

BERE ISLAND RENEWABLE ENERGY

How a solar PV system for your home on Bere Island can help you provide reliable clean electricity and long-term money saving

Average electricity costs per year

The average Irish household spends € 1,100 on electricity per year. This equates to 4,250 units of electricity per year and excludes energy used for heating (usually oil) or cooking (usually bottled gas).

You can now generate your own electricity

Until recently, all electricity supplied to Bere Island was supplied via the electrical grid system provided by the ESB. Now you can generate your own electricity using photovoltaic (PV) panels to supplement your grid electricity supply. PV panels work by converting sunshine and even good light levels into electricity for use by your home.

How much can you save?

A 3 kW photovoltaic system installed at your home would produce on average 3,000 units of electricity per year. It would thus contribute hugely to reduce your reliance on the ESB electricity supply. However, the PV system does not contribute at night and during the 3 - 4 months of winter as light levels are too low, so you would still use the grid electricity supply then.

To illustrate the costs of installing PV, an estimate is that half your electricity, or € 550, would come from the PV system. An average cost to install a 3 kW PV system is € 6,000, the payback period for installing PV would be 11 years.

Is there a grant for PV?

The Sustainable Energy Authority of Ireland (SEAI) offer a grant for homes of € 1,800 for a 3 KW solar electric system. This would reduce your payback for PV by 3 years. To qualify for the grant, your house must be built before 2011 and have a Buildings Energy Rating (BER) of C or better after the system has been fitted. The BER rating will be done by a BER assessor. It should be noted that achieving a BER rating of C can be difficult in older homes, so qualifying for this grant is not guaranteed.

How could you modify your solar PV system to make it even more efficient?

1. Install a power diverter

If you install a power diverter from the PV to an immersion heater in your hot water tank, this will take excess electricity to heat water in the cylinder. This means you will not be using as much oil or grid electricity to heat the cylinder water and so you can save an extra € 150 a year.

2. Send extra electricity back to the grid for credit

By the end of 2021, you will be able to send excess electricity generated in your PV system back to the grid and be paid for this, referred to as a 'feed-in-tariff'. The payment rate is not finalised yet but is likely to be less than the current unit price. A better way to use your PV system would be to consume as much of that power as possible in the home as it is generated.

3. Install a battery with your PV

If you install a battery with your PV, then if there is an electricity grid outage, you can run your household electrics off the battery. You can also use the battery at night, so further reducing your reliance on grid electricity.

Adding a battery does add to the cost of the PV installation but it will help to keep essentials, such as your water well pump, lights, fridges and freezers working during a power outage.

This has explained a basic solar PV system, a system which generates clean electricity and is not dependant on fossil fuels.

In summary, a solar PV system:

- Will reduce your use of grid generated electricity;
- Will make your household more energy sustainable;
- Will pay for itself in 8 years with a grant or 11 years without;
- Will halve your electricity costs after it is paid off;
- In conjunction with a battery, will reduce your yearly electricity costs even further.

If you are interested in considering solar PV for your Bere Island home, please contact the Bere Island Sustainable Energy Community group on bereislandenergy@gmail.com. We will be able to guide you through the process.