

Site 16 – Eden Court 2



Eden Court is a fourteen story block of flats in Leamington Spa. The turbine is mounted on a non penetrating flat roof mount that is held onto the roof by ballast. This roof mount is approved by the local authority's structural engineers.

The base is mounted on special polystyrene sheets to protect the building's roof. These sheets also help to reduce any structural vibration being transmitted into the building.

The turbine has been mounted on top of a five meter pole close to the edge of the building to get the turbine turning in as smooth as possible air flow. It would be difficult to mount the turbine higher than this due to the point load restriction that the structural engineer recommended.

NOABL wind speed estimate	6.4ms ⁻¹ at 45m
Planning permission	7 th March 2007
Turbine installation	5 th October 2007
Full data available from	28 th November 2007
Mounting type	Freestanding, non-penetrating on flat roof
Turbine	Ampair 600 230
Inverter	Windy Boy WB700
Anemometer	NRG #40 calibrated
Data logger	Pace Scientific XR5
Watt meter	Iskraemeco ME162

Time Interval	Measured Average Wind Speed (ms ⁻¹)	Total Energy Exported (kWh)	Average Energy Exported per Day (Wh)
28 th November 2007 to 13 th October 2008	6.22	51.64	181
December 2007	6.61	0	0
January 2008	8.12	0	0
February 2008	n/a	n/a	n/a
March 2008	7.76	0	0
April 2008			
May 2008	4.92	0	0
June 2008	5.54	0	0
July 2008	5.73	0	0
August 2008	5.99	31.59	1019
September 2008	4.93	18.16	605

This turbine has been switched off the majority of time due to concerns over noise. A new nose cone, blades and interconnect box were fitted on 6th August 2008. On this date the turbine was also switched on – but only during the daytime (it was routinely switched off at night by an automatic timer switch). The turbine was switched off permanently on 1st October 2008 due to a noise complaint.

Data is missing from 1st February to 7th March 2008 due to a data logger failure.