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INTERLINKAGE AND SYNERGIES BETWEEN SELECTED OTHER POLICY AREAS AND ENERGY EFFICIENCY – NATIONAL REPORT FOR UK

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ACRONYMS

ALMO	Arms Length Management Organisation
ASA	Advertising Standards Authority
CC	Congestion Charge
CERO	Carbon Emissions Reduction Obligation
CO₂	Carbon Dioxide
CO₂e	Carbon Dioxide equivalent
DCLG	Department for Communities and Local Government
DECC	Department of Energy and Climate Change
DfT	Department for Transport
DH	Decent Homes
DHS	Decent Homes Standard
DWP	Department for Work and Pensions
ECO	Energy Companies Obligation
EU	European Union
GD	Green Deal
GDC	Green Deal Cashback
GDFC	Green Deal Finance Company
GDHIF	Green Deal home Improvement Fund
GD ORB	Green Deal Oversight and Registration Body
GHG	Greenhouse Gas
GLA	Greater London Authority
HCA	Homes and Communities Agency
HHSRS	Housing Health and Safety Rating System
HIA	Home Improvement Agencies
ICT	Information and Communications Technology
ILUC	Indirect Land Use Change
LA	Local Authority
LEZ	Low Emissions Zone
NRMM	Non-road mobile machinery
MTS	Mayor's Transport Strategy
PCN	Penalty Charge Notice

PFI	Private Finance Initiative
RED	EU Renewable Energy Directive 2009/28/EC
RHI	Renewable Heat Incentive
RSL	Registered Social Landlord
RTFCs	Renewable Transport Fuel Certificates
RTFO	Renewable Transport Fuel Obligation
SAP	Standard Assessment Procedure
TfL	Transport for London
UCO	Used Cooking Oil
UK	United Kingdom
ULED	Ultra Low Emission Discount
ULEVs	Ultra Low Emissions Vehicles
VAT	Value-added Tax
VED	Vehicle Excise Duty
VRN	Vehicle Registration Number

EXECUTIVE SUMMARY

In current debates the multiple benefits of energy efficiency are broadly discussed and available analyses are growing in number (e.g. IEA 2014 report on multiple benefits). However, in some cases energy savings can rather be seen as the co-benefit of other policies or measures, which do not target energy efficiency by design.

This report outlines four cases studies; two policy instruments targeting the buildings sector and two policy instruments targeting the transport sector. They include two (one building and one transport) policy instruments that have a direct link to energy; the Green Deal Programme and the Renewable Fuels Obligation, and two policy instruments that have an indirect link to energy; the Decent Homes Programme and Congestion Charges.

Each policy instrument is described in terms of its focus, target groups and objectives, its relationship with energy efficiency, as well as the interactions between the rules-influencing mechanisms, and the policy instruments implementation network/governance structures.

CHAPTER 1: ACHIEVING ENERGY EFFICIENCY THROUGH INTEGRATION IN OTHER POLICY AREAS

In current debates the multiple benefits of energy efficiency are broadly discussed and available analyses are growing in number (e.g. IEA 2014 report on multiple benefits). However, in some cases energy savings can rather be seen as the co-benefit of other policies or measures, which do not target energy efficiency by design.

The aim of this task is to identify policy areas suitable for combination with energy efficiency policies and systematically analyse how they may contribute to improve energy efficiency, particularly if untapped energy saving potentials still exist.

Within UK policy, there are many overlaps within policy instruments and measures between energy efficiency and renewable generation as well as more socio-economic and environmental issues, such as fuel poverty, physical and mental health, and air quality.

Official documents that describe such interlinkages between policy instruments include:

- Department of Energy and Climate Change (2012). The Energy Efficiency Strategy: The Energy Efficiency Opportunity in the UK. London: DECC. Available: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/65603/6928-the-energy-efficiency-strategy-statistical-strat.pdf
- Department of Energy and Climate Change (2011). UK Renewable Energy Roadmap. London: DECC. Available: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48128/2167-uk-renewable-energy-roadmap.pdf
- HM Government (2015). Cutting the cost of keeping warm – a fuel poverty strategy for England. London: HM Government. Available: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/408644/cutting_the_cost_of_keeping_warm.pdf
- Energy and Climate Change Committee (ECCC) (2014). The Green Deal: watching brief (part 2). Third Report of Session 2014-15. In: Commons, H. o. (ed.). Available: <http://www.publications.parliament.uk/pa/cm201415/cmselect/cmenergy/348/348.pdf>
- Environment, Food and Rural Affairs Committee (EFRAC) (2008). Energy efficiency and fuel poverty. Third report of session 2008-09. In: Commons, H.o. (ed.). Available: <http://www.publications.parliament.uk/pa/cm200809/cmselect/cmenvfru/37/37.pdf>
- HM Government (2011). Creating growth, cutting carbon: making sustainable local transport happen. London: HM Government. Available: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/3890/making-sustainable-local-transport-happen-whitepaper.pdf

This is not an exhaustive list, as much of the UK's policy strategy acknowledges the interlinkages between energy efficiency and other policy areas, but does not always explicitly mention and evaluate the links. Policy Connect (www.policyconnect.org.uk) also provides useful documentation

on the UK's policy and recommendations from a network of Parliamentary groups, research commissions, forums and campaigns working to inform and improve UK public policy.

