

Wind Farms	Nb	R	V_m	E_y^m	E_y^t	E_y^t/E_y^m
Whitelee (Scotland)	140	49	8	740	1 085	1.5
Horse Hollow II (USA)	130	49	8.5	687	1 209	1.8
Horns Rev (Denmark)	80	40	9.7	600	737	1.2
Almodovar II (Spain)	36	23	8.5	55	74	1.3
Silan (Spain)	20	23	9	30	49	1.6
Middelgrunden (Denmark)	20	38	7.2	89	68	0.8

Table 7.1: Comparing the measured annual energy produced E_y^m , with predictions from Eq. (7.9) E_y^t , for various wind farms. Units are R (m), V_m (m/s), E_y^m , E_y^t (GWh). First column gives the number of turbines in the farm. *Source: thewindpower.net, Wikipedia.*

$$E_y = \frac{6}{\pi} \frac{1}{2} C_p \rho \pi R^2 V_m^3 N_s = 22.7 R^2 V_m^3 \text{ MJ.} \quad (7.9)$$