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Energy Act 2008

1 Introduction

The Energy Act 2008 (the Act), which received Royal Assent on 26 November 2008, implemented legislative measures first proposed in the *Energy white paper 2007: Meeting the energy challenge*. Specifically, the Act covered:

- Feed-in tariffs for small scale generation;
- the Renewables Obligation;
- Carbon Capture and Storage (CCS);
- decommissioning offshore renewables and oil and gas installations;
- improving offshore oil and gas licensing;
- nuclear waste and decommissioning costs;
- offshore transmission;
- offshore gas supply infrastructure;
- Smart Metering; and
- the Renewable Heat Incentive.

The following paper outlines the provisions of the Act that relate most closely to the Committee for Enterprise, Trade and Investment's current inquiry into renewable energy: Feed-in tariffs for small scale generation; changes to the renewable obligation;

CCS; Smart Metering; and the Renewable Heat Incentive. Further detail on how these measures have been taken forward is also provided.

2 Extent of the Act

The Act extends to England, Northern Ireland, Scotland and Wales. Certain clauses of the Act, however, significantly those clauses which relate to Feed-in tariffs, the Renewable Heat Incentive, smart-metering and the Renewable Obligation – supplemental provisions, apply to England, Scotland and Wales only. Section 40(2) to (4) of the Act – the Northern Ireland Renewable Obligation – applies to Northern Ireland only.ⁱ

3 Feed-in tariff

3.1 The Act

The Act provides the Government with powers to amend electricity licences with a view to introducing a Feed-in tariff for small-scale renewable generation.ⁱⁱ Under the terms of the Act the Government may amend electricity licences in order to:

- provide that the holder of a supply licence make a payment to small-scale renewable generators;
- specify how such a payment is to be calculated;
- make provisions that the level of payment decrease on a yearly basis;
- make provisions on the circumstances under which renewable generators receive no payment or a reduced payment;
- make provisions to determine how a payment may be recovered from a renewable generator;
- introduce requirement for the holder of a supply licence or distribution licence to pay a levy to the Authority at specified times;
- make provisions specifying how the levy is to be calculated; and
- make provisions conferring an entitlement on the holder of a supply licence or distribution licence to receive a payment from the Authority.ⁱⁱⁱ

Within the Act small-scale generation is defined as generation below 5 megawatts (MW). The definition of renewables within the act includes the following generation types:

- biomass;
- biofuels;
- fuel cells;
- solar photovoltaics (solar PV);
- water (including waves and tides);

- wind;
- solar power;
- geothermal sources; and
- combined heat and power systems with an electrical capacity of 50 kilowatts or less.^{iv}

The Act states that prior to the introduction of licence amendments the Secretary of State must consult with licence holders, Ofgem and any other persons deemed appropriate. Draft modifications must also be laid before Parliament.^v

The powers outlined in the Act apply to England, Wales and Scotland.^{vi} The Strategic Energy Framework for Northern Ireland states the scoping work on the cost and benefits of a similar incentive for Northern Ireland is ongoing.^{vii}

3.2 Subsequent Developments

Since the passing of the Energy Act 2008 the UK Government has introduced a Feed-in tariff (FIT) for small-scale generation. The FIT, which applies to England, Scotland and Wales, consists of two fixed-rate tariff types – a generation tariff and an export tariff.

The generation tariff is paid to renewable producers whether or not they choose to export the power they produce to the grid or not. The rate of tariff, which is paid over a twenty year period (twenty five years in the case of solar PV, is index linked to inflation and differentiated by technology types. Table 1 (below), outlines the rate and length of tariff for each technology. It is also proposed that the tariff will be reviewed every five years (beginning 2013) and that it will remain subject to the '*principle of degression*'.^{viii} The latter point is explained as follows:

...some technologies are expected to get cheaper as volumes build in the future, so the Government has decided to adjust some tariff levels for systems installed after April 2012.^{ix}

The export tariff is set 3p/kWh (index linked to inflation) for each technology type, although participants have the option of opting out of the base rate and negotiating a selling price with electricity suppliers. At present, in lieu of the widespread installation of smart metering, export levels are calculated at 50% of total power generated. Households have the option of installing an approved metering system if they believe they are exporting more than this assumed figure.

