

# The economic case for recycling carbon tax revenues into energy efficiency

Final report

---

---

Document type: Final Report  
Client: Energy Bill Revolution

---

Title: The economic case for recycling carbon tax revenues  
into energy efficiency  
Date: February 2014

---

Authors: Prashant Vaze and Louise Sunderland

Signature ..... (hard copy only)

Date: ..... (hard copy only)

---

# The economic case for recycling carbon tax revenues into energy efficiency

## Executive summary

Over the next 15 years the UK Treasury will collect from consumers £60 billion in carbon taxes on electricity. These come from the auctioning of EU-ETS allowances and the Carbon Support Price.

At the moment the Government does not recycle these carbon taxes to help people bring down their energy bills, despite the fact there are compelling reasons for them to do so. In particular there are significant social, environmental and economic benefits from recycling the proceeds from these taxes into domestic energy efficiency.

The cost of domestic energy has turned into a major political issue because energy bills continue to rise and several million households are now in fuel poverty in the UK. If the proceeds from the carbon taxes were spent on energy efficiency 90 per cent of these households could be lifted out of fuel poverty<sup>1</sup>.

Though it is rarely acknowledged the UK government has introduced a range of taxes where revenues are recycled for spending on particular pre-announced programmes. This report shows that recycling revenue from a tax for a specific programme is quite common. Most of the UK's renewable energy programmes are funded through recycled tax revenue systems.

It is notable that the Treasury supports the case for recycling tax to subsidise renewables but has so far opposed recycling of carbon tax to subsidise energy efficiency. This is despite the fact energy efficiency is the best long-term solution to bring down energy bills and end fuel poverty.

Retrofitting the UK housing stock should be considered a long-term infrastructure programme and requires a long term revenue stream to be successful. This stance against recycling tax to support energy efficiency contrasts also with the more benign treatment of shale gas. In January 2014 the Prime Minister announced that local Government would be allowed to retain 100% of the business rates they collect from shale sites in their area. This new example of recycling of tax is estimated to be worth £1.7m a year for a typical site.

The table below lists seven other tax-and-spend programmes that together already collect £5.2 billion and resulted in recycled spending of £4.0 billion in 2012/13:

Name	Year introduced	Levied on	Subsidy paid to	Revenue in 2012-13 (£m)
Landfill tax	1996	Tonnage waste landfilled	Businesses (NIC reduction) and Environmental Bodies	1,300 of which 88.8m or 6.8% of total

<sup>1</sup> Cambridge Econometrics & Vero (2012) "Jobs, growth and warmer homes" Report for Consumer Focus

				recycled
London congestion charge	2003	Vehicles driven into London	Transport for London	150
Community infrastructure levy	2010	Developers	Local community infrastructure	NA
Renewable obligation	2003	Electricity consumers	Renewable electricity generators	2,191
Feed-in tariff	2010	Electricity consumers	Small scale renewable electricity generators	506
Warm home discount	2011	General taxation*	Vulnerable households	275
Climate Change Levy	2001	Commercial energy users	Business (NIC & Climate Change Agreement holders)	800

\* In the 2013 Autumn Statement the chancellor announced energy companies would be provided funding for Warm Home Discount from 2014

\*\* £800m was raised from the Climate Change Levy in 2012-13 *net of* the reduced rate paid by firms that are in climate change agreements.

### European carbon tax recycling

Major programmes to improve the energy efficiency of homes, funded in part by recycling of the proceeds from EU-ETS, have been announced in Germany and France. Germany has committed €1.5bn of investment in 2013 in making homes more energy efficient with carbon revenues contributing to this figure. France has announced an ambitious national refurbishment programme which is expected to benefit from €1bn of carbon revenues in 2016.

Public commitments have been made by 13 countries in the EU to return part of the proceeds from the EU-ETS auctions to climate and energy efficiency programmes<sup>2</sup>. The countries that have committed to recycle revenues include 7 of the 10 countries expecting the largest revenues. Alongside France and Germany, Italy, the Czech Republic, Hungary, Estonia and Lithuania have also made energy efficiency of the building stock a priority for the use of their ETS revenues.

Country	ETS Revenue 2013-2020 (Bn€) <sup>3</sup>	% to be recycled	EE a priority	Description
Germany	17.8	Almost 100%	Y	ETS revenues go to the Special Energy and Climate Fund. €1.4bn budget in 2013.
Italy	8.6	50%	Y	50% of ETS revenues allocated to the "Kyoto fund". €200m annual revolving fund offers loans for EE (incl. buildings), distributed generation and small scale RE.

<sup>2</sup> This is not an exhaustive list of Member States' commitments. Mandatory reporting on the use of ETS revenues does not begin until 2014.

<sup>3</sup> Total revenues 2013-2020, based on average certificate price of €10.25. WWF (2012) *The cost of inaction*. [http://awsassets.panda.org/downloads/oko\\_institut\\_2012\\_\\_\\_the\\_cost\\_of\\_inaction\\_\\_\\_auctioning\\_revenues.pdf](http://awsassets.panda.org/downloads/oko_institut_2012___the_cost_of_inaction___auctioning_revenues.pdf)

France	5.1	Up to 100%	Y	Up to 100% ETS revenues can be used by the National Agency for Housing. A major priority is energy efficiency refurbishment of buildings, esp. for low-income families.
Romania	3.7	More than 70%		71% of revenues (plus 100% from aviation) will go to projects for climate purposes.
Czech Republic	3.1	50%	Y	50% of ETS revenues are legally recycled for energy efficiency. Of this, 2/3 is to fund the Green Savings Programme for EE and RE in homes.
The Netherlands	3.1	unknown		Industry compensation scheme to be funded by ETS revenues. Compensation is conditional on firms making energy efficiency improvements.
Greece	3.1	unknown		An undefined amount of ETS revenue reported to be directed into a special fund for renewable energy.
Belgium (Flanders)	2.3	unknown		Proposed industry compensation scheme, conditional on an energy audit and economically feasible energy savings.
Bulgaria	1.9	50%		Law allocates some revenues to projects that contribute to low-carbon development. Unofficial report 50%.
Finland	1.5	unknown		Revenues will be directed in part to climate action within development cooperation as part of the aim to reach the 0.7% of GNP devoted to international development.
Hungary	1.0	50%	Y	Requirement for 50% of revenues to be spent on climate action. Housing refurbishment reported to be 2013 priority.
Estonia	0.6	50%	Y	50% of the revenues will be recycled for environmental purposes. Energy saving measures in apartment buildings is the funding priority for 2013.
Lithuania	0.4	100%	Y	Requirement that all ETS revenues are directed into a revolving fund. In 2013 the largest investments have been in energy efficiency in buildings.

The introduction of electricity taxes can encourage users to become more energy efficient. But the resulting increase of electricity prices for households is not enough to motivate energy efficiency by itself. Research shows that the money raised from carbon taxes when spent on energy efficiency can result in eight times more energy savings than caused by the price rise alone<sup>4</sup>.

