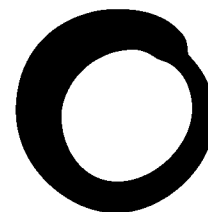


Media Briefing



**Friends of
the Earth**

Feed-in tariffs

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Introduction

Friends of the Earth and the Renewable Energy Association successfully led a campaign for the introduction of feed-in tariff legislation into the Energy Act 2008. The UK has historically been one of the worst international performers on renewable electricity and has been particularly poor at incentivising the installation of smaller scale renewable electricity systems such as solar panels and wind and water turbines by businesses, homes and communities.

The introduction of the feed-in tariff in April 2010 (or Clean Energy Cashback as it will be known to the public) - and a renewable heat incentive (from April 2011) - gives the UK the opportunity to put in place a world-leading scheme to promote decentralised, renewable electricity and renewable heat. Fundamentally, the feed-in tariff legislation will enable businesses, households, local authorities and communities to generate their own renewable electricity and sell any surplus back to the grid.

Tariff levels

Last summer the Government launched a consultation on its proposed structure of the feed-in tariff scheme including the payment levels to generators of small-scale (defined as installations below 5MW) renewable electricity. Although the proposed structure contains a number of ground-breaking innovations, the overall ambition of the scheme is disappointing. It aims to generate just two per cent of UK electricity by 2020ⁱ – falling short of what many MPs expected when they voted for feed-in tariffs in 2008. Over 150 have since signed an Early Day Motion calling for the scheme to be improved.

The potential of feed-in tariffs is enormous. An ambitious scheme will not only help the UK meet its carbon reduction targets, it will allow farmers, local authorities, businesses, social landlords and others to benefit from reduced electricity bills, increased energy security and the creation of new green jobs and business opportunities. Furthermore, it could also be a much-needed tool in the fight against fuel poverty.

Research carried out for the Government by Poyry and Element Energyⁱⁱ, showed that up to one third (131TWh) of the projected UK electricity demand in 2020 could be supplied by renewable electricity schemes under 5MW in size (the size covered by the proposed feed-in tariff scheme). But the scale of the proposed feed-in tariff scheme is far less ambitious – the Department of Energy and Climate Change (DECC) estimates that it will only deliver two per cent of UK electricity by 2020 (8TWh).

The proposed scheme claims to offer financial returns of 5-8 per cent, although this could be an over-estimate when costs such as finance and maintenance are taken into account. However, modelling by Poyry and Element Energyⁱⁱⁱ shows that if tariffs were set to deliver a 10 per cent return on investment, it could result in more than six per cent of projected UK electricity demand coming from small-scale renewable energy installations by 2020 (25TWh) – three times the estimated amount of the proposed scheme. This is equivalent to the output of the massive Drax coal-powered electricity station (25.4TWh in 2008)^{iv} or two and a half times the output of Sizewell B (9.8TWh in 2008)^v. It would cut UK emissions by 9.9 million tons of carbon dioxide annually by 2020^{vi}.

Given the huge potential for decentralised electricity under 5MW and the urgency of tackling climate change, Friends of the Earth, the Renewable Energy Association and the Co-operative Group are urging the Government to triple the current ambition of the scheme and kick-start it by setting tariffs consistent with a 10 per cent return on investment until the scheme is reviewed in 2013.

The Government's proposed scheme would raise the cost of the average household electricity bill by £2.21 in 2013 (but much less in previous years). Improving the scheme as we propose would cost an additional £2.10 per household in 2013. However because the addition is much less in previous years the average annual addition to bills is just £1.20 extra per household per year – or 10p per month – over the period to 2013)^{vii}.

After the 2013 review the level of investment return could potentially be reduced below 10 per cent, as other measures are introduced, the UK renewable energy market grows, investors and businesses see small-scale renewable energy as less risky and global fossil fuel energy prices rise. However the ambition to generate at least six per cent of UK electricity from renewable electricity schemes under 5MW by 2020 should be maintained.

Scope

In addition to concern about the tariff levels, certain types of renewable electricity such as wave and tidal power are entirely missing from the scheme. There is also a worrying lack of support for community-scale projects such as community-owned wind generation – which Ministers have repeatedly said they want to promote. Tariffs must be linked to inflation or energy prices so they don't lose their value, and policies are needed to address the problems that some businesses and households – notably small and medium sized enterprises and the fuel poor – may have in getting access to capital up-front to enable them to invest in fitting appropriate small-scale renewable energy systems.

