

## Annex F Summary of European, UK and Britain-wide measures affecting the energy efficiency of housing

### Relevant EU Directives

F.1 Relevant EU directives and regulation include:

- Energy End-Use Efficiency and Energy Services Directive (discussed in Chapter 4 of this consultation, see 4.16)
- Energy Performance of Buildings Directive & recast
- Energy Labelling Framework Directive
- Ecodesign of Energy Using Products Framework Directive
- EuP Implementing Measures

#### Energy Performance of Buildings Directive

F.2 The Energy Performance of Buildings Directive (EPBD) is designed to tackle climate change by reducing the amount of energy consumed and carbon dioxide produced by buildings. Under the terms of the Directive:

- an energy performance certificate (EPC) must be produced whenever a building is sold, constructed or rented out. The EPC shows the energy efficiency of a property and includes recommendations on how it can be improved;
- a display energy certificate (DEC) must be produced every year for public buildings larger than 1,000m<sup>2</sup>. The DEC shows the actual running costs of the building and must be displayed in a prominent place;
- air-conditioning installations above a certain size must be inspected every five years;
- boiler installations above a certain size must either be inspected regularly or advice must be provided to users.

The European Commission have now published proposals for a recast of the Directive. The majority of the key proposals relate to non-domestic buildings.<sup>223</sup>

#### Energy Labelling Framework Directive

F.3 The Energy Labelling Framework Directive stems from the *Specific Actions For Vigorous Energy Efficiency Programme*, which was established in October 1991 to give a new impetus to the promotion of energy efficiency in the European Union and setting down areas where this could be achieved.

F.4 Energy labels provide clear and easily recognisable information for consumers about the relative energy consumption and performance of domestic appliances. This is done via an A (most efficient) to G (least efficient) label. These labels enable consumers to choose efficient appliances which use less energy when in use. They also encourage manufacturers to compete against each other on the environmental performance of their products.

F.5 The Energy Labelling Framework Directive does not directly introduce obligations on businesses, but instead provides a legal framework for establishing labelling requirements. Mandatory EU energy labels (in the form of implementing Directives) are currently required to be displayed on household refrigerators & freezers, washing machines, electric tumble-dryers, combined washer-dryers, dishwashers, household electric ovens, air conditioning units and lamps at the points of sale. Over the last decade, the A-G label has been one of the most significant drivers in transforming the market for more energy efficient products.

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<sup>223</sup> Communities and Local Government, 'Recast of the Energy Performance of Buildings Directive', 2009 ([www.communities.gov.uk/publications/planningandbuilding/recastepbdconsultation](http://www.communities.gov.uk/publications/planningandbuilding/recastepbdconsultation)).

### Ecodesign of Energy Using Products Framework Directive

F.6 The Framework Directive for the Ecodesign of Energy Using Products (EuP) came into force in 2005 and aims to reduce the environmental impact of energy using products. It thereby contributes to sustainable development while still ensuring the free movement of products. The European Commission estimates that implementing measures brought forward under the Framework Directive have the potential to reduce EU energy consumption by around 10%.

F.7 The EuP Framework Directive, is similar to the labelling framework in that it does not directly introduce obligations on businesses, but instead provides a legal framework for establishing minimum eco-design requirements for energy using products by defining conditions and criteria for setting such requirements through subsequent implementing measures. Implementing measures are targeted at individual energy using product groups such as white goods, motors, televisions, lighting equipment or, as in the case of the measure on standby, a specific function of all electrical products.

### EuP Implementing Measures

F.8 EuP implementing measures can take the form of EU Directives, Regulations, Commission Decisions or voluntary agreements. All of the measures agreed so far have been EU Regulations.

F.9 In order to bring forward an Implementing Measure on a particular product, the Commission first carries out a detailed study to assess the environmental impacts of the product in question, and identify potential policies to mitigate those impacts. The Commission then draws up a 'Working Document', which is discussed at a meeting of the Consultation Forum. This is a meeting of representatives from Member State Governments, industry and the Commission. Following this discussion, the Commission takes on board the comments from the Consultation Forum, and prepares a draft Regulation to be voted on at a meeting of the Regulatory Committee. Once the text of the measure is agreed by the Regulatory Committee, it is subject to scrutiny by the European Parliament before being published in the Official Journal of the European Union. Recent discussions in the EU have considered Ecodesign and labelling measures in parallel.

