



JPA TL Solar Energy

Design Works
William Street
Gateshead
0191 438 7997
software@techlit.co.uk

Project Information

Building type Detached house

Reference	JPATL/TJones01		
Date	6 October 2011		
Client	Mr & Mrs T Jones	Project	12 Green Road
	12 Green Road		Gateshead
	Gateshead		Tyne and Wear
	Tyne and Wear		NE10 0JP
	NE10 0JP		

System Summary

Wind output:	0.0 kWh/year	Year 1 Feed-in Tarrif income:	£506.62
PV output:	1167.0 kWh/year	Year 1 exported electricity income:	£18.14
Total system output:	1167.0 kWh/year	Year 1 electricity saving:	£67.04
Installed cost of system:	£9500.00	Year 1 total benefit:	£591.79
Payback period:	16y 6m		

Input Data

Photovoltaics

Peak kw	Pitch	Direction	Overshading
1 1.75	30 degrees	South	Modest (20-60 % sky blocked)

Micro wind turbines on the building or within its curtilage

Number of turbines	Rotor diameter (m)	Height of turbine hub above ridge of roof (m)	Terrain type
0	0.000	0.000	Rural

Costs

Total installed costs of system:	£9,500.00
Interest rate on loan (%):	4.500
Interest added:	Yearly
Assessment period (years):	25.0
Unit price of electricity (p/Kw.h):	11.460
Export tarrif (p/Kw.h):	3.100
Feed-in tarrif (p/Kw.h):	43.300
% of generation used with-in the dwelling:	50.000
Panel degradation over 30 years (%):	80.000
System losses (%):	20.000
Inflation rate (%):	4.000
Energy inflation rate (%):	9.000

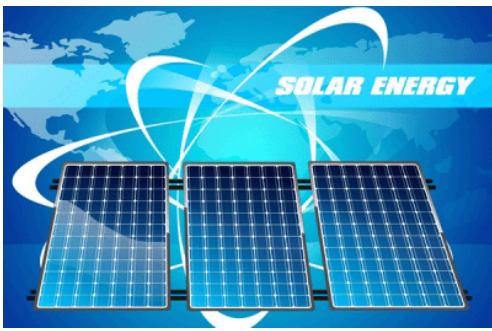
PV Systems

The performance of solar PV systems is impossible to predict with certainty due to the variability in the amount of solar radiation (sunlight) from location to location and from year to year. This estimate is based upon the Government's standard assessment procedure for energy rating of buildings (SAP) and is given as guidance only. It should not be considered as a guarantee of performance.

Wind & Turbine Systems

This energy performance estimate is based upon a standardised method using publicly available information. It is given as guidance only and should not be considered to be a guarantee. The energy performance of wind turbine systems is impossible to predict with a high degree of certainty due to the variability in the wind from location to location and from year to year.

For a greater level of certainty, it is recommended that on-site wind speed monitoring is undertaken ideally for at least a year. Note: it may be useful to monitor for shorter periods, especially if the acquired data is then correlated with other sources in order to estimate an annual mean wind speed.



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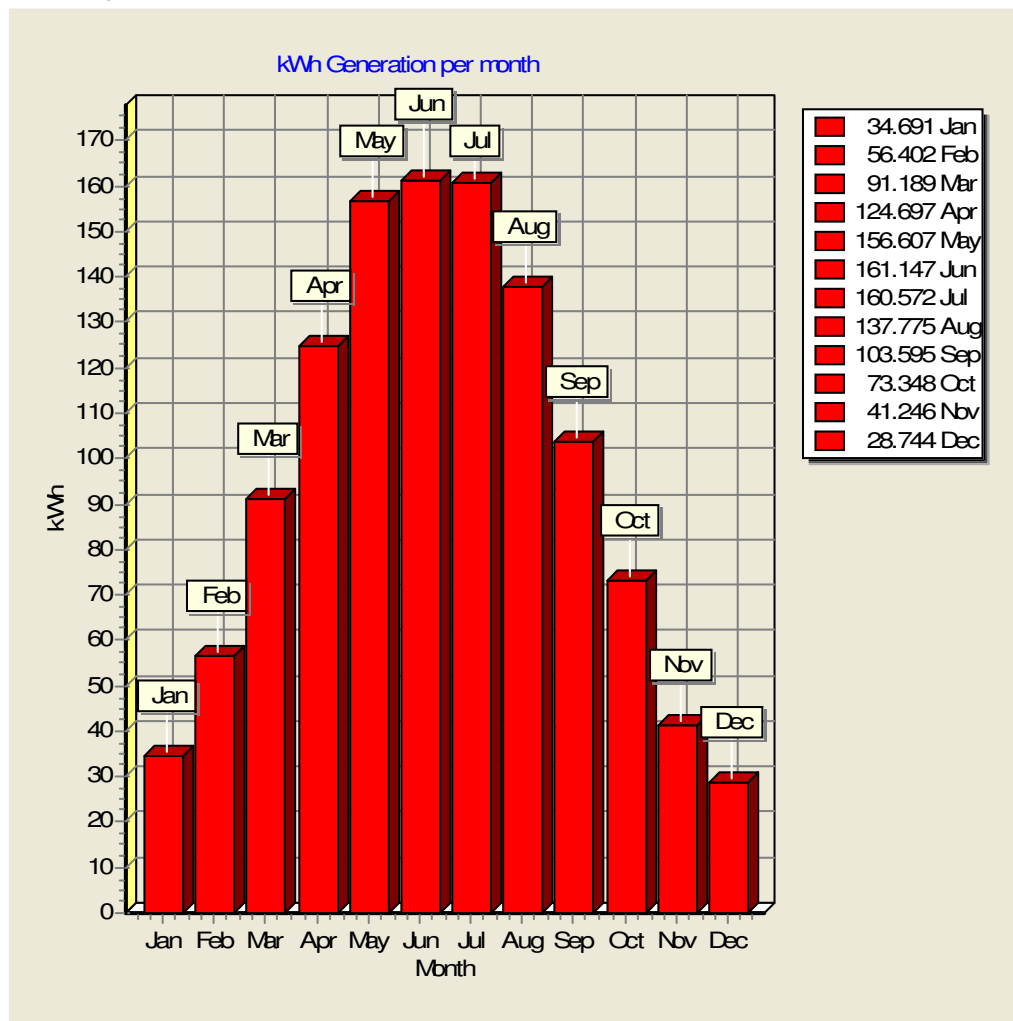
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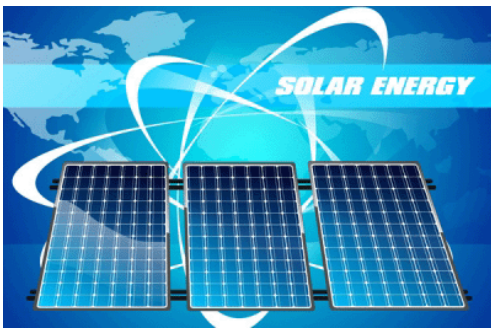
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Electricity Generation