The Treasury has opposed carbon tax recycling mostly because it reduces the department's control over public spending and over other departments. But the Treasury announced last year that both carbon taxes from the ETS and Carbon Support Price were classified as 'green taxes' which means that their principal

<sup>4</sup> Regulatory Assistance Project (2012) Best Practices in Designing and Implementing Energy Efficiency Obligation Schemes [www.raponline.org/document/download/id/5003](http://www.raponline.org/document/download/id/5003)

objective is officially to help protect the environment. Despite this they still refuse to recycle them to reduce carbon emissions.

There are also good economic reasons for committing the proceeds of carbon tax to make households more energy efficient. It would provide a stable and predictable revenue stream for a long term infrastructure programme to make homes highly energy efficient. Many experts agree that this is by far the best long term solution to both bring down energy bills and end fuel poverty.

The substantial and sustained growth in renewables under the RO and feed-in tariff regime has been possible because investors and businesses have had confidence that the regime will endure and it is worth their while investing in training and developing supply chains.

This is exactly the type of long-term investment programme needed to modernize the insulation of our housing stock. This is why this report argues that the UK should commit to the long term funding of energy efficiency through recycled carbon funds.

---

# The economic case for recycling carbon tax revenues into energy efficiency

by Prashant Vaze and Louise Sutherland

## Introduction

*“The brunt of the expense at the beginning must be borne by motorists, and to them justice they are willing, and even anxious, to subscribe handsomely towards such a purpose, so long as a guarantee is given in the method and control of the expenditure that the fund so raised will not merely be devoted exclusively to the improvement of the roads, but that they will be well and wisely spent for that end.”*

[Budget speech](#)<sup>5</sup> of then Chancellor of the Exchequer, Lloyd George, April 1909

In 1909 the Chancellor Lloyd George proposed the introduction of the road tax as a means of financing one of the great public investment challenges of the start of the twentieth century - the enhancement of the UK road network by local authorities. He did this in anticipation of the great transport transition of the 20<sup>th</sup> century – the pairing of the private car and the public road. In the speech he made the observation that without Government intervention the roads would not be constructed. But the most significant point about this speech was the explicit way he announced the recycling of the tax for spending on a particular use. He struck a deal with the road user: uncomplainingly pay the road tax and the Government will use the road fund to efficiently supply the road infrastructure.

The poor state of our homes’ energy efficiency – many of which were built before Lloyd George made his speech - requires a sustained investment similarly ambitious in scope. Many older homes have not had a significant improvement in their thermal performance since they were built, a time when horse drawn carriages brought coal for their fireplaces. We now have the technologies to enhance homes so the temperature can be maintained at a comfortable level year around with only a minimal need for artificial heating.

Improving a home’s energy efficiency has high up front capital costs but the benefits persist for decades. However they may not necessarily accrue to the current owner of the house. Energy efficiency should be seen as an infrastructure spend – there are collective benefits in terms of avoided spending on gas distribution and storage, avoided climate change and conservation of scarce fossil fuel reserves. But building owners are always likely to under-invest in energy efficiency: partly because people discount the value of the future savings in gas bills at a much higher rate than the cost of borrowing money and because they cannot be confident the price of the house will rise to reflect their investment.

The average UK household spends over £1350 a year<sup>6</sup> on domestic energy – around 5 per cent of their income. Household energy consumption is responsible for a third of greenhouse gas emissions. Good quality insulation and energy efficient appliances can

---

<sup>5</sup> House of Commons Debate 29 April 1909 vol 4 cc495-8

<http://hansard.millbanksystems.com/commons/1909/apr/29/motor-traffic-and-road-maintenance>

<sup>6</sup> Ofgem (2013) “Updated Household energy bills explained Factsheet 98”

<https://www.ofgem.gov.uk/ofgem-publications/64006/householdenergybillsexplainedudjuly2013web.pdf>

substantially reduce consumption. This is one of the cheapest ways of mitigating greenhouse gas emissions. But for a host of market failures and behavioural biases there is chronic lack of spending on energy efficiency by households. For this reason successive Governments have intervened in the energy efficiency market creating regulations to guarantee minimum standards from new build buildings and appliances, outright bans of energy wasting products like the 100W tungsten light bulb and subsidised or free installation of energy efficiency.

But over the last three years programmes like CERT, CESP, Warm Front and Decent Homes have been closed down. The Energy Company Obligation (ECO) is now the main funding mechanism for delivering collectively financed energy efficiency.

At the same time as this withdrawal of public funding from energy efficiency there is scheduled to be a substantial increase in the amount of tax raised from domestic electricity use. The UK Government is extracting this new revenue stream from the combination of the auctioning of EU-ETS allowances and the introduction of the Carbon Price Floor.

Following consultation, Budget 2011 announced the introduction of a carbon price floor from 1 April 2013. The floor price tops up the ETS trading price to a level, which starts at around £16 per tonne of carbon dioxide (tCO<sub>2</sub>) and follows a linear path to target £30/tCO<sub>2</sub> in 2020 (both in 2009 prices). Phase III of the EU-ETS starts in 2013 when Government has said it will auction all the emissions permits bought by electricity generators.

### What do we mean by recycled taxes?

In this report we use the term recycling of taxes to refer to the announced intention to use part or all of the proceeds of a particular tax for a specific spending commitment. Usually the proceeds of the tax will be used to finance a programme to help some of the people or organisations that paid the tax. Recycling is a mechanism for funding the provision of a public good.

We consider recycling to be a looser stricture than hypothecation – here revenues are strictly ring-fenced in legislation and cannot be used for other purposes. Both of these are in contrast to unrestricted tax, such as income tax, where the proceeds are paid into the consolidated fund and used for general government expenditure.

### Arguments for the recycling of electricity taxes

There are strong *economic efficiency* arguments for introducing environmental taxes on fuels. If the tax is levied at a rate equivalent to the damage caused by its use then fuel consumers will have to take into account the price of the damage when deciding how much fuel to use. The tax encourages fuel users to reduce their use and invest in energy efficiency. Economists favour such taxes since they correct the fuel's artificial cheapness and ensure the price reflects the non-market costs as well as costs of energy use. The influential Mirlees Review<sup>7</sup> of UK taxation argues: *"In principle, we want to increase the tax on pollution until the marginal cost for the firm of emitting pollution is equal to the marginal environmental benefit of the additional abatement the tax induces."* In other words, the polluter should pay for the damage they cause.

The revenue raised from fuel taxes can also be used to reduce other taxes that distort other markets. An example of this is using proceeds from energy taxes to reduce taxes in the labour market. Labour taxes discourage employers and employees from creating jobs and discourage people from taking work. The Mirlees Review (op cit) makes the

---

<sup>7</sup> Institute for Fiscal Studies "Tax by design – Reforming the Tax system for the 21<sup>st</sup> century"  
<http://www.ifs.org.uk/mirleesreview/design/ch10.pdf>



point well: *“Such concerns may lead one to prefer a multi-part instrument—a combination of taxes and/or subsidies which between them are easier to implement than a direct tax on emissions but avoid some of the adverse consequences of a simple tax on a market transaction. For example, an excise tax on the sale of a commodity and a subsidy for clean technology may be better together than either on its own.”*

The revenue from recycling energy taxes can also be used to ameliorate one of the problems made worse by energy taxes- fuel poverty. Energy taxes may be efficient – in the sense they make the user of energy confront the damage caused by the use of energy – but energy taxes are not fair. Energy use is a necessity and poorer households spend a higher proportion of their weekly budget on energy than richer households. If prices continue to rise at the rate forecast by Government, and incomes continue to rise only slowly this problem will only get worse.