It must be noted that in May 2015, the UK Government changed and much of the policies relating to energy efficiency and other policy areas are undergoing review.

1.1 POLICY INSTRUMENTS WITH A DIRECT LINK TO ENERGY

1.1.1 CASE STUDY FOR THE BUILDINGS SECTOR: THE GREEN DEAL PROGRAMME

Introduction

The Green Deal programme was launched in January 2013, alongside the regulatory policy instrument, the Energy Company Obligation (ECO), and was expected to be a 20-year programme to reduce consumer bills, whilst carbon savings continued to be delivered. The Green Deal was both an economic (loan system) and dissemination and awareness policy instrument. Its design was a process of assessment (Green Deal advice report) and financial incentives to ensure low or no upfront costs for the installation of energy efficiency measures. The financial mechanisms in place, as part of the Green Deal programme, included an upfront loan (through Green Deal Finance Company (GDFC)), that was paid back through the consumers energy bills or one-off incentive payments (Green Deal Cashback (GDC) or Green Deal Home Improvement Fund (GDHIF) payment). It also aimed to provide and build a framework of 'trusted' and accredited market participants in the energy efficiency market.

The Green Deal supported consumers (domestic and non-domestic) to install a variety of suitable energy efficiency measures including: insulation (loft, cavity or solid wall), draught-proofing, improved heating controls, improved glazing, and renewable energy technologies (heat and generation) (DECC, 2014). Its focus was on raising consumer awareness and implementation of energy efficiency measures within existing buildings (domestic and non-domestic); with the target groups being mainly households (private rented as well as owner occupied), alongside small businesses. It also aimed to shift Government-led energy efficiency schemes from supplier obligations to an integration of a competitive market-based mechanism; thus improving the energy efficiency market in the UK (ECCC, 2014).

The main objectives of the Green Deal (alongside the Energy Company Obligation (ECO)) were (ECCC, 2014) to:

- Reduce UK's Greenhouse Gas emissions;
- Address the drivers of fuel poverty;
- Maintain the security of the UK's energy supply;
- Address market failures and barriers, and drive demand for cost-effective energy efficiency measures.

The estimated energy saving (dwelling and non-dwelling) from the Green Deal programme was expected to be 0.7 TWh by 2015 (DECC, 2014); with around 230,000 low-income households benefiting from heating and insulation measures each year. By 2020 the Green Deal and ECO are expected to reduce UK household and business carbon emissions by 4.5 million tonnes per year (DCLG, 2015b).

It must be noted that as of July 2015, the UK Government has stopped funding for the Green Deal Finance Company, effectively rendering an end to the Green Deal programme as it stood.

Relation to Energy Efficiency

In March 2013, the then Minister of State for Energy and Climate Change anticipated that at least 10,000 households would have signed up to Green Deal Plans by the end of the year (Pitt, 2014). However, the House of Commons Energy and Climate Change Committee's Third Report of Session 2014-15 on the Green Deal (ECCC, 2014), stated that only approximately 4,000 plans had been (or were in the process of being) set up at the time of the report's writing. The Report also highlighted the fact that the estimated carbon savings through the Green Deal programme was minimal; 0.04MtCO₂ through Green Deal finance and 0.07MtCO₂ through the Cashback scheme (ECCC, 2014).

At the end of 2013, it was estimated (CCC, 2014) that 4.5million cavity walls, 7million solid walls and 9million lofts remained uninsulated to adequate standards (with an estimated carbon saving potential of 2MtCO₂, 5MtCO₂, and 0.7MtCO₂ respectively). The Green Deal has enabled 44,106 individual energy efficiency measures, across 35,278 individual households from its inception in January 2013 to January 2015; of which 693 were cavity wall insulation, 16,930 were solid wall insulation and 1,733 were loft insulation. Such figures demonstrate the failures of the Green Deal programme, as a financial mechanism. In terms of assessment, over the same period, 501,906 Green Deal assessments were undertaken (DECC, 2015a).

The barriers hindering the success of the Green Deal were outlined in the House of Commons Third Report of Session 2014-15 (ECCC, 2014); a) financial barriers, b) communication and trust barriers, and c) behavioural barriers. These barriers have meant that it has been slow to attract uptake; with consumers able to find cheaper and more straightforward finance mechanisms elsewhere, and the confusing and complex communication strategy and process, alongside incidences of rogue traders has put off many potential households (low-middle income), and market investors. The Green Deal Finance Company credit threshold enabled 80% of the population to access loans, however, due to the 'Golden Rule', and the high interest rates, often the installation of higher cost measures was prevented, particularly in low-income households. Changes in the ECO in terms of enabling low-cost measures to be installed, for free through ECO, has also helped undermine the Green Deal programme and its uptake by 'able-to-afford' households (ECCC, 2014). In addition, reports from Green Deal providers indicate that consumers are put off by the need to pay for the initial assessment, and do not see it as worthwhile (ECCC, 2014).

