PLUG-IN SOLAR ENERGY PRODUCTION & APPLIANCE USAGE

4kW (4000W) PLUG-IN SOLAR KIT
3,945kWh/YR (SOLAR OUTPUT PER YEAR)
78,900kWh/LIFETIME (SOLAR OUTPUT PER 20 YEARS)

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A 4kW (400W) PLUG-IN SOLAR KIT IS ESTIMATED TO COVER THE ENERGY CONSUMPTION OF ALL THE FOLLOWING, EACH YEAR:

Appliance	Usage	kWh Per Use	Total kWh per Year	Total kWh per Lifetime
 Microwave Oven	1,163 cycles per year (over 22 cycles per week) 23,260 cycles over 20 year lifetime	1.39 (Per cycle on full power)	1,616	32,320
 Tumble Dryer	572 cycles per year (11 cycles per week) 11,440 cycles over 20 year lifetime	2.50 (Per cycle - based on an average load of 4.75Kg)	1,430	28,600
 Washing Machine	780 cycles per year (15 cycles per week) 15,600 cycles over 20 year lifetime	0.63 (Per cycle - based on average load of 2Kg)	491	9,820
 Fridge Freezer	24 hours per day (365 days per year) 175,200 hours over 20 year lifetime	1.12 (Per day)	408	8,160
	Total Kwh For Specified Appliances		**3,945**	**78,900**

OR

Appliance	Usage	kWh Per Use	Total kWh per Year	Total kWh per Lifetime
 Dishwasher	1,283 cycles per year (over 24 cycles per week) 25,660 cycles over 20 year lifetime	1.07 (Per cycle at 55°C)	1,373	27,460
 Electric Oven	983 cycles per year (over 18 cycles per week) 19,660 cycles over 20 year lifetime	1.56 (Per cycle)	1,535	30,700
 LCD TV (32in)	12 hours per day (365 days per year) 87,600 hours over 20 year lifetime	1.5 (Per day - on power)	546	10,920
 Washing Machine	780 cycles per year (15 cycles per week) 15,600 cycles over 20 year lifetime	0.63 (Per cycle - based on average load of 2Kg)	491	9,820
	Total Kwh Per Year For Specified Appliances		**3,945**	**78,900**

Assumptions

These figures assume that you have south facing 250W polycrystalline solar panels, tilted at an angle of 15°, you pay 14.05p per unit of electricity (Standard rate as of February 2015 source: Energy Saving Trust) and 100% of the solar electricity that you generate will be used in your home. Calculations assume an annual energy price inflation of 10% & include solar radiation & system losses, in a western UK location, due to Temperature 6.8% and Angular Reflectance 2.9%, as well as other losses (e.g. Cables, Inverter) of 12%. Figures obtained from www.solarguide.co.uk/solar-pv-calculator. 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 & 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. Illustrative solar PV performance figures only. Figures are given in good faith but do not constitute "Financial Advice". Yearly PV output uses a factored degradation over time based on industry estimates. Photovoltaic Panels will not be shaded (e.g. by Trees or Buildings) as shading affects PV output. Specific appliance ratings and equipment age will affect energy consumption and these examples are guidelines only. Appliance consumption information from Center for Sustainable Energy (www.cse.org.uk). Based on A-Rated (or higher) appliances.

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