

A close-up photograph of a portable generator. The generator has a black frame and a red control panel on the right side. The panel features several outlets, including two 120V AC outlets and a 240V AC outlet. A black wheel is visible on the right side of the generator. The background is white.

HOME BACK UP POWER 101

*HOW TO PREPARE FOR A POWER OUTAGE:
GENERATOR OPTIONS & OFF-GRID SOLAR SYSTEMS*

INTERESTED IN GAS WHOLE HOUSE GENERATORS?



Go to a
professional !!

GAS PORTABLE GENERATORS



There are many portable generators on the market



They come in Gas power or Tri gas power (Gas, Propane, Natural Gas)

FUEL TYPES AND CONSIDERATIONS

WHEN CHOOSING WHAT TYPE OF GAS TO USE THIS AS A GUIDELINE



GAS

Easy access – easy to use – hard to store long term, yes unleaded gas goes bad and will clog up the carburetor if you let it sit long term



Propane

Great long term storage – containers are more expensive than a gas can and have to be inspected every so often

Natural Gas

Requires the generator be in the proximity of the hookup-dependent on supply from unknown source

REGULAR GAS GENERATORS CAN BE CONVERTED TO PROPANE



Older popular Honda generators can be converted to Propane for a nice portable option



Google Hutch Mountain for possible solutions

BATTERY GENERATORS

These generators work the same as gas powered generators but use a battery instead of fuel – One disadvantage is, the limitation on battery duration based on load, they can run out in a hurry if you're trying to run many things, and charging takes longer than just adding more gas. - But they are very portable and can be used indoors – they don't need to be started which can be troublesome if your gas generator has sat too long



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Unlike Gas generators they need to be charged – Solar charging is an option for these types of generators



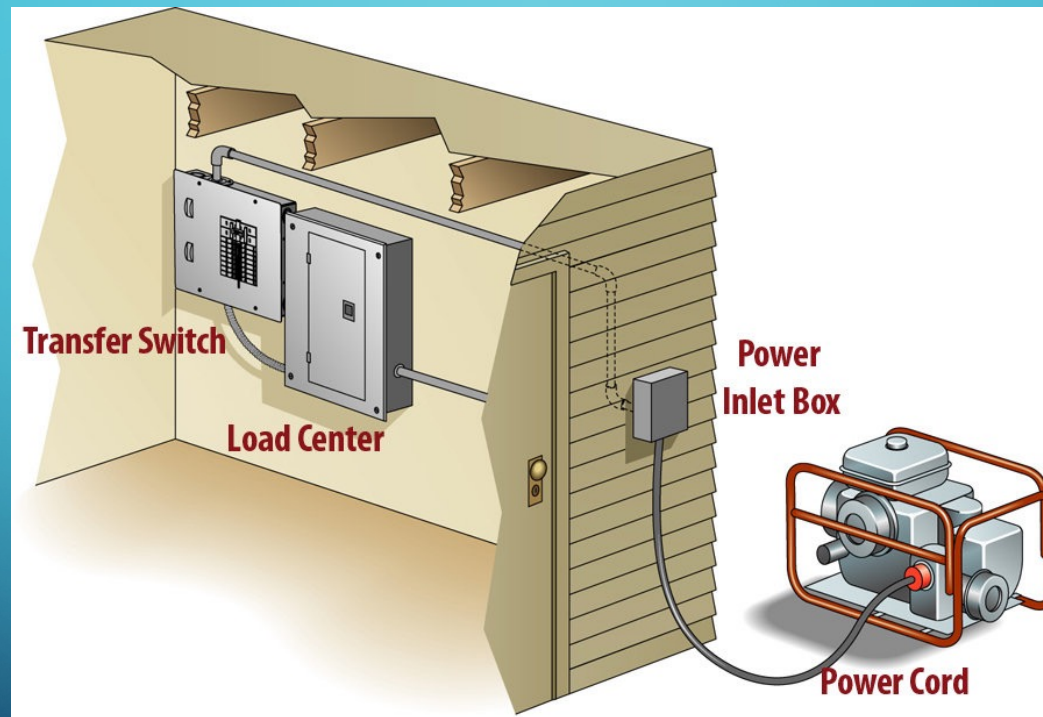
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CAN I RUN MY WHOLE HOUSE ON A PORTABLE GENERATOR?

