



Making the most of your Solar PV Panels



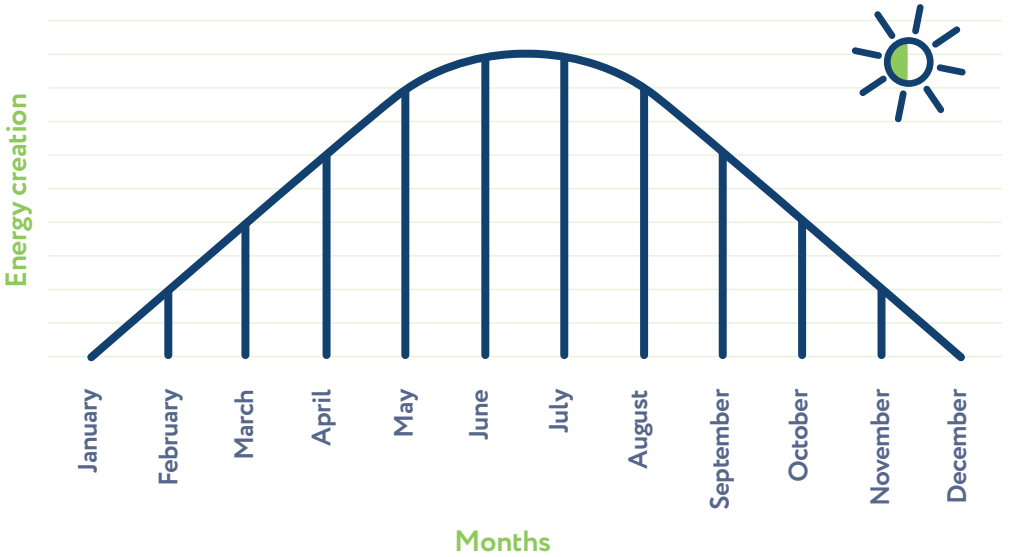
Solar photovoltaic (PV) panels use the sun's energy to generate electricity that can be used in your home. If you have a battery fitted, this can be stored for use later. If not, any excess energy created can be sold back to the National Grid to save on your electricity bill.

However, it's important to remember that solar power has its limitations, so you will still have to pay some bills for the electrical items in your home. Despite this, with some changes to how you use your electrical items, you can make the most of your free solar power and reduce your electricity bills. Keep in mind that you won't see instant savings if your panels are fitted in the winter when there is less sunlight than in the summer. Instead, you'll see savings over the entire year.





Example energy creation over a year



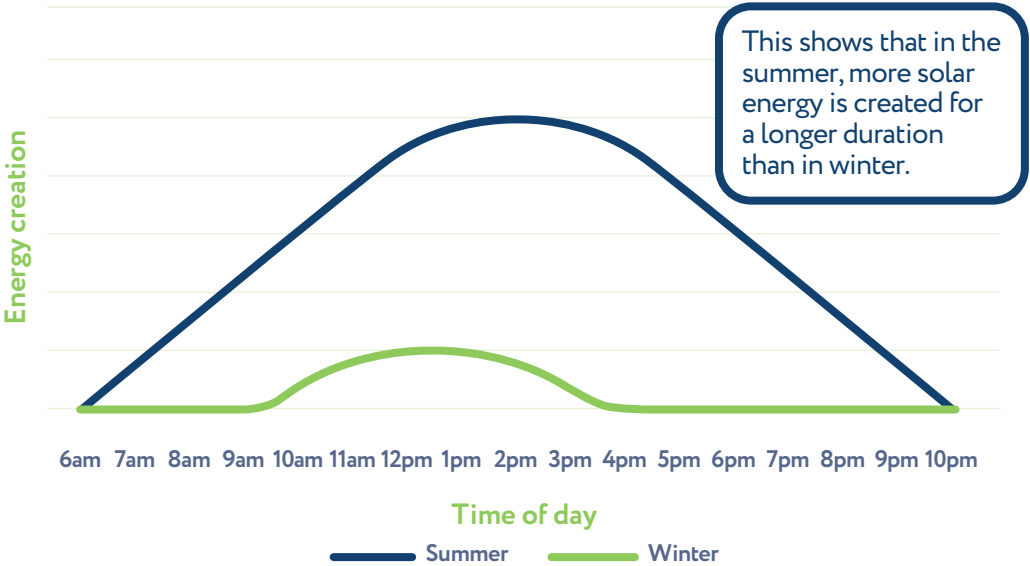
The chart above shows an example of energy generated by solar power throughout the year. It indicates that during the summer months when there is more sunlight, more energy is produced compared to the winter months. Because of this, in winter you may have to top up your energy from the National Grid, for which you will be charged your normal rate.

More energy is produced during the summer months.