How the feed-in tariff may work

The scheme covers renewable energy installations up to 5MW in size (equivalent to two large-sized wind turbines). The renewable electricity systems covered are solar PV, wind turbines, hydro turbines, anaerobic digestion plants, biomass burners and combined heat and power units.

Households, businesses, local authorities and communities participating in the scheme will receive regular tariff payments from energy suppliers, fixed for 20-25 years. The tariff payment will differ for each technology (solar, wind etc) and for different scales of installation; payments set out in the Government's draft proposals vary from 4.5p/kWh for the largest wind generation installation covered by the scheme to 36.5p/kWh for the smallest scale solar PV panels. The payment will be the same regardless of who owns the installation.

An additional payment will be made for any green electricity exported to the grid (i.e. it is not used onsite). This is proposed to be fixed at 5p/kWh for all technologies of all scales for the duration of the tariff (20-25 years), although small-scale green electricity generators can also try and negotiate their own contract with the energy supplier.

The tariff levels paid to new installations entering the scheme will be reviewed in 2013 – once an installation enters the scheme it gets the same tariff level for the duration of the contract, although a scheme starting after the review year may get a different tariff which will then also be fixed for the contract length. Reviews are due to take place every four years. The tariff for new wind turbine and solar PV installations entering the scheme lower each year by a certain percentage, but then is fixed for the contract period. This is known as 'tariff degeneration'.

Generators will also get the benefit of using their own electricity onsite first, which means they may import less electricity from the grid, thereby reducing their electricity bills. Participants of the scheme will benefit from a combination of the two tariffs, plus any reduced energy imports. Electricity and cost savings may vary enormously between different technologies and different types of generator (for example a stand-alone community-owned wind turbine which exports everything it generates or a business with a solar roof which uses most of its generation onsite).

Tariffs will be paid by electricity suppliers who will then equalise the cost of the scheme among themselves (so no supplier is disadvantaged against another) and recover this cost by placing an increment on the electricity bill of every consumer (business or household).

ⁱ DECC, Consultation on Renewable Electricity Financial Incentives 2009

ⁱⁱ Qualitative issues in the design of the GB feed-in tariffs, Poyry and Element Energy, June 2009

ⁱⁱⁱ Design of Feed-in Tariffs for sub-5MW Electricity in Great Britain, Quantitative analysis for DECC, Poyry and Element Energy, June 2009

^{iv} http://www.draxpower.com/aboutus/ourbusiness/key_facts/

^v <http://british-energy.com/pagetemplate.php?pid=96>

^{vi} Design of Feed-in Tariffs for sub-5MW Electricity in Great Britain, Quantitative analysis for DECC, Poyry and Element Energy, June 2009

^{vii} The table below shows the annual costs to all consumers (business and households) for the Lead Scenario and the 10% ROI scenario until the first review in 2013. The figures are discounted 2008 prices i.e. future prices discounted at 3.5% per year.

Annual costs to consumers (discounted 2008 £m)

Scenario	2010	2011	2012	2013	Total
Lead scenario	£22	£57	£109	£169	£358
10% ROI	£55	£124	£216	£330	£725

These are previously unpublished figures released to Friends of the Earth by DECC and Element Energy. DECC works on the assumption that 34% of the cost falls on household consumers and 66% on businesses.

Assuming 26m households this means that by 2013 households will be paying on average an addition to their electricity bill of £4.31 a year to pay for an enhanced FITs scheme, compared with an additional £2.21 under the currently proposed scheme. In other words setting tariffs based on a 10% ROI until the first review would raise the cost of the average household bill by just £2.10 in 2013 more than is already planned by the scheme proposed by DECC.

In the years to 2013 the addition to bills would be much less, making the average cost to consumers of a 10% ROI over the 4 year period just £181.25m annually or £2.37 per household per year (assuming 26m households by 2013). The average addition above the cost of the proposed scheme is £91.75m to all consumers annually or £1.20 per household per year over the period from 2010 to 2013.

From 2013, following the initial boost of tariffs based on 10% ROI, as the market matures we would expect it to be possible to continue to drive mass deployment with tariffs giving a ROI of slightly below 10%. The provision of other supportive policies such as zero interest loans for SMEs and households would mean a ROI of below 10% should be acceptable. Both these factors would reduce the impact on consumers' bills while maintaining a higher level of ambition that is essential to tackle climate change.