidden at all times. This will enable you to fool people whenever someone stops by with less than honorable intentions.

Putting These Plans into Action

Now that you know what to do, it's up to you to enact at least some of these security tips at home and at your bug out shelter. Remember: you must

act now if you want to secure your home. After all, tomorrow could be when the SHITF, and then it will be too late to do anything.

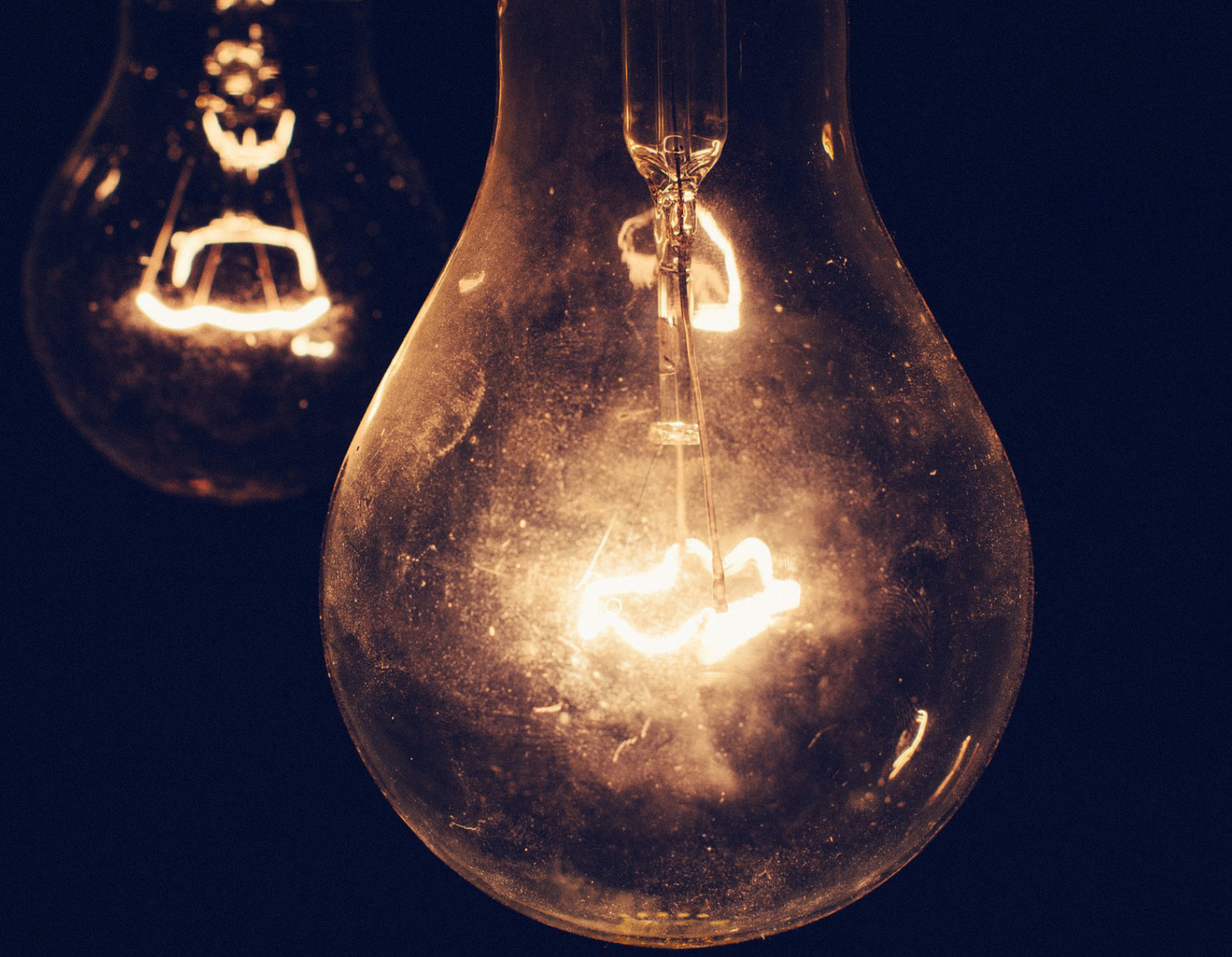
So stock up on food, water, first aid kits and batteries, get the supplies for some booby traps and don't tell anyone about any of it. When it comes to a dire emergency, you have to put yourself and your family first at all times.