Recycling proceeds from carbon taxes to address fuel poverty has a sound economic rationale. The satisfaction different households derive from a pound more spending, declines as households become wealthier. Poorer households obtain the greatest benefit from having more money in their back pockets as a result of better energy efficiency. Fuel taxes tend to increase pressures on households budgets and gives rise to a political backlash. Mechanisms to return money to households like reduced taxes on labour, or cuts in VAT are only of benefit to households where members are in work, or where significant proportions of spending are on VAT-able goods. But many fuel poor households pay little or no income tax, and the bulk of their spending is on rent, utilities and food, all of which are either free or have a reduced rate of VAT.

Finance ministries like the Treasury have traditionally opposed the hypothecation of taxes. One reason they give is that there is no logical reason to suppose that the amount a particular tax might raise - driven by the tax base’s ability to pay and the Government’s overall budgetary position – should be aligned to the amount that needs to be spent on the public service - which depends on need. However this argument does not apply with the recycling of taxes. Here the link between the amount raised by the tax and the amount spent is not enshrined in legislation and the finance ministry retains flexibility to adapt to changes in need or in tax receipts.

It is also important to note that the Treasury’s resistance to hypothecation has not stopped them from introducing the Renewables Obligation and Feed in Tariffs. Both of these are hypothecated taxes for the development of renewables. The Renewables Obligation will be replaced with Contracts for Difference. This is also a hypothecated tax that supports the development of low carbon energy supply, including renewables and nuclear. So the Treasury is prepared to hypothecate tax for low carbon energy supply but not for energy saving.

The main reason the Treasury opposes both hypothecation and recycling of taxes is that it reduces the finance ministry’s discretion – a considerable source of its institutional power. A fairly typical reaction to hypothecation can be seen in this interchange between Patricia Hewitt – at the time the Economic Secretary to the Treasury – and Norman Baker<sup>8</sup> about the recommendations made by Lord Marshall to create a new energy tax. He recommended Government should “recycle revenues in full to business, including by means of a fund geared at promoting energy efficiency”. Marshall’s recommendation led to the creation of the Climate Change Levy.

*Norman Baker (Lewes)* If he will make a statement on his policy in respect of hypothecated taxation. [61745]

---

<sup>8</sup> House of Commons Debate 10 December 1998 vol 322 cc461-2

*The Economic Secretary to the Treasury (Ms Patricia Hewitt)* In general, the Government determine their expenditure according to need rather than the source of the revenue, but we will continue to look at each case on its merits.

*Norman Baker (Lewes)* Does the Minister agree that the recent Marshall report on energy taxation represents a good example of what a hypothecated tax might provide? Will she then explain why the Chancellor's advisers have been briefing that that has been kicked into the long grass—into the very long grass? Will she give an undertaking that the Marshall proposals will be implemented in this Parliament, or is the Treasury still stuck in the 1950s?

Such tension can exist even within a Government as evidenced in this recent statement by Greg Barker the Minister in the Department of Energy & Climate Change<sup>9</sup>.

Gregory Barker: The Government are of course focused on the importance of our energy efficiency goals, but the hon. Member for Brighton, Pavilion and my hon. Friend the Member for Richmond Park will not be surprised to hear me say that the Treasury is responsible for the allocation of public funds. A duty on the Secretary of State to report on potential uses of central Government revenues would conflict with the Treasury's responsibilities. We also have 300 years of prejudice against hypothecation to contend with .... My hon. Friend made those points well, but we cannot include them in the Bill—not if I want to keep my job, at any rate.

But there can be good reasons for earmarking proceeds from a tax to fund a specified public policy goal which is why some taxes are already recycled and hypothecated. These reasons include:

- *Enhanced public and business support*: connecting public services to the tax aids its political acceptance by creating a constituency of supporters and enhancing transparency in Government spending
- *Amplifying the taxes' public policy objective*: the public spending can reinforce the behavioural change the tax is intending to give rise to, and
- *Revenue certainty*: Recycled taxes can provide a consistent and predictable source of revenue to fund a public policy goal.

All of these are important reasons for supporting the recycling of proceeds from energy taxes for energy efficiency.

Accent undertook research for Consumer Focus to determine people's attitudes on paying for energy efficiency<sup>10</sup>. Deliberative workshops were organised in England, Scotland and Wales. Participants had a mix of social backgrounds and level of interest in energy issues. Overall the workshop participants had little confidence in Government's ability so spend money wisely: "the Carbon Floor price and the EU Emissions Trading System (EU-ETS) – were seen as stealth taxes. There was a degree of support for the capital costs of energy efficiency being recovered through charges on energy bills..."

The precise reason that finance ministries dislike the recycling of taxes was being cited as a reason for public support. Recycling taxes ties the hands of Government and prevents the money being spent on projects the public does not support, or wasted on needless bureaucracy. The public are far more likely to accept a 'green' tax if the revenue is used for a 'green' purpose.

---

<sup>9</sup> Energy Bill [Lords] Debate, 16 June 2011, c283)

<sup>10</sup> Accent (2012) "Deliberative research into consumer attitudes to social & environmental taxes and charges" <http://www.consumerfocus.org.uk/files/2012/12/Deliberative-research-into-consumer-attitudes-to-social-environmental-taxes-and-charges-Accent.pdf>

---

Energy taxes can incentivise the reduction in energy use but not to enough extent to overcome the barriers to people taking up energy efficiency measures. The Mirlees review argues: “For owner-occupiers, payback periods for substantial investments—for example, solid wall insulation—may be longer than their expected occupancy of the property and they may not believe that their investment will be reflected in the price they can get for the property when they come to sell it.”

Government has to intervene to ensure funding and delivery of installation programmes. In a review of international energy efficiency schemes for the International Energy Agency the energy consultancy RAP<sup>11</sup> found that in countries where the companies that supplied electricity and gas were different to those that owned the local networks, the costs of energy efficiency were usually either met by public spending or by designing a tax-subsidy regime like our Renewable Obligation. RAP<sup>12</sup> also found the effects of carbon pricing on energy savings and CO<sub>2</sub> emissions reduction are substantially enhanced if

- the revenues of carbon pricing are used to support extra energy savings investments, and
- the resulting decline in the ETS carbon price – i.e. due to the additional EE investments – is nullified by setting aside a certain amount of emission allowances.

**RAP show that if the revenue raised by a 3% energy tax is spent on energy efficiency the energy efficiency will yield eight times the carbon saving.** This is shown in the figure below.