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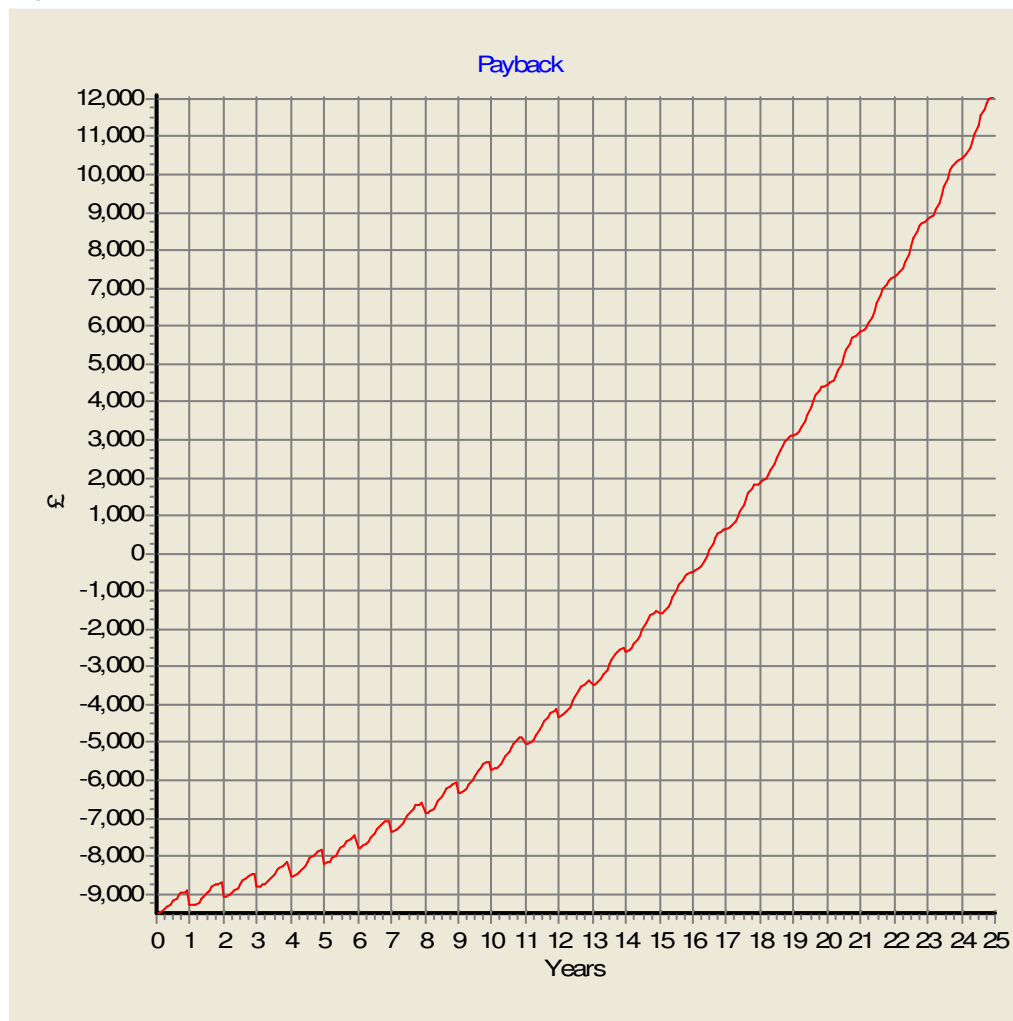
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Payback



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