

BeGreen

Photo-voltaic Panels - Indicative Costs

A typical domestic photo-voltaic installation would be 1.5-2 kWp.

A 1.5 kWp panel would cover about 12 m² and cost in the region of £7,500-9,000.

12 m² of panels would typically generate around 1,200 kWh/yr and save about 0.65 tonnes of CO₂/year.

The Energy Saving Scotland Home Renewables Grant Scheme provides funding of 30% of installation costs up to £4,000. The Be Green Renewables Grant provides funding of 20% of installation costs up to £1,200.

With both these grants the cost would be reduced to £4,050-5,100.

The electricity feed-in-tariff (FIT), to be introduced next year, is expected to start at 36.5p/kWh for every kWh generated. Electricity sold to the grid earns an extra 5p/kWh, whereas electricity used represents a further saving of around 12p/kWh in electricity not bought from the grid.

Annual saving

Assuming 50% of energy sold to the grid:	600 kWh @ 36.5p + 5p /kWh	= £249
Assuming 50% of energy used:	600 kWh @ 36.5p + 12p /kWh	= £291
Total savings per year:		= £540

Simple Payback Period

With FITs alone:	14 - 16.5 years
With FITs and grants:	7.5 - 9.5 years

It hasn't been confirmed yet, but once the FITs come into effect the supporting grants are expected to be phased out or removed altogether. The FITs come into effect in April 2010 but any installation built after 15th July 2009 will be eligible as if it had been installed on the start up date of the FIT scheme. The FIT is subject to a 7% degression rate. This is used only to determine the tariff applicable to the system based on its registration date; if registered in year 1 the 36.5p/kWh rate would apply over 20 years, if year 2 the rate would be 33.9p/kWh over 20 years etc.

Even without grants the introduction of FITs greatly reduces the payback time for photo-voltaic installations. But currently a photo-voltaic installation can benefit both from grant funding and FITs, reducing payback periods even further, although this window of opportunity may close if grants are withdrawn.