It is estimated that installation of a 2.5KW of Solar PV in an average three to four-person household consuming approximately 4,500kWh per annum will result in a tax free income of £836 per annum via the FIT. This would be accompanied by a reduction in electricity cost from £450 per annum to £300 per annum.^x

A number of technology types have been excluded from the FIT. Biomass, landfill gas, waste-to-energy and power from liquid biofuels are excluded on the basis that they are technologies typical to large-scale electricity generation. The exclusion of ‘*innovative technologies*’ – wave, tidal and geothermal – is due to their limited use, which the government argued, prevented a tariff being established.^{xi}

The cost of providing the two tariffs is to be taken-up by electricity suppliers (with a minimum of 50,000 domestic customers), with allowance made for implementation costs:

...it is a basic principle of FITs that the cost of the scheme should be borne by all licensed suppliers in proportion to their share of the UK electricity supply market... broadly speaking suppliers who pay out a large amount on FITs relative to their market share are recompensed for part of that expense by suppliers who spend relatively less on FITs payments.^{xii}

This process of ‘*levelisation*’ will be carried out by Ofgem in their role as scheme administrators:

On an annual basis, suppliers will provide information to Ofgem on FITs payments they have made and other relevant information. Ofgem will use this and other sources to calculate the total cost of the scheme, and to divide that cost among all the suppliers according to their share of the electricity market (excluding any imports of green electricity from outside GB). Suppliers who have paid out less than their calculated share – including those that are not offering FITs – will need to pay into a fund administered by Ofgem. This will then be redistributed to those that have paid out more than their share.^{xiii}

The 2009 Renewable Energy Strategy makes a clear distinction between the FIT, which is designed to incentivise small-scale generation and Renewable Obligation which is highlighted as the principle mechanism for support ‘*large-scale, centralised renewable electricity generation*’.^{xiv}

The FIT, as it currently exists, is a policy introduced by the former UK government. Both the Conservatives and Liberal Democrats, in their election manifestos, made commitments to retain, but alter the policy. The Conservatives made a pledge to extend the 5MW ceiling, where as the Liberal Democrats promised a more attractive FIT. The Coalition Programme for Government has made a commitment to:

...establish a full system of Feed-In tariffs in electricity – as well as the maintenance of banded Renewables Obligation Certificates.^{xv}

4 The Renewables Obligation

4.1 The Act

Section 37 of the Act replaces the sections of the Electricity Act 1989 (sections 32 to 32c) which outline the Renewable Obligation (RO) regulations. The purpose of the amendment is to incorporate all previous amendments made to the RO since it was introduced in 2002, as well as introduce further reforms.^{xvi}

The stated aim of these amendments is:

...strengthening the Renewables Obligation to increase the diversity of our electricity mix, improve the reliability of our energy supplies and help lower carbon emissions from the electricity sector.^{xvii}

The Act significantly changed the RO system through the inclusion of Clause 32(D) (of the Electricity Act 1989, as amended) which enables the relevant minister to include banded provisions within future renewable obligation orders.^{xviii} In effect, this provision allows the RO system to be adapted in such a way as to incentivise some renewable generation types more than others.^{xix}

The Act also sought to clarify the circumstances under which Renewable Obligation Certificates (ROCs) can be issued. Clause 32(B10) (of the Electricity Act 1989, as amended) outlines a number of scenarios for renewable electricity use that qualify the generator for ROC issue. The scenarios include renewable electricity that is being:

- consumed by the operator of the generating station of generating stations that generated it;
- supplied to customers in Great Britain through a private wire network;
- provided to a distribution system or transmission system in circumstance in which its supply to customers cannot be demonstrated;
- used in any combination of the above;
- used in any combination of the above with the remainder supplied by an *'electricity supplier to customers in Great Britain or be a Northern Ireland supplier to customers in Northern Ireland, or both'*.^{xx}

Clause 40 of the Act amends legislation applicable to Northern Ireland (the Energy Act 2004 s121 and The Energy (Northern Ireland) 2003 s52-56) to ensure that the legislative framework incorporates the amendments contained in Clause 37. As such it is a technical clause.^{xxi}

4.2 Subsequent Developments

Banding was subsequently introduced various pieces of legislation: the Renewables Obligation Order 2009 (England and Wales) (as amended); the Renewables Obligation

Order 2009 (Northern Ireland) (as amended); and the Renewable Obligation Order 2009 (Scotland) (as amended).

Significantly, the Northern Ireland Renewable Obligation has been amended to offer enhanced levels of ROCs, ensuring *‘that the development of renewables in NI was not undermined by the introduction of FITs in England, Wales and Scotland’*.^{xxii}

Currently the Department of Energy and Climate Change (DECC) is in the process of a two part consultation on the renewable obligation. The consultation has called for evidence on:

- The introduction of phased support for offshore wind projects, allowing developers to register groups of turbines in phases;
- Introduction of mandatory sustainability standards for biomass. There would be a transition period of mandatory reporting against the criteria from April 2011, with eligibility for ROCs from April 2013; and
- Introduction of sustainability criteria for bioliquids in line with the mandatory requirements introduced by the EU Renewable Energy Directive^{xxiii xxiv}.

5 Carbon Capture and Storage

5.1 The Act

Chapter 3 of the Act contains provisions which introduce a regulatory framework for the Carbon Capture and Storage industry.

