

northern utilities

This spreadsheet indicates the estimated return on investment for the installation a Wind Turbine. The forecasts cover the 20 year Feed In Tariff incentive and shows the benefits available in terms of free energy, selling surplus energy back to the grid and FIT revenues.

Forecasts for 60kW Wind Turbine @ 6 m/s wind speed

Figures based on RPI increase of 3% and energy price increase of 8.25% (Ofgem forecast)
Amount of energy generated consumed vs sold back to the grid illustrated. Pence per unit of energy plus CCL - 10.5

Alternative financing package model used

IRR= 24%

Year	FIT (value per kWh)	Estimated energy generation (kWh)	5%	Energy exported back to grid	Est. Elec rate inc CCL	95%	Energy used	FIT total payment for year	Value of energy saving	Surplus energy sold back to grid @4.77p per kWh	Total benefit (Installation paid for in full)	Loan Repayments & Maintenance & Insurance	Cumulative profit after Repayments
0											-£320,000.00	£6,000.00	
1	£0.160	240600	12030		£0.1050		228570	£38,496.00	£23,999.85	£573.83	£63,069.68	£58,264.00	£4,805.68
2	£0.165	240600	12030		£0.1137		228570	£39,650.88	£25,979.84	£591.05	£66,221.76	£58,384.00	£12,643.44
3	£0.170	240600	12030		£0.1230		228570	£40,840.41	£28,123.17	£608.78	£69,572.36	£58,507.60	£23,708.20
4	£0.175	240600	12030		£0.1332		228570	£42,065.62	£30,443.34	£627.04	£73,136.00	£58,634.91	£38,209.29
5	£0.180	240600	12030		£0.1442		228570	£43,327.59	£32,954.91	£645.85	£76,928.35	£58,766.04	£56,371.60
6	£0.185	240600	12030		£0.1561		228570	£44,627.41	£35,673.69	£665.23	£80,966.33	£58,901.10	£78,436.84
7	£0.191	240600	12030		£0.1689		228570	£45,966.24	£38,616.77	£685.18	£85,268.19	£59,040.21	£104,664.83
8	£0.197	240600	12030		£0.1829		228570	£47,345.22	£41,802.65	£705.74	£89,853.62	£4,919.50	£189,598.95
9	£0.203	240600	12030		£0.1980		228570	£48,765.58	£45,251.37	£726.91	£94,743.87	£5,067.08	£279,275.74
10	£0.209	240600	12030		£0.2143		228570	£50,228.55	£48,984.61	£748.72	£99,961.88	£5,219.09	£374,018.52
11	£0.215	240600	12030		£0.2320		228570	£51,735.40	£53,025.84	£771.18	£105,532.43	£5,375.67	£474,175.29
12	£0.221	240600	12030		£0.2511		228570	£53,287.47	£57,400.47	£794.32	£111,482.26	£5,536.94	£580,120.61
13	£0.228	240600	12030		£0.2718		228570	£54,886.09	£62,136.01	£818.15	£117,840.25	£5,703.04	£692,257.81
14	£0.235	240600	12030		£0.2943		228570	£56,532.67	£67,262.23	£842.69	£124,637.60	£5,874.13	£811,021.28
15	£0.242	240600	12030		£0.3186		228570	£58,228.65	£72,811.37	£867.97	£131,907.99	£6,050.36	£936,878.91
16	£0.249	240600	12030		£0.3448		228570	£59,975.51	£78,818.31	£894.01	£139,687.83	£6,231.87	£1,070,334.87
17	£0.257	240600	12030		£0.3733		228570	£61,774.78	£85,320.82	£920.83	£148,016.43	£6,418.83	£1,211,932.48
18	£0.264	240600	12030		£0.4041		228570	£63,628.02	£92,359.78	£948.46	£156,936.26	£6,611.39	£1,362,257.35
19	£0.272	240600	12030		£0.4374		228570	£65,536.86	£99,979.47	£976.91	£166,493.24	£6,809.73	£1,521,940.85
20	£0.281	240600	12030		£0.4735		228570	£67,502.97	£108,227.77	£1,006.22	£176,736.96	£7,014.02	£1,691,663.79
Cumulative benefit over 20 yrs											£1,858,993.29		£1,691,663.79

Payment Terms: 3% non-refundable payment for planning. 17% payable upon achieving planning consent. 40% payable 30 days prior to commencement of installation. 40% payable on completion.

Addition of annual benefits less capital cost (excludes annual investment allowance) based on 7 years @ 5%