Because, at the end of the day, taking care of your loved ones is the entire purpose of preparing in the first place. Likewise, it's also why you must have some level of closely guarded operational security built into your preparations. Your goal is to ensure that your loved ones have the resources they need when they need said resources.

Understanding this, you see how this need for security doesn't come from a cold lack of compassion for others in a desperate scenario. Instead, your security plan is born of a need to help others, the ones you choose to help; not the looters who would take that away from you.

Simply put, you must have resources first, in order to then be generous or charitable with those resources. Following the methods discussed in this article will help you put yourself in this fortunate position.





EMERGENCY POWER 101: CHOOSING A “GENERATOR”

Here’s a piece of information we find troubling: One of the most critical resources we depend on every single day is also one of the least understood, and not by a little bit either. When these two criteria are present—as they often are in our very advanced economy—it usually adds up to a massive vulnerability from a self-reliance perspective.

If we depend on something and don’t understand how it works, how could we ever hope to be self-sufficient? Forget moving your homestead off the grid for a moment, we’re talking about weathering a short-term crisis like the aftermath of a hurricane or snowstorm.

12

We’re talking about power, of course, or electricity to be precise. We depend on a reliable source of electricity for almost all of our basic needs, from food safety to communications. However, the average American’s understanding of electricity is really no better than a first grader’s, if we’re being honest. We know that when we plug it in, it works. When there’s an outage, our lights go out.

Talk to nearly any budding off-the-grid enthusiast and you’ll quickly learn how little they know about the power that operates their most important devices. It’s, well... shocking.

Case in point, one of the most common “solutions” offered to self-reliance enthusiasts is, drumroll please, the incredible “free” power miracle known as solar energy. Throw out the costs and environmental sustainability discussion for a moment, we’re talking about a much more fundamental lack of awareness here.

The constantly overlooked factor here is that the vast majority of solar panel products out there lack the major components needed to actually service your home’s power needs. Many consumers have been led to believe they could plug their TV directly into a solar panel. But the truth is a bit more complicated. Solar panels generate DC power, but your devices, light bulbs, refrigerators/freezers require AC power to operate.

We can’t tell you how many times we’ve been asked about how many solar panels a person might need to run X appliances off the grid, only to find out that the person asking had no idea that batteries would be involved, or this mysterious piece of equipment called an “inverter.”

If this is news to you as well, don’t worry. You’ve cracked open the right article. Because the purpose of this guide is not to shame you for not becoming an electrical engineer. It’s not even to say that you should become a hobby electrician. Our purpose is to give you the skillset you need to know if you’re being sold a bill of goods when it comes to generating the power you may one day depend on.

THE CRASH COURSE IN ELECTRICITY FUNDAMENTALS

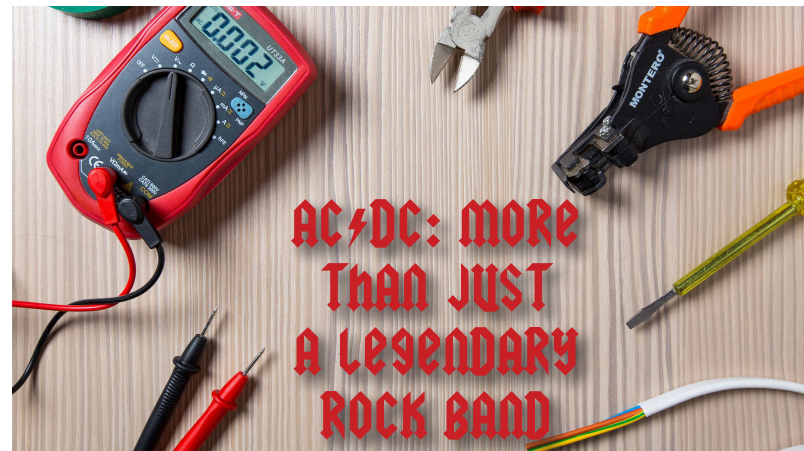


The fact is, too many products are being marketed as “simple power solutions,” when in fact there is no easy or simple solution to powering your necessary appliances during a blackout.

