

Feed-in tariffs: key features and issues raised

Background

As part of the UK renewable energy strategy, the government's consultation on renewable electricity financial incentives 2009 sets out changes to the Renewables Obligation (RO) and the features of feed-in tariffs (FITs).

In particular, the government has now committed to giving a fixed amount of money, per unit, to those who produce their own renewable energy. This is good news, particularly as anyone who goes ahead now with fitting renewable energy will be eligible for the incentive when it comes in.

Below, Regen SW breaks down some of the highlights of the financial incentives document, including information about the feed-in tariff, the proposed changes to renewable obligations, and how the systems will work.

Feed-in tariffs

- From April 2010, feed-in tariffs will offer a fixed payment per kilowatt hour generated (generation tariff) and a guaranteed minimum payment per kWh exported to the market for a 20 year period.
- Feed-in tariffs are proposed at levels that will offer projects a five per cent to eight per cent return on investment, with the aim of delivering two per cent of the UK's energy from small-scale projects by 2020.
- Support will degress in line with expected technology cost reductions (where appropriate).
- Support levels will be reviewed periodically and in response to sudden changes in technology costs. However, tariff levels will be "grandfathered", with projects continuing to receive the levels of support (with degression) offered at their registration despite reviews causing subsequent decreases in the FIT payments offered to newer projects.
- Projects up to 5 MW will be eligible across the range of renewable electricity technologies, including off-grid installations
- Projects below 50 kW will need to be installed by MCS accredited installers. 50 kW to 5 MW projects will be subject to accreditation similar to the current RO process
- Projects installed in the interim period before April 2010 will be eligible to receive the tariff from day one. However, any non-domestic projects that receive grant funding from central government will have to return the grant before they can receive FIT payments.
- The government is not proposing to offer financial support for the up-front capital costs of projects

Proposed changes to the Renewables Obligation (RO)

- Extension of the lifetime of the RO to 2037
- Introduction of a 20-year limit on support under the RO
- Removal of the 20 ROC/100 MWh renewable electricity limit in the RO
- Retention of the existing fixed targets until 2015/16, with headroom-only to determine the total obligation after that date
- An increase in the level of headroom from eight per cent to 10 per cent
- Opening up the RO to include renewable generation outside the UK that meets specific criteria to help meet our EU target in the most cost-effective way - where the electricity is physically imported into and consumed by the UK
- Extra support for offshore wind

More detail on and issues raised by the Feed-in tariffs

1. Tariff structure

The tariff has been designed to offer a fixed payment from the electricity supplier for every kilowatt hour (kWh) generated (the “generation tariff”) and a guaranteed minimum payment of 5p/kWh additional to the generation tariff for every kWh exported to the wider electricity market. The generator may choose whether to sell exported electricity to the supplier at this guaranteed export tariff, or negotiate a price for exported electricity in the open market.

Paying for generation of electricity as well as export, is aimed at driving local use of electricity where possible, while including the export aspect is in part to promote energy efficiency. As a result, the more energy a generator saves, the less of their generation they use and the more export payment they will receive.

Taking energy-efficiency measures will therefore not be a pre-requisite for the payment of feed-in tariffs, nor are higher tariffs being provided to those who have taken energy efficiency measures.

Key issue

The government is considering how to target FIT customers with energy efficiency advice.

2. Tariff levels

It is proposed that the tariff will be paid to projects for a 20-year period. However, the government has not set a cap on the scope of the FIT in terms of the period that it will be available for new projects, the MWs or the cost. In practice, the level of the tariff has been set to achieve only two per cent of total electricity generation from small-scale renewable projects by 2020, which is a relatively unambitious target.

Suggested tariff levels are aimed at providing an annual rate of return of approximately 5-8 per cent for well-sited installations. For solar PV, the rate of return for small scale installations is sufficient to stimulate moderate levels of domestic demand. The tariff is insufficient to promote larger commercial scale installations.

The tariff for some technologies will degress, meaning that for an individual project the payment received will reduce each year. The proposed degression rate of seven per cent per year halves the tariff over 10 years. In the case of solar PV, this is in line with expectations of price reductions due to learning, technology and factory capacity (excluding demand and supply changes). Any exogenous changes that make technologies very profitable (such as a dramatic fall in the price of PV modules) are liable to result in reduced tariffs, as the government proposes holding frequent reviews of tariff levels.

Support will be “grandfathered”. That is, although tariffs will be adjusted over time as reviews are held, projects will receive support at the same level as set when they registered for the FIT or at the level (taking into account degression rates set out at the time of registration).