There have also been suggestions that, although the available funding for incentives such as the Cashback scheme was used in a shorter period of time than expected, it had not encouraged wider take-up; rather it was used to replace boilers and other energy efficiency measures that would have happened anyway. The Green Deal Home Improvement Fund was also popular, and was positive in the fact that it highlighted that there was an appetite for energy efficiency measures. However, its sudden and unexpected closure has not helped build confidence in both the consumer and wider energy efficiency market (ECCC, 2014). It has also been found that potential consumers in rural areas have found it difficult to access Green Deal providers, which again has significantly hindered uptake by households that would be target groups.

Interaction between objectives

The Green Deal programme has common objectives with several other energy efficiency policy measures including; the Energy Company Obligation (ECO), the Renewable Heat Incentive (RHI). ECO and the Green Deal were to be complementary mechanisms that were implemented alongside each other; with the same objectives. Whilst the ECO was aimed at ensuring suppliers install more costly energy efficiency measures such as solid wall and hard-to-treat cavity wall insulation, the Green Deal was aimed at facilitating the installation of low-cost measures (using the Golden Rule; "the expected

financial savings from installing energy efficiency measures must be equal to or greater than the cost attached to the energy bill” (ECCC, 2014)).

However, as noted above, changes in the ECO programme operation appear to have been counter-productive in terms of the common objective of encouraging uptake of energy efficiency measures. This has been due to the allowance of loft and cavity wall insulation (relatively low-cost measures) to be installed under the ECO’s Carbon Emissions Reduction Obligation (CERO); which has the potential to undermine the Green Deal in which the Golden Rule prevents the installation of high-cost energy efficiency measures (ECCC, 2014).

The Green Deal and the Domestic Renewable Heat Incentive (RHI) also have several common objectives, namely again, at the encouragement of uptake and the reduction of market barriers. In order to be eligible for the Domestic RHI, a household must undergo a Green Deal Assessment. Whilst this makes practical sense (ensure the building has sufficient physical energy efficiency measures prior to the installation of heating systems), the additional cost and administration of the Assessment could lead to reductions in uptake; indeed in February 2015 the DECC removed the obligation of Social Landlords to undertake a Green Deal Assessment prior to application for the RHI (DECC, 2015b).

Interaction between target groups

The building sector is a key area of focus in terms of both carbon reductions and improved energy efficiency. Within the building sector, households are seen as critical to these two goals; therefore common target groups exist between the Green Deal and many other policy instruments and measures; including financial instruments such as the RHI, the Warm Front Scheme, Home Energy Efficiency Programmes (Scotland) but also broader regulatory instruments including the ECO, the Energy Act 2011, and the Decent Homes Standard.

These target groups include; households in fuel poverty, the private rented sector (landlords and tenants), social rented households and owner-occupied households. An example is of the Energy Act 2011 ensuring regulation that addressed energy efficiency in the private rented sector; through empowering tenants in requesting energy efficiency measures, and introducing minimum energy efficiency standards for domestic dwellings. The Green Deal has complemented these regulations by providing financial incentives for both the landlord and tenant, and reducing the potential for net or upfront costs to be incurred by either party (ECCC, 2014).

Interaction between Rules-Influencing Mechanisms

The Green Deal is an economic mechanism to encourage and enable take-up of energy efficiency measures. Participation from the consumer is voluntary, however, GD providers require certification and must abide by the GD Code of Practice (further described in following section).

Despite this, an example of where the Green Deal interacts with both regulatory and other economic policy instruments is in relation to the private rented sector. Domestic private landlords will not be able to unreasonably refuse requests for consent to energy efficiency improvements from their tenants, where financial support is available, such as Green Deal finance or ECO, with the first tenants’ energy efficiency improvements regulations coming into force by 1 April 2016 (DECC, 2015c). Because it is the bill payer in rented dwellings that benefits from EE improvements, the Landlords Energy Saving Allowance, a financial incentive, allows landlords of domestic rented property to claim tax relief of up to £1,500 per property for the costs of buying and installing energy-saving products (DECC, 2014). The Green Deal was expected to work alongside the vast majority of existing energy efficiency policy instruments and measures to ensure growth in a sustained energy

efficiency market. However, due to the low uptake of GD Plans and unsurety around the funding and security of financial incentives such as the GDHIF, GDC and FiTs, it does not appear to have made the same impact as expected, or desired on the energy efficiency market.