From our experience, the vast majority of consumers seem to have this image in their heads of running the ol’ extension cord from their TV, refrigerator, and window unit, straight to a couple of solar panels in the backyard.

We’re not sure where this came from, if not the land of wishful thinking. But the reality is that a lot of equipment, calculating, and expense is involved.

Even with all of the technological breakthroughs, we’re still some ways off from true “plug and play” solar on a larger scale. While there is reason for optimism, renewable power sources are still less accessible than we’d like them to be.



Now that we’ve blown the lid off one of the biggest fallacies about the solar panel industry (which is not really our intention), let’s dig a bit deeper into why simple physics is to blame, instead of greedy solar companies.

Direct current (DC) electricity isn’t unique to solar panels, it’s actually the same form of power output by batteries and even powerlines. That power is converted to AC before it gets to your devices by an inverter or transformer in the case of powerlines.

Is it really necessary that you fully understand the difference between **alternating current** and **direct current** power? Probably not.

The most important thing for you to grasp is that the two forms of power are not interchangeable without the proper equipment. This is why you can't just plug a solar panel into your cell phone.

The good news is that it's not particularly easy to connect DC power directly to a device designed to operate on AC, thanks to the ingeniously user-friendly plug and outlet system.

However, if you had a notion to cut off the plug and directly connect DC power, it could be very bad. At best, the device would simply not power up at all. At worst, you could start an electrical fire.

With that said, our goal isn't just to prevent electrical fires. Instead, our goal is to help separate the wheat from the chaff when it comes to off-the-grid power systems. Whether you plan to build a system that will effectively take your home off the grid, or you just want to keep the lights running during an emergency, the first step is doing your homework.

GENERATORS VS. INVERTER-GENERATORS

Perhaps the only "simple" off-grid solution for powering large appliances during an interruption is the tried-and-true gas powered generator. We'll discuss how you can create a very efficient emergency power plan using a gasoline powered generator later in this issue, but at this point it's critical we discuss why these machines are very a realistic solution.

Today's generators are not simply a gas-powered hamster wheels, they're very complex pieces of equipment that use inverters to generate a very stable form of electricity that is safe for high tech devices like your phone, TV, or computer. These are often referred to as "inverter-generators."

Simply put, the combustion engine driving your generator is little more than an alternator. It does actually produce AC power, but with a frequency that fluctuates along with the engine's RPMs. This type of raw AC power is not ideal for running any advanced devices like computers, TVs, etc.

In fact, running even a microwave oven on an unstable power supply could put you in the market for a new microwave pretty quickly. And, heck, even your toaster has advanced circuitry nowadays. To safely run these devices, you'll need to clean the power, so to speak.

Modern inverter-generators use advanced inverter technology to produce clean AC (alternating current) power, similar to what typically flows through your electrical outlets. This is what makes it safe for charging your phones and running other sensitive (often expensive) devices.

The key takeaway here is that "clean" AC power is what we depend on to operate our everyday appliances, phones, and even our thermostats. The power coming from batteries and solar generators is DC and thus needs to be run through an inverter. Power coming from a conventional generator is too raw for prolonged use by any device with a microprocessor.

Yes, this is a bit of an oversimplification, but accurate by and large for the amateur electrician.



When it comes to generators, output is measured in watts, which usually refers to a watt-hour (Wh). For example, if your phone charger is rated for 4 watts, it consumes 4 watts per hour. If you had a 10W charger, in this example, you could power 2 phone chargers while the charger is running.

2,000W inverter generators have a 2,000 maximum output, although running them at capacity for extended periods of time isn't recommended. Likewise, if you have a 100W solar panel system, that means the panel produces roughly 100W during ideal testing conditions with no clouds. In reality, it will

most likely produce 10-20% less power and only for the several hours of direct sunlight it receives that day. If we were to ballpark it, we would say that a 100W panel should produce 400W per day. It gets complicated quickly with solar, but there are lots of resources online to help you make your calculations.

