Department for
Business, Energy
& Industrial Strategy

Assessment of costs to UK participants of compliance with Phase 2 of the CRC Energy Efficiency Scheme

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Research team
Databuild: Adrian Talbot, Karl King, Doros Georgiou, Gurvinder Kang, Petrina Maynard
Verco: Paul Stepan, Kevin Williams (Associate)
CAG Consultants: Mary Anderson, Bill Kirkup
Report written by: Adrian Talbot, Doros Georgiou & Karl King

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Glossary

Terminology used within this report	
95% confidence interval	A 95% confidence interval is a range of values within which we can be 95% certain the true mean of the population lies, taking into account the sample size and variation in responses. This means that had the study been conducted 100 times, a point estimate would lie within this range of values 95 of those times. Interval width depends on the sample size and the variation in responses. The larger the sample size, the narrower the confidence interval, the higher the variation, the wider the interval.
Additional / attributable costs	In this context, costs (or the portion of total costs) that were reported by respondents to be additional / attributable to the CRC (i.e. they were only incurred because of needing to comply with this policy). Respondents were asked to indicate if any portion of costs was not additional (e.g. costs were incurred as a result of compliance with another policy) and any portions not additional to CRC were excluded from the analysis included in this report.
Allowance	An allowance to cover one tonne of carbon dioxide equivalent (CO_2e) emitted. Allowances must be purchased by operators to cover their energy consumption. The costs to operators of purchasing allowances are *not* an administrative cost and thus were not in the scope of this research.
ASHE	Annual Survey of Hours and Earnings
CO_2e	Carbon dioxide equivalent (emissions)
Costs of compliance	The administrative costs (the administrative time and costs) to an operator of activities involved in compliance with the CRC. This study did not attempt to identify or quantify certain substantive compliance costs which were out of scope of the work e.g. the price of allowances or the cost of measures to reduce consumption
CRC	CRC Energy Efficiency Scheme, formerly known as the Carbon Reduction Commitment
ESOS	Energy Savings Opportunity Scheme
EU ETS	European Union Emissions Trading System
External costs	The portion of compliance costs that the operator of an installation meets externally – they outsource certain compliance activities e.g. to consultants, rather than completing these tasks internally within the organisation
GHG	Greenhouse gas
Half hourly meters	Sites with a peak load above 100kW need to be equipped with “half-hourly” (HH) meters which record total consumption every half-hour and pass the information to the energy supplier.

IA	Impact assessment
Internal costs	The portion of compliance costs that the operator of an installation meets internally (rather than outsourcing these costs to an outside organisation to complete compliance related tasks)
Megawatt hour	A megawatt hour (MWh) is equal to 1,000 Kilowatt hours (Kwh). It is equal to 1,000 kilowatts of electricity used continuously for one hour.
One-off activity costs	Setup activities that were only undertaken once to underpin ongoing compliance activities
Ongoing activity costs	Costs that will be incurred in the annual compliance cycle - within each of the five years of Phase 2
ONS	Office for National Statistics
Other costs	Costs typically not falling into the internal or external categorisation, which tend to be costs that were confirmed were fully or partially attributable to the CRC for items such as software and ongoing licences, and metering and calibration equipment (including parts needed for ongoing repair and maintenance)
Phase 2	Second phase of the CRC, running from 1 Apr 2014 to 31 Mar 2019.
Qualification year	Organisations that meet certain criteria during the qualification year will need to register for the next phase of CRC. The qualification year for Phase 2 was between 1 April 2012 and 31 March 2013.
SCM	Standard Cost Model – a methodology to allow for the estimation of policy compliance costs.
SOC 2010	Standard Occupational Classification - a common classification of occupational information in the UK
Surrendering / trading	In the context of this report, relates to compliance costs (i.e. time costs for those involved) associated with surrender and trading of allowances. The actual purchase costs of allowances are *not* in scope of this research.
tCO_2e	Tonnes of carbon dioxide equivalent
Weighting	A statistical technique used to correct for the effects of over- or under-representation of specific groups within the achieved sample of a research exercise (in comparison to the population)

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Executive summary

Background

A consortium led by Databuild in partnership with Verco and CAG Consultants were commissioned by the Department for Business, Energy and Industrial Strategy (formerly, the Department of Energy and Climate Change (DECC)) to conduct research to assess and understand the administrative costs that participants of Phase 2 of the CRC experience in complying with the policy.

This research was to understand costs of CRC compliance. This has served the purpose of evaluation of this aspect of CRC scheme and will help inform policy decisions for the future.**Since this research commenced it was announced in the 2016 Budget that the CRC will close in 2019**[1]**,** with the final compliance year being 2018/19, and will consult on introduction of a new simplified energy and carbon reporting framework by April 2019.

All participants in Phase 2 of the CRC were invited to participate in an electronic survey during late 2015 and early 2016 to provide information relating to policy compliance costs. In total, 226 completed electronic survey responses were collected from the population of 1,858 participants. Data was analysed and weighted to correct for over-representation of public sector organisations to produce estimates of average compliance costs. These were broken down into one-off activities (that will only occur once during Phase 2 –such as registration) and ongoing costs (tasks which need to be completed annually for compliance e.g. collection and reporting of consumption data). Whether costs were internal or external (e.g. for use of consultants) was also explored within the data.

Findings

The findings from the research are summarised below. Average costs of compliance are reported throughout.

The key findings from the report include:

- **Total costs of compliance including registration and subsistence charges for participants across the five year period in Phase 2 of the CRC were estimated to be £138m for all 1,858 participants.** Rounding to the nearest thousand, this equates to approximately £74,000 per participant, or an average of £15,000 per year. A detailed breakdown of costs is provided in the table below.

[1] HMRC, Climate Change Levy: main and reduced rates, 2016, https://www.gov.uk/government/publications/climate-change-levy-main-and-reduced-rates/climate-change-levy-main-and-reduced-rates. Fieldwork was completed before the closure of the policy was announced.

Table 1: Average public sector, private sector and weighted costs of compliance for organisations in Phase 2 of the CRC[2]

	Average cost per participant in Y1: *(numbers may not sum due to rounding)*				Total cost in Y1: *(numbers may not sum due to rounding)*				Total cost in Phase 2:
Sector	**One-off costs**	**Ongoing costs**	**Registration /subsistence costs**	**All costs**	**One-off costs**	**Ongoing costs**	**Registration /subsistence costs**	**All costs**	**All costs**
Private sector[3] (N=1,357)	£10,191	£12,328	£2,240	£24,759	£14m	£17m	£3m	£34m	**£107m**
Public sector (N=501)	£7,437	£9,416	£2,240	£19,092	£4m	£5m	£1m	£10m	**£31m**
Weighted total (N=1,858)	**£9,448**	**£11,543**	**£2,240**	**£23,231**	**£18m**	**£21m**	**£4m**	**£43m**	**£138m**

- **Just under a third of total costs for the full five years were estimated to fall within the first year of Phase 2**, which included one-off activity costs only incurred once during the phase – average costs per participant in year 1 were £23,231.
- **Approximately a third of total year 1 costs were external costs** (spends on e.g. consultants carrying out outsourced compliance activities).
- Three one-off activities represent a significant proportion of costs in the first year of Phase 2, with four ongoing activities (which will occur in each year of Phase 2) accounting for the bulk of administrative costs for the whole of Phase 2; these activities were:
  - One-off:
    - Understanding changes and collecting consumption data to understand if in scope for Phase 2 (£3,333)
    - Fully understanding rules and requirements (£1,770)
    - Purchasing and installing software and equipment (£1,586)
  - Ongoing:
    - Collecting and collating energy information (£3,322)

[2] Hourly salary estimates used to estimate costs as follows: Directors - £67.51, Senior Managers - £49.83, Middle Managers - £36.18, Administrative staff - £13.39. These costs include overheads. See the Appendix 1 for further details relating to these costs.
[3] Private sector also includes third sector organisations (charities). For brevity, throughout the report ‘private sector’ is used.

- Preparing the annual report (£2,514)
- Ongoing maintenance (£2,058)
- Record keeping and auditing (£1,788).

- **The largest costs for internal compliance activities are associated with more junior staff** (middle managers and administrators), whereas higher levels of costs are associated with senior roles at the commencement juncture – with one-off compliance activities. Middle managers and administrators account for 75% of days invested in one-off compliance activities, and 88% of days invested in ongoing compliance activities.

