SOLAR PV PANELS

WHAT IS SOLAR PV AND HOW DOES IT WORK?

Solar PV totally runs on the sun's energy which means as long as there is sun, you will produce your own electricity.

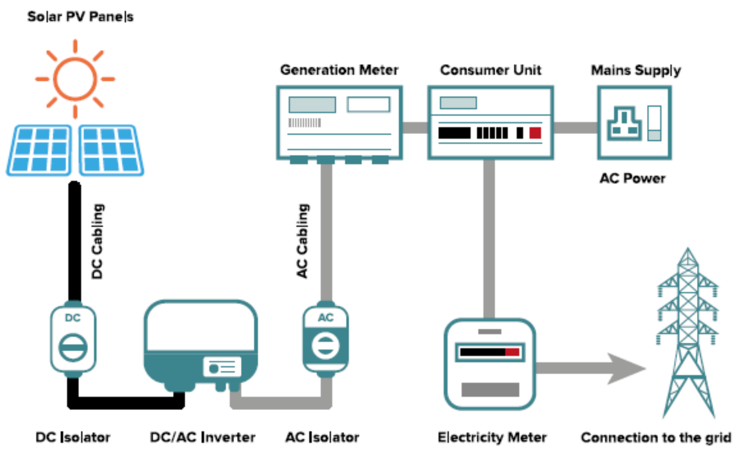
The solar panels generate direct current (DC) electricity from sunlight which is fed through an inverter to convert it into alternating current (AC) electricity which can then be used in your home appliances and equipment.

As long as the sun is available your panels will keep producing electricity and send it through your inverter to your home and also to the national grid. On clear sunny days, a significant proportion of your electricity needs can be met by the energy generated by the solar panels on your roof; reducing the amount of energy needed from your energy supplier and helping you to save money on your energy bills.

Your solar production capacity depends on your panel size and inverter size. Assuming your daily electricity usage is 3kW and your solar production is 5kW on a daily basis - in this case, as per the priority set, your home consumption needs will be fulfilled by the solar panels first. After this, if there is any unused electricity which has not been used by your home, the unused energy will be discharged to the national grid.

The main components of a typical Solar PV system include:

1. Solar Photovoltaic (PV) panels: Converts solar energy/sunlight into DC electricity
2. Inverter: Converts DC electricity to AC for household consumption
3. Energy meters: Monitors electricity consumption and solar energy production
4. Electrical appliances/loads: Run by the inverter or utility grid using AC energy
5. Utility grid: Electricity provider



Do not interfere with the solar panel equipment within your property as this could impact their effectiveness as well as invalidate the warranty.

ENVIRONMENTAL BENEFITS

- Harnessing solar energy reduces carbon emissions, mitigating climate change
- Solar PV systems contribute to cleaner air and water by minimising pollution
- Protecting biodiversity, solar power helps preserve ecosystems for future generations

ECONOMIC ADVANTAGES

- Lower energy bills for homeowners and businesses with on-site solar generation
- Job creation in the solar industry stimulates economic growth and innovation
- Reduced reliance on imported fossil fuels enhances energy security and stability

SOCIAL IMPACT

- Empowering communities through decentralised energy production and local resilience
- Improved public health as solar energy reduces air pollutants and related illnesses
- Access to affordable and sustainable energy fosters social equity and inclusiveness

SOLAR PV PANELS (cont.)

HOW TO MAXIMISE THE BENEFITS OF YOUR SOLAR PANELS

In order to maximise the benefits of the solar panels, you may wish to carry out activities that use more electricity on sunny days, when the solar panels are able to generate the most electricity. For example, using appliances such as washing machines, dishwashers and irons when the sun is shining will help you to maximise use of the electricity generated by the solar panels and minimise the amount of electricity needed from your energy supplier.

HOW TO LOOK AFTER YOUR SOLAR PANELS

It's important not to interfere with the solar panel equipment on your roof or within your property, as this could damage the panels or equipment and stop you from maximising the benefits of the energy generated by the solar panels. If you notice the solar panels are not working or have been damaged, contact your Housing Association.

SMART EXPORT GUARANTEE (SEG)

The Smart Export Guarantee (SEG) is a government initiative designed to reward households for exporting surplus electricity generated from renewable sources, such as solar photovoltaic (PV) systems, back to the grid. This can help you reduce your energy bills and contribute to a greener environment.

How it works:

- **Eligibility:** To qualify for SEG payments, you need to have a renewable energy system installed and meet certain criteria set by your electricity supplier.
- **Payments:** Your electricity supplier will pay you for the electricity you export, based on the rates they offer. These rates can vary, so it's important to compare different suppliers.
- **Metering:** You will need a smart meter or an export meter to measure the amount of electricity you export.
- **Note:** Some energy providers may require additional information such as proof of identity, proof of ownership or proof of approval from your Housing Association to access the Smart Export Guarantee. If this is requested, please reach out to your Housing Association to discuss this further.

Next steps:

To learn more about the Smart Export Guarantee and how you can benefit from it, please reach out to your electricity supplier. They can provide detailed information on eligibility, rates, and the application process. Scan the QR code to see a list of companies that offer SEG.

Do's and Don't's

✓ Do contact your Housing Association if you believe your solar panels are not working or have been damaged.

✓ Do make the most of electricity generated from your solar panels by using electrical appliances when the sun is shining.

✗ Don't interfere with the solar panel equipment within your property as this could impact their effectiveness.