

Technical Annex: Overview

Introduction

This Technical Annex sets out additional data and analysis to support the Summary and Overview of the *Meeting Carbon Budgets - Progress in reducing the UK's emissions 2015 Report to Parliament*:

- Section 1: Estimating the temperature-adjusted emissions change
- Section 2: Evaluation of Government policies to reduce GHG emissions
- Section 3: Policy visibility in the 2020s
- Section 4: Public sector expenditure on meeting carbon budgets

1. Estimating the temperature-adjusted emissions change

As noted in our previous progress reports, weather can have a significant impact on energy consumption and therefore emissions. Winter temperatures in particular can affect demand for heating fuels (summer temperatures currently have a much smaller effect given that energy demand for cooling remains significantly lower than demand for heating in the UK).

The winter months of 2014 (January, February and December) were noticeably warmer (by on average 1.2 °C) than those of 2013 resulting in lower emissions, particularly in the residential sector¹. We have used DECC estimates of the “temperature-adjusted” change in energy consumption from 2013 to 2014 (i.e. how energy consumption would have changed without the increase in winter temperatures). We have then applied our own estimates of CO₂ emissions intensity in 2014 to calculate the effect on emissions. This allows us better to assess underlying progress, abstracting from year-to-year variations in temperature, which is useful in assessing future prospects for emissions.

Total GHG emissions in 2014 fell by 8.4%, but adjusting for temperature they would have fallen by 6.0%. The adjustment is primarily in energy use for heating buildings, with the largest impact in the residential sector.

DECC release their own estimates of temperature-adjusted emissions which suggest a slightly larger impact, such that after adjusting for temperature total emissions in 2013 would have fallen 4.2%.² DECC's methodology adjusts emissions directly (as opposed to energy consumption) and as such, may capture second-order impacts such as fuel switching. Our approach is to identify the impact of fuel switching separately and we therefore continue to temperature-adjust energy consumption rather than emissions.

¹ See DECC's Energy Trends, section 7, at <https://www.gov.uk/government/statistics/energy-trends-section-7-weather>

² See DECC's UK greenhouse gas emissions: 4th quarter 2014 provisional figures, at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/421735/quarterly_statistical_release_april_2015.pdf

2. Evaluation of Government policies to reduce GHG emissions

In the Summary and Overview, we set out our assessment of the impact of Government policies intended to reduce emissions, differentiating between those policies which are expected to deliver (classified as “lower risk”) and those at risk of failing to deliver, either due to design and delivery problems, or because they are currently unfunded (classified as “at risk”).

Table 1 sets out the rationale for classifying lower risk policies as such; Table 2 sets out the rationale for at-risk policies.³

Table A1: Lower risk policies	
Policy	Why the policy is ‘lower-risk’
Power	
Renewables Obligation, feed-in tariffs (FITs) and the Final Investment Decision Enabling Regime (FIDER)	Policies target the right technologies and have been effective in the past. Support is broadly matched to technology costs and funding is sufficient.
Buildings (residential)	
Real-time displays/ smart meters	Energy suppliers have an obligation to deliver full roll-out by 2020. A central delivery body has been set up to promote behaviour change via consumer engagement activities in order to achieve energy demand reduction.
CERT (2009-12) and CESP (2008-12)	CERT (Carbon Emission Reduction Target) delivered energy efficiency measures by placing an obligation on energy companies to achieve reductions in carbon emissions. The overall target of 293 MtCO ₂ of lifetime savings was achieved. CESP (Community Energy Saving Programme) achieved 85% of the carbon savings target.
EU Products Policy Tranche 1	The Ecodesign Directive sets minimum standards for appliances which ratchet up over time. Energy labelling helps overcome consumer awareness barriers. Most of the Tranche 1 standards are now in place. Some questions remain over the rate of stock replacement and number of consumers choosing the most efficient appliances.
Buildings Regulation Part L 2010	Long-standing effective policy, 2010 tightening of standards significant, provided level of compliance and future build rates are adequate.

³ See DECC’s Annex D: Policy savings in the projections, at <https://www.gov.uk/government/publications/updated-energy-and-emissions-projections-2014>