F.10 Since agreement was reached on the EuP Framework Directive in 2005, the European Commission has been undertaking the evidence work necessary to bring forward regulations for over 20 priority products. In principle, implementing measures can address any environmental impact, but in practice, the main impact identified for this first group of twenty or so products to be subject to implementing measures has been the energy they consume while in use.

F.11 To date Member States have approved Regulations for ten product groups: Standby Power Consumption, Simple Set Top Boxes, External Power Supplies, General and Tertiary Lighting, motors, televisions, circulators and domestic washing machines and refrigerators. These measures will come into force around mid 2010.

F.12 EuP implementing measures have been shown to be a highly cost effective approach to improving the energy efficiency of products. It is estimated that the measures so far agreed combined could deliver in the UK estimated net benefits of over £900 million pa between now and 2020 in terms of savings to end-users, savings from lower carbon emissions and other benefits, and save around 7 million tonnes of CO<sub>2</sub> per annum by 2020. A number of further measures are under currently discussion in Europe with some 20 further measures planned over the coming 2-3 years.

### Proposed Expansion of the EuP and Energy Labelling Framework Directives

F.13 As part of the EU Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan launched in July 2008, the European Commission published plans to expand the scope of the EuP Framework Directive to allow the setting of ecodesign requirements for energy related products, such as windows, insulation materials, or some water using products. Agreement on this 'Ecodesign Directive' has recently been reached in Europe and the Commission will publish a working plan setting out an indicative list of priority product groups for adoption of implementing measures by 21 October 2011.

F.14 In parallel, the Energy Labelling Framework Directive is being updated to, *inter alia*, align its scope with the wider scope of the EuP Directive and to allow future implementing measures to be European Regulations (as now for EuP) rather than Directives as currently required. Until the recast of the Energy Labelling Framework Directive is complete, the first round of energy labelling requirements are expected to be brought forward as Directives.

### **UK Government policies and programmes**

F.15 In July 2009 the UK Government published its Low Carbon Transition Plan along with the:

- Low Carbon Industrial Strategy
- Renewable Energy Strategy
- Low Carbon Transport – a greener future
- Consultation on Renewable Electricity Financial Incentives (that is Feed-in Tariff).

F.16 The White Paper sets out the plan to achieve emissions cuts of 18% by 2020, based on 2008 levels (and over one third reduction on 1990 levels). It sets out a range of actions which UK Government will take in the following areas in order to achieve this:

- Power & large industry
- Homes & Communities
- Workplaces & jobs
- Transport
- Farming, land management & waste
- Departmental carbon budgets

The first four of these areas are most likely to interact with activity in Scotland on energy efficiency.

### UK Programmes aimed at Homes & Communities

F.17 The **Carbon Emission Reduction Target** (CERT) is an obligation on large electricity and gas suppliers to achieve a specified amount of carbon savings in homes across Great Britain between 2008 and 2011.

F.18 The scheme is set up by the UK Government to be as cost effective as possible – as customers effectively pay through their fuel bills for the cost of their supplier meeting its target. It is estimated that in 2008 domestic customers using gas and electricity contributed on average £38 to the CERT programme.<sup>224</sup>

F.19 However, in order to keep the scheme cost-effective, this means that energy suppliers are free to meet their target in homes irrespective of where these homes are, which of the eligible measures (e.g. insulation, low energy lamps, efficient appliances) are used, or who supplies the household with energy. They must, however, achieve 40% of their

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<sup>224</sup> Ofgem, Household energy bills explained, (updated), Jan 2008 ([www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=73&refer=Media/FactSheets](http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=73&refer=Media/FactSheets)).

target in the homes of the 'priority group' of low income and elderly (aged 70 or over). This means that generally energy suppliers offer certain measures (including cavity wall and loft insulation in empty lofts) to the priority group for free and subsidise those same measures to other households or subsidise other measures to all households.