Key issues

- The two per cent target for microgeneration is relatively unambitious
- The level is set too low to greatly stimulate commercial scale installations

3. Eligible projects

The FIT will be available from April 2010 for projects up to 5 MW in capacity, and the following technologies will be eligible:

- wind
- solar PV
- hydro
- anaerobic digestion
- biomass and biomass combined heat and power (CHP)
- non-renewable micro CHP

As an interim measure, initial feed-in tariffs for CHP generators will include an uplift comparable to RO. Once the renewable heat incentive has been implemented, the heat output from CHP will be rewarded under the renewable heat incentive.

Sewage gas and landfill gas will not be eligible for the FIT, but they will continue to receive ROCs.

From 1 April 2010, installations under 50 kW of installed capacity that are *eligible* for feed-in tariffs will only get the option of receiving Feed-in tariffs. Larger installations (with installed capacity of between 50 kW and 5 MW) will have the right to make a one-off choice between receiving the RO or the FIT.

Off-grid electricity supply will be eligible for Feed-in tariffs, but because off-grid generators do not have a direct relationship with a supplier, there are also issues regarding who should make FIT payments to these generators and how they should be made. Declarations similar to those under the RO would be used with off-grid premises, subject to checks and audits.

Key issues

- Electricity-only biomass is eligible, despite potential issues around its sustainability
- How to ensure off-grid sites aren't excluded due to additional bureaucracy involved

4. Administration

The FIT is designed to be a simple and user-friendly system in order to maximise take-up. This is largely due to the problems that the RO has seen, with smaller customers not able to take them up due to the complicated procedures involved. However, due to the speed of delivery required, in the short term, the FIT will have to rely on some existing procedures under the RO.

A central accreditation and registration system will be set up for FIT generators that will record details of the site, technology and ownership.

For 50kW to 5MW systems, accreditation will be based on the RO system, but the bureaucratic nature of this system may put potential customers off. Smaller schemes (below 50 kW) will use the current MCS accreditation used under the Low Carbon Buildings Programme.

Key issues

- Using the RO scheme as a basis for the administration of the FIT could lead to the problems with the RO (complicated/bureaucratic procedures) being repeated with the FIT
- The problems that installers currently experience with MCS accreditation need to be addressed – the costs are high and the return in terms of marketing feed-in tariffs is low.

5. Interim period

Small-scale renewable electricity installations will, during the interim period, still be eligible for support under the RO. In particular, microgeneration is now entitled to double the previous support level – **two** Renewable Obligation Certificates (ROCs) per MWh.

Any eligible installations built during this interim period will be allowed to benefit from feed-in tariffs and the renewable heat incentive as if they had been installed on the start-up dates of the schemes. Some shortening of the support period will apply where installations first receive ROCs under the RO and then switch to the feed-in tariffs (six to 18 months, depending on circumstances).

Domestic installations receiving grant funding through the Low Carbon Building Programme will still be eligible for feed-in tariffs and will not have to pay the funding back. It is proposed that non-domestic projects receiving grants will have to pay back the grants to be eligible for the FIT e.g. Bio-energy Capital Grants Scheme. This condition will confuse customers about how the economics of projects stack up, potentially stalling demand.

Key issues:

Clarity over interim grants is needed.

6. Finance

The government is expecting the market to provide the necessary loans or other finance packages to support the delivery of projects. The government is therefore not looking to provide up-front capital schemes to finance feed-in tariffs installations, but this does not preclude local authorities from offering such schemes.

A generator may assign the rights to the FIT payment to someone else. This means that there is the potential for schemes in which developers rent roof spaces from owners for a fixed fee.

7. Suppliers' role

Licensed electricity suppliers will be the key players in the delivery of feed-in tariffs. It is proposed that tariffs will be paid to generators by suppliers, and that all suppliers with 50,000 or more domestic customers will be required to offer feed-in tariffs. Other generators can offer them if they want to. A 'levelisation' process will then be applied to ensure that suppliers are paying for feed-in tariffs in proportion to their shares of the UK electricity supply market, with an allowance being made for relative overhead costs.

8. Other issues

The government is asking for input on how to ensure that people on low incomes are able to take up the FIT. However, the consultation does not include any suggestions, and the initial design of the FIT will not include any allowances on this issue, due to the undeveloped nature of government thinking on this issue.

The government is also asking for input on how the FIT will sit alongside other government policies. One issue that has been raised is how the FIT interacts with the Carbon Reduction Commitment. Can developers claim both the FIT and the carbon reductions under the CRC for a project?

Get more, detailed information

1. To download a copy of the **Renewable Electricity Financial Incentives** document, visit here: http://www.decc.gov.uk/en/content/cms/consultations/elec_financial/elec_financial.aspx
2. To download a copy of the whole **UK Renewable Energy Strategy**, visit here: http://www.decc.gov.uk/en/content/cms/publications/lc_trans_plan/lc_trans_plan.aspx#1 (view the information on feed-in tariffs and the renewable heat incentive at **section 3.32**).