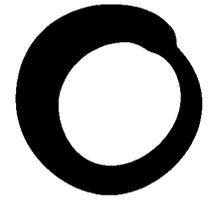


Briefing Note



**Friends of
the Earth**

What is a feed-in tariff and why does the UK need one to support renewable energy?

The generation game

The UK is committed to delivering its share of the EU target of 20% of energy from sources by 2020.

Currently only 2% of UK energy (and under 5% of UK electricity) comes from renewable sourcesⁱ. The Government must deliver a huge increase in UK renewable energy if it is to meet its share of the target of 20% of EU energy to come from renewable sources by 2020 (energy includes electricity, transport fuels and heat). The 15% target which the EU has allocated to the UK would, if adopted, require the UK to generate about 40% of its electricity from renewable sources – an eight fold increase from current levels.

Reforms to the Renewables Obligation (RO) contained in the Energy Bill will only see the UK reach 15% renewable electricity by 2015ⁱⁱ.

Clearly a massive expansion of renewable electricity is required to meet the EU target. Much of this will come from large scale projects such as on and off-shore windfarms and wave and tidal power. However a substantial contribution could be made by smaller-scale renewable technologies such as solar panels on domestic roofs or community combined heat and power derived from household waste. Many large or small businesses could also generate much of their own electricity through on-site renewable technologies.

A study by the EST for BERR suggested that 30-40% of the UK's total electricity could be provided by small scale renewable sources by 2050ⁱⁱⁱ.

A study by Dr Brenda Boardman of Oxford University's Environmental Change Institute for Friends of the Earth and The Co-operative Bank on how to cut carbon emissions from the domestic sector by 80%, found that in addition to energy efficiency, every home will need renewable technologies installed to generate clean heat or electricity. That is approximately 25 million installations required in the next 42 years at a rate of 600,000 a year.

According to DCLG achieving even a 60% cut in carbon emissions from the UK's housing stock by 2050 will require a significant take-up of microgeneration technologies^{iv}.

A proven answer

Friends of the Earth believes there is an urgent need for the Government to introduce a feed-in tariff scheme to support an expansion of smaller scale and decentralised renewable electricity schemes including: domestic and commercial microgeneration, onsite renewable technologies, and community owned renewable electricity schemes. These are particularly neglected in current policy. The Government's recent consultation on the Renewables Obligation admitted that it was never designed to support microgeneration technologies.

The feed-in tariff works by guaranteeing a long-term premium payment electricity generated from renewable sources and fed into the grid. The Government would fix the level of the tariff to be paid for each renewable technology and set the length of contract.

Seventeen European countries have adopted a feed-in tariff system with considerable success. In March figures from the German government^v show that, driven by feed-in tariff legislation, in 2007 Germany generated 14.2% of its electricity from renewable sources. Turnover in the German renewable industry rose by 10% last year to 24.6 billion euros and employment in the sector rose to 249,000 (compared to a UK sector that employs an estimated 7000 people and in 2006 had a turnover of just £290m^{vi}). The German government calculates that *in 2007 savings* of 57 million tonnes of CO2 were directly attributable to the country's feed-in tariff legislation.

A feed-in tariff has many advantages over a quota system such as the UK's RO. It gives certainty and guarantees for investors, is transparent, easy to administer, promotes diversity of supply and is flexible.

The Stern Review on a feed-in tariff (p366):

"Both sets of instruments have proved effective but existing experience favours price-based support mechanisms. Comparisons between deployment support through tradable quotas and feed-in tariff price support suggest that feed-in mechanisms achieve larger deployment at lower costs. Central to this is the assurance of long-term price guarantees. The German scheme...provides legally guaranteed revenue streams for up to twenty years if the technology remains functional. Whilst recognising the importance of planning regimes for both PV and wind, the levels of deployment are much greater in the German scheme and the prices are lower than comparable tradable support mechanisms (though greater deployment increases the total cost in terms of the premium paid by consumers). Contrary to criticisms of the feed-in tariff, analysis suggests that competition is greater than in the UK Renewable Obligation Certificate scheme. These benefits are logical as the technologies are already prone to considerable price uncertainties and the price uncertainty of tradable deployment support mechanisms amplifies this uncertainty. Uncertainty discourages investment and increases the cost of capital as the risks associated with the uncertain rewards require greater rewards."^{vii}

The House of Commons Environment Food and Rural Affairs select committee recently called for a feed-in tariff to be introduced to support small scale renewables. It recommended that: "the Government replace ROCs and export payments with a feed-in tariff with a single fixed rate per KWh, varying according to the type of generation."^{viii}