Another thing to keep in mind is that backup battery systems can be charged by solar, gas generators, etc. You could charge your battery system with your home's everyday electricity, in fact.

Regardless of your generation method, a backup battery system is a great idea. You can build these battery by battery, or you can find some of the all-in-one systems which may be more user friendly.

Here's an important equation to remember as you plan: $\text{Watts} = \text{Amps} \times \text{Volts}$

A quick look through this list of household energy users will give you a rough outline of how much power you might need to keep things running in your household. In all honesty, the first thing you might realize is that you'll need to cut back during an emergency and be selective about what appliances you run and for how long.

Electricity Consumption of Common Appliances:

- Refrigerator: 188 Watts
- Freezer: 273 Watts
- Incandescent Bulb: 60 Watts
- CFL Bulb: 18 Watts
- Water Heater: 479 Watts
- Toaster: 1,100 Watts
- Coffee Machine: 1,500 Watts
- Ceiling Fan: 74 Watts
- Portable Fan: 100 Watts
- LCD TV: 213 Watts
- Laptop: 50 Watts
- Wireless Router: 7 Watts
- Window Unit A/C: 1,000 Watts
- Central A/C: 5,000 Watts
- Cell Phone Charger: 4 Watts

As you can't help but notice, several appliances soak up a wildly disproportionate amount of juice. Central A/C, for example, requires more wattage than everything else on the list combined.

Still, there are others, such as your toaster or coffee maker that draw an unexpected amount of juice. These are the types of "sleeper" energy hogs that you need to identify in advance. Your coffee pot and toaster alone can be a significant drain on your system if you're not careful. That's why power budgeting is so important.

Devices like the Kill-A-Watt (see nearby photo) can help you measure the electricity consumption of your household appliances, as well as how much wattage they use at different settings.

With this information, you can make choices about what type of backup power system you buy. Heck, it may change what appliances you purchase. And when it comes to making coffee, you might decide to go with an old-school percolator.

If there's only one piece of information you take away from this article, it should be this: Do your homework when it comes to backup power generation.



Producing your own power off the grid isn't rocket science; in fact, it's mostly just simple math. There are, however, many mitigating factors to work through that aren't readily obvious to the beginner. If you decide to build your own system, or even if you're simply in the market for an all-in-one generator, it's important to consult with an expert before you commit to any major investments. With a little homework and expert advice, you'll be ready to take another confident step forward in your self-reliance journey.

10 Best Backup Power Solutions

Photo by Dave Hale

Power grid outages have been rapidly increasing during the past decade. In fact, there were only 44 grid outages in the U.S. in 2000, but this number escalated to 200 a year by 2013. Of course, this doesn't even take into account minor power outages that are caused by downed lines, transformers exploding and numerous other issues that can impact electric service.

If you live in Michigan, Ohio, California, Pennsylvania or New York, you have the highest odds of suffering from a power outage that lasts more than a few minutes. Michigan has the largest number of annual outages per capita with 9.38 per every 100,000 residents. Of course, even if you don't live in one of these electric challenged states, you're still at risk of a long-term power outage happening at any time.

As catastrophic events such as hurricanes, tornadoes and the Northeast Blackout of 2003 have proven, electricity is a very vulnerable resource, which leaves us vulnerable when it's suddenly taken away. People with an electric stove can't even cook during an outage – which is why they need to have a camp stove too – and many life-saving medicines require refrigeration.



Speaking of refrigeration, the items in your fridge are likely to start going bad after only four hours. You may get 24 – 48 hours from your frozen goods, but even that might not be long enough for the local electric company to restore service. And, of course, the power going out for days, weeks or even months is something that should be expected when the SHTF.

How do you prepare, though? It's easy to say, 'have a backup power source,' but what does that really mean? For some people, that's the cheapest possible power generator (although we don't recommend it). For others, it's converting their home to a completely off-the-grid solar power solution (ideal, but not always practical). If you're somewhere in between, it's wise to take a look at a variety of options before investing your hard-earned money. So that's exactly what we're going to help you do!