- **Public sector organisations reported slightly lower compliance costs than the private sector** – an average of £19,092 in the first year of Phase 2, compared to £24,759 for the private sector. Public sector and private sector organisations are responding to compliance requirements differently, which accounts for this variation - organisations in the private sector are meeting a higher proportion of costs using external consultants, with an average external spend of £9,069 in year 1 (representing 41% of total spend), compared to an average spend of £1,784 within public sector organisations (representing 10% of total spend). Evidence suggests that private sector organisations typically possess more complex circumstances, which encourages a need to seek external support for compliance more frequently and outsourcing to a greater degree

- **Simplification of the CRC in 2013 led to a number of measures (Appendix 4) which aimed to reduce the costs of compliance**. Research conducted by KPMG in 2010 examined the costs of compliance in Phase 1, pre simplification[4]. Comparing administrative costs identified within this research with the KPMG research we find that average costs for a comparable four-year period[5] have fallen from £62,000 per organisation in Phase 1 to £48,000 per organisation in Phase 2. The previous research reported average first year Phase 1 costs of approximately £34,000 per participant; this research identified average first year Phase 2 costs of approximately £21,000 (excluding registration and subsistence charges[6]).

- As shown above in comparison to previous research, **average costs of compliance appear to have fallen, but have not decreased to the levels estimated within the 2012 CRC simplification Impact Assessment produced by DECC.** Whilst standardising for wage increases across the period, the simplification IA estimated that average costs for participants in a registration year would fall to ~£21,000 and to ~£5,000 for a non-registration year. However, this research estimated these costs were ~£18,000 for the first year of Phase 2,

[4] DECC, Assessing the Administrative Costs of the CRC Energy Efficiency Scheme, 2011, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/42934/4759-kpmg-assessing-admin-costs-crc-scheme.pdf

[5] Phase 1 was four years, whereas Phase 2 is 5 years. Therefore we have made comparison based on a four-year period including one registration year and three non-registration years.

[6] These charges were not included in KPMG's analysis.

with average ongoing annual costs of approximately ~£10,000. Unpacking this, one-off costs fell to levels lower than anticipated in the IA, but ongoing costs remain high in comparison to the IA analysis.

- The qualitative insights from respondents suggest that whilst **simplification of the scheme contributed to reducing administrative costs between Phase 1 and Phase 2, other factors such as participants becoming more familiar with the systems and processes involved in the CRC, also contributed.** Other contributing factors included participants reporting that they had taken actions to reduce costs of compliance, such as beginning to use new software. It is challenging to isolate the scale of the simplification effect from these other factors.

- Respondents were asked for feedback in relation to the policy and their views on the value of mandatory reporting:

    - Some organisations cited that the policy helped raise the profile of energy use at senior level, and had resulted in better management of energy. However, there were a greater number of negative comments on the additional burden presented by CRC compliance, including comments that this diverts resources away from activities to improve energy efficiency.
    - When asked specifically to comment on board level involvement, many respondents felt that the CRC had helped to raise awareness at senior level, but that there were challenges in securing time / resource at senior level to dedicate to CRC compliance.
    - In terms of whether public disclosure was beneficial, some respondents felt that this was important to raise the importance of reporting and encourage competition between businesses, but many cited concerns around data being misrepresented / taken out of context.
    - Approximately half of respondents felt that CRC was more burdensome than other environmental regulations (with private sector organisations more likely to respond with this opinion).

1. Introduction

1.1 Introduction to research

The CRC Energy Efficiency Scheme ('CRC') is a mandatory UK scheme aimed at improving energy efficiency and reducing carbon dioxide (CO_2) emissions in large public and private sector organisations. These organisations are responsible for around 10% of the UK's greenhouse gas emissions[7]. The CRC scheme came into force in April 2010 under the CRC Energy Efficiency Scheme Order 2010 and was simplified through the CRC Energy Efficiency Scheme Order 2013 (CRC Order 2013) and the CRC (Amendment) Order 2014. The scheme is divided into Phases, with Phase 2, the final phase of the scheme, running from April 2014 to March 2019. As with Phase 1, Phase 2 of the scheme applies at the organisation level for those organisations who have at least one half hourly meter settled on the half hourly market who use at least 6,000 megawatt hours (MWh) of electricity through settled half hour meters during the qualification year (1 April 2012 to 31 March 2013).

To reduce the burden and complexity of participating in and complying with Phase 2 of the scheme, a number of steps have already been taken by government[8] within its design and implementation to reduce administrative burdens.

To inform the future of the CRC and wider policy development, government was keen to have an up-to-date understanding of the cost of compliance for participants since the start of the CRC and following simplification, and to understand where and how the administrative burden of the CRC might be further reduced whilst maintaining an effective price signal and energy / emissions reporting policy framework. The government was also interested to gather feedback on ideas to consider within the future implementation of the policy, including supporting the review of the business energy efficiency tax landscape announced in Summer 2015. Since this research started it was announced in the 2016 Budget that the CRC will close in 2019[9]. However, the information in this report is still relevant to the development of changes in the energy efficiency landscape (e.g. understanding the role of a reporting element once the overall scheme is discontinued).

The Department for Business, Energy and Industrial Strategy (formerly, the Department of Energy and Climate Change (DECC)) commissioned a consortium led by Databuild, with support from Verco and CAG consultants, to capture data from Phase 2 CRC participants and update existing understanding of the costs of complying with the policy. The overarching objectives of this study were to:

[7] Defra, DECC, EA, Policy paper: 2010 to 2015 government policy: energy demand reduction in industry, business and the public sector, Updated 2016, https://www.gov.uk/government/publications/2010-to-2015-government-policy-energy-demand-reduction-in-industry-business-and-the-public-sector/2010-to-2015-government-policy-energy-demand-reduction-in-industry-business-and-the-public-sector (based on 2011-12 data)
[8] CRC Energy Efficiency Scheme Order 2013 (CRC Order 2013) and the CRC (Amendment) Order 2014
[9] HMRC, Climate Change Levy: main and reduced rates, 2016, https://www.gov.uk/government/publications/climate-change-levy-main-and-reduced-rates/climate-change-levy-main-and-reduced-rates.

- Identify the types and amounts of administrative costs associated with participating in Phase 2 of the CRC; quantify the administrative time and costs incurred as a result of being required to comply with the policy, providing transparent and robust cost estimates for the first year of Phase 2
- To understand participants' views about the scheme, and understand the value of mandatory energy and carbon reporting with board/senior management sign-off – to help inform policy development

NB: It is important to note that this study was concerned with administrative costs and did not attempt to identify or quantify costs such as CRC payments.

1.2 Methodology summary

Detail of the methodology, including limitations, can be found within the methodology appendix (Appendix 1).

Between October 2015 and February 2016 Databuild and partners:

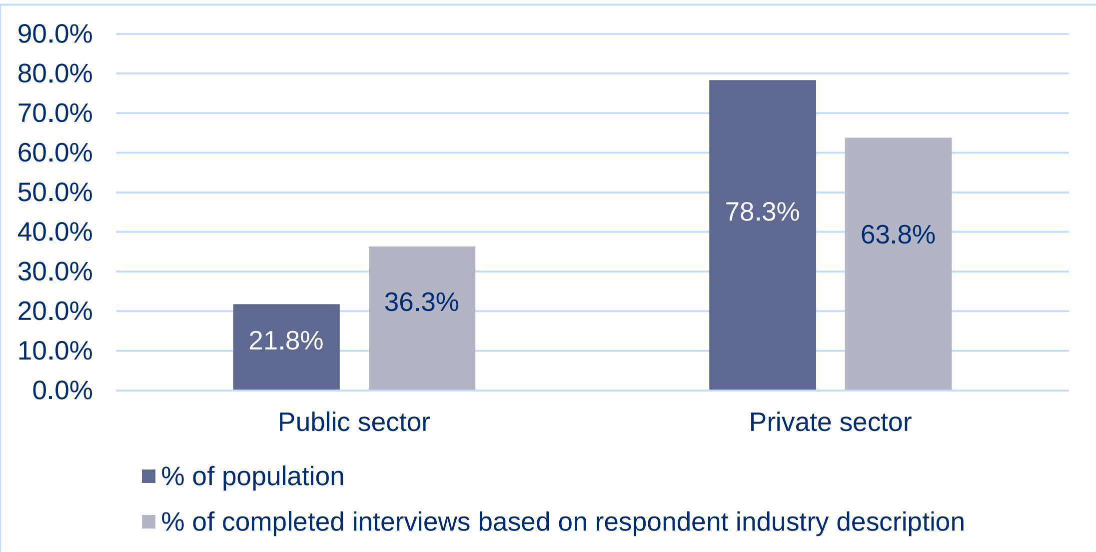
- Held scoping workshops to understand DECC's aims from the survey work and to gather insight from the department and wider stakeholders (such as trade bodies and those organisations that need to comply with CRC). These workshops were used to develop high-level process maps for scheme compliance, which helped inform survey development
- Developed and deployed an electronic survey which was distributed to all 1,858 CRC Phase 2 participants for self-completion.

The survey work was closely aligned with the Standard Cost Model (SCM) methodology , which aims to unpack individual compliance activities into their individual 'information obligations', then estimate the compliance costs for these individual obligations, considering both time and monetary costs incurred in complying with each obligation.

