Portable energy storage

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The gadgets and appliances that make modern living so comfortable have one thing in common: They all need power. Over the past few years, as people have turned away from gas-guzzling generators, portable power stations have enjoyed a meteoric rise. Whether you"re camping for the weekend, living off-grid, or protecting against power outages, these big batteries can help.

You can buy tons of power stations with varying portability and capacity. There"s no such thing as the best power station for most people, because it depends on what you need, but we have spent months testing several to find which models work for certain situations. We've tried systems that can provide from 768 watt-hours of energy to 6.4 kilowatt-hours. We also have important advice on what to consider when shopping for one. For more modest needs, read our Best Portable Chargers guide.

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The downside, apart from the high price, is the fan noise. It hovered around 52 decibels and kicked in quickly any time I used the power station or when charging it. While the remote control feature helps you roll it around, you will need help if you have to lift it. The warranty is three years, but you can extend it by another two years if you register with Zendure.

Sadly, the BioLite BaseCharge 1500 takes a long time to charge. Even from wall power, you need a day, though you can speed it slightly by using the PD USB-C as a second input. Charging from a single Biolite SolarPanel 100 takes several days. The battery is also a Li-NMC, so it likely won't last as long as some of our other picks. The BaseCharge 1500 comes with a two-year warranty.

Capacity: 1,521 watt-hours. Max Output: 1,200 watts (2,400-W surge). AC Charging Time: 13.5 hours (8 hours with AC and USB-C input). Ports: 3 x AC, 1 x Car, 2 x DC5521, 2 x USB-A (15W), 3 x USB-C (2 x 15W, 1 x 100W), 10W Wireless Charging.

Compared to the BioLite above, Goal Zero's Yeti 1500X also packs a Li-NMC battery but can put out and take in a much higher wattage, so you can safely use it with power tools and appliances, and it will charge faster. On the other hand, you have fewer ports, and it is much heavier at 46 pounds. Goal Zero offers a two-year warranty.

The River 2 Pro takes over an hour to charge from wall power and has a standard XT60 connector for solar panels, but the fan can get noisy. It doesn"t always kick in when charging smaller gadgets, but with more demanding things plugged in or when you recharge it, the River 2 Pro makes a bit of a racket (my Apple

Watch says as high as 57 decibels). Thankfully, EcoFlow offers a five-year warranty, and it's certified for safety by T?V Rheinland (an independent testing service).

Capacity: Figure out how much power you need. The capacity is listed in watt-hours (Wh) or sometimes kilowatt-hours (kWh). If you think about the devices you want to run from it and how long you need to run them, you can start to calculate the capacity you need. Manufacturers will often display stuff like 12 hours of TV or 30 minutes of electric chain saw use, but consider that not all TVs draw the same amount of power. You must calculate how much the gadgets you own actually use.

Portability: The term "portable" is stretching it sometimes. Batteries are heavy. The larger-capacity power stations are typically on wheels and have telescopic handles, and they are still tough to cart around. If you"re looking for something you can actually carry on foot for a distance, you may need to temper your expectations on capacity.