F.20 The total expected investment by energy suppliers due to CERT is expected to be £3.2 billion from 2008-2011, with some 60% of this (£1.9 billion) expected to be directed at the priority group.<sup>225</sup> If a pro-rata split of spend was achieved in Scotland, then expected investment would be around £96 million per year, with £58 million targeted at priority groups. The Department of Energy and Climate Change has estimated an indication of which energy efficiency measures are likely to be installed as a result of CERT. This equates to professional installation of cavity wall insulation in over 766,000 homes and loft insulation in 950,000 homes each year across GB. The pro-rata share for Scotland would be more than 68,000 cavity wall and 84,000 loft insulation jobs per year.<sup>226</sup>

F.21 Data collected under the first phase of the programme, which ran from 2002 to 2005 (known then as the 'Energy Efficiency Commitment'), shows that the shortfall in savings in Scotland was around 22% below pro rata. Data for the second phase of the programme, which ran from 2005 to 2008, was not available at the time of writing. However, DECC research indicates that delivery under EEC2 in Scotland may have been even less than through the first phase.<sup>227</sup> In the current programme this would equate to a loss of around £21 million of CERT spend per year.

F.22 There are a number of factors that could be making the delivery of CERT measures more difficult in Scotland:

- Scotland has a more dispersed and lower population density, meaning potentially higher costs for reaching rural and remote communities;
- Scottish house types, construction and property sizes are different, which may make the standardised carbon savings within the scheme less cost-effective to deliver in Scotland. For example:
  - Where there are cavity walls, these tend to be wider due to different building codes and practices in Scotland;
  - Scotland has more flats (Scotland 36%, England 17%, Wales 9%) which provide fewer opportunities for the some of the most cost effective measures or increases the cost of applying them;
- Some energy supply companies may have found it easier to concentrate their CERT activity closer to their core domestic markets in England and Wales.

F.23 It is our view that there need to be provisions in place to ensure that Scotland receives proportionally more CERT activity (given its fuel poverty levels) and that broadly, new CERT investment:

- includes Scotland's rural and island communities;
- recognises and accounts for the variation in the climate; and

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<sup>225</sup> There is a long list of eligible measures. However, estimates include cavity wall insulation being installed in 2.3 million homes, loft insulation being professionally installed in 2.8 million homes, and 240 million energy efficient light bulbs being available across GB. By 2012 it is expected that annual CO<sub>2</sub> savings as a result of activity in the period 2008-11 across GB will be 5.6 MtCO<sub>2</sub>/year (DECC, Carbon Emission Reduction Target (Amendment) Impact Assessment, Version 2a, June 2009 [www.decc.gov.uk/en/content/cms/consultations/open/cert/cert.aspx](http://www.decc.gov.uk/en/content/cms/consultations/open/cert/cert.aspx)).

<sup>226</sup> Based on an 8.9% of measures identified in Table 1 of Carbon Emission Reduction Target Impact Assessment CERT+ 20% (yellow column). The figure for loft insulation includes empty and partially filled lofts. See [www.decc.gov.uk/en/content/cms/consultations/open/cert/cert.aspx](http://www.decc.gov.uk/en/content/cms/consultations/open/cert/cert.aspx).

<sup>227</sup> Eoin Lees Energy for DECC, 'Evaluation of the Energy Efficiency Commitment 2005-08', December 2008.

- contains a greater proportion of harder-to-treat properties (Scottish Housing Condition Survey, 2005/6).

F.24 The **Community Energy Saving Programme (CESP)** has been developed by the UK Government to promote a 'whole house' approach.<sup>228</sup> It will be delivered through the development of community-based partnerships involving local authorities, along with energy suppliers and electricity generators. CESP is an obligation on suppliers and generators (in a similar way to the CERT obligation). However, among other things CESP aims to encourage a house-by-house, street-by-street approach.

