

Offsetting Water

Solar PV Impact : Offsetting Emissions from Water consumption

System Sizing by Area

Area required	40 m2
Estimated capacity	8.00 kWp

System Capacity & Export

PV system chosen capacity	8 kWp
Solar collection factor (shading)	100 %
Current electricity tariff	15.9 p/kWh
kWh used on-site (offset)	100 %
Deemed export rate	0 %

Exported Generation

Bonus for exported units	5.5 p/kWh
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Generation Breakdown

- Annual Generation	7,200 kWh
- Offset units	7,200 kWh
- Exported units	0 kWh

Annual Revenue Breakdown

Export bonus payment	£	-
Potential Import savings	£	1,141
Total Benefit	£	1,141

Economics

Full installed COST	£	8,000
Cost per kWp	£	1,000
Basic ROI		14.3%
Simple Payback		7.0 years

Panel Data

Panel type	Mid Performance
Specific peak output	200 W/m2
Annual output	900 kWh/kWp

CO2e Off-set Scenario

Scenario (Highlighted in Bold & T/CO2e Underlined)	T/CO2e	Equip Elec kWh
Projected 2030 emission factor	0.64	
<u>2019 emission factor</u>	6.92	6,582

Likely Installed Costs (excl. any necessary infrastructure costs)

Solar PV - 25kW+	£	1,000 /kWp
Solar PV - 100Kw+	£	800 /kWp
Solar PV - 250kW+	£	700 /kWp