



Halkirk Primary School

A wind turbine generator is proposed for this primary school which will make electricity that will be used at the school for lighting and heating. This will help to reduce fuel bills and carbon emissions from the building.

The turbine shall be installed on a 15m column and the unit is rated at 5kW. The rotor diameter of the blade is 5.5m.

This turbine over a year will supply electricity to the following:

- Boil 240,000 kettles
- Provide yearly electricity for 26 computers
- Provide yearly electricity to 4 houses

Energy Statistics:

Halkirk Primary

Electricity Consumption:

670,873 kWh/year

Carbon Emissions:

363 T CO2/year



Wind Turbine

Installed system size 5kWp

Installed price	£28,000.00
Annual Generation (kWh/a)	12,000
Electricity exported (kWh/a)	6,000
Feed-in tariff scenario	
FIT (p/kWh)	28 p
Export price	3 p
Feed-in tariff Scenario	
Saving on electricity bill	£ 750.00
FIT income	£3,360.00

SUMMARY

The 'Feed in Tariff' scheme lasts for twenty years and in that time The Highland Council will generate a generous income of **£67,200.00**. This income means that the initial investment cost shall be paid off in **eight years** time.

Highland Council Commitment

The Carbon Management Plan commits the Council to a target of reducing overall CO2 by 12% by 2012.

The aim will be to save 12% in Council owned properties and schools which is 5226 tonnes of CO2 by 2012.

Highland Council CO² Emissions 07/08

