

## Leeds and District Allotment Gardeners Federation

### Solar power installation at Lidgett Lane allotments

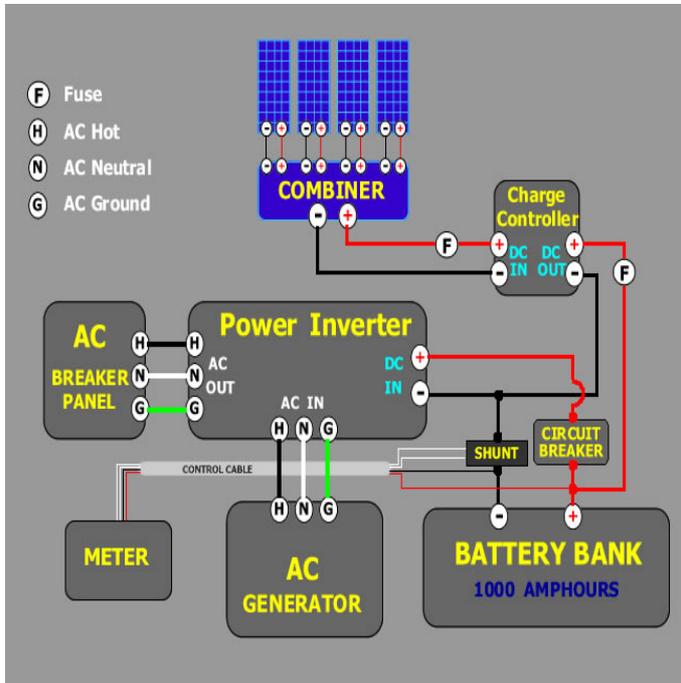
The schematic overleaf shows the basic features of the installation with the addition of a back-up generator. Some will find the use of a fossil fuel powered generator acceptable, some will not.

The original site installation in 2007 used one panel only (pole mounted), the displayed wiring board mock up and was designed to power a burglar alarm, two fluorescent tubes and a double socket ring main. Overall power output was limited by the inverter to one kilowatt. The system cost just short of £2,000 and was paid for by grant funding from the local authority - the Well Being Fund and contributions from local ward councillors.

In 2011 the system was upgraded to include a second panel (mounted on the toilet roof), two further batteries, a more sophisticated battery monitor and three more power sockets. The latter were used for recharging points for cordless tools, a cordless mower and a further set of fluorescent lights. The same one kilowatt inverter is still in use. The cost was just short of £1,000 and funds were again obtained from the local authority

What we learned:

1. Carefully specify in advance how much power you will need to generate and how you will use it. The calculator mentioned below is helpful in this respect
2. Try to think long term when designing the system - think what you might need in five years, for example. Your needs for the number and size of cordless tools may well change over time
3. Source the best possible components in terms of quality and function - we have needed to upgrade some of ours from the original installation
4. Research your funding and grant options carefully



from freesunpower.com also look at solartechnology.co.uk for system spec calculator