Table A1: Lower risk policies	
Policy	Why the policy is 'lower-risk'
Buildings Regulation Part L 2013	Legislated policy, but savings dependent on level of compliance and future build rates
Private Rented Sector Regulations	This is a legislated policy for the introduction of minimum energy efficiency standards by 2018.
Renewable Heat Incentive (RHI) to April 2016	Despite delays to its introduction, the RHI was implemented in 2014. It targets the relevant financial barriers and broadly incentivises the right mix of low-carbon technologies. Issues around low awareness and consumer confidence still to be addressed, but it should stimulate the market in key off-gas segments and in social housing, although landlord-tenant issues remain an issue in the private-rented sector. Funding has been committed until April 2016.
Buildings (non-residential)	
Business Smart Metering	Although the estimated savings for businesses are based on a single study (in contrast with smart metering in homes, where there is better evidence), smart metering addresses a key information gap, with roll-out driven by the requirement on energy suppliers.
RHI to April 2016	The right mix of technologies is targeted. Policy savings have been revised downwards based on market forecasts, and are now reasonably cautious. Although uptake to date has been mainly biomass, government has responded with recent changes to the scheme including new tariffs, which are now broadly at the right level. Funding has been committed until April 2016.
Private Rented Sector Regulations	This is a legislated policy for the introduction of minimum energy efficiency standards by 2018.
Industry	
RHI to April 2016; Private Rented Sector Regulations	As in non-residential buildings.
Transport	
New car & van CO2 (EU regulations)	Regulation with stiff penalties for non-compliance, supported by UK fiscal policies. Targets legislated to 2020. More representative test cycle due to be introduced.
Electric vehicle support package to 2020	Funding package tackles all major barriers with combination of measures shown to be effective in leading markets. £500 million overall, including minimum £200 million for Plug-in car grant to 2017 or 50,000 cars; £32 million for infrastructure; £35 million for city schemes & £20 million for taxis; £100 million

Table A1: Lower risk policies	
Policy	Why the policy is 'lower-risk'
	for R&D. Plug-in Car Grant of up to £5,000 per car is appropriate in the near term.
Local Sustainable Transport Fund	£600 million of DfT funding to 2015 (62.5% revenue, 37.5% capital), plus £535 million from LAs, for measures to tackle information and organisational barriers (e.g. school & workplace travel plans) and complementary infrastructure investment (e.g. cycle lanes). Level of funding per head broadly comparable to successful Sustainable Travel Towns pilot projects. Local Growth Fund providing funding in 2015/16.
HGV Low Rolling Resistance Tyres/ Gear Shift Indicators	Mandated by EU regulation
Low Carbon Buses to 2020	£30 million funding provided by OLEV from 2015-2020 to stimulate uptake of 1,000 Low Carbon buses. Funding will be provided on a declining basis as the cost differential between these and conventional buses narrows.
Rail Electrification	Work is currently ongoing to electrify a number of lines in the North of England, as well as the Great Western Mainline. Electrification is at varying levels of completion, however progress is broadly as expected.
Agriculture and Waste	
RHI to April 2016	As in non-residential buildings.

Table A2: At risk – policies with design/delivery problems or lack of funding	
Policy	Why the policy is 'at risk'
Power	
Carbon Capture and Storage (CCS) demonstration	Targets the right CCS applications but continuing risks to delivery of technology and reaching the final investment decision. £1 billion funding has been allocated.
Fuel switching	Some existing coal plant will close under LCPD & IED, however other plant may stay open for some time due to weakness of EU ETS and low coal prices. No new unabated coal plant due to EPS. Capacity mechanism is an incentive for new gas plant

Table A2: At risk – policies with design/delivery problems or lack of funding	
Policy	Why the policy is ‘at risk’
Contracts for Difference (CFDs) to 2020	Programme is in place, however lack of support beyond 2020 may increase uncertainty for bidders pre-2020. Support broadly appropriate (see EMR report ⁴). First round of CfD auctions took place successfully, across two technology pots.
Nuclear – first two reactors at Hinkley	Agreement on terms for proposed first contract but risks around state aid, level of agreed strike price appropriate, contract terms have been agreed, however contract is not in place.
Buildings (residential)	
Energy Company Obligation (2013-2015) and domestic Green Deal	While ECO is aiming to target the right measures and customer types (e.g. fuel poor, hard- to-treat homes and rural households), uptake to date, of this and Green Deal, has been very low due to low ambition and poor design. Carbon saving targets are off track.
ECO extension (2015-17)	While the supplier obligation means that the savings under ECO should be at low risk of delivery, the continued design and delivery problems of the Green Deal places the overall savings at risk. No commitment post-2017.
EU Products Policy Tranche 2	Question marks over implementation as significant process delays. Estimate of savings in UEP is high – it is not clear how robust the model on which these are based is.
RHI from April 2016	No commitment to RHI funding after the 2015-16 financial year.
Zero Carbon Homes	No clear timetable for introduction of the Zero Carbon Homes standard in 2016. Exemptions have been announced for smaller developments. ‘Allowable solutions’ will allow developers to choose fossil fuel heating options over low-carbon heat.
Buildings (non-residential)	
EU Products Policy Tranche 1	As with domestic products, minimum standards for products are set under the Ecodesign directive and ratcheted up over time. Realised savings are at risk due to delays to implementation and uncertainty around stock replacement rates. Assumptions underpinning modelled savings are unclear and under review. Overall, the risks are greater than with Tranche 1 domestic appliances due to a less developed evidence-base.
EU Products Policy Tranche 2	Shares same risks as Tranche 1, with additional risks due to delays to implementation process.