Interaction between the Implementation Network / governance structures

The Green Deal Oversight and Registration Body (GD ORB), on behalf of the Secretary of State, manages the authorisation scheme for participants in the Green Deal and is responsible for a number of functions aimed at providing effective administration and oversight of the scheme. The GD ORB is responsible for maintaining a register of all authorised Green Deal Providers, Certification Bodies, Assessors and Installers; maintaining the Green Deal Code of Practice and controlling the use of the Quality Mark; ongoing monitoring of Green Deal Participants against the Code of Practice; producing an annual Green Deal report; and gathering evidence of non-compliance and referring participants to the Ombudsman or the Secretary of State where appropriate and imposing sanctions when directed (DCLG, 2015b). The Department of Energy and Climate Change (DECC) is the Government body that oversees the implementation of the Green Deal, alongside several other energy-related policy instruments and measures such as the ECO, RHI, Feed-in Tariffs (FiTs).

As a UK Government-led policy mechanism, the Green Deal is subject to an Impact Assessment prior to its implementation in order to ensure satisfactory networks, structures and capacity are in place to ensure its successful delivery. In relation to the Green Deal, much has been written in terms of its failures to meet expectations. In part, this appears to be due to issues within its implementation network and governance structures; particularly in terms of the promotion of the Green Deal to consumers (ECCC, 2014). In terms of capacity, the Green Deal has suffered from a lack of suitable providers and assessors; particularly in rural areas (ECCC, 2014). In addition, the complexities, administrative burden and lack of clarity throughout the supply chain of the Green Deal programme appears to have also affected its success significantly (ECCC, 2014); with rogue traders operating due to a lack of clear branding, and suitable certification mechanisms. This has led to a lack of consumer confidence in the implementation network itself. This has not been helped by Government communications on the Green Deal being found to have mis-sold Green Deal advertisement by the Advertising Standards Authority (ASA) (ASA, 2014). The Green Deal also suffers from a lack of framework that outlines specific targets in terms of delivery and/or carbon reductions (UKGBC, 2014).

In terms of financial feasibility, it is apparent that the investment provided was inadequate; the allocated £120million first release budget for the Green Deal Home Improvement Fund was taken in under seven weeks (ECCC, 2014). Whilst this has been support by a second and third release of funds, the messages around the sustainability of the funds have been unclear, which has the potential for undermining confidence in the Government's ability to ensure the sustainability and consistency of its energy efficiency policies, which, in turn, has negative implications upon sustained growth within the UK's energy efficiency market and supply chain. In July 2015, the UK Government also stopped funding of the Green Deal Finance Company (GDFC, 2015), and although the Green Deal Assessment framework remains open, this is likely to further strain the implementation network of energy efficiency measures within the existing domestic building sector.

1.1.2 CASE STUDY FOR THE TRANSPORT SECTOR: THE RENEWABLE FUEL OBLIGATION

Introduction

The Renewable Transport Fuel Obligation (Amendment) Order 2013 (RTFO) first came into legislation in 2007, and was subsequently amended in December 2011 to “transport the transport elements of the EU Renewable Energy Directive (RED) 2009/28/EC” (DfT, 2012), and then further amended in 2013 to “implement the closely related requirements of articles 7a-e of the EU Fuel Quality Directive 2009/30/EC” (DfT, 2012).

The RTFO supports the government’s policy on reducing greenhouse gas emissions (GHG) from vehicles by encouraging the production of biofuels that don’t damage the environment. Under the RTFO, suppliers of transport and non-road mobile machinery (NRMM) fuel in the UK must be able to show that a percentage of the fuel they supply comes from renewable and sustainable sources (DfT, 2012). The RTFO targets fuel suppliers (both suppliers of biofuels and fossil fuels) who supply at least 450,000 litres of fuel a year.

The objectives of the RTFO are:

- Driving a market for biofuels in the UK;
- Reduction in transport-related GHG emissions (estimated savings of 4.3MtCO₂e per annum in 2020 (DfT, 2013));
- Mandatory target of a minimum 10 % share of biofuels in transport petrol and diesel consumption by 2020 (as per the EU Renewable Energy Directive (RED) 2009/28/EC);
- Incentivise the supply of non-crop biofuels by ‘double-counting’ biofuels derived from waste and residues (DfT, 2013).

Relation to Energy Efficiency

Under the RTFO, the average GHG saving from the biofuels was 69% in 2013-2014, compared to fossil fuels, which represents a total saving of almost 2.8MtCO₂e (DfT, 2015). As of 2013-2014, the RTFO is generally meeting its objective of reducing carbon emissions from road transport, and increasing energy efficiency within the transport sector; overall savings have been lower than in the original impact assessment, but this has been attributed mainly to the reduction in RTFO targets due to concerns about ‘indirect land use change’¹ (ILUC). Revisions to the 2007 Order in 2011 ensured that renewable fuels passed greater sustainability criteria, incentivise the supply of non-crop biofuels (by ‘double-counting’ biofuels derived from waste and residues) and that not only suppliers of road transport fuel were covered, but also suppliers of fuel for use in NRMM (DfT, 2013). This in turn meant that in 2013, an amendment to the ‘specified amount’ in article 4 of the RTFO was made to slightly lower the obligation level “from 5.2632%” to “4.9870%”; to ensure the overall amount of biofuel supplied in the UK for transport remained the same, despite the expansion in scope.

