

Solar Electricity

He setup a small off-grid system that included:

(4) 100 watt monocrystalline solar panels	\$1250
(1) 40 amp MPPT charger controller	\$ 230
(4) 6 volt [470 amp] golf cart Duracell batteries	\$ 500
(1) 1000 watt Renogy inverter	\$ 270
Misc [wire, hardware, etc]	\$ 250
Total for 1.5 kilowatt [KW]/day system	\$2500

Note: this same system can be bought online for much less

The ave home uses 30 KW/day of elec.

Buy a kilowatt meter for \$20 to measure appliance power usage.

Only drain batteries down 50%

Only use PWM controllers for small systems [MPPT controllers are standard]

Use 2-5 days [for overcast days] consumption to determine how many batteries are needed.

Locate panels close to batteries to reduce voltage drop.

Check winter vs. summer sun altitude [zenith angle] & sun hrs/day

Wire panels in series to keep voltage drop min

Plywood battery box w/ 2" pvc vent to exterior [hydrogen].

Install volt meter to measure battery charge

Install ext box w/ breaker [used as switch] @ panels w/ AC disconnect switch @ controller

Install fuse & manual disconnect switch between inverter & batteries

Install fuse between controller & batteries...ground system!

See www.tinhatranch.com & www.youtube.com

8kw system [30x260w panels] for \$12,000 [material only]

13kw system [50x260w panels] for \$20,000 [material only]

Typical solar panel size is 39"x65"

Solar panel production has increased & costs decreased in last 10 yrs

Labor to have it professionally installed costs as much as material or more

See <http://www.wholesalesolar.com>