

2006 Minnesota Solar Tour

October 7, 2006



Smith Residence

2115 Eagle Ridge Drive
North Mankato, MN

The solar electric panels generate a good percentage of this home's electrical needs. The solar thermal panels heat an antifreeze solution that, in turn, heats a water storage tank. The heated water can heat the water heater tank or a pre-filter coil in the forced air furnace system. When there is no demand for the heat, the system shuts off and the antifreeze drains back into a tank in the basement. The GFX coil wrapped around the waste water pipe collects the heat from hot water going down the drain and transfers it to incoming water headed for the hot water heater.



System Components



- 10 200-watt solar electric panels
- Pole-mounted tracker
- Sunny Boy inverter
- 5 (4' x 10') flat-plate solar thermal panels
- GFX heat recovery coil

Directions

From I-35W South, take the I-494 West exit. Take the Highway 169 South exit and continue on Highway 169 South (Johnson Memorial Drive) through St. Peter toward Mankato. Take the Highway 14 West exit. Take the Lor Ray Drive exit and turn right on Lor Ray Drive (County Road 13). Turn right at Countryside Drive. Turn left at Eagle Ridge Drive.