



# Getting the best from your solar panels



Your solar panels produce electricity by absorbing energy from sunlight and turning it into energy for your home. This electricity your panels generate is free, and is used instead of electricity from the grid. But it's important to use it correctly as your solar panels won't produce enough energy to power your whole house alone. This short guide is aimed to help you make the most of your solar panels.

## Solar panels produce electricity when the sun is shining, but not always the same amount...

Solar panels produce more electricity during the warmest part of the day and during the summer months. Most electricity will be produced between 1pm and 2pm and during the months of June, July and August. Typically your solar panels will generate enough electricity to boil a kettle, power your washing machine or recharge 800 mobile phones in this time alone.



## What happens when the sun isn't shining?

Solar panels produce some electricity even when it's cloudy or very cold. Although the amount is lower compared to the summer, it will help to reduce your energy bill. At night time solar panels produce no electricity.

## How much am I saving?

When your solar panels were installed the engineers will have fitted a new electricity meter. This records how much electricity your solar panels are sending back to the national grid. The amount of free electricity you use is not recorded.

Try to use as much free electricity as possible, anything you don't use goes back to the national grid...

## How do I know they're working?

Every solar panel installation contains a SIM card, just like a mobile phone. It communicates with a monitoring system and will trigger an alert to us if anything goes wrong.

## Why are my bills going up?

Solar panels help reduce the amount of electricity you use from the grid so any increase in your bills won't be as a result of having solar panels. Using them the right way will make sure you get the maximum benefit.

For example, your solar panels can produce up to 3kW of energy on a sunny day. The average washing machine uses 2.25kW on a 30 minute cycle, as does the average tumble dryer. If both are running at the same time 4.50kW is being used. This means that although 3kW will come from solar energy, the remaining 1.50kW will come from the grid at a cost to you. But if you run the machines separately less grid energy will be needed.

If you are concerned about your energy bills, we can help. Call us on or email [energyteam@nottinghamcityhomes.org.uk](mailto:energyteam@nottinghamcityhomes.org.uk).

Remember that if you think there is a problem with your solar panels, call us on **0115 915 2222**.

## What is the best way to use my free electricity?

The amount of electricity produced by solar panels varies, but it can be split into two main areas – summer and winter. In the winter months solar panels produce a very small amount of electricity, but this will, for example, help to run your fridge or fridge freezer. In winter your solar panels work in the background providing a small boost.

In summer, solar panels produce much more free electricity, but only when the sun is out. It's a good idea to check the weather forecast if you're planning to wash clothes or use a tumble dryer. Try to use powerful appliances during the hottest parts of the day and avoid using all your big appliances at the same time where possible.

## What if I'm out all day?

You can still benefit from solar panels if you are out during the day, anything plugged in at home will use solar generated electricity up to the 3kW maximum.

Plug in timers can make sure appliances are not running at the same time. Appliances like slow cookers a great way to use solar energy in the day and save you on cooking time in the evening.



## What else do I need to know?

Solar energy is not constant like mains power, and takes a bit of getting used to. If it's hot enough to get sunburn it's the perfect time to use solar panels, but even on the coldest cloudy day there will be some free electricity that you can use.

Try to use as much free electricity as possible, anything you don't use is sent back into the national grid. Free electricity can't be stored for use later, but appliance like mobile phones, laptop computers, iPads, hair clippers, shavers, cordless phones and any other appliances using rechargeable batteries can be charged using free electricity. Don't forget to unplug these items when they are fully charged.

If you have any question about solar panels, or want to know more about using energy efficiently, please email [energyteam@nottinghamcityhomes.org.uk](mailto:energyteam@nottinghamcityhomes.org.uk).