SMALL SCALE RENEWABLE ENERGY

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SMALL SCALE ELECTRICITY GENERATION: FEED-IN TARIFFS

From the 1st April 2010 it will be possible for individual households or businesses to apply for Government subsidy for all electricity generated from a renewable source. The Department of Energy and Climate Change (DECC) have announced the Feed-in Tariffs for small scale electricity production from renewable sources such as wind and solar. The scheme is designed to encourage the development of renewable energy in the UK and seeks to make the installation of this technology more financially viable.

The payments are made regardless of who actually consumes the electricity with the payments calculated on all units of power generated. The table set out below shows the payment rates for 2010 / 2011 and these are due to be increased in line with RPI over the length of the scheme. In addition to the tariff payment for electricity used directly any surplus power generated can be supplied to the National Grid at a fixed rate for 2010 / 2011 of 3p per kWH.

This scheme therefore offers farmers and landowners in the East Midlands and East Anglia the opportunity to erect either a small scale wind turbine or to install solar photovoltaic (PV) panels on the farm to significantly reduce or even eliminate their electricity

bill, while having the potential to sell surplus power at certain times of the year and receive an alternative income stream.

How does this stack up financially?

The tariff levels have been calculated to offer between 5 – 8% return on initial investment but where all power generated can be used on the farm this could reach towards 30% return on investment. When compared with large scale wind turbines achieving an annual rental income of approximately £15,000 per turbine, Small Scale Wind could be very attractive.

In order to make use of these techcologies and supply power to the national grid it may be necessary to improve your connection to the grid. In some situations the cost of obtaining a new supply can be prohibitive but enquiries can be made of the network provider in your area.

Tariff levels for electricity financial incentives

		Year 1: 1.04.10-31.03.11	Year 2: 1.04.11-31.02.12	Year 3: 1.04.12-31.03.12	Life of Scheme				Year 1: 1.04.10-31.03.11	Year 2: 1.04.11-31.02.12	Year 3: 1.04.12-31.03.12	
PV	≤4 kW (new build)	36.1	36.1	33.0	25		**Wind**	≤1.5kW	34.5	34.5	32.6	20
PV	≤4 kW (retrofit)	41.3	41.3	37.8	25		**Wind**	>1.5 - 15kW	26.7	26.7	25.5	20
PV	>4-10kW	36.1	36.1	33.0	25		**Wind**	>15 - 100kW	24.1	24.1	23.0	20
PV	>10 - 100kW	31.4	31.4	28.7	25		**Wind**	>100 - 500kW	18.8	18.8	18.8	20
PV	>100kW - 5MW	29.3	29.3	26.8	25		**Wind**	>500kW - 1.5MW	9.4	9.4	9.4	20
PV	Standalone system	29.3	29.3	26.8	25		**Wind**	>1.5MW - 5MW	4.5	4.5	4.5	20
Anaerobic digestion	≤500kW	11.5	11.5	11.5	20		**Hydro**	≤15 kW	19.9	19.9	19.9	20
Anaerobic digestion	>500kW	9.0	9.0	9.0	20		**Hydro**	>15 - 100kW	17.8	17.8	17.8	20
MicroCHP pilot*	≤2 kW*	10*	10*	10*	10*		**Hydro**	>100kW - 2MW	11.0	11.0	11.0	20
Existing microgenerators transferred from the RO	9.0	9.0	9.0	to 2027			**Hydro**	>2MW - 5MW	4.5	4.5	4.5	20

*NB This tariff is available only for 30,000 microCHP installations. A review will take place when 12,000 units have been installed.

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The Government have also announced proposals to promote renewable energy through the planning system and together with the Renewable Heat Incentive now is possibly a good opportunity to embrace renewable technology on your property.

RENEWABLE HEAT INCENTIVE

In addition to the feed-in tariff for electricity generation the Department of Energy and Climate Change (DECC) have also announced details of a payment scale to encourage heat generation from renewable sources. Technology such as ground source heat pumps, biomass boilers and air source heat pumps are now becoming more widely available and the costs of installing these systems is becoming more competitive all of the time.

While early promotion of these technologies focussed around self contained systems where estates were encouraged to grow biomass crops to then serve heat requirements in the estate the ability to incorporate these options within a new developments is now far easier.

The following table sets out the tariffs available for heat generation although it is also important to remember that combined heat and power plants could also be an option for larger scale operations.

Technology	Output	Pence per kWh	Tariff Lifetime (years)
Solid biomass	Up to 45kW	9	15
Biodiesel	Up to 45kW	6.5	15
Biogas on-site combustion	Up to 45kW	5.5	10
Ground source heat pumps	Up to 45kW	7	23
Air source heat pumps	Up to 45kW	7.5	18
Solar thermal	Up to 20kW	18	20
Solid biomass	45kW-500kW	6.5	15
Biogas on-soite combustion	45kW-200kW	5.5	10
Ground source heat pumps	45kW-350kW	5.5	20
Air source heat pumps	45kW-350kW	2	20
Solar thermal	20kW-100kW	17	20
Solid biomass	500kW and above	1.6 -2.5	15
Ground source heat pumps	350kW and above	1.5	20
Biomethane injection	All scales	4	15

For further information on renewable energy opportunities and the planning implications of installing solar, wind or air source technologies contact either David Hicks or Peter Moore who will be happy to talk to you further.

For Further Information on Renewable Energy Contact:

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