¹ “When an existing crop is displaced to enable a biofuel crop to be grown, additional agricultural land may be created to accommodate the displaced crop. If ILUC occurs, there is a risk that there will be a loss of carbon stock from that land and therefore additional carbon emissions.” DfT (2015). Renewable Transport Fuel Obligation. Annual Report 2013-14 *In: Transport, D. f. (ed.)*. Available: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/415132/cm-9026_accessible.pdf

The 2014 Post Implementation Review Impact Assessment (DfT, 2014) indicates that RTFO targets need to be substantially increased in order to meet the EU's 2020 renewable energy and carbon targets. In terms of improvements, larger industry actors have called for a set target supply trajectory towards the Renewable Energy Directive's (RED) of 10% in 2010 in order to provide greater certainty within the wider industry, and smaller producers have called for a wider variety of measures to enhance support for the UK's Used Cooking Oil (UCO) supply (DfT, 2014).

Interaction between objectives

The RTFO shares common objectives, in terms of driving a market for biofuels in the UK with the Energy Act 2004 (Part 2, Chapter 5 outlines), The Climate Change Act 2008, The Biodiesel Duty Regulations 2010, HM Revenue and Customs note on the extension of the duty differential for biodiesel from used cooking oil, the Biodiesel and Bioblend Regulations 2002 and the Hydrocarbon Oil Duties Act 1979 (DfT et al., 2015). It is the UK's mechanism of implementing the EU's Biofuel Directive (2003/30/EC), and its subsequent amendments were brought about in order to incorporate and address the quantitative objectives of the EU-wide Renewable Energy Directive (2009/28/EC).

The RTFO also has an important interlink with the UK's policy instruments and measures surrounding ultra-low emission vehicles (ULEVs) in terms of both reducing transport-related GHG emissions, but also driving a market for biofuels in the UK; developments in ULEVs need to support and promote the uptake of biofuels through the production and development of technology suitable to using biofuels.

Interaction between target groups

The RTFO's target groups are generally all encompassing; both suppliers of road and NRMM fuel are targeted. Other UK transport policy instruments and measures do not directly target the same groups; instead most focus on the users of transport, rather than the suppliers.

Interaction between Rules-Influencing Mechanisms

The RTFO's rules and influencing mechanisms are largely self-sustained, as it operates through tradable Renewable Transport Fuels Certificates (RTFCs) (DfT, 2015). As the Renewable Transport Fuel Obligation Annual Report 2013-14 states:

"The RTFO operates on an annual basis starting each year on 15 April. Each supplier of fuel to the UK market is required to demonstrate that biofuel has been supplied to cover a set proportion of their overall fuel supply. For the 2013-14 year, this proportion was 4.75%. Suppliers can meet this obligation by redeeming certificates that they have received for their own biofuel supply, or by redeeming certificates that they have bought from other suppliers of biofuel. Suppliers also have the option to buy-out of their obligation, paying 30 pence per litre of biofuel for which they have not redeemed an RTFC. This protects consumers from excessive increases in fuel prices by setting a maximum value for RTFCs. Any money received from suppliers buying out is distributed between suppliers who have redeemed RTFCs and those who have chosen to surrender additional RTFCs for this purpose. Fuel suppliers can meet up to 25% of their obligation with certificates issued in the previous year. This reduces the impact of unexpected events and provides some protection against year to year volatility of fuel prices."

The Administrator of the RTFO, the Department for Transport (DfT), is responsible for the operations and processes of the RTFC.

In terms of the RTFO's effect on the market, the additional costs of biofuel supply were not felt until 2012-13 due to the 20ppl fuel duty incentive for biofuels. In 2013-13, the true petrol equivalent per

litre basis (0.81p incl. VAT) reflected the actual additional cost experienced by motorists, and was the equivalent to only 0.6% of the average retail price of fuel; for an average car, this was the equivalent to approximately an £8 (plus VAT) increase in the annual fuel bill (DfT, 2013). In terms of sustaining the use and supply of biofuels, without Government mechanisms such as the RTFO, the quantity of biofuel supplied is expected to fall due to the fact that on a per unit basis, sustainable biofuels remain more expensive than fossil fuels (DfT, 2014).

Interaction between the Implementation Network / governance structures

Registration and compliance is managed by the RTFO Compliance Team in the DfT; it operates systems and processes designed to prevent and detect fraudulent applications, and also has the powers to impose civil penalties if requirements of the RTFO are not complied with (DfT, 2015). The fuel suppliers are responsible for contacting and registering with the RTFO Compliance Team. The Renewable Transport Fuel Obligation: Post Implementation Review Impact Assessment 2014 (DfT, 2014) acknowledges that the regulatory framework of the RTFO has become more complex overtime, and that legislative proposals under discussion at European level to address ILUC sustainability concerns may add further complexity to the regulatory framework.