Complete Plug and Play Solar System

An all-in-one solar solution doesn't need to cost tens of thousands of dollars. Instead, you can choose a plug and play system that's meant to provide temporary assistance as needed.

Wagan EL2546 Solar e Cube 1500



This plug and play option comes with five 16 watts solar panels, a 1500 watts AC inverter, two USB power ports and two AC outlets. It's intended to help you keep a couple

of your most vital electronics online. For example, you could use the Solar e Cube 1500 to provide power to your refrigerator.

Be aware that an initial charging period of 24 hours is required to use this device. Therefore, you need to make sure you take care of this process in advance so that you can get it up and running more quickly during an emergency situation. It also needs to be recharged every three months.

Reviews on this unit are mixed, so it's best not to have this as your only backup power source. Adding it to an existing backup generator should give you a great setup, though.

Wagan EL2457 Solar e Power Cube 1500 Plus



This is a more powerful version of the Solar e Power Cube from Wagan. It's 45 percent larger and has better reviews, which makes it our plug and play solar pick. Of course, it's also approximately \$300 more than its smaller cousin, so you need to carefully consider if that's something you're comfortable investing in a solar backup power solution. If not, there are several more things for you to choose from.

Power Banks

Power banks, AKA portable power units, typically offer one huge advantage over generators: they can be stored and used inside your home. As a result, these items are naturally highly desired and could be your best bet during a huge storm.

Schumacher SBP1 Storm 700W Portable Power Unit



The Storm 700W portable power bank is easy to move, even though it weighs 58 pounds. In fact, the design of this unit is similar to a carry-on suitcase; there's a retractable handle and wheels to help you get the Storm 700W into position quickly and with minimal effort.

Depending on what type of appliances or other items you power via this unit, you can expect three to nine hours of juice. That means this isn't going to get you through a catastrophe that lasts several weeks,

but it could mean the difference between losing your refrigerated items or not during a day-long outage. Keep in mind that you could also use it sparingly to power individual items for a few minutes at a time.

For example, if you use it to power a microwave or electric stove only while cooking, you could conceivably keep the Storm 700W going for several days.

Poweradd ChargerCenter, Compact 185Wh/50000mAh Portable Generator

Are you looking for a proven way to keep a few things charged during a power outage or to keep a small appliance operational such as a mini fridge? The Poweradd ChargerCenter is small enough to easily transport into your home or into the woods, and it can even be recharged from inside your car! You can plug up to four USB powered devices into the unit at once. At 2.8 pounds, this handy device deserves a spot in your bug out equipment.



Adding this affordable option to your overall backup power supplies is a wise choice because it will remove some of the burden off of your generator. Also, if you need to be more discrete, you can still keep a few things powered without making it obvious that you have a backup power supply.

Polaroid Portable Power Supply Everywhere PS 300

If you're like most people, a power bank definitely isn't the first thing that comes to mind when you hear the word Polaroid. It makes perfect sense for the Polaroid company to offer this highly portable power bank, though, as it can help photographers on the go keep their camera equipment, smartphone and laptop charged. These qualities also make it a great, well-reviewed choice for temporary in-home usage.



According to Polaroid, you could keep a 5W LED light running for 58 hours on one charge. A phone can stay fully charged for at least 70 hours. And if for some reason a drone is your priority after the SHTF, this power bank should keep it going for at least 2-1/2 hours.

The best part is that you don't have to find a power source to recharge the Everywhere PS 300. Instead, combining the power bank with optional solar panels enables you to keep recharging it indefinitely without an operational AC outlet.

Gas Generators



Even if you invest in a power bank and a plug and play solar system, you're still likely to need a generator during a serious, long-term emergency. There are thousands of options to choose from, so let's narrow it down to a few of the top-rated generators on the market today.

Honda EU2000i Super Quiet 2000-Watt Portable Generator with Inverter



According to Amazon.com, the Honda EU2000i is one of the best rated and top-selling generators in the US. This isn't surprising when you consider that it's highly portable, provides an average of 8.1 hours of power for every gallon of gas and has an inverter that provides a stable enough power source for laptops. Add to this the unusually quiet operation, and this unit is ideal for many households. You can get one online for less than \$1,000, which is the icing on the cake!