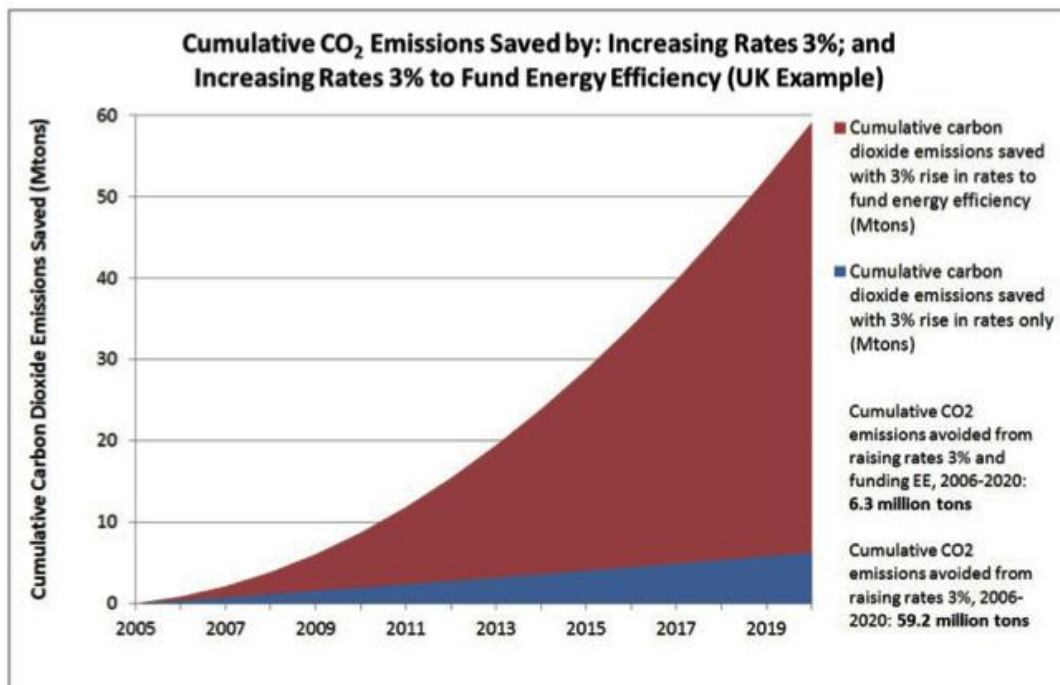


Figure 3: Efficiency programmes save 7 to 9 times more carbon than carbon taxes or auction prices (for the same consumer cost).

Figure 1: reproduced from Cowart, R (2011)

<sup>11</sup> Regulatory Assistance Project (2012) *op cit*

<sup>12</sup> Cowart, R. (2011) “Prices and policies: Carbon caps and efficiency programmes for Europe’s low- carbon future” ECEEE Summer study

The deployment of energy efficiency should be a sustained investment programme to improve the fabric of buildings – not a reactive intervention to a short-term problem. Like any such programme funding needs to be consistent to ensure there is a pipeline of work so that businesses can invest in R&D, supply chain development and training to provide high quality insulation services. The stop-start nature of funding of energy efficiency in the UK of late has greatly hurt the industry’s ability to maintain its skilled work force.

In contrast to this insecurity in funding energy efficiency programmes there is a high degree of certainty in the revenue that will be raised from the EU-ETS auctions and the carbon floor price. The level of the carbon floor price has been pre-announced till 2020. In conjunction with the proceeds of the EU-ETS allowance auction Government has a highly predictable and stable source of revenue. The sum of money to be raised – some £60 billion over the next 15 years is sufficient to remove nine out of ten households that are at risk of being in fuel poverty in 2016<sup>13</sup>.

### Examples of Recycled taxes

Despite the traditional hostility of the Treasury to recycled taxes there are numerous examples of such taxes in the UK.

We will consider the following recycled taxes:

- *Environment Taxes*: Landfill tax
- *Transport taxes*: Congestion charge (and the legal provisions which exist to allow local government to introduce workplace parking charges)
- *Planning taxes*: Community infrastructure levy
- *Energy taxes*: Feed-in tariff, Renewable Obligation<sup>14</sup>, Warm Home Discount, Climate Change Levy

### Environment taxes: Landfill tax

The Landfill tax is the UK’s oldest recycled environmental levy, introduced by the conservative government in October 1996. It is levied on landfill operators according to the tonnage of waste that is landfilled; a high rate is applied to active or biodegradable wastes and a low rate on inert wastes like construction materials. The current rates are £72.50 per tonne of active waste and £2.50 per tonne of inert waste. The tax was introduced to help the UK meet the Landfill Directive and increase the amount of waste being recycled or used for energy recovery.

When the tax was first announced by the Chancellor Ken Clarke he promised the tax would not increase costs on business overall:

*“Taxes can play an important role in protecting the environment. One major problem is the disposal of waste. I would like to make an announcement today to help tackle the problem. My right hon. Friend the Secretary of State for the Environment and I will issue shortly a consultation paper setting out details of a new tax to be collected by Customs and Excise on waste disposed in landfill. We propose that a new landfill tax should come into effect in 1996. It should raise several hundred million pounds a year. But I am determined not to impose additional costs on business overall. I shall therefore be looking at ways to offset the impact of the new tax by making further compensatory*

---

<sup>13</sup> Cambridge Econometrics & Vero (2012) “Jobs, growth and warmer homes” Report for Consumer Focus

<sup>14</sup> The cost of the RO is passed on to consumers of electricity and is classified by the ONS as a tax [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/48244/3290-control-framework-decc-levy-funded-spending.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48244/3290-control-framework-decc-levy-funded-spending.pdf)

---

*reductions in the level of employer national insurance contributions when the new tax is introduced. In brief, I want to raise tax on polluters to make further cuts in the tax on jobs."*

Kenneth Clarke, Budget speech November 1994

As the chancellor announced the income from the tax returned to business partly as a reduction in National Insurance. In his Budget speech of November 1995 the Chancellor delivered on his earlier commitment: *"The money raised by the landfill tax will allow for a matching cut in the main rate of employers' national insurance contributions by a further 0.2 per cent to 10 per cent from April 1997. That will cut the cost of employment by half a billion pounds and will make it cheaper for businesses to create new jobs."*<sup>15</sup>

As well as this reduction in national insurance, Landfill operators were allowed to contribute 20 per cent of the tax they collected through the landfill tax credit scheme, to Environmental Bodies to undertake projects permitted in the Landfill Tax Regulations, so long as they make a 10 per cent contribution themselves. Spending was allowed on the following types of programmes

1. the reclamation, remediation or restoration of old landfill sites;
2. action to prevent or reduce pollution or to remedy the effects of previous pollution;
3. education and research and development to encourage more sustainable waste management practices;
4. improvements to public parks and other amenities in the vicinity of landfill sites;
5. the supply of financial or administrative services to other enrolled Environmental Bodies.

This has now been renamed the Landfill Communities Fund and the spending by the landfill operator is capped at 5.6 percent of the tax collected. The not-for-profit Entrust registers qualifying Environmental Bodies and its website ([www.entrust.org.uk](http://www.entrust.org.uk)) contains details of the sorts of projects that have been financed from the landfill tax. Altogether landfill operators have donated £1.2 billion to 3000 projects since 1986<sup>16</sup>.

