

## November 2, 2023 - “Long-Term” Battery Backup for Us and You

As I stated in the last newsletter: Many of you served via our radio systems have noticed that during PUD power outages our Marrowstone Wireless Internet system is still functioning (if you have backup power for your router and radio). This can be a real advantage for emergencies, to have your Internet still up! Roughly 75% of you have this feature. For you other 25%, we are currently investing in battery backup systems that can automatically keep our transmitters alive over a 4 day outage for our Meade Hill and Nordland inland areas!



It occurred to me that you might like to know what we will be using to get a 4+ day battery backup at our relay sites on Marrowstone. First, we needed a device that can do 3 things, convert battery 12 volt DC power to 120volt AC house power during a PUD power outage, use 120 volt AC available house power to charge a 12 volt DC AGM (sealed) battery and finally to automatically transfer between AC and DC and back again. Here is a link to the device shown in the photo: <https://www.aimscorp.net/product/600-watt-pure-sine-inverter-charger-12v-etl-listed-to-ul-458-out-of-stock-eta-jan-20/>

The constant AC output from this Inverter/Charger system is only used to power our radios and electronic Internet equipment. (BTW, the radiated power output from our radios is minuscule at less than 1 watt.) The total power used by one of our Marrowstone relay sites averages between 60-75 watts (like a single old fashioned light bulb). This is why a single AGM 12VDC 95AH battery lasts for over 4 days during a prolonged PUD outage.

At home, you could also install such a system and if the only things you plugged into it were our outside mounted radio's power adapter, your connected WiFi router, cell phone charger and a laptop charger, you too can have a 4+ day battery backup system that automatically maintains emergency Internet communications. Assuming our new battery backups are all installed as well.

Peace, David  
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