Significantly the Act outlines CCS related activities that require a licence, namely:

- the use of a controlled place for the storage of carbon dioxide (with a view to its permanent disposal, or as an interim measure prior to its permanent disposal);
- the conversion of any natural feature in a controlled place for the purpose of storing carbon dioxide (with a view to its permanent disposal, or as an interim measure prior to its permanent disposal);
- the exploration of a controlled place with a view to, or in connection with, the carrying on of the activities above; and
- the establishment or maintenance in a controlled place of an installation for the purposes of the activities above.^{xxv}

A controlled space refers to the territorial sea, or waters in a Gas Importation and Storage Zone.^{xxvi}

The Act also makes it an offence to carry out unlicensed activities.^{xxvii}

5.2 Subsequent Developments

Since the passing of the Energy Act 2008, the Energy Act 2010 (the 2010 Act) has been introduced. The 2010 Act includes further measures designed to aid the development of CCS in the UK.

The 2010 Act sets out a framework for the introduction of a CCS incentive, aimed at placing the UK *'at the forefront of global efforts to develop CCS'*, by creating the conditions to deliver:

The demonstration of up to four commercial scale CCS projects and, potentially, up to four fully-CCS capable coal-fired power stations by 2025.^{xxviii}

Specifically, the 2010 Act contains provisions that:

...give the Government powers to introduce secondary legislation that will provide the detailed arrangements underpinning the levy and govern the disbursement of funds to CCS projects.^{xxix}

In effect, the 2010 Act provides the Government with the power to introduce secondary legislation that will:

- introduce a Climate Capture and Storage Levy (likely to be paid by electricity suppliers based on their market share, according to documentation accompanying the Energy Bill); and
- introduce an incentive payment for CCS projects – referred to as Assistance Schemes in the legislation.^{xxx}

In addition, the 2010 Act requires that the government publishes a report every three years, detailing the progress *'made on the decarbonisation of electricity generation'*, and the *'development and use of CCS'*.^{xxxi}

6 Smart Metering

6.1 The Act

Clause 88 of the Act provides the Secretary of State with the power to amend utility licences with a view to rolling-out Smart Metering.^{xxxii}

Specifically the Act allows for licence modifications that include:

- the technical specifications for meters;
- a prohibition on the supply of gas or electricity through any meter other than that which complies with a technical specification;
- provision about the installation of meters
- provision about electricity generated by a customer;

- provision about the circumstances in which any pre-payment facilities of a meter may be utilised;
- provision about the use of a meter remotely to disconnect a customer's premises;
- provision about the protection of consumers;
- provision about access to, and the use of, an electricity distribution system or part of an electricity distribution system for communication in connection with a meter;
- provision about access to information from meters;
- provision about communication of information by or to meters and about the use of such information;
- provision requiring the holder of the licence to enter into an agreement of a specified kind, or with a specified person;
- provision specifying, or enabling the determination of, a date from which a modification is to take effect.^{xxxiii}

The Act holds that prior to any modification to existing electricity or gas licences the Secretary of State must consult with the holder of any licence being modified, Ofgem, and any other persons considered appropriate.^{xxxiv}

The Smart Metering aspects of the Act apply to England Scotland and Wales only. The Strategic Energy framework for Northern Ireland notes that:

A roll out of smart meters to all households in Northern Ireland could cost up to £280m.^{xxxv}

It adds:

DETI recognises the important role of smart metering and will work closely with the Utility Regulator to ensure that a cost effective smart metering solution for Northern Ireland is developed within the framework of the Internal Market for Energy 3 Directive. In addition, DETI will continue to explore a vision for a smart grid and will work with all key stakeholders in this arena.^{xxxvi}

6.2 Subsequent Developments

During 2009 DECC consulted on Smart Metering, this has led to the publication of the Smart Metering Implementation Programme Prospectus (the Prospectus) (jointly published by DECC and the Gas and Electricity Markets Authority). The Prospectus sets out proposals for and asks for views on how smart metering will be delivered. The proposals examine two aspects. Firstly, they examine how standardisation might be achieved. Standardisation is required in order to promote competition and facilitate switching. Secondly, they examine possible incentives which could be utilised to encourage industry innovation and to ensure consumer needs are met.^{xxxvii}

Key proposals examine:

- design requirements;
- the communications business model;
- the roll out strategy;
- consumer protection;
- data privacy and security;
- non-domestic customers;
- regulatory and commercial framework; and
- implementation.^{xxxviii}

The closing date for responses to the prospectus is 28 October 2010.^{xxxix} Completion of the Smart Meter rollout is expected to occur in 2020.^{xl}

7 The Renewable Heat Incentive

7.1 The Act

The Act provides the Secretary of State with the powers to introduce a scheme to support renewable heat development.^{xli} Specifically, the Act allows the Secretary of State to require that fossil fuel suppliers to make payments, in specified circumstance to:

- the owner of plant used or intended to be used for the renewable generation of heat, whether or not the owner is also operating or intending to operate the plant;
- a producer of biogas or biomethane; and
- a producer of biofuel for generating heat.