F.25 The UK Government estimates that CESP will result in up to 100 area based schemes benefiting around 90,000 homes across Great Britain. Of this 90,000, it is expected about half will receive significant packages of measures, worth an average of £540 per year bill savings. It is expected the other half will receive single measures, or smaller packages, worth an average of £115 per year bill savings. If 8.9% of the 90,000 homes receiving these measures were in Scotland, this would equate to just over 8,000 homes. The UK Government estimates that suppliers and generators will spend £350 million to meet their obligations – which would equate to £31.5 million in Scotland (based on 8.9%). CESP may only be delivered in certain geographical areas - where the average income is low.

F.26 CESP officially started in October 2009 and will run until December 2012. However, obligated energy suppliers and generators will have been working for a number of months already, discussing with potential partners how they will deliver their obligation. The aim is to learn lessons for any future supplier obligation after 2012.

F.27 The UK Government has committed to the roll out of **smart meters in every home by the end of 2020**. These will cover supply to electricity and gas where appropriate. There have been a number of trials and consultations looking at how this will be best achieved.<sup>229</sup>

F.28 Smart electricity and gas meters provide accurate real time information on energy consumption. They will provide a step-change in the information available to consumers, often helping them to reduce their energy consumption, saving money and reducing greenhouse gas emissions. For consumers this means no more estimated bills or staying in for home readings; and it is expected they will be able to manage energy use more cost-effectively and there will be easier switching between suppliers. Suppliers will also be able to offer a greater range of tariff packages including for off-peak energy.

F.29 Introducing **clean energy cash-back schemes** so that people and businesses will be paid if they use low-carbon sources to generate heat or electricity. These are split into a renewable electricity cash-back scheme, also known as feed-in tariffs (FIT), and a renewable heat cash-back scheme, known as the renewable heat incentive (RHI). These are discussed briefly in Chapter 10 of this consultation and in more detail in the Department of Energy and Climate Change consultation on renewable electricity financial incentives.<sup>230</sup> The start dates of the new support schemes are expected to be April 2010 (for the FITs) and April 2011 (for the RHI).

F.30 Other measures identified in the Low Carbon Transition Plan are listed below. A number of these are reserved matters (i.e. being taken forward by the UK Government in England or England and Wales and/or Northern Ireland only):

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<sup>228</sup> For details see: [www.decc.gov.uk/en/content/cms/consultations/open/cesp/cesp.aspx](http://www.decc.gov.uk/en/content/cms/consultations/open/cesp/cesp.aspx) and [www.ofgem.gov.uk/Sustainability/Environment/EnergyEff/cesp/Pages/cesp.aspx](http://www.ofgem.gov.uk/Sustainability/Environment/EnergyEff/cesp/Pages/cesp.aspx).

<sup>229</sup> For example: DECC, 2009, 'Consultation on Smart Metering for Electricity and Gas' ([www.decc.gov.uk/en/content/cms/consultations/smart\\_metering/smart\\_metering.aspx](http://www.decc.gov.uk/en/content/cms/consultations/smart_metering/smart_metering.aspx)).

<sup>230</sup> DECC, 2009, 'Consultation on Renewable Electricity Financial Incentives' ([www.decc.gov.uk/en/content/cms/consultations/elec\\_financial/elec\\_financial.aspx](http://www.decc.gov.uk/en/content/cms/consultations/elec_financial/elec_financial.aspx)).

- £10m for 15 or so 'Green villages, towns and cities', a challenge for communities to be at the forefront of pioneering new technology
- Encouraging the provision of electricity display devices to two to three million households through CERT and launching a new personal carbon challenge
- Piloting of Pay as you Save (PAYS) household finance schemes to be managed by the Energy Saving Trust (£4m)
- Developing more proactive services from the Energy Saving Trust to provide households with information and advice when it is most likely to be useful (F & G rated homes)
- Consulting on requiring EPC ratings to rented properties to be put on property advertisements and potentially giving EST access to landlords' register once it is established.
- Following the end of the voluntary agreement with suppliers in March 2011, Government will legislate social tariffs and improve support for vulnerable.