Champion 3800-Watt Dual Fuel RV Ready Portable Generator with Electric Start



One of the biggest perks of this popular generator from Champion Power Equipment is the fact that you can run it on gasoline or propane. You'll get the longest runtime from a 20-pound propane tank, but a tank of gas still provides 9 hours of power. This generator is designed to operate right out of the box. Simply use the enclosed battery and fuel up the tank.

If the touch starter, which is powered by the battery, doesn't work, you can use the attached pull cord. Some reviewers have indicated that this works better with propane fuel. The noise is slightly less than the typical lawnmower, meaning that you'll hear it indoors and it's not exactly discrete.

However, for situations when that doesn't matter as much, you can keep your household operating almost like normal for up to 10-1/2 hours per tank.

Duromax XP4850EH 3850 Running Watts/4850 Starting Watts Dual Fuel Electric Start Portable Generator

If you're eco-conscious, the Duromax XP4850EH just might be exactly what you're looking for. The EPA has given this specific generator approval for usage in National Parks, rating it as safe for those parks. This doesn't mean that it doesn't cause any pollution or that it isn't a potential fire hazard if used incorrectly, but it does mean that it generally performs better than many other generators in those categories.



Some of the other key features of the Duromax XP4850EH include a built-in low fuel warning light, an easy to use shut off valve, a volt meter and a key start switch. At 130 pounds, this isn't a generator you're going to want to lug long distances, even with the attached wheels.

However, it runs on gasoline or propane, and it can run for up to 20 hours with propane. Therefore, it's definitely worth considering if you're looking for the longest possible runtime. Additionally, no one is ever going to accuse this unit of being quiet, but it does have a muffling effect that makes it less noisy than other similar models.

PowerPro 56101, 900 Running Watts/1000 Starting Watts



The PowerPro 56101 is made for generator owners who prefer to use gasoline instead of propane. The quiet operation of this lightweight, 36-pound portable unit is backed by its certification for usage in any national forests or parks. This unit is also compliant with all EPA and CARB guidelines. The tank holds one gallon of fuel, and the manufacturer suggests running it with a fuel/oil mixture for optimal results. At half load, this can provide up to five hours of power.

If you're looking for the PowerPro line but want longer lasting results, the PowerPro 56405 is a good option. It's larger and has more than quadruple the watts. Of course, this also means it's much more expensive and isn't nearly as easy to move.

WEN 56200i Super Quiet 2000-Watt Portable Inverter Generator



Are you planning to run sensitive electronics with your generator? The WEN 56200i is an inverter generator, making it a great option! The unit is fully CARB and EPA III compliant. As an added

bonus, the reduced sound that emanates from this generator has been rated as no louder than the average human conversation. In fact, testing by the US Department of Health and Human Services verified this low level of noise pollution. So if you want to hide your generator as much as possible, or if you have noise sensitives, the WEN 56200i may be the right choice.

You can choose between many operations, including Eco Mode. When running it on the regular mode at half-load, expect to get more than 6 hours of runtime.

Pulsar PG2000iS 2000W Peak 1600W Rated Portable Gas-Powered Inverter Generator

This unit from Pulsar has great reviews and offers a moderate noise level. When using at half-load, you'll get approximately 6.3 hours of runtime from the unit's 1.18-gallon tank. The PG2000iS should be sat at least 10 feet from where you're going to be stationed if you want to greatly reduce the noise.



Less than 50 pounds and in a convenient, suitcase style case, the PG2000iS is easy to carry for quick usage during an emergency. You can also charge a variety of items with this Pulsar generator, including things that need 120V, 12V and a USB power port. With an optional parallel kit, you can connect two of these units together for double power.

Which Should You Buy?

Everyone's exact needs and budget are different, but there are a few standard guidelines that can help you determine which type of backup power supply to purchase. For example, are you hoping to power your entire house or are you satisfied with merely keeping one or two appliances going? Also, do you want to be able to take your power source with you or is it solely for at-home usage?