⁴ See CCC’s report Next steps on Electricity Market Reform (May 2013), at <http://www.theccc.org.uk/publication/next-steps-on-electricity-market-reform-23-may-2013/>

Table A2: At risk – policies with design/delivery problems or lack of funding	
Policy	Why the policy is 'at risk'
Non-domestic Green Deal	Whilst the policy tackles a gap around finance for energy efficiency in SMEs, demand is low at the currently high interest rates. Pay-as-you-save model from the domestic sector is less well adapted to complex landlord-tenant relationships in the commercial sector.
CRC energy efficiency scheme	The scheme is targeting energy use not covered by existing policies, incentivising energy efficiency and addressing an information barrier. However, its credibility has been weakened due to the changes to the scheme, including the loss of the reputational lever of the performance league table. It is now a modest carbon tax which is hampered by the original trading scheme design architecture.
Building Regulations part L 2010	Focuses on the right barrier by regulating that developers meet certain CO2 reducing standards compared to previous 2006 regulations. There are however some questions around the modelled savings based on the Simplified Building Energy Model (SBEM), which are being reviewed in light of new bills data. This leads to uncertainty around compliance and the 'performance gap' between buildings as designed, built and in-use.
RHI from April 2016	As in residential buildings
Energy Savings Opportunity Scheme	There is little evidence to suggest the energy audits are leading to any uptake of measures or energy savings. The policy has a number of weaknesses (no reporting; can be undertaken by a member of staff, no follow-up) which puts the carbon savings at risk.
Building Regulations part L 2013	These regulations share the same issues as the Buildings 2010 part L regulations, mainly around compliance and potentially buoyant build forecasts.
Salix energy efficiency loans, post-CSR funding	No funding committed – subject to spending review.
Energy Performance of Buildings Directive, Refresh 2013	No detailed timeline or definition in place to deliver Nearly Zero energy buildings.
Industry	
Building Regulations part L 2010; CRC energy efficiency scheme; EU Products Policy	As in non-residential buildings.

Table A2: At risk – policies with design/delivery problems or lack of funding	
Policy	Why the policy is 'at risk'
Tranches 1 and 2; Non-domestic Green Deal; RHI from April 2016; Building Regulations part L 2013; Energy Savings Opportunity Scheme	
Transport	
Biofuels policy	Renewable Transport Fuels Obligation (RTFO) currently flat-lined at 4.75% (by volume). Until detail of UK policy is announced in light of recent EU decisions there remains a risk that the target will not be met sustainably. Currently off-track to deliver levels assumed to 2020 (penetration assumed to revert to current level post-2020).
HGV Fuel efficiency policies	The fuel efficiency of new HGVs has not improved significantly in recent years. Furthermore, there has been little progress in developing EU CO2 regulation for HGVs, without which further efficiency improvements are at risk. There is scope for freight operators to improve efficiency through schemes such as the Logistics Carbon Reduction Scheme (LCRS), but these are currently dominated by larger operators and there is no policy addressing barriers for smaller operators.
HGV Natural gas policy	The CO ₂ benefits of using natural gas in HGVs are yet to be proven. Until the Government trials of natural gas use in HGVs are complete, savings from this measure remain at risk.
Low Carbon Buses beyond 2020	Uptake projected by OLEV appears optimistic given experience with Green Bus Fund round 4.
Agriculture and Waste	
Afforestation policies	Tree planting rates across England and the devolved administrations are below the additional 10,000 ha/year required to contribute towards the fourth carbon budget.
GHG Agricultural Action Plan	Targets cost-effective measures but reliance on a voluntary approach risks the delivery of carbon savings. No mechanism in place to evaluate if the policy is delivering emissions reductions in line with the ambition of the Plan.
RHI from April 2016	As in non-residential buildings.

We used DECC's estimate of the GHG emissions savings from these policies. DECC's estimate has changed slightly between 2013 and 2014 projections. This is due to:

- A range of new policies underpinning the 2014 projections which did not form part of the 2013 projections
- A revision in the estimates of abatement delivered by each policy.

Overall, the policy position is little changed over the past year - we have not reclassified any policies between the lower risk and at-risk categories.

Figure 1 sets out the impact of these changes on abatement in 2025 in the non-traded sector, for those policies identified as lower risk. Figure 2 sets out the impact of these changes for those policies identified as at-risk. The large increase in abatement in at-risk policies is due partly to the addition of new policies (primarily afforestation policies) and partly to higher estimated abatement from existing policies (primarily biofuel policies).