In total, 236 survey responses were collected within the data collection period. Of these 236 completed surveys, 10 responses were removed from the final analysis presented in this report, as the figures supplied in these 10 responses were identified as incomplete or contained significant outliers (i.e. deemed as likely to be subject to error or impossible to validate prior to the analysis).

The proportion of organisations within the public and private sector, and the achieved representation within the completed interviews, are shown in Figure 1 below.

Figure 1: Public sector and private sector representation within population and sample interviewed (N=1,858, n=226)



As shown in the figure above, a higher response rate was achieved from the public sector compared with the private sector when comparing prevalence in the population. For the purposes of the analysis data have been weighted to correct for the over-representation of public sector organisations and under-representation of private sector organisations.

KPMG conducted research during Phase 1 to understand administrative burdens of the CRC and to support consideration of potential options for simplification. Within this research a comparison has been made to the KPMG work, as far as possible, to examine how costs of compliance have changed between phases and over time.

1.3 This report

The report is structured as follows:

- **Section 2** reports on the compliance costs research findings for CRC participants
- **Section 3** explores the impacts of CRC simplification
- **Section 4** explores qualitative data from respondents.

- **Appendix 1** contains the methodology, including further information on survey outcomes and variance around cost estimates
- **Appendix 2** includes further analysis of the data
- **Appendix 3** provides further information and breakdown on costs for individual sub-activities which were grouped in the main body of the report
- **Appendix 4** provides additional information in relation to CRC simplification.

Throughout the report:

- **One-off** activity costs refer to setup activities that were only undertaken once to underpin ongoing compliance activities; either shortly before or during the beginning of Phase 2
- **Ongoing** activity costs refer to costs that will be incurred within each of the five annual compliance cycles of Phase 2. Respondents were asked to provide data in relation to the 2014-15 compliance year and explain if there was anything related to compliance that would mean that costs in this year were atypical
- Throughout the analysis we frequently combined one-off and ongoing costs to examine total costs for the period up to the end of the first year of Phase 2; for example, to compare and contrast which staff roles are associated with various tasks across the compliance process as a whole
- Hourly salary estimates used to estimate costs as follows: Directors - £67.51, Senior Managers - £49.83, Middle Managers - £36.18, Administrative staff - £13.39. These costs include overheads. See the Appendix 1 for further details relating to these costs
- The costs which are reported are **additional** – that is, respondents were asked to confirm that they arose as a specific result of compliance with CRC (rather than being costs that would have been incurred anyway, or with compliance for other policies in mind).

2. Costs of compliance for CRC Phase 2

2.1 Chapter summary

Total costs of compliance for participants in Phase 2 of the CRC were estimated to be £138m for all 1,858 participants across the five year period. This equates to approximately £74,000 per participant, or an average of £14,900 per year.

- Just under a third of total costs were estimated to fall within the first year of Phase 2, which included one-off activity costs only incurred once during the phase – average costs per participant in year 1 were £23,000
- Overall, reported average costs were found to be accurate to ±**15.5% at the 95% confidence level**. This gives a confidence interval of average first year costs from £19,900 to £26,400 (based on the weighted average of £23,000)
- Approximately a third of total year 1 average costs were external costs (spends on e.g. consultants carrying out outsourced compliance activities)

Public sector organisations reported slightly lower compliance costs than the private sector[10] – an average of £19,092 in the first year of Phase 2, compared to £24,759 for the private sector

A set of approximately three one-off activities represent a significant proportion of costs in the first year of Phase 2, with four ongoing activities (which will occur in each year of Phase 2) accounting for the bulk of administrative costs for the whole of Phase 2; these activities were:

- One-off:
  - Understanding changes and collecting consumption data to understand if in scope for Phase 2 (£3,333)
  - Fully understanding rules and requirements (£1,770)
  - Purchasing and installing software and equipment (£1,586)
- Ongoing:
  - Collecting and collating energy information (£3,322)
  - Preparing the annual report (£2,514)
  - Ongoing maintenance (£2,058)
  - Record keeping and auditing (£1,788).

The largest cost burdens for internal compliance activities were experienced by more junior staff (middle managers and administrators), with higher levels of costs associated with senior roles at the commencement juncture – with one-off compliance activities. Middle managers and administrators account for 75% of days invested in one-off compliance activities, and 88% of days

[10] Private sector also includes third sector organisations (charities). For brevity, throughout the report ‘private sector’ is used.

invested in ongoing compliance activities.

Public sector and private sector organisations are responding to compliance requirements differently - organisations in the private sector are meeting a higher proportion of costs using external consultants, with an average external spend of £9,069 in Year 1 (representing 41% of total spend), compared to an average spend of £1,784 within public sector organisations (representing 10% of total spend).

2.2 Costs of compliance

Based on the 226 responses to the survey, the average[11] total administrative cost of compliance for each CRC participant was £23,231 in the first year of Phase 2[12]. This breaks down as follows:

- £9,448 of one-off costs (40.7% of total year 1 costs)
- £11,543 of ongoing costs (49.6% of total year 1 costs)
- £2,240 in registration and subsistence charges (9.7% of total year 1 costs).

These costs equate to a total compliance cost for the policy (1,858 participants) of:

- £43,163,809 in the first year of Phase 2
- £138,538,009 estimated as the total costs for the full 5 years of Phase 2 (2014-19)[13]
- An average total cost of £14,913 per participant, per year within Phase 2.

Overall, reported average costs were found to be accurate to ±**15.5% at the 95% confidence level**. This gives a confidence interval of average first year costs from £19,915 to £26,397 (based on the weighted average of £23,231).

Table 2 compares the costs experienced by those within the public and private sectors.

[11] Unless otherwise stated, all narrative, tables and charts within the document report weighted mean average values that adjust for over-representation of the public sector and under-representation of the private sector within the survey sample.
[12] All costs exclude components of costs that would have been incurred in the absence of CRC participation.
[13] Costs are not discounted.

Table 2: Average cost breakdowns for public and private sector organisations in Year 1 of Phase 2

	Average cost per participant in Y1: *(numbers may not sum due to rounding)*				Total cost in Y1: *(numbers may not sum due to rounding)*				Total cost in Phase 2:
Sector	**One-off costs**	**Ongoing costs**	**Registration /subsistence costs**	**All costs**	**One-off costs**	**Ongoing costs**	**Registration /subsistence costs**	**All costs**	**All costs**
Private sector[14] (N=1,357)	£10,191	£12,328	£2,240	£24,759	£14m	£17m	£3m	£34m	**£107m**
Public sector (N=501)	£7,437	£9,416	£2,240	£19,092	£4m	£5m	£1m	£10m	**£31m**
Weighted total (N=1,858)	**£9,448**	**£11,543**	**£2,240**	**£23,231**	**£18m**	**£21m**	**£4m**	**£43m**	**£138m**

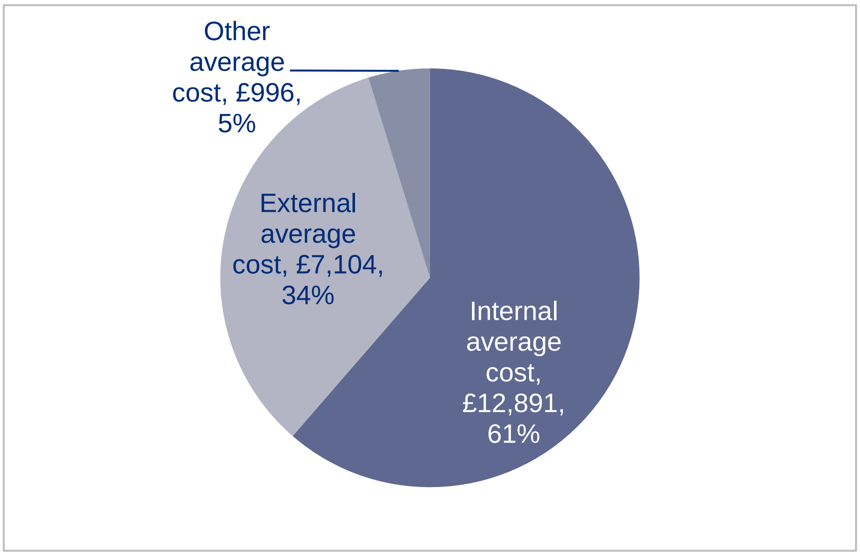
Commenting on findings from this high level analysis, we can make the following observations:

- The variation in total costs between the public and private sector was found to be significant at the 90% confidence level. Table 2 highlights slight variations between the proportion of one-off and ongoing costs of the total costs for the public and private sectors, though these variations were not significant when compared individually
- One-off costs constitute 13% of total costs across the five years of Phase 2, with ongoing costs representing 77% of total costs and registration and subsistence charges representing 10% of the total
- Average private sector costs per participant, per year, were 27% higher than public sector costs. Unpacking this further, public sector internal costs were higher than for the private sector organisations, but private sector organisations reported significantly higher external and other costs to a scale that means that total overall average private sector costs are more than a quarter higher.

