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## FIT for purpose

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Feed in tariffs are available now which give businesses and individuals an opportunity to have an improved environmental image, together with a high degree of certainty on capital return of five to eight percent over a 20 to 25 year period. However, EnergyTEAM's Tom Fidell claims that early action is required to get the best rates.

A new scheme of feed in tariffs (FITs) has been introduced to encourage the development of new small scale low carbon electricity generation by householders, businesses and communities who have not traditionally engaged in the electricity market. It is expected that the scheme will support over 750,000 new installations over the next ten years.

Householders or businesses using the scheme will be called generators and they will receive two elements of payment from the licensed electricity suppliers. The first element is a generation tariff that differs by technology type and scale, and will be paid for every kilowatt hour of electricity generated, regardless of whether the electricity is used on-site or exported to the network. This is substantially the largest payment which, for some technologies, reduces significantly from 2012 onwards.

The second element is an export tariff which has been set at a nominal rate of 3p/kWh which is the amount guaranteed from the electricity suppliers for all exported electricity. For the majority of installations under the FITs, the export tariff will be a very small proportion of the overall benefits of the scheme and the optimum benefit is when all electricity generated is used on-site.

The scheme will work alongside the Renewables Obligation (RO), which will remain the primary incentive for large scale renewable electricity generation, and generators who receive FITs will not be eligible to also receive benefits under the RO.

The maximum capacity for the scheme has been set at 5MW and the technologies supported are solar photovoltaic (PV), wind, hydro and anaerobic digestion. It is forecast that solar PV will have the greatest number of installations under the scheme. The scheme starts in April, but FITs will not apply to installations that were completed before July 2009.

### Tariffs

All generation and export tariffs will be linked to the Retail Price Index and once a tariff is agreed it remains in place for the full period of 25 years for PV or 20 years for the other technologies, even when rates are reduced for future installations. The tariffs have been set through consideration of installation costs for different technologies and electricity generation expectations at different scales, and have been set to give an approximate rate of return of between five and eight percent for well sited installations.

PV is forecast to have the biggest take-up and this has a generation tariff of 41.3p/kWh at the start of the scheme for existing buildings for systems below 4kW, which reduces to 36.1p/kWh below 10kW and at the top end of 5MW it is 29.3p/kWh. However, these rates only apply to installations completed before April 2012 and after this time the rates are reduced each year for new installations, until after nine years the rates are around half the starting rate. In addition, rates for future installations are subject to periodical review, with the first major review taking place in 2013, and after this time the rates may well be lower. Indeed, the Department for Energy and Climate Change (DECC) state that it expects to lower the tariff for certain technologies for new projects in future years.

For anyone installing a PV system, it may be wise to have the system installed before the time of the London Olympics in 2012 as benefits will be lower after this time. It is worth noting that even when rates are reduced for future new installations, it will not affect installations completed before April 2012 which will have the higher rate guaranteed for the full 25 years, which will also be increased annually for inflation.

Small wind turbines have a generation tariff of 34.5p/kWh for systems below 1.5kW which falls to 26.7p/kWh for systems between 1.5 and 10kW with the rate reducing after 2012. For large wind turbines between 1.5MW and 5MW the rate is 4.5p/kWh which remains constant throughout the life of the scheme.

The rates for hydro and anaerobic digestion also remain constant throughout the scheme with the generation rate for hydro starting at 19.9p/kWh and anaerobic digestion at 11.5p/kWh.

The thinking behind the system of having reduced generation allowances after 2012 for systems which are not fully

commercialised is that economies of scale may reduce prices. However, with higher demand this is by no means certain and the safest way to go may be to act now.

### **Improving environmental image**

This scheme gives businesses and individuals the opportunity to have an improved environmental image, together with a high degree of certainty on capital return of five to eight percent over a period of 20 to 25 years. For businesses, a PV system on the roof of the head offices is now a viable option or, if it is an exposed site, maybe a wind turbine could be considered. Local authorities should consider having a FIT system installed on the buildings which they own and the government is keen for local authorities to work with other partners on community scale renewable electricity schemes which can be supported by FITs.