The tax on active materials was originally introduced at a low rate of £7 per tonne, which was roughly the level of externality caused by active wastes. In 2005 the landfill tax escalator was announced and the link between revenue from Landfill tax reduction of employer's National insurance was severed. However, in addition to the revenue it still raises for the Government (expected to be £1.3 billion in 2012-13), in 2012-13 it recycled £78.1m into the Landfill Communities Fund.

### **Transport taxes: London congestion charge**

The London congestion charge – is a tax paid by registered vehicle owners that drive into central London on weekdays between 07:00 and 18:00. The proceeds of the congestion charge are ring-fenced for spending on public transport by Transport for London. The purpose of the congestion charge was to alleviate congestion in central London by dissuading vehicles from being driven into or through central London during office hours.

The charge has a statutory basis through the Greater London Act 1999<sup>17</sup> which created the office of the Mayor of London, the London Assembly and also gave Transport for

---

<sup>15</sup> HC Deb 28 November 1995 cc 1063-1064

<sup>16</sup> Entrust Annual Report 2012 <http://www.entrust.org.uk/home/guidance-library?did=1164>

<sup>17</sup> <http://www.legislation.gov.uk/ukpga/1999/29/section/295>

---



London and London Boroughs the powers to set Road user charges and Work place parking levies. The Act also specifies that *“the net revenues from schemes introduced within ten years of the inception of the GLA will be ring-fenced during the scheme’s initial period for spending on measures that support the Mayor’s transport strategy”*.

The London congestion charge successfully reduced traffic in central London by around 15 per cent. The vast majority of the proceeds of the charge have been spent on enhancing London’s bus service increasing coverage and frequency. Also space has also been reallocated to bicycles. London unlike other UK cities has seen a sharp increase in usage of bicycles and buses. According to TfL<sup>18</sup> between 2000/01 and 2011/12 there was a 38 per cent increase in bus kilometers and a 173 per cent increase in cycling while road trips have fallen by 10 per cent. Across Britain as a whole<sup>19</sup> use of buses and coaches has dropped by 7 per cent, cycling by 6 per cent and use of cars increased by 2 per cent over the same period.

The congestion charge yields around £150m a year making a useful contribution to the cost of running Transport for London. These were £6.3bn in 2013-14. Over the years the rate of levy has been adjusted for specific classes of users to encourage up take of low emissions vehicle like electric and hybrid vehicles.

### **Development taxes: Community infrastructure levy**

Local authorities can levy a Community infrastructure levy (CIL) on developers if the development increases the floor space in a building by more than 100m<sup>2</sup>. The revenue is ring fenced to help finance local infrastructure that will support economic growth and help the local community. This power is set out in Section 206 of the 2008 Planning Act. The regulations permitting the CIL to be levied came into force in April 2010. So far a number of local authorities have consulted on the how the CIL should be levied in their area and how the proceeds are to be spent.

Developers that construct new homes, shops and offices in an area put pressure on the local public infrastructure of roads, schools, and amenities. Before the introduction of the CIL, the section 106 regime allowed local authorities to negotiate with developers to provide or pay for some local enhancement. The CIL sets up a much more transparent, non-negotiable framework for extracting revenue from the developer. It is predictable for the developer, and also allows the local authority to obtain funding for its priority projects. Use of section 106 powers will be scaled back.

The CIL allows local authorities to tax the windfall profits earned by developers when local authorities give permission to develop high value locations. The level of the CIL is set by the local planning authority and in London by both the Mayor of London and the relevant London Boroughs. The local authority has to set the level of the CIL so that it is not so high it will deter economic development in their area, nor so low as to permit the developer to make excessive profits.

The revenue has to be spent on a pre-determined list of local Government’s capital programmes to benefit existing and new residents / businesses through investment in high priority local infrastructure.

The Act was amended in 2013 so that fifteen per cent of the revenue from the levy will be passed on to Parish and Town councils to fund local community infrastructure. The Mayor of London is obliged to spend revenue from the CIL on strategic transport

---

<sup>18</sup> Transport for London (2012) *Travel in London Report 5*  
<http://www.tfl.gov.uk/assets/downloads/corporate/travel-in-london-report-5.pdf>

<sup>19</sup> DfT (2012) Transport Statistics GB Table 01.01 <https://www.gov.uk/government/statistical-data-sets/tsgb01-modal-comparisons>

---

infrastructure. This power has been applied to raise funds to help finance the Crossrail project.

One example of the CIL in action is the London Borough of Tower Hamlets<sup>20</sup>. It has chosen to vary the rate at which the levy is applied across the borough because of the different localities economic diversity. The borough encompasses the affluent North Docklands area surrounding Canary Wharf and also some of the poorest parts of London. The residential levy is being varied between £35 and £200 per square metre, and the office rate being set at nil for much of the borough but at £125 for offices in the City fringe and North Docklands area. The borough projects an income of £12m in the three-year period between 2014-17. The ring-fenced funds from the CIL will contribute to the borough's capital spending programmes on new primary and secondary schools and transport schemes.

In the London Borough of Camden the CIL is levied at £50/m<sup>2</sup> on all developments. The local authority has to consult on the specific community projects that the ring-fenced revenue can be spent on. In Camden this list includes named projects to improve specific tube stations, repair community centres, improve existing district heating systems as well as upgrade sports and recreation centres.

### Retention of business rates collected from shale gas sites

Government has announced a change to the non-domestic business rates system to allow local authorities to retain 100% of the business rates they collect from shale sites<sup>21</sup>. This is double the amount of business rates local Government is allowed to retain for non-shale sites.

The purpose of this recycling is to provide local government with an incentive to manage local opposition and to encourage them to grant planning permission for new shale sites. As yet no sites have been developed in the UK but the Government has stated that the recycled tax could be £1.7m per shale site per year.

### Energy taxes

The next three examples are hypothecated taxes where *all* the money raised from energy customers is recycled for spending on a specific programme by energy companies with little leeway for Government discretion. The main intervention, by the regulator Ofgem, is an equalization process to ensure that each of the large energy companies is spending their fair share of the overall cost of the programme.

### Renewable Obligation

The first and largest of these programmes, the Renewable Obligation,<sup>22</sup> commenced in 2003 and subsidises the deployment of large-scale renewable electricity. It replaced the Non-Fossil Fuel Obligation, which had operated since 1990 as the primary mechanism for supporting investment in large-scale renewable electricity.