If you have the right size generator and enough extension
cords – Maybe but it would be a mess



THE MAGIC TRICK



The standard generator house plug and a transfer switch

THE MAGICAL COMPONENT

The Transfer Switch with standard plug

- Comes in many sizes and is easy to install
- **This simplifies getting power to the dead panel without having to run any extension cords.**
- At installation just choose the critical circuits in the house (Fridge, freezers, router, microwave) and wire the transfer switch accordingly.
- At power outage just flip the breakers on the transfer switch to GEN and you're good to go



SOLAR AND BATTERY OPTIONS

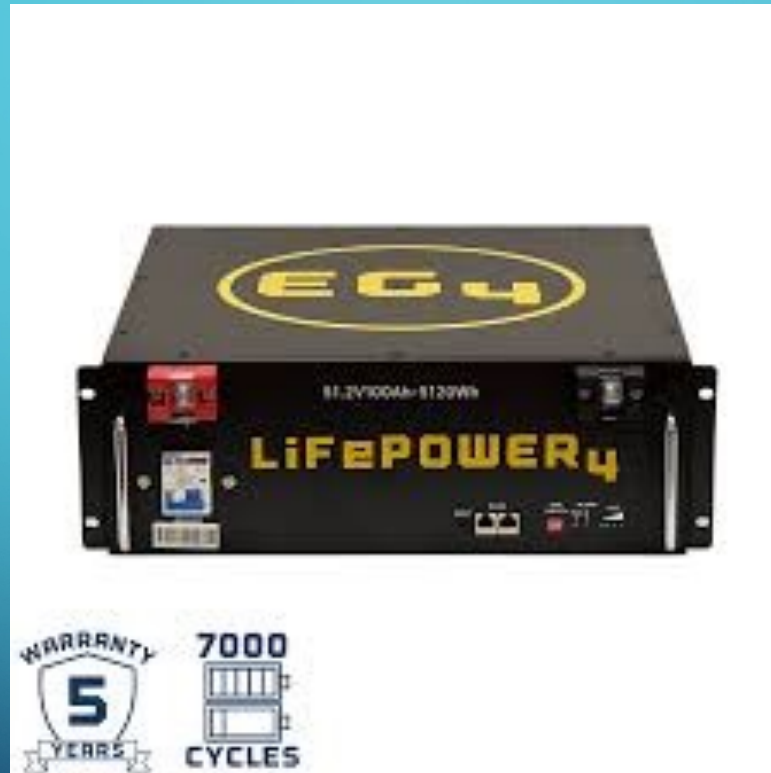
Off Grid solar options are abundant these days with panels, controllers and batteries. Solar panels can be controlled by a multi purpose controller that will manage Solar input, Battery charging, and distribution of power to the house.



Use your solar panels and controller to:

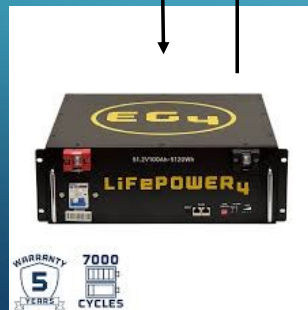
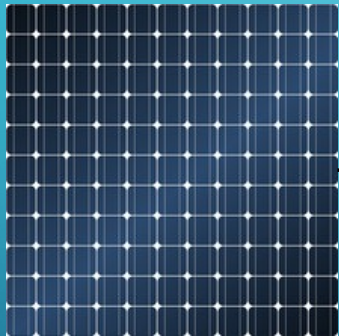
- Provide power to the house thru the transfer switch during the day when grid electricity is expensive
- Charge high capacity batteries during the day at the same time.
- Provide power to the house during the night from the charged batteries and the controller thru the transfer switch
- This can be tailored to your minimum power needs at night

RACK MOUNTED BATTERIES



Example of high capacity batteries on the market. They come in a variety of shapes, sizes and capacities

POSSIBLE OFF GRID SOLAR SET-UP



This does require manually switching – but it's a good start for DIY type folks