

# Solar PV connection to the grid

Once solar panels are on your roof, the electrical wiring can be done. The installer will register the site with the Microgeneration Certification Scheme, and you will get a certificate by email which you can use to claim Feed-in-Tariffs.

The installer should also:

- ✔ show you how to operate the system and how to spot faults
- ✔ provide information on maintenance requirements
- ✔ give you a pack with all the manuals and warranties.

## Connecting to the national grid

Your installer will liaise with your District Network Operator (DNO) to connect your solar PV system to the national grid.

For many reasons, including roof space, Feed-in Tariff banding and the potential cost of grid connection, most householders opt to have a smaller system.

## Smaller systems

If you have a smaller system, your installer can simply inform the DNO within 28 days after commissioning that a connection has been made, if it is connected through an inverter that has been type tested for use with a solar PV system (engineering recommendation G83/2).

This applies if your solar PV system is up to 16A per phase, equivalent to 3.68kW, which is based on the lower of:

- ✔ the rating of the inverter (based on 230V) and
- ✔ the sum of the ratings of the PV panels, multiplied by the maximum efficiency of the inverter.

If your inverter was 100 per cent efficient the largest system you could have installed under G83/1-1 Stage 1 would be 3.68kW. If the inverter had an efficiency of 92 per cent then you could have a 4kW solar PV system installed and still qualify, as  $4\text{kW} \times 92 \text{ per cent} = 3.68\text{kW}$ .

An inverter for a 4kW solar PV system might be sized at less than 4kW.

[Download a guide to connecting generation that falls under G83/2 from the Energy Networks Association website.](#)

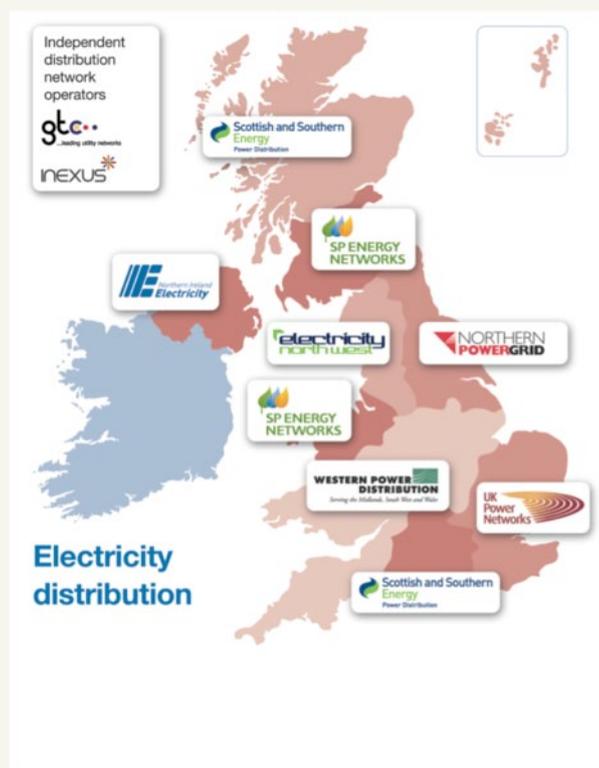
## Larger systems

If your solar PV system is too large to fall under G83/2, your installer will need to get permission from your DNO before any connection to the grid is made.

The DNO will carry out a network study (which it may charge you for) to ensure that the local grid network can take the extra power that your solar PV system will generate. If the local grid network needs extra work before it can accept your connection, this will have to be done at your own cost. The DNO has 45 days to provide you with a quotation for this work; it must be able to justify the costs it wants to charge, and this is regulated by Ofgem.

[For a useful article on this subject go to Chris Rudge's blog on the YouGen website.](#)

### Distribution Network Operators (DNOs)



Map courtesy of Energy Networks Association

[Find key documents on grid connection at the Energy Network Association website.](#)