In terms of financial feasibility, the RTFO represented a net cost to society; the costs (£2,215million) are estimated to outweigh the benefits (£301million) by £1,914million over the first five years of the scheme (DfT, 2014). Despite this, Government administration costs reduced in 2012-13 (Year five), despite the fact that costs were anticipated to increase following the 2011 amendments. The administration costs for the fuel suppliers is estimated to be around £0.5million for each large obligated company; including the costs of reporting, trading, verification, policy, audit, marketing, general management and technical issues (DfT, 2014).

1.2 POLICY INSTRUMENTS WITH AN INDIRECT LINK TO ENERGY

1.2.1 CASE STUDY FOR THE BUILDINGS SECTOR: DECENT HOMES PROGRAMME

Introduction

The Decent Homes Standard (DHS) was a technical standard for social housing introduced by the UK Government in 2000, and set a target to 'ensure that all social housing meets set standards of decency by 2010' (UK Parliament, 2010), and was implemented through the Decent Homes Programme. A further target was set in 2002 of 70% of vulnerable household in the private sector should be in decent housing by the same date (National Audit Office, 2010). In 2006, the standard was further updated in line with the Housing Act 2004 (DCLG, 2006), which included the more demanding risk assessment procedure, the Housing Health and Safety Rating System (HHSRS). The decent home standard is not an enforcement standard, and authorities do not have powers to require owners to comply (ODPM, 2004).

In 2001, 39% of all social housing was classified as 'non-decent'; 1.6million homes (National Audit Office, 2010), and there was an estimated 1.2-1.4million private sector vulnerable households living in homes classified as 'non-decent'. The HHSRS increased the number of households classified as living in 'non-decent' homes; the percentage of vulnerable households in the private sector in decent homes dropped from 68% in 2006 to 61% in 2007 (National Audit Office, 2010). Of the 1.2 million 'non-decent' homes in the private sector in 2001, 700,000 failed solely on the provision of thermal comfort criterion.

The minimum standards stated that a decent home should (DCLG, 2006):

- Meet the current statutory minimum standard for housing (contains one or fewer hazards assessed as serious ('Category 1') under the Housing Health Safety Rating System (HHSRS));
- Be in a reasonable state of repair;
- Have reasonably modern facilities and services;
- Provide a reasonable degree of thermal comfort.

The Decent Homes Programme has continued since 2010, through the provision of Government funding and the 2010 to 2015 Government's policy relating to the rented housing sector.

Relation to Energy Efficiency

One of the four minimum standards outlined within the Decent Homes programme is that a decent home should 'provide a reasonable degree of thermal comfort'. Therefore, improving the energy efficiency of the dwelling is considered indirectly through the Decent Homes programme. Although actual energy saving figures due to the Decent Homes programme are unknown, the programme has had relative success in bringing a vast number of homes up to the Decent Homes Standard; with approximately 85% of social rented homes (total number of social rented homes in 2013 was approximately 3.9million), and 71% of homes in the private rented sector (total number of private rented homes in 2013 was 4.4million) meeting the standard in 2013 (DCLG, 2015a).

In terms of additional measures necessary in order to address energy efficiency improvements within the Decent Homes (DH) programme, research (Darby, 2005) suggests that whilst the DH programme

has done more to improve thermal comfort than other mechanisms, the thermal comfort measures in the DHS are generally relatively low; for example, the minimum acceptable loft insulation is 50mm (in dwellings with gas/oil programmable heating) but the recommended levels for acceptable energy efficiency levels is 270mm. Furthermore, the fact that a SAP (2005) rating of only 35 is indicative of a Category 1 risk in the HHSRS, and therefore a potential failure in terms of the DHS, highlights the fact that the DHS includes minimum standards only, and does not aim to significantly increase energy efficiency in homes or push for higher standards (as required if national carbon reduction and energy efficiency targets are to be achieved). A further barrier to the DH programme addressing energy efficiency measures in more depth is that it is “a standard that triggers action, not one to which work is necessarily carried out” (DCLG, 2006).

Whilst non-decent homes were spread fairly evenly amongst the sub-groups of the population in the social rented sector, in the private rented sector, non-decent homes were more likely to be accommodating unemployed households, low income households, older renters, those living alone and/or those who have been resident for ten years or more (DCLG, 2015a).

Interaction between objectives

The Decent Homes programme, and standard have similar objectives to UK fuel poverty policy instruments, such as the Fuel Poverty Strategy, as required under the Warm Homes and Energy Conservation Act 2000; in terms of targeting vulnerable households and ensuring adequate levels of thermal comfort. Whilst the DHS only provides minimum standards, the Fuel Poverty Strategy builds on criticisms of the DHS in terms of providing specific SAP-based targets to raise homes in the UK out of fuel poverty. Cross-links between the two policy instruments include the reference to national and local fuel poverty financial schemes such as Affordable Warmth within the DHS.