Furthermore, the Act contains provisions which enable the Secretary of State to: define how payments are to be calculated; outline the circumstances under which payments are to be recovered; place a requirement on fossil fuel suppliers to provide specific information to the Authority; define how any levy is to be calculated; outline the circumstance in which fossil fuel suppliers receive payment; and development enforcement penalties.

The powers outlined in the Act apply to England, Wales and Scotland.^{xlii} Northern Ireland has the power to introduce its own primary legislation in respect of renewable heat.^{xliii} The Strategic Energy Framework for Northern Ireland states the scoping work on the cost and benefits of a similar incentive for Northern Ireland is ongoing.^{xliv}

7.2 Subsequent Developments

As a result of the powers provided for in the Act DECC consulted on the Renewable Heat Incentive (RHI) during the first part of 2010. The proposed model will provide a 'clean energy cash back' for renewable heat generation.^{xlv} Key aspects of the scheme include:

- RHI payments will be paid to the owner of the equipment;
- payments will be made over a number of years; annually for installations below 45kW and quarterly for those above this level;
- tariff levels will bridge the financial gap between the cost of conventional and renewable heat systems at all scales, with additional compensation for certain technologies;
- Payments are to be calculated on the annual amount of heat output (kWh);
- For small and medium scale installations the amount of heat generated to be estimated;
- For large installations heat output is to be metered;
- The RHI will remain open to new applications until 2020; and
- The scheme will be administered by Ofgem.^{xlvi}

The incentive will cover the following technology types:

- air and ground-source heat pumps;
- solar thermal;
- biomass boilers;
- renewable combined heat and power; and
- use of biogas and bioliquids, and the injection of biomethane into the natural gas grid.

The consultation document also notes that a Government statement on the funding of the RHI would form part of the Budget 2010 (the March budget).^{xlvii} The Budget documents states:

The Government continues to review the basis for the longer term funding of the renewable heat incentive. In line with existing tax law, households that generate renewable heat mainly for their own use will not be subject to income tax on renewable heat incentive payments, based on the proposals in the consultation.^{xlviii}

The RHI is scheduled to be introduced in April 2011.^{xlix}

ⁱ The Energy Act 2008 s112 (1) to (5)

ⁱⁱ *Ibid* s41 (2)

ⁱⁱⁱ *Ibid* s41 (3)

^{iv} *Ibid* s41 (5)

^v *Ibid* s43 (1) and (3)

^{vi} Department of Energy and Climate Change *Consultation on the Renewable Heat Incentive* <http://www.decc.gov.uk/en/content/cms/consultations/rhi/rhi.aspx> (accessed 05/10/10)

^{vii} DETI *Strategic Energy Framework* (September 2010) http://www.detini.gov.uk/strategic_energy_framework_sef_2010.pdf (accessed 05/10/10)

^{viii} Feed-in Tariffs, *Duration and variations* <http://www.fitariffs.co.uk/FITs/principles/future/> (accessed 08/09/10)

^{ix} Feed-in Tariffs, *Tariff degression* <http://www.fitariffs.co.uk/FITs/principles/degression/> (accessed 08/09/10)

^x Feed-in Tariffs, *What are Feed-in tariffs* <http://www.fitariffs.co.uk/FITs/> (accessed 08/09/10)

- ^{xi} Feed-in Tariffs, *Energy sources and systems that will not be eligible for the Feed-In Tariffs*
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- ^{xii} DECC, *Feed-in Tariffs – Government’s response to the Summer 2009 consultation* (February 2010) p41
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- ^{xix} House of Commons Library Research Paper 08/40 *Energy Bill: Committee Stage Report 23 April 2008*
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- ^{xxi} The Energy Act 2008 s40
- ^{xxii} Ofgem *Renewables Obligation: Guidance for generators*
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- ^{xxiii} EU Renewable Energy Directive on Biofuels
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- ^{xxiv} Department of Energy and Climate Change, *Statutory Consultation on the Renewables Obligation Order 2011* <http://www.decc.gov.uk/assets/decc/Consultations/Renewables%20Obligation/261-statutory-con-renewables-obligation.pdf> (accessed 05/10/10)
- ^{xxv} The Energy Act 2008 s17(2)
- ^{xxvi} *Ibid* s17(3)
- ^{xxvii} *Ibid* s22(1)
- ^{xxviii} Department of Energy and Climate Change, *Energy Bill Factsheets: Carbon Capture and Storage Incentive*
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^{xlv} *Ibid*

^{xlvi} *Ibid*

^{xlvii} *Ibid*

^{xlviii} The Budget 2020, *Chapter 7 – Securing low carbon growth*
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