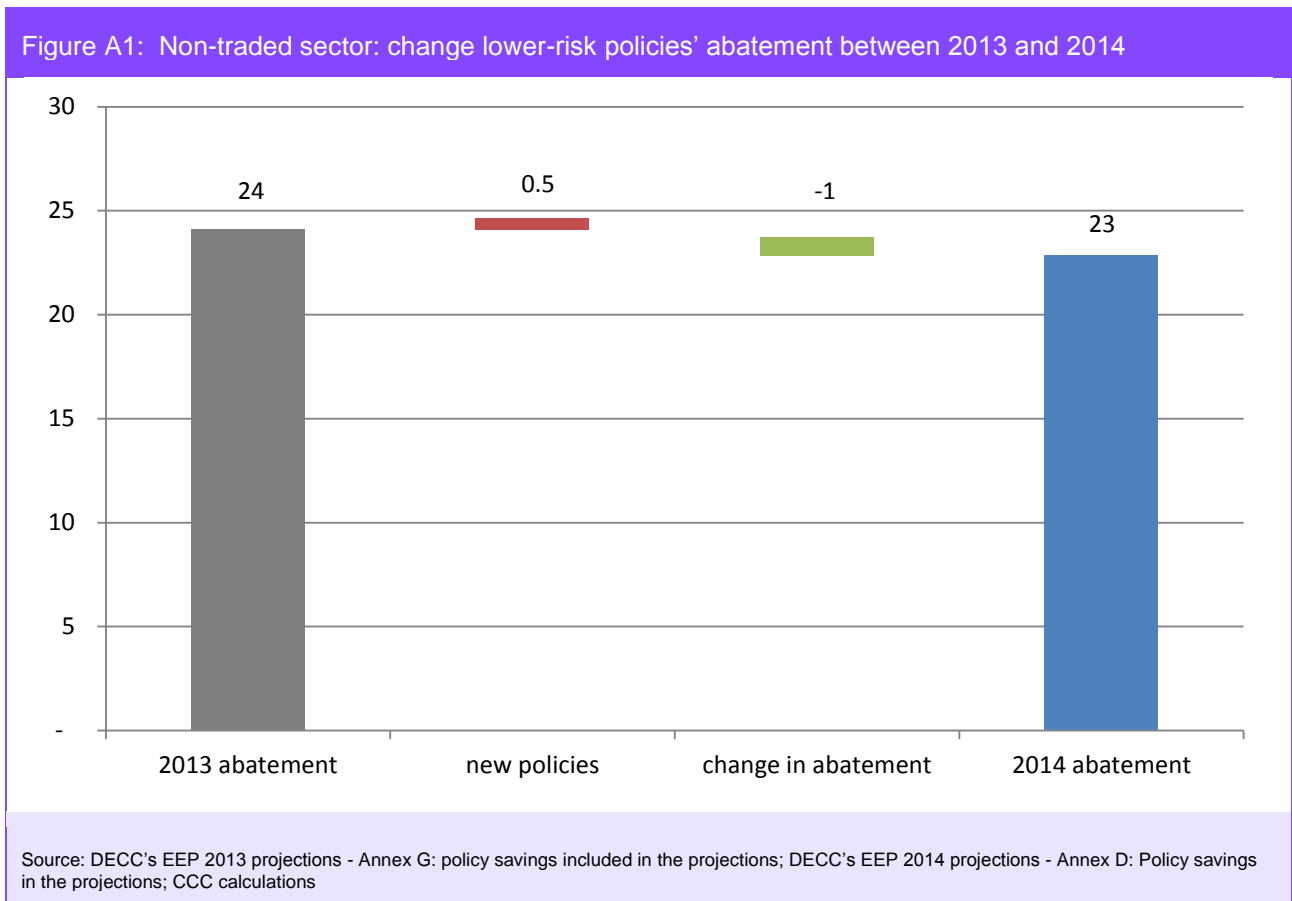
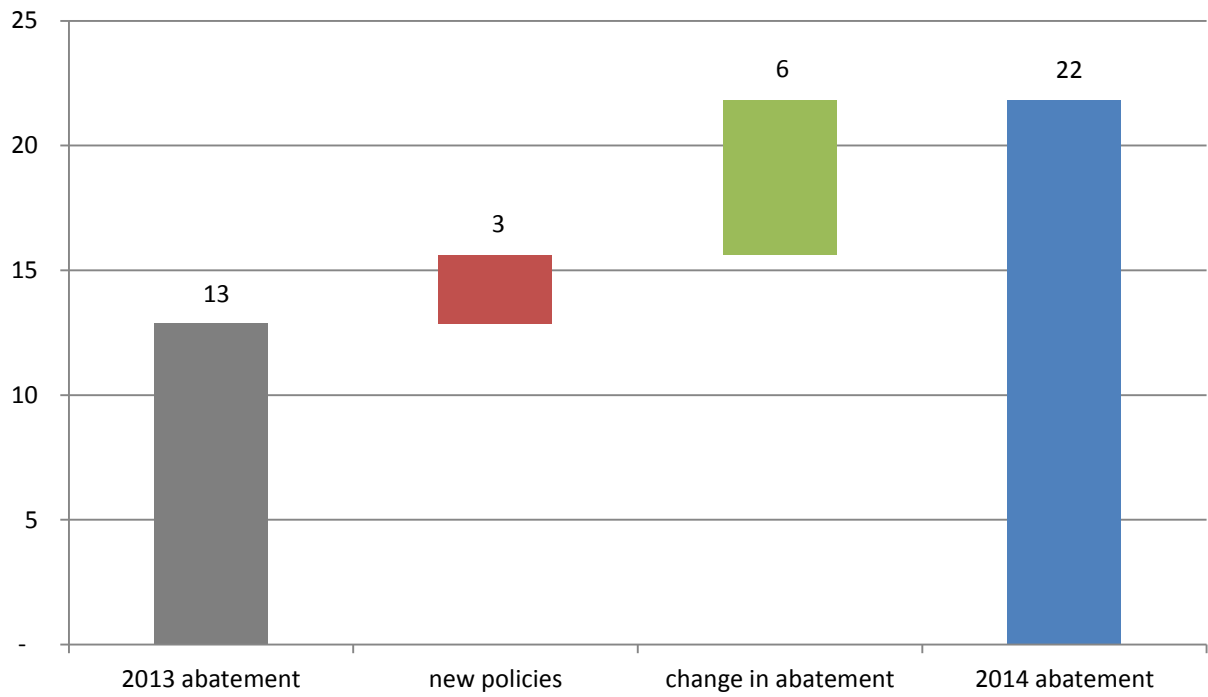