Generators with an Inverter

A word that has been repeated numerous times throughout this article is 'inverter.' As you may have

already ascertained, this means that the power source provides a cleaner source of energy that is much less likely to be damaging to sensitive electronics. Therefore, if a generator is necessary for your computer or smartphone, or if you just want to be able to keep watching TV after the power goes out, it's best to invest in a unit that has an inverter.

Be sure to check reviews to ensure that the inverter tends to work as advertised. The last thing you want to do is fry an important electronic, especially if the SHTF and you're unable to ever replace it.

Perks of Power Banks



A portable power source is quite simply a nice perk. Yes, this is available in basic portable generators as well, but a power bank has the advantage of being extremely small and lightweight. This is something you won't mind taking with you while camping, and it wouldn't be too taxing to carry it if you have to bug out in a hurry.

Of course, these small units have some drawbacks as well, most notably that they don't usually run for a very long time without needing to be charged. The Polaroid Everywhere PS 300 is the least hindered by these concerns, but only if you connect it to at least one optional solar panel.

That's not quite as easy to run with when the apocalypse starts, but hopefully you'll have one already stored at your bug out shelter or in your vehicle.

Solar Powered Plug and Play Systems: Are They Worth It?

There's a lot of potential in the concept of a plug and play solar backup power system. What we've seen so far, though, delivers mixed results, with a slight lean toward the positive side. However, these units are large, expensive and difficult to move.

On the plus side, they can keep the power going without requiring an electric powered recharge. On the downside, it can take 18 hours to get these units fully operational after each usage. If you have the money to invest in this and at least one other power backup, they can be worthwhile. It's probably best not to rely on this as your sole energy backup, though.

Selecting a Generator

Decide which points are most important to you – gasoline or propane powered, portable or stationary, quiet or noise level doesn't matter, etc. – before selecting a generator. Any of the units in this buying guide are worthwhile, but you have to choose the best one based on your specific needs, and no one else can figure that out for you.

Ultimately, we suggest getting two to three power backups. A power bank and generator will make a great combo. Some survivalists even purchase multiple generators to hook them together, but don't do this at the expense of not getting a power bank. After all, when the SHTF, you may have no choice but to run. Make sure you have something you can take with you to provide power wherever you end up.



When this single most vulnerable resource you use every single day is taken out,
Life for everyone will fall apart and chaos will reign.



**ECONOMIC MELTDOWN, SYSTEMIC COLLAPSE,
PANDEMICS, FOOD SHORTAGES, WATER AND
SANITATION BREAKDOWNS, VIOLENCE AND
RIOTS WILL ALL HAPPEN AT THE SAME TIME**