Figure 2 shows the breakdown of total costs in year 1 between internal, external and other costs[15]. **This figure and all others, unless otherwise stated, exclude subsistence and registration fees (which are fixed) for purposes of comparison**[16].

[14] Private sector also includes third sector organisations (charities). For brevity, throughout the report 'private sector' is used.
[15] Other costs include material costs such as software, meters and other equipment attributed to CRC by respondents.

Figure 2: Breakdown of average total year 1 cost into internal, external and other costs cited by respondents (N=1,858, n=226)



Internal costs were found to be approximately double the external costs, with internal costs representing just below two-thirds of total year 1 costs. For all 1,858 participants, the breakdown of total administrative costs of compliance in year 1 was as follows:

- £23.9m costs met internally (value of staff time and overheads)
- £13.2m costs met externally
- £1.8m other costs
- £4.2m in registration and subsistence fees.

For all 1,858 participants, the breakdown of total administrative costs of compliance for the full five years of Phase 2 is projected to be as follows:

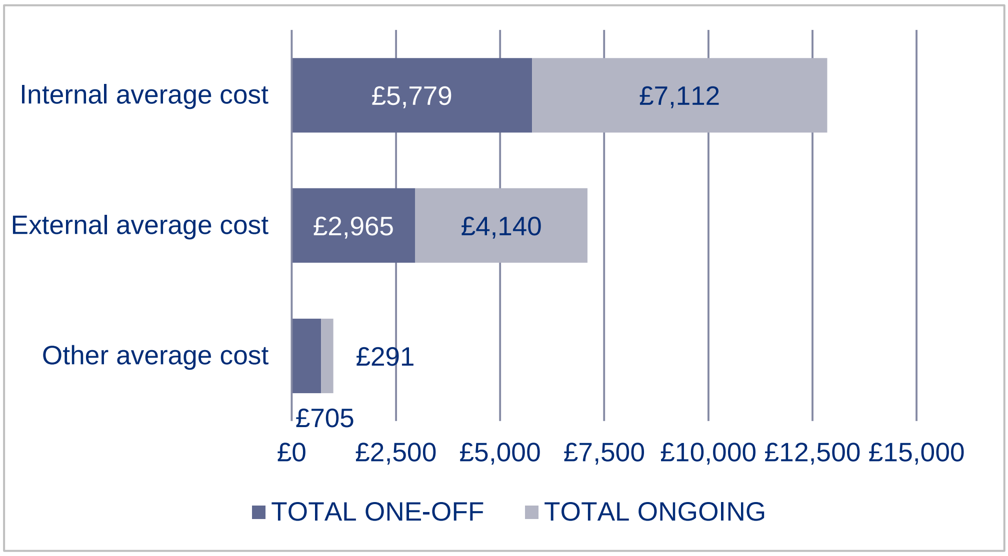
- £76.8m costs met internally (value of staff time and overheads)
- £43.9m costs met externally
- £4m other costs
- £13.7m in registration and subsistence fees.

Other costs typically represented material purchases such as costs of software and equipment; these costs were explored in detail with respondents; the costs reported are the proportions that respondents reported were additional as a result of the CRC.

Separating ongoing and one-off costs, and excluding registration and subsistence fees (because these are fixed), the split between internal, external and other costs is shown in Figure 3.

[16] Unless stated, graphs exclude registration and subsistence fees to maintain focus on elements of costs that can vary - one-off, ongoing and other costs. Registration and subsistence fees of £2,240 in Year 1 represent 9.7% of the total average Year 1 cost of £23,231.

Figure 3: Split of average internal, external and other year 1 costs into one-off and ongoing costs (N=1,858, n=226)



This figure demonstrates that:

- Ongoing internal and external costs were higher than one-off costs in year 1:
    - For internal costs, one-off costs represent 45% of the Year 1 total and ongoing costs represent 55%
    - For external costs, one-off costs represent 42% of the year 1 total and ongoing costs represent 58%
- ‘Other’ one-off costs were higher than ongoing in year 1 – 70% and 30% of the total, respectively. This reflects on the fact that that organisations reported that they needed to spend more on items such as equipment and software in the first year of the policy
- The most significant administrative costs of compliance in Year 1 were internal costs that persist in each annual cycle of the CRC (34% of total Year 1 costs) and one-off internal costs (28% of total Year 1 costs).

2.3 Internal costs of compliance split by role category

Figures 4 and 5 demonstrate how internal costs were distributed across each of the four role categories that respondents were asked to provide data for. Each shows the overall average internal costs (monetised time spent) for Directors, Senior Management, Middle Management and Administrators.

Figure 4: Breakdown of average year 1 one-off and ongoing internal administrative compliance costs by role categories (N=1,858, n=226)

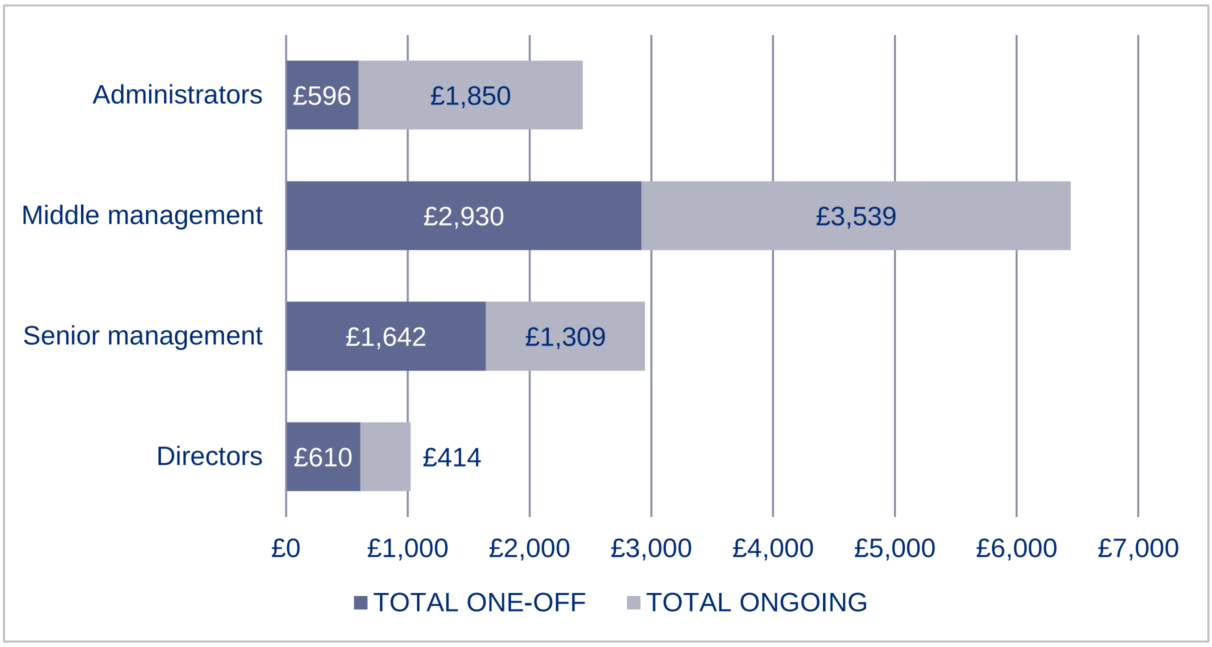
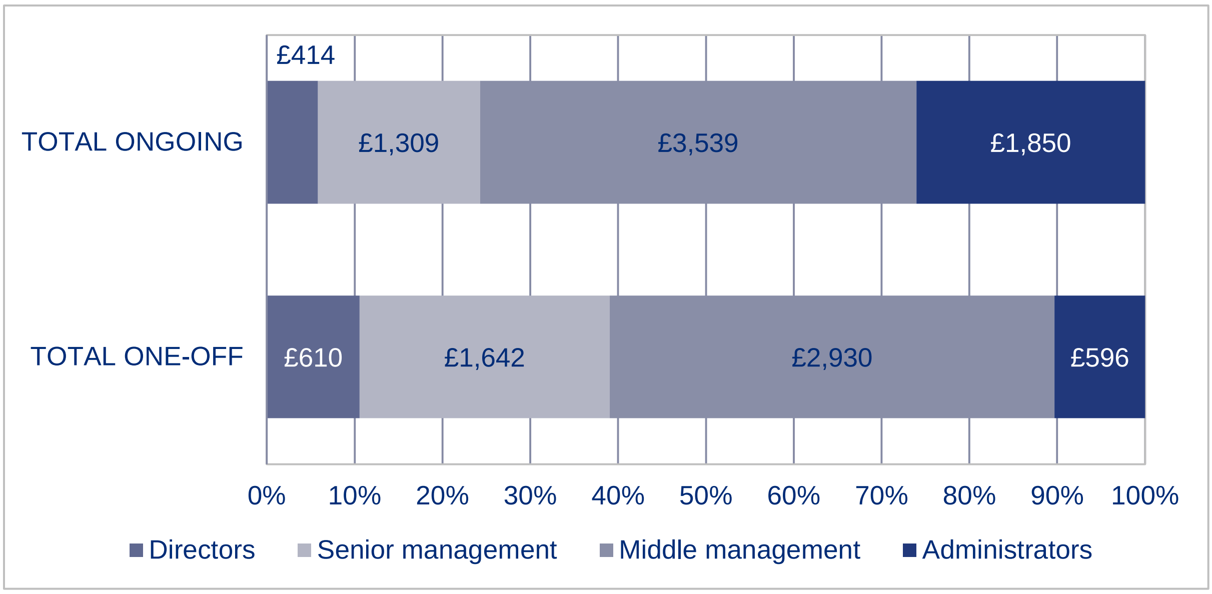