Figure A2: Non-traded sector: change at-risk policies' abatement between 2013 and 2014



Source: DECC's EEP 2013 projections - Annex G: policy savings included in the projections; DECC's EEP 2014 projections - Annex D: Policy savings in the projections; CCC calculations

3. Policy visibility in the 2020s

The Summary and Overview sets out the date of expiry for a range of current policies or associated funding commitments. Table 3, below, expands on this and sets out the risks to meeting carbon budgets that would result from failing to renew these policies and commitments.

Table A3: Policy visibility in 2020s		
Programme	End date	Implication
Power		
Levy Control Framework	April 2021 (up until the end of FY2020/21)	Low carbon generators that require a subsidy have no visibility of a market beyond April 2021. Given long lead times (up to 8 years) for these projects this is already acting against further development in the project pipeline (as well as innovation/supply chain impacts).
Buildings		
Energy Company Obligation (ECO)	April 2017	Lack of funding for more expensive measures. Fuel poverty targets cannot be met unless there is a long-term policy programme, insulation supply chain reluctant to invest due to uncertainties.
Green Deal	No end date but lack of available funds	The Green Deal Finance Company is likely to run out of capital in 2015.
Renewable Heat Incentive	April 2016 (up until the end of FY2015/16)	Installers of renewable heat options, construction sector, regulators cannot plan without long-term commitment to the policy.
Statutory fuel poverty target for England: As many fuel poor homes as reasonably practicable should achieve an EPC C rating.	By 2030	If implemented, could improve around 10% of homes in England but currently no long-term funding commitment to achieve this.
Industry		
Climate Change Agreements	2020	Without extension, or another support mechanism, there may not be further cost-effective industrial energy

Table A3: Policy visibility in 2020s

		efficiency improvements which are essential for meeting the carbon budgets.
Compensation for or exemption from climate change policies	2019/2020	<p>If other countries act more slowly than the UK/EU in bringing forward measures to reduce carbon emissions, then the extra cost of climate policies without compensation/exemption could lead to potential competitiveness risks for industries that are subject to international competition.</p> <p>We have recommended a full evaluation of compensation measures.</p>
Transport		
EU CO ₂ targets for cars and vans	2020	<p>Manufacturers are currently designing and developing car and van models for the 2020s without knowing the level of CO₂ targets in 2025 or 2030.</p> <p>It is also important that the new car and van test-cycle is introduced as soon as possible so that manufacturers begin to design models with lower real-world emissions.</p>
Electric vehicle support package to tackle financial and non-financial barriers	2020	<p>Without longer term, visible commitment to promote higher uptake of electric vehicles, there is a risk that manufacturers will be uncertain of consumer demand and fail to provide a sufficient supply of vehicles within the UK. There is also a risk that support could be withdrawn too rapidly and public perceptions of electric vehicles could be damaged.</p>
Renewable Transport Fuels Obligation	No end date but future trajectory for biofuel penetration and sustainability is set at current levels.	<p>Current biofuels policies are not sufficiently ambitious in terms of level of penetration and sustainability (including consideration of emissions from Indirect Land Use Change). There is a risk that the required investments are not made to develop a supply of sustainable biofuels to reduce emissions in the short to medium term.</p>
Local Sustainable Transport Fund	2015/16	<p>There is a risk that low-cost emission reduction opportunities, with many co-benefits, are ignored and a possibility that work done in earlier projects is undone as people revert to previous levels of car use.</p>