Interaction between target groups

The Decent Homes programme and standard specifically target vulnerable households; including unemployed households, low income households, older renters, those living alone and/or those who have been resident for ten years or more. Much of the UK’s energy efficiency policy instruments also target vulnerable households, including the Green Deal as well as fuel poverty-related financial and regulatory policy instruments.

Interaction between Rules-Influencing Mechanisms

The DHS is not an enforcement standard, and authorities do not have powers to require owners to comply (ODPM, 2004). However, the DHS is based primarily on the HHSRS, which is a regulation (SI 2005 No.3208) and enforcement powers are given to local housing authorities in terms of assessing and acting upon housing fitness within their area by the Housing Act 2004. The Warm Homes and Energy Conservation Act 2000 also sets legislative powers in relation to improving the quality of homes in the UK.

Interaction between the Implementation Network / governance structures

The Decent Homes programme is overseen by the Department for Communities and Local Government (DCLG) and run, on behalf of the DCLG, by the Homes and Communities Agency (HCA), an executive non-departmental public body (except in London, where decisions are made by the Mayor) (DCLG and HCA, 2015). In terms of implementation, the local authorities (LAs) are responsible for their administrative areas. Where local authorities require additional resources in order to

implement the programme, three options for the future management of the stock are available (National Audit Office, 2010):

- An Arms Length Management Organisation (ALMO); a company set up by the LA to manage and improve the housing stock. The housing stock remains in the ownership of the LA but the ALMO takes day-to-day responsibility.
- A Private Finance Initiative (PFI) provider; public sector enters into a long-term contractual with a private sector company to design, build, finance and operate an asset.
- Transfer of stock to an RSL following a tenant ballot.

In terms of the implementation of the Decent Homes programme in the private sector, Home Improvement Agencies (HIAs) are seen as having an important delivery role; they cover approximately 80% of the LAs in the UK and assess the needs of elderly, disabled and vulnerable people living independently. In addition, the reliance on enforcement action alone is not felt to be adequate in terms of ensuring the private sector meets the DHS; as such LAs often work with partner agencies. Despite the many stakeholders within the implementation network, an evaluation of the DH programme suggests that it has actually improved asset management processes, and many RSLs have improved their purchasing efficiency and economies by using procurement consortia (National Audit Office, 2010).

From 2011-2015, the Government provided £1.6billion to the DH programme, with a further £160million having been allocated for 2015-16 (DCLG and HCA, 2015). In terms of financial feasibility, it is difficult to assess the actual costs of the Decent Homes programme as much of the funding used to implement the DHS was through a variety of channels, including the LAs Major Repairs Allowance and the Regional Housing Pot (National Audit Office, 2010). In addition, many of the improvements within homes owned and maintained by RSLs are done at no direct cost to the taxpayer. This was due to the DCLG enabling, through the regulatory system, RSLs to implement the DHS at their own expense, even though it is not a statutory requirement (National Audit Office, 2010). However, the improvements in RSL purchasing efficiencies due to the DH programme is estimated to have potential savings of up to £590million within this sector.

At Government level, there is little direct overlap between the department responsible for the Decent Homes programme, and the department responsible for most household energy-related policy; the Department for Energy and Climate Change (DECC). However, at local level, whilst the LAs are mainly responsible for the actual implementation of the DH programme, partnerships with local third sector organisations are often required for the actual delivery. Such organisations can often play an interlinking role in terms of the practical roll-out of domestic energy efficiency financial incentive schemes.

1.2.2 CASE STUDY FOR THE TRANSPORT SECTOR: CONGESTION CHARGES

Introduction

The Congestion Charge (CC) in London was first introduced in February 2003. The charge is in operation Monday to Friday (07:00-18:00) but does not apply at weekends, Bank Holidays or the days between Christmas Day and New Year's Day (DfT, 2010). The standard charge is £11.50 for each day, for each non-exempt vehicle that travels within the zone. The Penalty Charge Notice for non-payment is currently at £130; which is discounted to £65, or increased to £195 depending on promptness of payment (TfL, 2014c).

The CC applies to all vehicles entering the Congestion Zone, but the following vehicles are exempt from the Charge (TfL, 2014c):

- Motorbikes, mopeds and bicycles
- London licensed minicabs and taxis
- Emergency services' vehicles (including those used for lifeboat haulage, HM Coastguard purposes and certain Port of London Authority vehicles, NHS, ambulance, fire and police)
- Ministry of Defence (MoD) vehicles
- NHS vehicles that are exempt from Vehicle Excise Duty (VED)
- Some operational vehicles used by the Local Authorities within or partly within the charging zone and the Royal Parks Agency
- Vehicles used by disabled persons that are exempt from VED
- Disabled passenger-carrying vehicles exempt from VED
- Vehicles with nine or more seats licensed as a bus
- Breakdown vehicles used to provide roadside assistance or recovery services operated by accredited organisations

In addition, residents living in or just outside the charging zone receive a 90% discount. In April 2014, the Mayor of London confirmed that there would be an Ultra Low Emission Discount (ULED) for all electric vehicles and those that emit 75g/km or less of CO₂ and meet the Euro 5 emission standard for air quality (TfL, 2014c).

