

## Back-Up Power Solutions for a Resilient Home

We all rely on electricity to run our homes and keep our families safe and comfortable. Power outages have become increasingly more frequent as a result of climate change, with extreme weather leading to 78% more power outages over the past ten years.<sup>1</sup> **Affordable solutions can provide back-up power and keep your home comfortable during power outages.**

**Indefinite Resiliency Package: 1-2 people, ~\$3,500**

**Electric Blanket (\$50)**  
(8 hours)

**Portable Fridge/Freezer (Aspenora) (\$370)**  
(10 hours of continuous running)

**Phone and laptop charging**  
(2 hours of charging each)

**Personal Evaporative Cooler (evaLIGHT) (\$150)**  
(10 hours)

**12V Roaster (RoadPro) (\$50)**  
(3 hours)

**LED lighting (~\$30)**  
(2 hours to charge rechargeable lights)

**Goal Zero Ranger 300 Briefcase (\$800)**  
(6-12 hours to full charge)

**All fits on the Goal Zero 1500X Portable Power Station (1500Wh) (\$2,000)**

For renters and anyone on a budget, you can create a back-up power solution for your home including a portable battery, portable solar panel, small camping stove, mini-fridge, and electric blanket for power outages during storms, or disasters such as earthquakes.

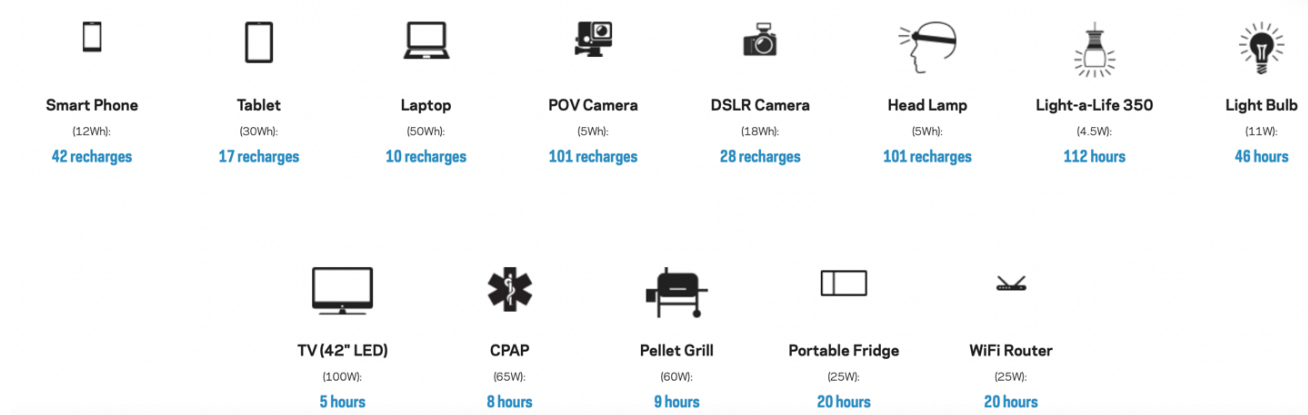
Many portable backup battery power options are available.<sup>2</sup>

Picture	Pecron S200	Rockpals	RIVER 600	Goal Zero Yeti 500X	Goal Zero Yeti 1500X	Goal Zero Yeti 6000X
<b>Price</b>	\$170	\$220	\$350	\$700	\$2000	\$5000
<b>Solar charging</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Battery Capacity (Wh)</b>	193	288	288	500	1500	6000
<b>Output Voltage (V)</b>	5, 12 (VDC) 120 (VAC)	5, 12 (VDC) 120 (VAC)	5, 12 (VDC) 120 (VAC)	5, 9, 12, 20 (VDC) 120 (VAC) / 2.5A	5, 12, 20 (VDC) 120 (VAC) / 16.5A	5, 12, 20 (VDC) 120 (VAC) / 16.5A
<b>Full charge time with 120VAC input (hrs)</b>	6-7	6-7	1.6	4.5 (120V/1A)	7 (120V/2A)	12 (120V/5A)

\*Note that prices have gone down since the Redwood Energy Guide was published; the Yeti500x is now \$549.

**FOR EXAMPLE: One affordable option, the Yeti500x**, can power many essentials during an outage.<sup>3</sup> (Check models to learn what specifically can be powered for how long). The Yeti can power more than one device at the same time with multiple “plug-in” ports.

## WHAT CAN THE YETI POWER?



### How do you recharge the Yeti 500x? Outlet, portable solar panels, or in your EV.

- You can simply plug it into a regular outlet (once the power is restored) – OR -
- **Portable solar panels** allow recharging during daytime for repeated usage (an important consideration for multi-day outages). The Nomad50 is an affordable portable solar panel that pairs with the Yeti, and can recharge the Yeti500x by about 50% during a full day of sun.<sup>4</sup> Larger portable solar panels will fully recharge the battery in one day. These panels can be easily packed away, and do not appear to be cumbersome.
- Portable batteries can also be recharged using the 12V outlet inside an electric car.

### Additional portable products that easily pair with the Yeti500x include:

- **Portable refrigerators** (to keep essential food, medicine or breastmilk cool).<sup>5</sup>
- **Lightbulbs with batteries**, such as the Neporal is \$11 and lasts 4-5 hours in an outage.
- **Electric blankets** can also easily be plugged in to help keep you warm.<sup>6</sup>
- **Low-power electric hot plates** can also be helpful.<sup>6</sup> A simple camping stove with a fuel canister is also a good addition to any home resilience kit.

<sup>1</sup> Climate Central, <https://www.climatecentral.org/climate-matters/surging-weather-related-power-outages>

<sup>2</sup> Redwood Energy Electrification Guide, [https://uploads-ssl.webflow.com/62b110a14473cb7777a50d28/6396be1051f34460e7dd5f26\\_A%20Pocket%20Guide%20to%20All%20Electric%20Retrofits%20of%20Single%20Family%20Homes.pdf#page=81](https://uploads-ssl.webflow.com/62b110a14473cb7777a50d28/6396be1051f34460e7dd5f26_A%20Pocket%20Guide%20to%20All%20Electric%20Retrofits%20of%20Single%20Family%20Homes.pdf#page=81)

<sup>3</sup> [https://www.goalzero.com/products/goal-zero-yeti-500x-portable-power-station?\\_pos=1&\\_sid=b14f0daec&\\_ss=r](https://www.goalzero.com/products/goal-zero-yeti-500x-portable-power-station?_pos=1&_sid=b14f0daec&_ss=r)

<sup>4</sup> **Nomad50 portable solar panels are \$249 (again, with option for 10% off)**, <https://www.goalzero.com/collections/portable-solar-panels/products/nomad-50-solar-panel>

<sup>5</sup> For example, this minifridge for \$49 is a good value: [https://www.amazon.com/AstroAI-Portable-Powered-Thermoelectric-Offices/dp/B07S2RBCT5/ref=sr\\_1\\_3?crd=9JNLUM9YFHPP&keywords=astroai%2Bmini%2Bfridge&qid=1679545065&srefix=Astro%2BAI%2Bmini%2Caps%2C128&sr=8-3&th=1](https://www.amazon.com/AstroAI-Portable-Powered-Thermoelectric-Offices/dp/B07S2RBCT5/ref=sr_1_3?crd=9JNLUM9YFHPP&keywords=astroai%2Bmini%2Bfridge&qid=1679545065&srefix=Astro%2BAI%2Bmini%2Caps%2C128&sr=8-3&th=1)

<sup>6</sup> See options in the Redwood Energy Guide, linked above.