Table A3: Policy visibility in 2020s

Agriculture

Greenhouse Gas Action Plan (England only)	2022	The absence of a long-term plan sends a signal to the sector that significant energy efficiency improvements are not needed.
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Source: CCC assessment

4. Public sector expenditure on meeting carbon budgets

As stated in the main report, our estimate of total public spending on early research and development related to climate change mitigation is around £360 million in 2013/14. The following section outlines the detailed breakdown of our estimates together with main sources.

The IEA database on RD&D is the main source of information.⁵ It provides a time series of public spending on RD&D up to 2013, mainly in sectors of power, transport and energy efficiency.⁶ In addition, we used other sources to cover some areas that are not included in the IEA database, such as R&D spending in agriculture, waste and resource efficiency.

Table A4: Public sector expenditure on research and development (£m) – detailed breakdown	
Sector	2013/14
Power	
Carbon Capture and Storage	£42
Renewable energy	£71
Nuclear (both fission and fusion)	£51
Other power and storage technologies	£31
Buildings	
Buildings energy efficiency	£20
Industry	
Industry energy efficiency	£6
Transport	
Transport energy efficiency	£69
Hydrogen and fuel cells	£14
Cross-cutting	
Other energy efficiency	£14
Other cross-cutting technologies	£38
Total	£360
Source: IEA database on RD&D, Government R&D spending in million and Government demonstration.	

⁵ The IEA RD&D Online Data Service, at <http://www.iea.org/statistics/RDDonlinedataservice/>

⁶ The expenditures should capture expenditures by Government central departments, Innovate UK and Research Councils.

Table A5: Public sector expenditure on research and development (£m) – detailed breakdown of other sectors

Sector	2013/14	Source
Agriculture		
Defra R&D projects	£4	http://randd.defra.gov.uk/ We looked at 'Emissions from Agriculture to Air' and 'Mitigating Nitrogen and Carbon Emissions to Air' categories. We then considered those projects that may have mitigation potential and annualised their costs if running through 2013/14 FY.
Waste and other non-CO₂		
WRAP – Innovation in Waste Prevention Fund	£0.4	An £800,000 grant scheme that ran for two years. Now closed. http://www.wrap.org.uk/content/innovation-waste-prevention-fund-england
Defra R&D projects	£0.6	http://randd.defra.gov.uk/ 'Waste management' category.
Cross-cutting		
Defra R&D projects in resource efficiency	£0.7	http://randd.defra.gov.uk/ 'Sustainable consumption and production' category.
Total	£5	

The main report states that current government support for the roll-out of particular technologies and associated innovation related to climate change mitigation was around £5.8 billion in 2013/14 and £6.4 billion in 2014/15. Both values are estimates that, based on our calculations, could be in the region of £5.3-£6.0 billion in 2013/14 and £5.8-£7.6 billion in 2014/15.

The following tables show a detailed breakdown of these estimates by sector, covering power, buildings, transport, waste and other non-CO₂, and cross-cutting areas. They also report the main sources and ranges for those expenditures where alternative estimates were available.

Table A6: Current government support for the roll-out of particular technologies and associated innovation – power sector (£m)

Policy	2013/14	2014/15	Source
Levy-funded spending policies			
Levy Control Framework – Renewable Obligation	£2,600 (£2,500 - £2,600)	£3,100 (£3,100 - £3,200)	2013/14: ROCs presented times ROCs value in https://www.ofgem.gov.uk/ofgem-publications/93414/roannualreport2013-14.pdf 2014/15: https://www.gov.uk/government/publications/control-framework-for-decc-levy-funded-spending-questions-and-answers & CCC estimates
Levy Control Framework – Feed in Tariffs	£720 (£330 - £720)	£830 (£450 - £830)	2013/14: Figure 2.2 in https://www.ofgem.gov.uk/ofgem-publications/91945/feed-intariffitannualreport20132014.pdf 2014/15: CCC estimate
Low carbon transmission costs	£390 (£370 - £390)	£450 (£420 - £450)	CCC estimate: Costs of low carbon electricity generation technologies due to increased needs for infrastructure and balancing services. Calculated as costs of intermittent renewables in order to maintain system security times electricity generation.
Sub-total	£3,700 (£3,300 - £3,700)	£4,400 (£3,900 - £4,400)	
General taxation funded policies			
Urban Community Energy Fund	-	£1 (£0.2 - £10)	£10m UCEF launched. £200K UCEF grants issued. Loan element of UCEF launched, projecting up to £1m in loans available over the course of the year. https://www.gov.uk/urban-community-energy-fund
Rural Community Energy Fund	-	£2 (£0.5 - £15)	Out of £15m, RCEF distributed £450k to 25 electricity generation projects in 2014. £1m distributed to 48 projects in Feb 15 and projecting £0.8m for 25 electricity generation projects over 2015. https://www.gov.uk/urban-community-energy-fund
Sub-total	-	£3 (£1 - £25)	