The CC aims to reduce congestion within Central London and was designed to encourage motorists to adopt other modes of transport as well as raise investment funds for London's transport system. Its objectives are to contribute directly to the achievement of four transport priorities, as per London's wider Major's Transport Strategy (pre-2010) of (TfL, 2008):

- Reducing congestion (and improving air quality);
- Making significant improvements to bus services;
- Improving journey time reliability for car users;
- Making the distribution of goods and services more efficient.

Relation to Energy Efficiency

Although energy efficiency is not a direct aim of the CC, it has indirect beneficial impacts in terms of promoting the use of more efficient vehicles, and modes of transport such as buses, bicycles and walking. Although research into the impacts of the CC are limited, traffic entering the charging zone fell by, and remains at around 15% lower than pre-charging levels. Monitoring of traffic levels has also shown that the CC scheme reduced traffic congestion in the zone by around 30% (TfL, 2014b). Furthermore, there appears to have been some reductions in road collisions and vehicular emissions of CO₂ and other atmospheric pollutants since the introduction of the CC scheme; although other factors mean that there has been no specific measurable impact on local air quality (London, 2010). As required by law, approximately £1.2 billion in net revenue (46% of gross revenue) has been invested in London's transport network (TfL, 2014a); including £960 million on bus network improvements, £102 million on roads and bridges, £70 million on road safety, £51 million on local transport/borough plans and £36 million on sustainable transport and the environment (TfL, 2014b).

In terms of further consideration of energy efficiency within the scheme, whilst it was first introduced as an economic instrument aimed at decreasing congestion, in 2009, the then Mayor of London stated an aim to transform the charge into a mixed economic and environmental tool; through a £25 charge for cars emitting a high level of CO₂ being introduced (Tochtermann, 2008). The current Mayor of London (2015) scrapped this charge as it was felt discriminatory and without a significant positive economic impact. However, since then, as noted above, the ULED has been introduced and is likely to help encourage the use of ULEVs in some way. In addition, further expansion of the CC zone could help increase the energy efficiency benefits, although a Western Expansion Zone was removed, mainly due to economic reasons.

Interaction between objectives

London's CC has similar objectives (in terms of encouraging alternative modes of transport, particularly public transport) as other energy efficiency economic policy instruments (both national and local) which include measures such as the cycle to work scheme and the Low Emission Bus Scheme. In addition, local energy efficiency initiatives within the city of London itself have been implemented in parallel to the CC in order to achieve the greater overall aims of London's Mayor's Transport Strategy (MTS). Such initiatives include the London Cycling Campaign and the Low Emission Zone (LEZ).

Interaction between target groups

Overall, the London CC scheme targets all private vehicle (passenger and freight) users (except those with exemptions as stated above), and as such, has the same target groups as many other transport-related energy efficiency policy instruments and measures. Such instruments include dissemination and awareness (EcoDriving Training), voluntary approaches (Freight Transport Association Logistics Carbon Reduction Scheme), economic (Local Sustainable Transport Fund), and regulatory (VED and road transport codes).

Interaction between Rules-Influencing Mechanisms

The CC combines both penalties for non-compliance and exemptions for certain vehicles. In terms of energy efficiency, the exemption for ULEVs provides an interlink with national economic energy efficiency instruments that incentivise the use of ULEVs. However, it is unlikely that the CC will have a significant effect on the ULEV market.

Interaction between the Implementation Network / governance structures

Transport for London (TfL) is responsible for the CC scheme in terms of implementation, including enforcement. The CC scheme is part of the wider Mayor's Transport Strategy for London, which is set by the Greater London Authority (GLA), in partnership with the TfL, the DfT, Network Rail and the 33 London Boroughs. Any changes in design and structure are undertaken by the GLA and the Mayor of London, with input from the relevant partners. On a day-to-day basis, the private company, IBM is the main service provider for the CC scheme, as well as the Low Emission Zone (LEZ). The service provider contract is subject to a competitive tendering process, to ensure cost effectiveness and quality is ensured. By having the same service provider for both the CC scheme and the LEZ, administrative and operational costs are also minimised. Vehicles entering the zones have their Vehicle Registration Number (VRN) read by cameras, which is then checked against a database of those who have paid in advance or who are exempt. Payment can be made before, on or 24 hours after travel in the zone, and through a number of ways; by an automated payment system (monthly direct debit), telephone, text message, online or by post (DfT, 2010). Due to the majority of the administration and operation of the CC scheme being online, the administrative burden of the scheme is minimal.

Costs of around £162million (equivalent to £25million annually over 10 years) were incurred during the implementation of the CC scheme; mainly on traffic management measures, communications and public information, systems set-up and management (Evans, 2007). In 2006-07, the administration and operational costs were £90million (TfL, 2008). The CC scheme is economically feasible, and decisions on amendments to the scheme are primarily based on economic benefits.

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