Figure 5: Proportional breakdown of average one-off and ongoing cost splits in year 1 (N=1,858, n=226)

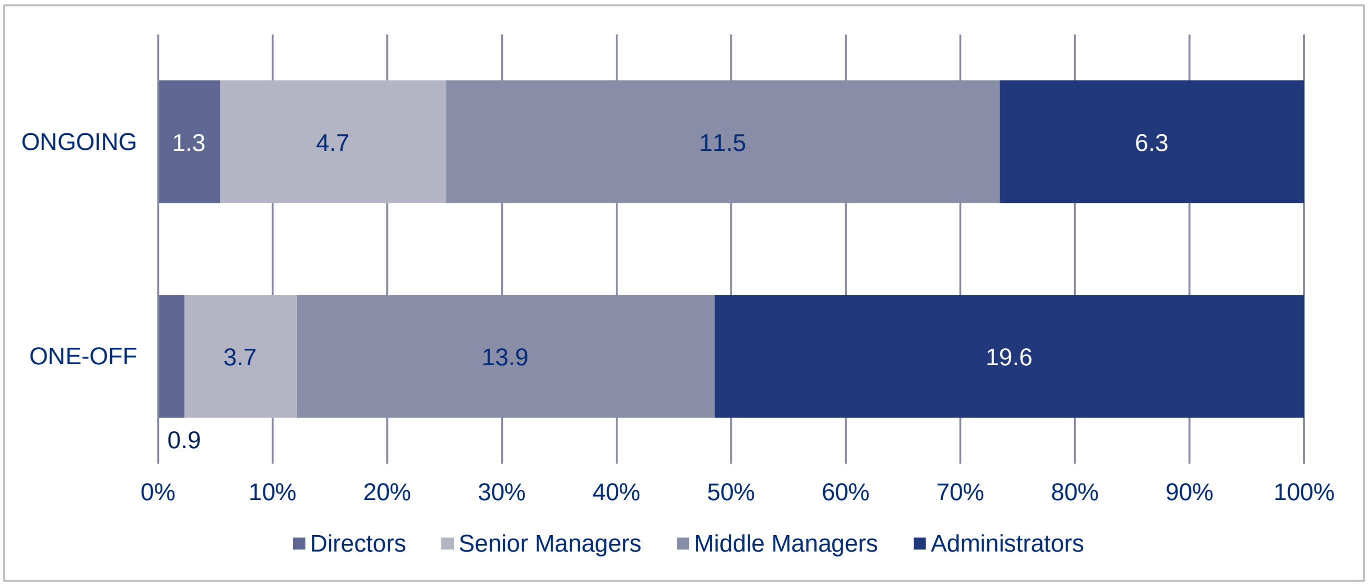


These figures show that:

- Tasks undertaken by middle management account for the highest proportion of internal costs in year 1 (£6,469 average costs), followed by senior managers (£2,951), administrators (£2,446) and finally directors (£1,025)
- Relatively speaking, those in junior roles tend to be more involved in ongoing tasks associated with meeting commitments within the annual compliance cycle – such as collating information on energy supplies where senior individuals may have some involvement (e.g. addressing high level queries / issues), but would not be expected to have the same degree of involvement overall. Conversely directors and senior managers both spent a higher proportion of their time in Year 1 dealing with tasks associated with the commencement of Phase 2 rather than those falling within the annual compliance cycle. This reflects the fact that senior individuals are more likely to be involved within one-off activities, such as spending time understanding rules of the policy and changes in Phase 2, and helping ensure and communicate this understanding and its implications at senior / board level.
- During the ongoing compliance cycle, the highest proportion of costs are again associated with the time spent by middle managers (50% - showing heavy involvement in both one-off and ongoing compliance activities), but, as one might expect, administrators were found to play a much more significant role in the ongoing cycle than they did in dealing with the one-off obligations on commencement of Phase 2 (26%).
- The proportion of internal costs associated with Director time falls proportionally against ongoing activities (primarily related to reporting and sign off, as would be expected). The proportion of internal costs arising from senior manager time also drops, but they still have a reasonable level of involvement with ongoing tasks, but less as a proportion of the total than for one-off activities (delegating the day to day compliance activities to middle managers and administrative staff).

Figure 6 shows the number of days spent by different staff roles against compliance activities.

Figure 6: Proportional one-off & ongoing time splits in year 1, average number of days (N=1,858, n=226)

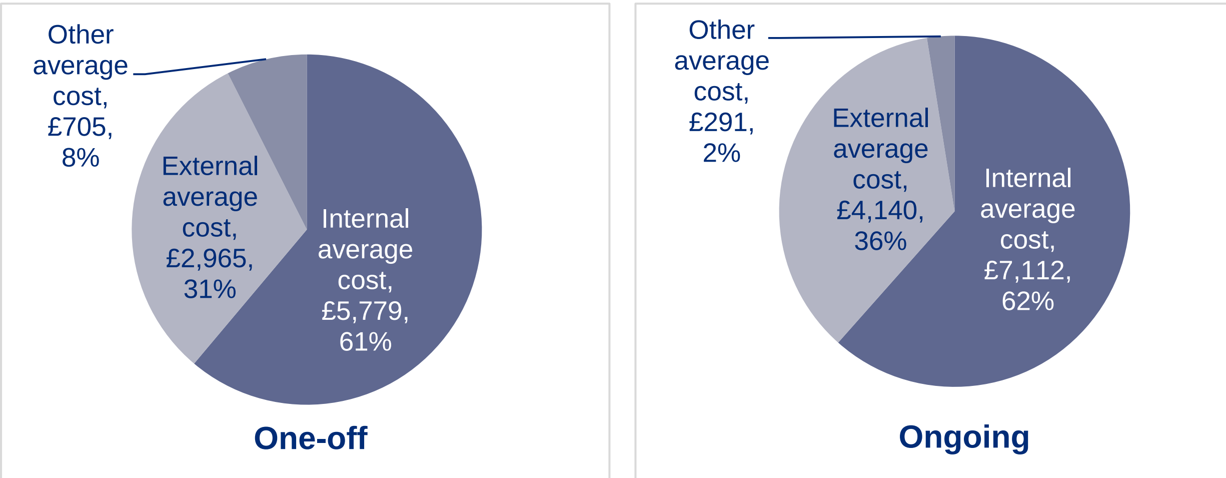


In examining the time associated with each role, directors and senior managers are spending an average of 6 days on compliance tasks associated with one-off activities. This decreases for ongoing tasks (with the proportion of time spent by directors also dropping proportionally for these two role categories). Middle managers are spending more time at the one-off stage, before administrators take on the bulk of ongoing compliance related activities. Middle managers and administrators account for 75% of days invested in one-off compliance activities, and 88% of days invested in ongoing compliance activities[17].

2.4 One-off and ongoing costs split by activity

The overall breakdown of one-off and ongoing Year 1 costs into internal, external and other costs is shown in Figures 7a and 7b.

Figures 7a and 7b: Breakdown of one-off and ongoing costs in year 1 into internal, external and other costs (N=1,858, n=226)



These charts indicate that the proportion of costs met internally were similar in dealing with information obligations associated with the commencement of Phase 2 of the CRC and the ongoing compliance cycle. Other costs reported by respondents were more frequently observed as being associated with the first year and commencement of Phase 2 – respondents reported that these were typically related to costs associated with installing or upgrading equipment / software that respondents indicated were specifically to support them with CRC compliance. Respondents suggested that ongoing ‘other’ costs would include licence fees for equipment and software attributed to the CRC, which often have high initial mobilisation cost.

External costs account for a slightly higher proportion of ongoing costs than one-off costs, reflecting a greater proportion of activities for which external support was used in the annual compliance cycle – most significantly around ongoing maintenance of monitoring and reporting systems, and collation of energy supplies.

[17] The same trends as observed when examining costs, but average absolute number of days have been provided for DECC to understand time commitments by role.

One-off tasks

Table 3 and Figure 8 display the breakdown of costs split out against specific one-off activities.

