

# The Solar Trailer – Where does the sun's energy flow?



Solar Panels on roof:  
Two 12-volt, 150 watt Photovoltaic Panels  
Cost: ~\$300 each (\$2 a watt - 3 years ago, current costs are over \$6 a watt)

Charge Controller:  
"Solar Boost" Maximum Power Point Transfer (MPPT) 25 amp  
Cost: ~\$180

Storage Batteries:  
Three 12-volt 'deep cycle', marine-type batteries, 85 amp (~255 amps total when batteries are fully charged)  
Cost: ~\$50 each

12-volt Fuse Block:  
Six 15-amp circuits. Protects the system components from power surges, etc, like the circuit breakers in your house.  
Cost: ~\$20

Big Xantrex Inverter:  
1500 watt, takes incoming 12-volt DC power from the batteries and converts it into 120-volt AC power for the microwave  
Cost: ~\$150

12-volt items:

- Trailer interior lights
- Water pump to pressurize the trailer's plumbing
- Thermostatically controlled trailer roof vent fan
- Stereo amplifier (low power) and CD player with 2 indoor and 4 outdoor speakers
- Laptop with 12-volt adaptor
- Portable 'bedside' fan for those HOT playa nights
- Blue Star LED light string for the trailer awning
- Battery rechargers to revitalize our NiCd and NiMh batteries (AAA, AA, C, etc)
- EvapaWheel motor – Hoodville's Greywater System
- Occasional recharging of friends' batteries, i-Pods, laptops, etc.

Small Xantrex inverter:  
150 watt, converts 12-volt DC to 120-volt AC to power small "household current" items  
Cost: ~\$30

Microwave:  
Typical household 120-volt, 700-watt appliance, essential for roughing it on the playa

120-volt items:

- Coffee bean grinder for the stove-top espresso maker
- Portable USB hard drive for digital photo storage
- Three strings of white LEDs (210 bulbs!) for community area lighting