Under the Renewable Obligation electricity suppliers have to obtain a defined and increasing amount of electricity from renewable sources. This amount started at 9 TWh

---

<sup>20</sup> Tower Hamlets (March 2013) Community infrastructure levy (CIL) draft charging schedule [http://www.towerhamlets.gov.uk/lgs/501-550/register\\_of\\_planning\\_decisions/section\\_106\\_planning\\_obligatio/community\\_infrastructure\\_levy/tower\\_hamlets\\_cil.aspx](http://www.towerhamlets.gov.uk/lgs/501-550/register_of_planning_decisions/section_106_planning_obligatio/community_infrastructure_levy/tower_hamlets_cil.aspx)

<sup>21</sup>

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/275277/140127\\_Final\\_\\_BRIL\\_1-14\\_-\\_January\\_2014.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/275277/140127_Final__BRIL_1-14_-_January_2014.pdf)

<sup>22</sup> using provisions from the Utilities Act 2000, <http://www.legislation.gov.uk/ukpga/2000/27/contents>

---

in 2002/03 and rose to 35 TWh<sup>23</sup> by 2010/11 representing a little over 10 per cent of electricity supplied in the UK. At the same time Ofgem issued generators of eligible renewable electricity Renewable Obligation Certificates (ROCs) for each unit of renewable electricity generated. These ROCs could be sold to suppliers permitting them to meet their obligation. In the first year 2002/03 the amount of qualifying electricity generated was only 59 per cent of that needed by suppliers to meet their obligation. Indeed since the regulation has been in effect the amount of eligible electricity generated has never been more than 75 per cent of the amount needed to meet the target.

In this situation suppliers pay into a buy-out fund – currently at £42/MWh – in lieu of not meeting their obligation. The revenue collected in the buy-out fund is distributed to the eligible generators that produce valid ROCs boosting the amount they receive.

The Renewable Obligation is classified as a tax by the Office for National Statistics (ONS). Even though the money never passes through Treasury's hands: it is collected by Ofgem and distributed to eligible generators – it still has features of a tax. The ONS states that large electricity suppliers have no option but to pay<sup>24</sup> and Government sets the amount energy suppliers have to pay (the buy-out price multiplied by the overall obligation); these features make the policy a tax.

Because of the similarities in the mechanism for financing between the Renewable Obligation and the small-scale Feed-in tariff and Warm Home Discount, the government has accepted that these should also be thought of as tax-and-spend policies.

#### **Small-scale Feed-in tariff**

The small-scale Feed-in tariff (FIT) was introduced in 2009 as a means of subsidising small-scale and domestic renewable generation of renewables: photo-voltaic, wind, anaerobic digestion and hydro of up to 5 MW installed capacity. It also supports gas fuelled micro-CHP 2kWe (suitable for use in individual homes).

The generating household is paid the subsidy by its electricity supplier. The FIT scheme is ultimately funded by a levy on all electricity customers in proportion to their electricity usage. The legal basis of the FIT was the 2008 Energy Act. The scheme commenced on 1 April 2010 under the Feed-in tariff (Specified Maximum Capacity and Functions) Order 2010. The scheme replaces an earlier programme that was funded by the general tax payer known as the Low Carbon Buildings Programme. The LCBP operated between 2006 and 2010 and disbursed around £131m in grants to 20,000 projects – much smaller than the FIT.

The electricity supplier pays the subsidy to the customer according to how much electricity is generated. The rate of subsidy is around 4p/kWh for large wind installations (between 1.5 MW and 5 MW) and 40p/kWh for the smallest installations. The bulk of the FIT is used to subsidise domestic photovoltaic generation.

Around 380,000 electricity customers are now paid the FIT subsidy. In 2013 the FIT subsidy adds around 0.11p/kWh to the price of electricity. This is likely to rise as the number of small generators receiving the FIT increases and the FIT agreement lasts for 20 or 25 years.

The cost of the FIT is borne by electricity customers of the larger electricity companies (with more than 250,000 customers). Each year Ofgem undertakes a levelisation

---

<sup>23</sup> Ofgem "REnewables Obligation Annual Report" <https://www.ofgem.gov.uk/ofgem-publications/58143/renewables-obligation-annual-report-2010-11.pdf>

<sup>24</sup> The cost of the RO is passed on to consumers of electricity and is classified by the ONS as a tax [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/48244/3290-control-framework-decc-levy-funded-spending.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48244/3290-control-framework-decc-levy-funded-spending.pdf)

---



exercise to ensure that each of the large suppliers pays its share of the overall policy cost. The most recent annual report<sup>25</sup> Ofgem report that the value of the scheme was £506m in 2012-13 and that 1,700GWh of electricity was generated from 380,000 registered installations.

### Warm Home Discount

The Warm home discount (WHD) is money-off subsidy – currently £135 per year - that reduces the electricity bill of vulnerable households to reduce the risk of fuel poverty. It replaces earlier voluntary initiatives by energy suppliers, which operated between 2008 and 2011. In these energy companies committed to increase their spending on social programmes to help fuel poor customers<sup>26</sup>. It has been paid for by a 'levy' on domestic electricity customers<sup>27</sup>. The legal basis of the WHD is the Energy Act 2010's Warm home discount scheme regulations (2011).

Vulnerable households received a subsidy of £120 per year in 2011 rising to £140 per year in 2015 paid as a discount on their electricity bills. Even though the levy has been paid through the electricity bill – it is intended to subsidise the cost of heating, which for most homes is met by gas. This was done for administrative simplicity as around 80 per cent of vulnerable homes use mains gas, while nearly all have electricity.

There are two main types of beneficiary group. The core group of vulnerable households is defined as households where at least one member receives pension credit. As well as the core group, suppliers can also pay a subsidy to a broader group of customers to maintain continuity of coverage with pre-existing voluntary schemes.

The cost of financing the money-off subsidy is similar to the levelisation arrangements described for Feed-in tariff. Large suppliers (with more than 250,000 customers) have borne the cost of the programme although they have passed this on to their customers. These were £237 million in year one and were forecast to rise to £310 million over four years.

The Government has announced in the Autumn Statement 2013 that the Warm Homes Discount will now be paid from general taxation.

### Climate Change Levy

The Climate Change Levy (CCL) is a tax on gas, electricity and heating fuel use paid by industry. It is the UK's second oldest hypothecated environmental tax coming into force in April 2001 after first being announced in the Budget in 1999. It was a deliberate attempt by the Labour Government at environmental tax reform. It followed on from a report by Lord Marshall<sup>28</sup> about the business use of energy. In his speech announcing the Levy the Chancellor Gordon Brown explicitly promised to recycle the proceeds of the tax:

*"We will now implement Lord Marshall's recommendations and introduce a levy on business use of energy from April 2001. And it will be brought in, after further consultation with industry, on a revenue neutral basis, with no overall increase in the*

---

<sup>25</sup> Ofgem (Dec 2013) <https://www.ofgem.gov.uk/ofgem-publications/85272/fityear3annualreport4-pagesummaryweb-finaledition.pdf>

<sup>26</sup> Ofgem (2013) "Warm Home Discount: Guidance for Licensed Electricity Suppliers and Licensed Gas Suppliers [Version 2]" <https://www.ofgem.gov.uk/ofgem-publications/58947/warm-home-discount-supplier-guidance-version-2-2013.pdf>

<sup>27</sup> The Warm Home Discount (Reconciliation) Regulations 2011

[http://www.legislation.gov.uk/uksi/2011/1414/pdfs/uksi\\_20111414\\_en.pdf](http://www.legislation.gov.uk/uksi/2011/1414/pdfs/uksi_20111414_en.pdf)

<sup>28</sup> HM Treasury (November 1998), "Economic instruments and the business use of energy: a report by Lord Marshall"