Table 3: Average year 1 one-off costs for individual one-off activities (step-wise ordering)

Time spent to understand the rules of CRC sufficiently and collecting consumption data to understand whether within scope	£3,333
Once determined in scope, time spent to fully understand rules of Phase 2 (including attending internal or external training, and accessing consultants)	£1,770
Determining organisational boundaries and structure as at 31st March 2013; defining legal structure, parent entity and ‘participant equivalent’ units	£600
Identify any exclusions as a result of CCA / EU ETS and non-policy factors	£416
Identifying all the settled Half Hourly Meters for inclusion	£486
Declare consumption in registration year (2013/14)	£897
Any other time spent registering for Phase 2	£181
Any costs of installing software and equipment (this includes meters)	£1,586
Other one-off compliance activities not included above	£179

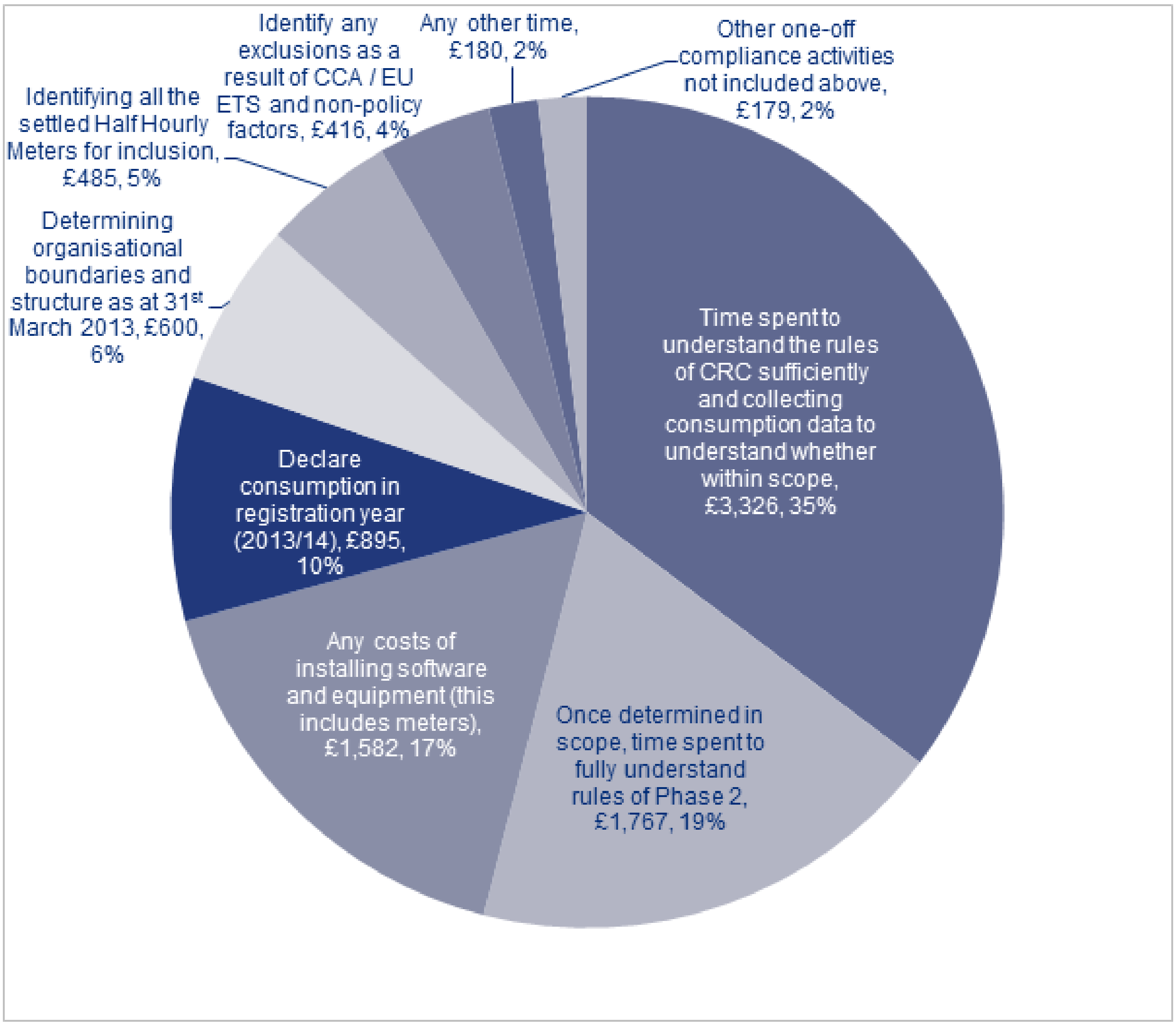
These show that:

- Three activities – time spent determining if in scope, time spent further understanding rules & requirements, and any costs related to purchase and installation of software / equipment – make up 71% of the average costs for one-off activities overall. The variance around these three activities was ±24%[18], ±31% and ±51% respectively; the higher variance around software and equipment representing the range of circumstances e.g. that some organisations already possessed necessary equipment / software from Phase 1 whilst others were new to the policy, or may have identified the Phase 2 registration period as a window to make changes and ensure compliance across the full 5-year period.

[18] Within one-off activities the variance was lowest for time spent understanding rules of CRC to determine whether in scope (±24%) which suggests that most organisations incurred similar costs here, and that this was generally a significant component of the one-off costs.

- The costs of determining whether their organisation was in scope was almost double the cost of the next most costly activities. Significant changes to the rules and requirements presented a relatively high cost to organisations to determine their exposure to the policy.

Figure 8: Proportion of average year 1 one-off costs against individual tasks (N=1,858, n=226)



- Establishing organisational boundaries, identifying all meters and exclusions collectively make up 15% of average one-off costs; the proportion is higher for private sector organisations, but lower for public sector organisations.
- While in absolute terms external costs were broadly smaller than internal costs across individual tasks, when it came to identifying exclusions, approximately 47% of costs were external (compared to 46% internal). This suggests that this is one area where respondents found compliance challenging and needed to use a higher degree of external support to ensure they fully understood their exposure to the policy. The overall variance was high for this activity, reflecting the varying levels to which organisations possess criteria or are in scope of other policies, which would need to be considered.

Ongoing tasks

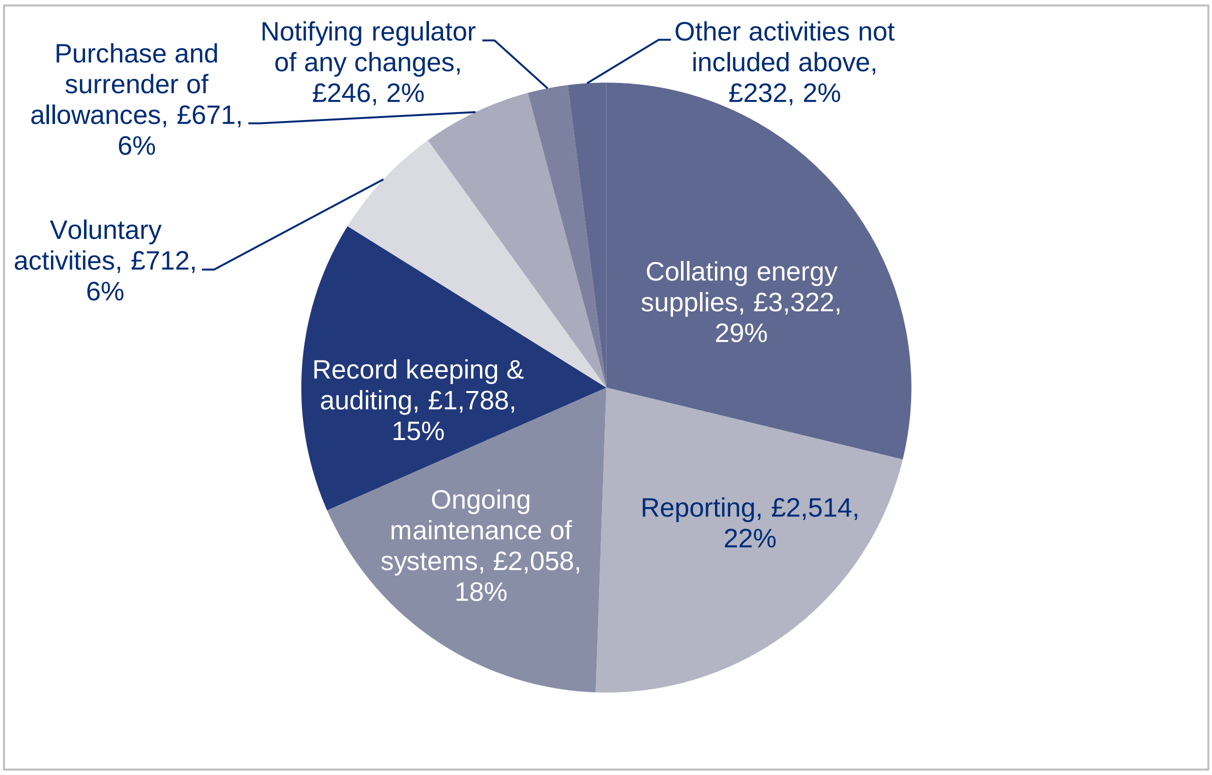
Table 4 and Figure 9 display the breakdown of ongoing costs split out against specific activities associated with the annual compliance cycle. Individual sub-activities have been grouped within these charts – for example, respondents were asked to distinguish costs associated with gathering and collating consumption data, gathering information on renewable energy sources, and understanding and applying exclusions. For simplicity of presentation these are grouped as ‘collating energy supplies’ here. The proportion of costs in these categories are split out in Appendix 3.