Table A6: Current government support for the roll-out of particular technologies and associated innovation – power sector (£m)

Green Investment Bank	[£532]	[£468]	Summary of transactions in both direct and fund investments. We include offshore wind, community-scale renewables, CHP and bioenergy projects http://www.greeninvestmentbank.com/media/44778/gib_transaction-table_210515.pdf
Total	£3,700 (£3,300 - £3,700)	£4,400 (£3,900 – £4,400)	

Note: The UK Government is the sole shareholder in the GIB and has committed an initial £3.8 billion of public funds. However, the GIB expects the invested funds to generate a positive return over the lifespan of projects. Also, GIB expenditure on power projects is included in our estimate of levy-funded spending on power. We therefore exclude GIB spending from our total.

Table A7: Current government support for the roll-out of particular technologies and associated innovation – buildings (£m)

Policy	2013/14	2014/15	Source
Levy-funded spending policies			
Energy Company Obligations	£930	£500 (£400 - £500)	Carbon Emissions Reduction Obligation: £815m in 2013/14, £268 in 2014/15. Carbon Savings Community Obligation: £111m in 2013/14, £231m in 2014/15. ECO delivery costs also include admin costs. 2013/14 period covers Jan 13-Mar 14. The scenario assumes total delivery costs by 2017 are averaged across the three periods (14/15, 15/16, 16/17) to reflect uncertainties around how suppliers incur costs over time, and how passed on. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335098/20140721_The_Future_of_ECO_consultation_Final_IA.pdf
General taxation funded policies			

Table A7: Current government support for the roll-out of particular technologies and associated innovation – buildings (£m)

Green Deal Home Improvement Fund	-	£220 (£180 - £220)	Release 1:£120m; Release 2: £24m; Release 3: £70m; Additional: £5m http://www.greendealcentral.com/news/green-deal-home-improvement-fund-gdhif/
Domestic Renewable Heat Incentive	-	£16	April-14 to Mar-15 based on Ofgem payment data: https://www.ofgem.gov.uk/environmental-programmes/domestic-renewable-heat-incentive-domestic-rhi/about-domestic-rhi/domestic-renewable-heat-incentive-public-reports
Non-domestic Renewable Heat Incentive	£36 (£36 - £66)	£107 (£79 - £189)	2013/14: https://www.ofgem.gov.uk/ofgem-publications/89089/rhiannualreport2014web.pdf 2014/15: Ofgem quarterly forecast for May-14 to April-15: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/313339/Quarterly_forecast_30_April_2014.xlsx
Green Deal Communities Scheme	£20 (£20 - £80)	-	£80m funding available between Sep - Dec 2013. £19.5m allocated by Mar 14: https://www.gov.uk/government/news/green-deal-communities
Big Energy Savings Network	£1	£1	2013/14: http://www.nea.org.uk/media/media-releases/media-2013/media-170513-01 2014/15: https://www.gov.uk/government/publications/big-energy-saving-network-grant-offer-fund
Community Energy Savings Competition	-	£0.1	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/397514/community_energy_saving_competition_guidance.pdf
Salix – energy efficiency finance in	£48	£73	Based on the information sent to the CCC by Salix (commitment value): 2013/14: £37.4m DECC funding, £2.0m Department for Education funding, £2.6m

Table A7: Current government support for the roll-out of particular technologies and associated innovation – buildings (£m)

the public sector			Welsh Government funding, £6.0m Scottish Government funding. 2014/15: £58.3m DECC funding, £10.8m Department for Education funding, £2.5m Welsh Government funding, £1.4m Scottish Government funding.
Sub-total	£100 (£100 - £200)	£420 (£350 - £490)	
Green Investment Bank	[£2]	[£36]	Summary of transactions in both direct and fund investments. We include building energy efficiency and retrofit projects. http://www.greeninvestmentbank.com/media/44778/gib_transaction-table_210515.pdf
Total	£1,030 (£1,030 - £1,120)	£920 (£750 - £990)	

Note: The UK Government is the sole shareholder in the GIB and has committed an initial £3.8 billion of public funds. However, the GIB expects the invested funds to generate a positive return over the lifespan of projects. Also, GIB expenditure on power projects is included in our estimate of levy-funded spending on power. We therefore exclude GIB spending from our total.