Example daytime creation

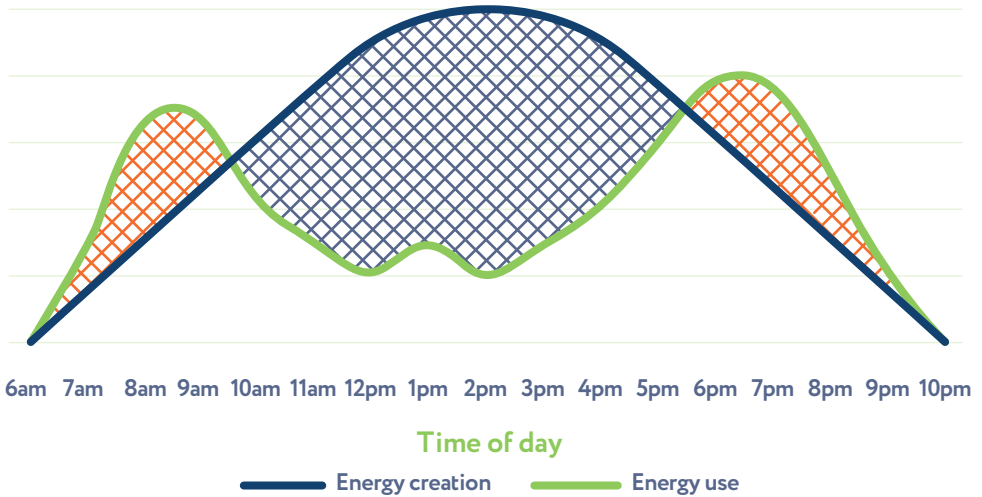


The chart above is an example of energy creation throughout a summer's day compared with a winter's day. Solar panels still generate energy in cloudy or winter weather, but just at a lower rate than in sunny weather.

An average home usually has higher levels of energy consumption in the mornings and at around teatime and early evening.

Solar panels still generate energy in cloudy or winter weather

Average household energy creation vs energy use

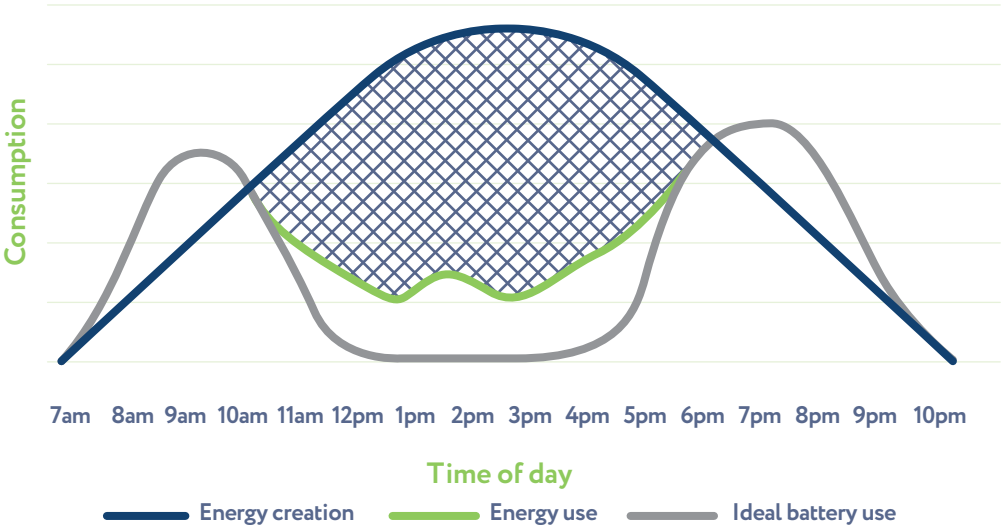


Everyday morning routines, such as flicking the kettle on and taking showers before leaving the house, consume energy. Similarly, in the evenings when you return home, energy is consumed by activities such as cooking, watching television and doing laundry. Because of this, even during the summer months, your energy consumption is likely to be higher than the energy generated or stored in the battery. **This excess energy comes from the National Grid which you pay for and is represented by the orange hashed areas in the graph above.**

The blue hashed area in the graph above shows when energy creation can be higher than energy usage if no one is at home during the day. The energy generated by your solar panels will be used to charge the battery storage, if you have it. If your battery is full or you don't have a battery, you can set up an export tariff with your energy provider to sell the excess energy back to the grid, but keep in mind that the rate to sell electricity back to the grid is much lower than the rate at which you buy it from them. Therefore, it's more economical to use the energy you generate rather than buying it from the grid.



Use of battery storage (when fitted)



The best scenario for battery storage is when your energy use during the day is lower than your energy creation. This allows your battery to charge up during the day (shown in blue hashed area). Later in the evening, when your energy use increases in comparison to your energy creation, the battery can kick in and provide power to your home. If the battery is fully charged, it can last throughout the evening and into the morning, depending on your energy consumption. However, the advantages of battery storage are limited in the winter as your energy creation is restricted by the lack of sunlight.



Top tips for getting the most out of your solar panels



As your solar PV system will be working at its peak during daylight hours, it's a good idea to run your electrical appliances such as your washing machine, dishwasher, and iron during the day.



Keep an eye on the weather forecast – if tomorrow is looking particularly sunny, maybe wait a day to do laundry!



Make sure to stagger your use of high-energy appliances so that your energy consumption stays under or equal to the amount of energy you are producing.



Use an App to see how much energy you're creating and when to help plan the use of your high-energy appliances.



Consider installing a smart meter to accurately measure your energy use.



Consider changing your tariff with your energy supplier to enable any excess energy creation to be sold back to the National Grid. However, it's important to keep in mind that the rates for selling excess energy are typically quite low, so you shouldn't expect to make a significant amount of money from this. Additionally, you may not generate a large amount of excess energy in the first place.



Try and reduce your energy usage to help lower your bills and reduce your carbon footprint. Check out these tips to help you do this: <https://energysavingtrust.org.uk/hub/quick-tips-to-save-energy/>

Extra advice is available. Scan QR codes.





Need help or have a question?

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