Table 4: Average year 1 ongoing costs for individual activities within the annual compliance cycle (step-wise ordering)

Ongoing maintenance of systems	£2,058
Collating energy supplies	£3,322
Reporting – preparation of annual report, quality checking and sign-off	£2,514
Purchase and surrender of allowances[19]	£671
Record keeping & auditing	£1,788
Notifying the regulator of any changes	£246
Other activities not included above	£232
Voluntary activities	£712

[19] NB – this does *not* include the cost of allowances, only the monetised time costs associated with this activity

Figure 9: Proportion of average year 1 ongoing costs against individual tasks (N=1,858, n=226)



These show that:

- The cost of collating energy supplies were highest, followed by the costs associated with reporting. The third most costly activity was found to be ongoing maintenance of monitoring and reporting systems. These three activities constitute over two-thirds of total average annual ongoing costs.
- The cost associated with notifying the regulator of changes was low on average – which tallies with information from the Environment Agency indicating low frequencies of charges for making various administrative changes. In reality where such events occur on a participant level the costs may be reasonably significant, but as these are uncommon the average is low.
- The variance for the most costly ongoing activities was 36% for collating energy consumption data, 24% for annual report preparation and 31% for ongoing maintenance of monitoring and reporting systems. We believe this variation is the result of two factors; the complexity of the participant and the degree to which they have invested in systems to reduce reporting cost[20]. From prior research conducted by Databuild and general awareness by our partners, organisations can also vary significantly in their approach to compliance based on how risk

[20] As a significant factor in the costs of administration will depend on the systems participants have in place to support effective reporting.

averse they are. Organisations will spend more time on compliance if they are culturally more risk averse.

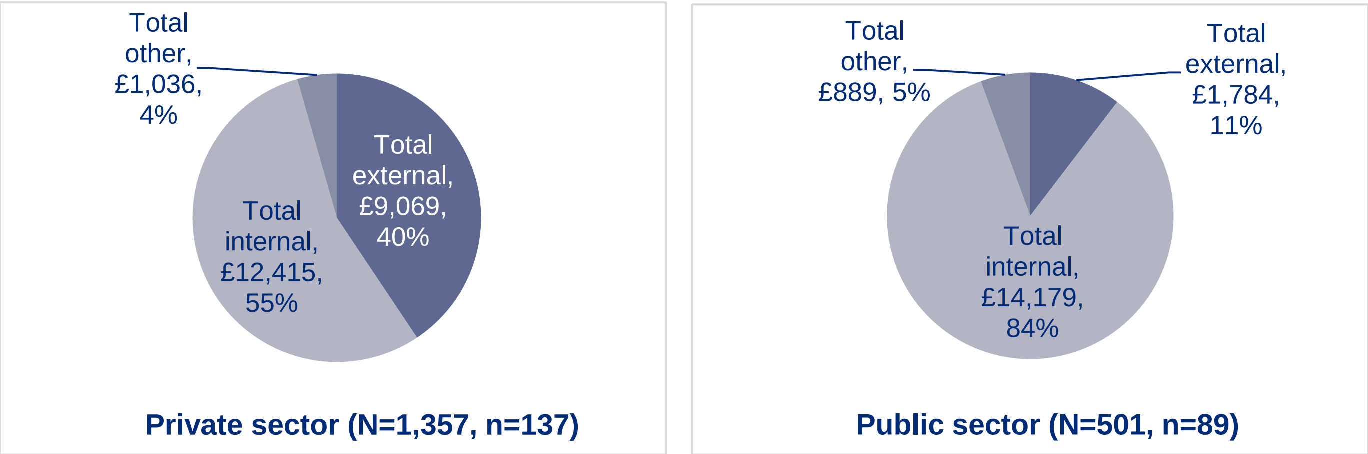
- The variance was lowest for submission of the report (19%) and purchase and surrender of allowances (21%), as would be expected given there is likely to be less variability in the costs for these types of tasks
- For some tasks, the variance was high – reflecting the range of circumstances across CRC participants and time investment required as a result. These activities are only relevant to a subset of organisations, hence the variance is high because for many the cost may be zero whereas others report a high cost. These were:
    - Notifying the regulator of changes (±92%)
    - Other activities not listed (±90%)
    - Understanding and applying exclusions (±72%).

Only one of these tasks was particularly sizeable in terms of administrative cost – understanding and applying exclusions. It appears that, to avoid incorrectly applying exclusions, organisations will often spend a reasonable amount of resource fully demonstrating the final position reached. Organisations also often seek external support with this activity.

2.5 Comparison of public and private sector costs

At first glance, the key point of difference between private sector organisations rests on public sector organisations being less likely to use external consultants to help with compliance activities; therefore, internal spends are greater for the public sector, but private sector organisations are spending more to do the same things because they are meeting the cost externally to a higher degree. This could in part be a function of size and complexity. Public sector organisations need less external support because they will not typically be as large or as complex as the private sector organisations. Private sector organisations often report under a range of wider mandatory and voluntary initiatives. Outsourced support may therefore be more cost effective when included in wider support programmes and indeed be needed to ensure that all the different reporting regimes are reported on to a common standard.

Figure 10a and 10b: Breakdown of average total year 1 private and public sector costs into internal, external and other costs



Excluding registration and subsistence fees (which were the same for the public and private sectors), total average year 1 costs excluding registration / subsistence were:

- £22,519 for organisations in the private sector, divided between one-off and ongoing as follows:

	Total external	Total internal	Total other	TOTAL (internal, external and other)
ONE-OFF	£3,775	£5,730	£687	£10,191
ONGOING	£5,294	£6,685	£349	£12,328
TOTAL (one-off and ongoing)	**£9,069**	**£12,415**	**£1,036**	**£22,519**

- £16,852 for organisations in the public sector, divided between one-off and ongoing as follows:

	Total external	Total internal	Total other	TOTAL (internal, external and other)
ONE-OFF	£771	£5,912	£754	£7,437
ONGOING	£1,013	£8,268	£135	£9,416
TOTAL (one-off and ongoing)	**£1,784**	**£14,179**	**£889**	**£16,852**

It is likely that the public sector may typically have slightly less complex reporting circumstances. In the private sector challenges arise from the complex organisation structures, indirect responsibilities (i.e. franchises), policy overlaps, structural changes (i.e. acquisitions and disposals) and operational scale. This complexity, combined with wider reporting requirements suggests that private sector organisations may require higher external costs because they need support to a greater degree to attain compliance[21]. It is also possible that public sector austerity and the requirement to do more with less, incentivises the use of existing internal resources

[21] The private sector and public sector also reported a greater likelihood to be accessing external support for differing reasons. Not looking at total costs, but at the frequency of organisations that reported some level of external cost against specific tasks, both sectors reported accessing external support to collect and collate consumption data to understand if in scope for phase 2, support around installing software and equipment, and ongoing maintenance of systems. Alongside these commonalities however, the private sector reported most frequently accessing external support to help collect and collate consumption data as part of the ongoing compliance cycle, whereas the public sector was most frequently using external support to help fully understand the rules of the scheme and with the internal auditing process during reporting.

where possible. Total other costs for the private sector were also more than double those of the public sector. This appears consistent with earlier observations regarding the greater levels of complexity for some private sector organisations. This encourages the need for more complex systems and therefore greater exposure to needing to pay things such as ongoing licence fees.

To examine internal costs in more detail, Tables 5 and 6 unpack costs between different salary levels.