**YOU WILL LEARN HOW TO PREPARE FOR A
COMPLETE NATIONAL GRID DOWN SCENARIO**

Get Instant Access

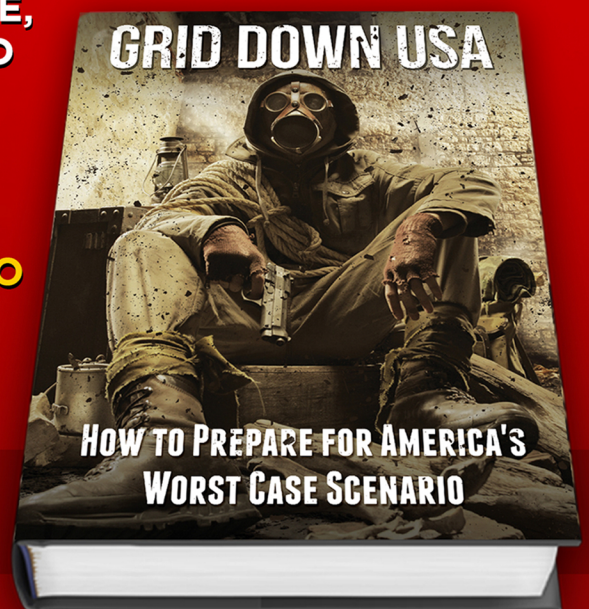
GRID DOWN USA

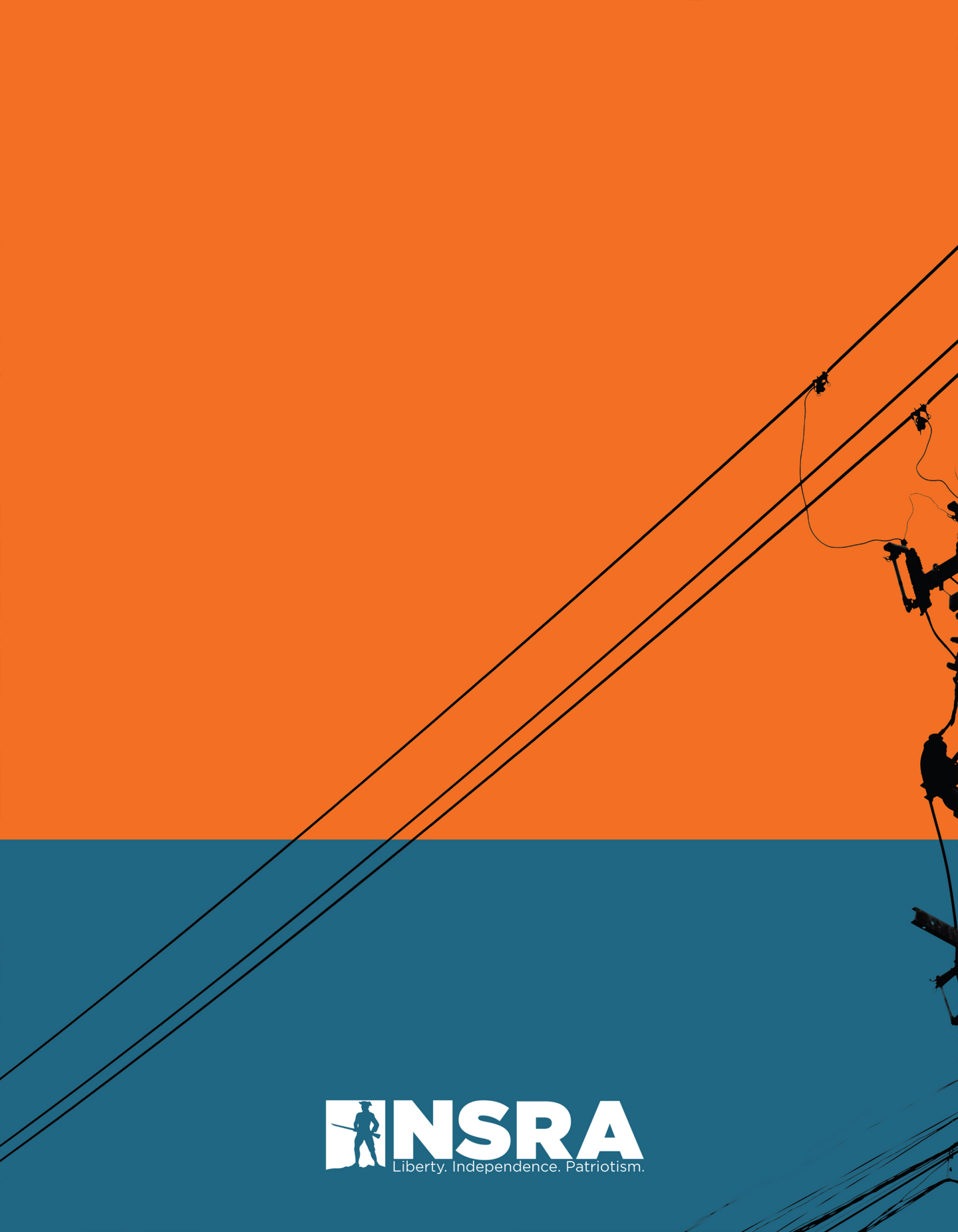
HOW TO PREPARE FOR AMERICA'S WORST CASE SCENARIO

www.GridDownUSA.com



MY CRISIS GEAR





 **NSRA**
Liberty. Independence. Patriotism.