*burden of taxation on business. Because we intend at the same time to cut the main rate of employers' national insurance contributions from 12.2 to 11.7 per cent.*

*We also intend to set significantly lower rates of tax for energy intensive sectors that improve their energy efficiency. Today we are inviting them to submit their proposals. In pursuit of our policies for sustainable development we will also allocate an extra 50 million pounds to encourage business to invest in the new environmental technologies and in renewable fuels.” Budget Speech 16 March 1999, Gordon Brown*

In his 2001 Budget speech just before the start of the CCL the Chancellor reiterated his promise to recycle revenues: *“We cannot achieve the Kyoto targets and our goal of cutting carbon dioxide emissions by 20 per cent without the climate change levy which, with April's simultaneous cut in employers national insurance, brings no additional revenues to Government but which will cut carbon emissions by 5 million tonnes by 2010.”* In the Budget document<sup>29</sup> this is amplified slightly: *“the Climate change levy, announced in Budget 99, will be introduced from April 2001 to encourage energy efficiency in the business and public sectors. The revenues will be recycled to business, including through a 0.3 per cent reduction in employers' national insurance contributions and measures supporting energy-saving by businesses”.*

The CCL is collected by the HMRC at different rates depending on the energy source. It is not on fuels used for electricity generation or transport. The table below gives the current rate of the tax. Revenue raised from the levy is returned back to business through a number of different mechanisms. Businesses that have entered into voluntary agreements to reduce their carbon emissions pay a deeply discounted rate of CCL – shown in the table below. The climate change agreements (CCA) are sector specific targets negotiated between the Government and the relevant trade association. The CCA was set at a level so the business had to cut energy use per unit of output to the extent it had taken advantage of all cost effective energy saving opportunities.

The levy (net of the discounts to firms that pay discounted rates of CCL) is expected to raise £0.8 billion in 2012-13. The most recent review of the CCA agreements undertaken in 2011 by AEA suggests that 38 sectors out of 55 industrial sectors with agreements met their carbon reduction targets outright and received the discount. Annual savings were reported as 28.5 million tCO<sub>2</sub>. No data are published on the value of the savings to the firms.

**Table 1: Levy rates for climate change levy**

Commodity	Rate from 1 April 2013 (p/kWh)	Rate of CCL for CCA holders
Electricity	0.524	From 10% for 2013-14
Gas (Great Britain)	0.182	From 35%
Heating fuels or bottled gas	1.172 p/kg	From 35%

Part of the revenue raised from the CCL is also used to offset a 0.3 per cent reduction in employers' rate of National insurance reductions echoing the promise that was made when the Landfill tax was announced several years previously. The rate was cut in April 2001 from 12.2 per cent to 11.9 per cent. The NAO report that in 2005-06 the reduction

<sup>29</sup> Budget 2011 <http://webarchive.nationalarchives.gov.uk/20100407010852/http://www.hm-treasury.gov.uk/d/435.pdf>

in National Insurance was worth £1275m<sup>30</sup> (significantly more than the yield of the CCL of £774m).

The Carbon Trust was set up as a private company at the same time as the introduction of the CCL. In the Budget 2002 Government links the funding of the Carbon Trust to the CCL<sup>31</sup>: *“The Carbon Trust, an independent company funded principally from recycled CCL revenues, was established in April 2001 and has begun work to support energy-efficiency improvements by business.”* As of 2011-12 it no longer receives grant funding from Government.

### Recycling of carbon taxes across Europe

Governments of EU countries have, like the UK, started selling EU-ETS allowances to firms covered by the scheme. Many governments have set out their plans for use of the proceeds from auctioning carbon emission permits, though mandatory reporting on the use of ETS revenues is not required by the European Commission until next year.

Most of the major EU economies have made a commitment to recycle the proceeds of EU-ETS. Nearly all of Germany’s revenues from the ETS<sup>32</sup> –around €18bn<sup>33</sup> between now and 2020 are hypothecated into the Special Energy and Climate Fund. In the 2013 Special Fund allocation, *building restoration and energetic urban renewal* receives €260.8m, 19% of the budget and *energy efficiency* receives a further 9.5% (€132.4m). To ensure true hypothecation of revenues rather than just a political earmarking, the creation of this Special fund was necessary.

Italy<sup>34</sup> plans to spend around half the proceeds from EU-ETS into the Kyoto fund, which was established in 2012 to fund low carbon initiatives. The fund offers 0.5% interest loans to SMEs, public authorities and individuals for investment in energy efficiency (including buildings), distributed generation and small-scale renewable energy projects.

The French Prime Minister recently announced the Government’s intention to spend €1bn of the €4bn carbon revenues it expects to raise in 2016 on energy efficiency retrofits. This announcement adds detail to previous commitments to use the proceeds from EU-ETS to refurbish homes<sup>35</sup>.

A number of countries have announced their industry compensation schemes to address worries about industrial competitiveness arising from having to pay for allowances. Unlike the UK’s compensation scheme there is a requirement for the firm receiving the tax rebate to invest in improving their energy efficiency. The Dutch have agreed such a scheme, which forms part of the overall target of reducing energy use by 1.5per cent a year. The industry compensation schemes in Netherlands and Flanders are subject to approval from the EU.

Alongside France and Germany, Italy, the Czech Republic, Hungary, Estonia and Lithuania have also made energy efficiency of the building stock a priority for the use of their ETS revenues.

---

<sup>30</sup> NAO (2007) “The climate change levy and climate change agreements” <http://www.nao.org.uk/report/review-for-environmental-audit-committee-climate-change-levy-and-climate-change-agreements-3/>

<sup>31</sup> Budget 2002 [http://webarchive.nationalarchives.gov.uk/20100407010852/http://www.hm-treasury.gov.uk/bud\\_bud02\\_chapter\\_7.htm](http://webarchive.nationalarchives.gov.uk/20100407010852/http://www.hm-treasury.gov.uk/bud_bud02_chapter_7.htm)

<sup>32</sup> <http://germanwatch.org/en/6853>

<sup>33</sup> At a certificate price of €10.25

<sup>34</sup> see p7 [http://ec.europa.eu/clima/policies/g-gas/progress/docs/it\\_2013\\_en.pdf](http://ec.europa.eu/clima/policies/g-gas/progress/docs/it_2013_en.pdf)

<sup>35</sup> <http://www.gouvernement.fr/gouvernement/systeme-d-echange-de-quotas-d-emission-de-gaz-a-effet-de-serre-periode-2013-2020-0>