The House of Commons Trade and Industry Select Committee in its report on local energy identified that "depending on its level, a feed-in tariff could be used to encourage the development of local energy."^{ix}

Ofgem have specifically asked the Govt to look at how a feed-in tariff could work in the UK context citing European Commission analysis that "showed that the RO was the most expensive and least efficient method of support."^x

Existing policies aren't enough

The existing Climate Change and Sustainable Energy Act does not give the Secretary of State sufficient powers to introduce a feed-in tariff. Friends of the Earth believes that merely using existing powers, enforcing equality with import tariffs or voluntary agreements to encourage suppliers to raise their existing tariffs would be entirely inadequate.

The Low Carbon Buildings Programme of grants for renewable energy has descended into farce after grant levels were slashed in May. Take-up of domestic grants is now so slow that Ministers have extended the programme until 2010.^{xi}

Existing fiscal incentives for homeowners – reduced VAT on microgeneration technologies and exempting earnings from microgeneration exports from income tax – could be useful add on's to a feed in tariff but alone they are insufficient and are not predicted by the Treasury to have any significant impact on carbon emissions^{xii}.

The proposal to allow energy companies to install microgeneration technologies to meet their new Carbon Emissions Reduction Target (CERT) by installing microgeneration technologies is also by

itself insufficient and without a feed-in tariff predictions for the amount of microgeneration it will support are highly optimistic.

Proposals to provide ROCs to domestic microgenerators will also not provide the level of return or the certainty that would be afforded by the long-term guaranteed price of a feed-in tariff.

Asked by Lynne Jones MP whether a feed-in tariff would be a better mechanism to support domestic microgenerators than reforms to the RO, Hilary Benn recently said: "I think ROCs clearly do not work for the domestic sector."^{xiii}

Working alongside the existing policies

A feed-in tariff is a proven cost-effective mechanism for developing renewable electricity capacity which could be brought in alongside the RO reforms in the current Energy Bill to support smaller scale renewable technologies which are currently poorly supported by existing policies but which will be vital if the UK is to meet its EU target.

A UK feed-in tariff could work effectively alongside the reformed RO with the RO supporting large scale, dedicated, off-site commercial generation schemes and the new feed-in tariff supporting smaller schemes.

The RO has started to show some success in supporting the development of some large scale renewable technologies in the UK (mainly on-shore wind). Because of this, and the risk of deterring existing investment plans, Friends of the Earth supports the continuation of a reformed, banded RO in the short term for large scale renewable generators.

However there needs to be an open debate about whether further RO reform is the right mechanism to get the UK to meet the 2020 target or whether a feed-in tariff should eventually apply to large scale as well as smaller scale and decentralised renewable technologies.

A UK feed-in tariff would not eliminate the need for other policies to support the sector. It is especially crucial that renewable electricity generating installations are given priority access to the grid and that Ofgem is reformed to make carbon emissions reduction a priority.

i www.berr.gov.uk/energy/statistics/index.html.

ii Renewables Obligation Consultation, Government Response, BERR, 2008.

iii Potential for Microgeneration: Study and analysis, EST, 2005.

iv Review of Sustainability of Existing Buildings: The Energy Efficiency of Dwellings – Initial Analysis, DCLG, 2006.

v Renewable Energies Grow Strongly Again in 2007, German Federal Environment Ministry, Press release 044/08, 14 March 2008.

^{vi} Commission on Environmental Markets and Economic Performance, BERR, DfIUS and DEFRA, November 2007.

^{vi} Delivering the low-carbon economy: Business opportunities for UK manufacturers, EEF, January 2008.

vii Stern Review: The Economics of Climate Change, HMT, 2006.

viii Climate change: the "citizen's agenda", House of Commons Environment, Food and Rural Affairs select committee, 2007.

ix Local energy— turning consumers into producers, House of Commons Trade and Industry select committee, 2007.

x Ofgem's response to BERR consultation on reform of the Renewables Obligation, Ofgem, 2007

xi Renewables industry shock at "Slow Carbon Building Programme", Renewable Energy Association press release, 31 March 2008.

xii Pre-Budget Report and Comprehensive Spending Review, HMT, 2007.

xiii Uncorrected transcript of Oral Evidence to the House of Commons Environment, Food and Rural Affairs Select Committee given by Rt Hon Hilary Benn MP and officials on 20 February 2008.