Table A8: Current government support for the roll-out of particular technologies and associated innovation – transport (£m)

Policy	2013/14	2014/15	Source
Office for Low Emission Vehicles policies	£60	£160	Department for Transport
Local Sustainable Transport Fund	£160 (£160 - £240)	£120 (£120 - 340)	DfT and DfT accounts: https://www.gov.uk/government/publications/dft-annual-report-and-accounts-2013-to-2014
HGV Natural Gas Policy	£4 (£3 - £5)	£4 (£3 - £5)	Department for Transport

Table A8: Current government support for the roll-out of particular technologies and associated innovation – transport (£m)

Energy efficiency for transport infrastructure	£9	-	National Infrastructure plan 2013: A guarantee for £8.8 million to help provide finance for the installation of energy saving lighting equipment across a portfolio of car parks. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/263159/national_infrastructure_plan_2013.pdf
Total	£230 (£230 - £310)	£280 (£280 - £500)	

Table A9: Current government support for the roll-out of particular technologies and associated innovation – waste and other non-CO₂ (£m)

Policy	2013/14	2014/15	Source
England Local Authorities costs of recycling	£606	£641	The net costs of collecting items separately for recycling, as well as the costs of processing recyclables. https://www.gov.uk/government/statistics/local-authority-revenue-expenditure-and-financing-england-2014-to-2015-individual-local-authority-data
England Local Authorities costs of waste minimisation	£23	£20	The costs of initiatives and actions to encourage the minimisation of waste through the reuse, exchange and shared use of goods. https://www.gov.uk/government/statistics/local-authority-revenue-expenditure-and-financing-england-2014-to-2015-individual-local-authority-data
Defra funding for WRAP	£26	£18 (£17 - £19)	http://www.wrap.org.uk/content/wrap-response-defra-budget-settlement
Waste infrastructure and delivery programme	£120	£120	Defra is investing some £3 billion of grant funding in a number of waste infrastructure projects. These should help reduce the amount of waste sent to landfill and improve recycling. The grant is paid over the 25-year operating life of each project. If annualised, this equals to £120m a year. https://www.gov.uk/government/policies/reducing-and-managing-waste/supporting-pages/waste-infrastructure-delivery-programme

Table A9: Current government support for the roll-out of particular technologies and associated innovation – waste and other non-CO₂ (£m)

Green Investment Bank	[£80]	[£230]	Summary of transactions in both direct and fund investments. We include waste treatment, recycling, AD plants and energy from waste projects. http://www.greeninvestmentbank.com/media/44778/gib_transaction-table_210515.pdf
Total	£770	£800	

Note: The UK Government is the sole shareholder in the GIB and has committed an initial £3.8 billion of public funds. However, the GIB expects the invested funds to generate a positive return over the lifespan of projects. Also, GIB expenditure on power projects is included in our estimate of levy-funded spending on power. We therefore exclude GIB spending from our total.

Table A10: Current government support for the roll-out of particular technologies and associated innovation – cross-cutting (£m)

Policy	2013/14	2014/15	Source
England Local Authorities climate change costs	£17	£17	Costs associated with the Climate Change Act 2008. It does not include flood defence expenditures. https://www.gov.uk/government/policies/reducing-and-managing-waste/supporting-pages/waste-infrastructure-delivery-programme
Community Energy Peer Mentoring Fund	£0.5	-	Supported community energy projects with grants. Open between Nov - Dec 2013. http://www.sibgroup.org.uk/energy/
Regional Growth Fund	£32 (£28 - £33)	£33 (£28 - £33)	This is a very uncertain estimate: Overall, the RGF awarded to 197 live projects around £744m, out of which £79m to energy schemes, including low carbon technology (11%). https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/212280/13-p189-regional-growth-fund-annual-monitoring-report-2013.pdf 2013-14: Fifth Round - total awarded £302m 2014-15: Sixth Round - total awarded £297m http://www.parliament.uk/briefing-papers/sn05874.pdf

Table A10: Current government support for the roll-out of particular technologies and associated innovation – cross-cutting (£m)

Green Investment Bank	[£30]	[£50]	Summary of transactions in both direct and fund investments. We include funds available for cross-cutting energy efficiency and biomass boiler projects. http://www.greeninvestmentbank.com/media/44778/gib_transaction-table_210515.pdf
Total	£50 (£46 - £51)	£50 (£46 - £50)	

Note: The UK Government is the sole shareholder in the GIB and has committed an initial £3.8 billion of public funds. However, the GIB expects the invested funds to generate a positive return over the lifespan of projects. Also, GIB expenditure on power projects is included in our estimate of levy-funded spending on power. We therefore exclude GIB spending from our total.