## Annex: Table showing proceeds and usage of revenue from auctioning EU-ETS in other member states

Country	Illustrative Revenue (Bn€) <sup>36</sup>	% to be recycled	Description
Germany	17.8	Almost 100%	Almost all of Germany's ETS revenues (including from the aviation sector) are directed in to the Special Energy and Climate Fund. The fund's €1.4bn budget for 2013 is split between a number of priorities relating to the energy strategy with energy efficiency in buildings one of the priorities: electromobility (30.5%), international climate finance (20%), CO <sub>2</sub> reduction in buildings and urban renewal (19%), renewable energy (13%), energy efficiency (9.5%), and national climate programmes (8%). <sup>37</sup>
Italy	8.6	50%	Draft Prime Minister's Decree on the use of ETS revenues is undergoing parliamentary approval which allocates 50% of the revenues to the "Kyoto fund" for financing measures that reduce GHG emissions. <sup>38</sup> The €200m annual revolving fund offers SMEs, public authorities and individuals very low interest loans for projects related to energy efficiency (incl. buildings), distributed generation and small renewable energy. <sup>39</sup>
France	5.1	Up to 100%	2013 Finance Bill enables all of the expected ETS revenues to be recycled for use by the National Agency for Housing. A major priority for this money is energy efficiency refurbishment of buildings, particularly for low-income families, as part of the national refurbishment programme. <sup>40</sup>
Romania	3.7	More than 70%	National Guideline published by the Romanian Government indicates that 71% of revenues will go to projects approved by National Administration of the Environment Fund, in line with the climate action purposes outlined in the ETS Directive. All revenues from aviation will be directed to projects that reduce emissions. <sup>41</sup>
Czech Republic	3.1	50%	50% of ETS revenues are legally recycled for energy efficiency measures. Of this, 2/3 is to be directed into the State Environment Fund for the promotion of energy efficiency and renewable energy in homes and apartments through the Green Savings Programme. <sup>42</sup>

<sup>36</sup> Total revenues 2013-2020, based on average certificate price of 10.25 Euros. WWF (2012) *The cost of inaction: auctioning revenues under different climate ambition scenarios for the EU Emissions Trading Scheme* [http://awsassets.panda.org/downloads/oko\\_institut\\_2012\\_\\_\\_the\\_cost\\_of\\_inaction\\_\\_\\_auctioning\\_revenues.pdf](http://awsassets.panda.org/downloads/oko_institut_2012___the_cost_of_inaction___auctioning_revenues.pdf)

<sup>37</sup> Germanwatch (2013) Using EU ETS auctioning revenues for climate action. Available at: <http://germanwatch.org/en/6853>

<sup>38</sup> DG Clima (2013) *Assessment of the climate change policies in the context of the European Semester: Country Report: Italy*. Available at [http://ec.europa.eu/clima/policies/gas/progress/docs/it\\_2013\\_en.pdf](http://ec.europa.eu/clima/policies/gas/progress/docs/it_2013_en.pdf)

<sup>39</sup> IEA, (2013) Energy efficiency policies and measure database; Italy. <http://www.iea.org/policiesandmeasures/energyefficiency/?country=Italy>

<sup>40</sup> Germanwatch (2013) Using EU ETS auctioning revenues for climate action. Available at: <http://germanwatch.org/en/6853>

<sup>41</sup> Germanwatch (2013) Using EU ETS auctioning revenues for climate action. Available at: <http://germanwatch.org/en/6853>

<sup>42</sup> Chance for Buildings (2013) Briefing No 1: New Green Savings Programme. Available at: <http://www.sanceprobudovy.cz/english-section/briefings>

The Netherlands	3.1	unknown	Industry compensation scheme to be funded by ETS revenues to cover indirect costs of the ETS. Compensation is conditional on firms making energy efficiency improvements. <sup>43</sup>
Greece	3.1	unknown	An undefined amount of ETS revenue is reported to be directed into a special fund for renewable energy. The remainder of revenues are likely to be used to buy rights for the power sector or pay off the national debt. <sup>44</sup>
Belgium (Flanders)	2.3	unknown	ETS revenues are to be used to fund a proposed industry compensation scheme, subject to EC approval. Firms will have to carry out an energy audit and make economically feasible energy savings to qualify. <sup>45</sup>
Bulgaria	1.9	50% tbc	Law on climate change mitigation that transposes the ETS Directive allocates some auctioning revenues to projects that contribute to low-carbon development, managed by National Trust Eco Fund. Unofficial sources place the amount of revenues at 50% <sup>46</sup> .
Finland	1.5	unknown	The Government Programme, reaffirmed in 2013, states that revenues from the ETS will be directed in part to climate action within development cooperation, as part of the aim to reach the 0.7% of GNP devoted to international development. <sup>47</sup>
Hungary	1.0	50%	The Hungarian legislation that implements the ETS Directive includes the requirement to spend at least 50% of ETS revenues on climate action. The 2013 budget indicates that the revenues are likely to be channelled into the Green Economy Development Scheme. Regulation is currently being written that will outline how this fund will be used and spent, though housing refurbishment is reported to be a priority. <sup>48</sup>
Estonia	0.6	50%	The Ministry of the Environment has announced that 50% of the ETS revenues would be Recycled for environmental purposes. Energy saving measures in apartment buildings is the funding priority for 2013. <sup>49</sup>
Lithuania	0.4	100%	The Law on Financial Instruments for Climate Change Management requires that all ETS revenues are directed into a special climate change programme. The programme performs like a revolving fund providing grants, soft loans and capital investments for climate change mitigation or adaptation projects. Priorities for the fund are decided annually, in 2013 the largest investments have been in energy efficiency in buildings. <sup>50</sup>

<sup>43</sup> ENDS Europe (2013) *Three more ETS compensation schemes planned*. Available at: <http://www.endseurope.com/33414/three-more-ets-compensation-schemes-planned?referrer=search>

<sup>44</sup> ENDS Europe (2012) *National plans on ETS ash slowly emerging*. Available at: <http://www.endseurope.com/index.cfm?go=29459&referrer=search>

<sup>45</sup> ENDS Europe (2013) *Three more ETS compensation schemes planned*. Available at: <http://www.endseurope.com/33414/three-more-ets-compensation-schemes-planned?referrer=search>

<sup>46</sup> DG Clima (2013) *Assessment of the climate change policies in the context of the European Semester: Country Report: Bulgaria* [http://www.ecologic.eu/files/publications/2013/Country-report-Bulgaria-Assessment-of-climate-change-policies-in-the-context-of-the-European-semester\\_2013\\_en.pdf](http://www.ecologic.eu/files/publications/2013/Country-report-Bulgaria-Assessment-of-climate-change-policies-in-the-context-of-the-European-semester_2013_en.pdf)

<sup>47</sup> Germanwatch (2013) *Using EU ETS auctioning revenues for climate action*. Available at: <http://germanwatch.org/en/6853>

<sup>48</sup> Bart, I. Director, Hungarian Institute for Energy Efficiency. (2013) *EU ETS revenues* [Email] Message to: Sunderland, L. (29 Oct – 1 Nov 2013), and Germanwatch (2013) *Using EU ETS auctioning revenues for climate action*. Available at: <http://germanwatch.org/en/6853>

<sup>49</sup> Ministry of the Environment (2013) *The Government approved the use of funds quota regime*. Available at: <http://translate.google.com/translate?hl=en&sl=auto&tl=en&prev=dd&u=http%3A%2F%2Fwww.envir.ee%2F1202071>

<sup>50</sup> Kuklyte, J. Head of Climate Finance and Project Management Division, Ministry of the Environment (2013) *Lithuania's use of ETS revenues*. [Email] Message to: Sunderland, L. (21 Oct 2013)