Table 5: Division of private sector year 1 one-off and ongoing internal costs between role categories (N= 1357, n=137)

	Total directors (as % of internal total)	**Total senior management (as % of internal total)**	**Total middle management (as % of internal total)**	**Total admin (as % of internal total)**	**Total internal (all roles)**
ONE-OFF	£639 (11%)	£1,804 (31%)	£2,752 (48%)	£534 (9%)	£5,730
ONGOING	£446 (7%)	£1,302 (19%)	£3,167 (47%)	£1,771 (26%)	£6,685
Total (one-off and ongoing)	**£1,085 (9%)**	**£3,106 (25%)**	**£5,919 (47%)**	**£2,305 (19%)**	**£12,415**

Table 6: Division of public sector year 1 one-off and ongoing internal costs between job roles (N=501, n=89)

	Total directors (as % of internal total)	**Total senior management (as % of internal total)**	**Total middle management (as % of internal total)**	**Total admin (as % of internal total)**	**Total internal (all roles)**
ONE-OFF	£533 (9%)	£1,204 (21%)	£3,410 (58%)	£765 (13%)	£5,912
ONGOING	£329 (4%)	£1,330 (16%)	£4,546 (55%)	£2,063 (25%)	£8,268
Total (one-off and ongoing)	**£861 (6%)**	**£2,534 (18%)**	**£7,957 (56%)**	**£2,827 (20%)**	**£14,179**

These tables show that:

- Private sector organisations are proportionally seeing slightly higher costs for directors and senior managers than public sector organisations
- Public sector organisations are proportionally seeing slightly higher costs for middle managers
- The proportion of costs associated with administrators is broadly the same between both the public and private sector, though private sector organisations are demonstrating noticeably less involvement of administrators against one-off tasks in comparison to the public sector. While we can observe some differences in the make-up of internal costs, the differences between how private and public sector organisations respond to the CRC appears to be largely driven by complexity of circumstance, with higher proportional spends on external consultants by the private sector which lead to higher total costs.

2.6 Further analysis

A number of other variables were explored within the analysis, such as the effect of complex organisational circumstances and the association with costs. This analysis is included within Appendix 2, and suggests some statistically and not statistically significant relationships where higher costs were found to be associated with more complex circumstances. This supports the points made previously relating to a greater need to outsource, and higher costs, for private sector organisations who were found more frequently to experience these circumstances.

3. Effects of simplification

3.1 Chapter summary

- Comparing administrative burdens identified within this research with research conducted previously by KPMG in 2010, we find that average costs for a comparable four-year period[22] have fallen from £62,000 per organisation in Phase 1 to £48,000 per organisation in Phase 2
- The previous research reported average first year Phase 1 costs of approximately £34,000; this research identified average first year Phase 2 costs of approximately £21,000 (excluding registration and subsistence charges)
- The qualitative insights from respondents suggest that whilst simplification of the scheme contributed to reducing administrative costs between Phase 1 and Phase 2, other factors such as participants becoming more familiar with the systems and processes involved in the CRC, also contributed.
- Costs of compliance have fallen, but have not decreased to the levels estimated within the 2012 CRC simplification Impact Assessment produced by DECC – standardising for wage increases across the period, average costs for participants in a registration year were estimated to fall to ~£21,000 while this research estimated these costs were ~£18,000 for the first year of Phase 2, with average costs in the IA for a non-registration year estimated at ~£5,000 per year in the IA while this research has found average ongoing costs of approximately ~£10,000. One-off costs fell to below the levels anticipated in the IA, but ongoing costs were found to be higher within this research.

3.2 Background

During Phase 1 of the CRC, KPMG were commissioned to measure the administrative costs of compliance of the policy, examining the first year of operation (2010-11) and projecting costs for the whole of Phase 1. This research was conducted following feedback from organisations in scope of CRC and other bodies (e.g. trade associations) suggesting that the early operation of the policy (including one-off, upfront elements of compliance like carrying out footprint reports) had been burdensome and too complex for organisations to comply with.

Following the KPMG research, DECC developed proposals for simplification and carried out a consultation on these. More detail on simplification activities can be found in Appendix 4.

[22] Phase 1 was four years, whereas Phase 2 is 5 years. Therefore we have compared based on a four-year period including one registration year and three non-registration years.

3.3 Impacts of simplification

Impact of changes in scope definition

Based on average cost savings captured during this research, the fact that 857 fewer organisations were in scope for CRC in Phase 2 will deliver a cost saving to these organisations of £57.4m[23] for the period 2014-19. If we assume that these 857 would still have incurred the costs of understanding changes and determining whether they were in scope for Phase 2 (at an average one-off cost of £3,326 per organisation), this saving is approximately £55.5m.

Wider impacts on cost of compliance for those remaining in the policy (comparison to KPMG survey data (2011))

Total costs of compliance

As well as excluding a number of organisations from the policy altogether, simplification changes will have impacted on the number and nature of compliance activities that organisations needed to carry out to comply with CRC in Phase 2.

The 2015 cost of compliance analysis (based on data collected in this study) was re-run using the same salary assumptions as used in the 2011 assessment of the costs of compliance in Phase 1, to control for changes in salary and compare the costs that were identified for Phase 1 against the costs identified within this research. Comparing total costs of the policy for a four year period between the 2011 survey and this 2015 research, the average costs were as follows:

- 2011:
    - Total cost of policy in year 1, Phase 1 of £100m
    - Average estimated cost of policy per participant of £62,000 (4 years), average £15,000 per year
- 2015:
    - Total cost of policy in year 1, Phase 2 of £45m
    - Average estimated cost of policy per participant of £48,000 (4 years), average £12,000 per year.

This suggests a 55% reduction in Year 1 costs between Phases, and a 20% fall in average yearly costs between Phases 1 and 2.

The available evidence suggests that it would be unreasonable to assume that simplification measures will be the only contributor to the observed reductions in costs. In particular, a central aim of the policy is to encourage organisations to improve the way in which they measure and manage their energy over time; some of the substantive actions taken by respondents in response to the policy will support them in reducing the administrative costs of compliance. Elements such as familiarity with the policy context, organisations 'learning by doing' and building up infrastructure in Phase 1 will also have affected costs in the absence of

[23] Excluding administrative charges for registration and subsistence which were not considered within KPMG's research. In addition there will be energy savings some organisations made to avoid qualification, though it is not possible to quantify the value of these savings.

simplification[24]. However simplification will almost certainly have contributed to some cost reductions for many organisations[25].

Comparing individual tasks within the 2015 research with KPMG's research becomes more challenging[26]. However, taking data from KPMG's report permits a wider comparison of high level activities[27]

Table 7: Comparison of high level costs between 2011 and 2015 research[28]

KPMG cost element	KPMG (2011) average Y1 (Phase 1) cost per participant	*KPMG survey – items included[29]*	Databuild (2015) average Y1 cost per participant (using KPMG salary estimates for internal costs)	*Databuild survey – items included*
One-off costs	£20,000	*Internal one-off costs, registration costs, footprinting costs*	£5,000	*All internal and 'other' one-off costs*
Ongoing costs	£7,000	*Internal annual reporting*	£6,000	*All internal and other 'ongoing' costs*
External costs	£7,000	*Costs met externally*	£7,000	*One-off and ongoing external costs*
Total	**£34,000[30]**	**-**	**£18,000**	**-**

[24] Anecdotally, our partner Verco reports that, at the beginning of Phase 1, some organisations did not necessarily know how many buildings and supply points they had. By the beginning of Phase 2, organisations remaining in scope generally had a more complete understanding of assets and the CRC policy in general, meaning such initial costs did not need to be incurred again.
[25] It is possible that in some cases administrative costs may have increased. For some organisations the requirement to determine gas exclusions based on annual consumption thresholds may have reduced/cancelled out savings that simplification may have delivered.
[26] Due to changes in the number and nature of activities having changed making direct comparison more difficult, alongside changes in the methodology such as the fact that KPMG explored external costs separately to individual one-off and ongoing compliance costs.
[27] This excludes registration and subsistence charges which were not considered within the previous research
[28] Figures rounded to nearest '000
[29] Costs/activities were categorised differently in the 2015/16 research following adjustments to the method. Respondents were asked for the cost of 'other' activities at the end of each of the five cost question areas.

The analysis above suggests that, when controlling for variation in salaries, costs of compliance have fallen when comparing the first years of each Phase of the policy. This reduction mostly stems from a drop in one-off costs for organisations falling within scope of the policy (e.g. foot-printing, registration and other activities which only take place once per Phase). These one-off activities were associated with significant costs in Phase 1. The absolute value of external costs remained comparable in Phase 2.

Comparing costs associated with individual tasks

The areas where we expected to see the largest administrative cost savings when compared to Phase 1 are listed below[31]:

- Collecting and collating data on consumption (arising from e.g. a reduction in the number of fuels)
- Understanding and applying exclusions
- Establishing organisational boundaries
- Selecting the approach to purchase and surrender allowances.

Collating energy information was identified as one task where respondents were typically experiencing relatively high costs of compliance, and where a relatively clean comparison could be drawn between the KPMG survey and the current research[32].

The analysis showed that the average internal cost per organisation on collating energy information for annual reporting purposes was **£2,619** per participant in the first year of Phase 1. The comparable total internal cost within the first year of Phase 2 from our analysis, using KPMG cost estimates, was **£1,359** per participant. Due to simplification measures such as a reduction in the number of fuels in scope for reporting from 29 to 2, as described above, simplification is expected to be a contributor to this reduction alongside other factors.

Other comparison between surveys

One general observation that can be drawn from the KPMG report is that directors and senior managers appear to be associated with a greater level costs against one-off tasks, with middle managers and administrators associated with a greater proportion of costs against ongoing activities. This is also a general trend which was observed within the current research.

[30] NB this figure has been arrived at through examining averages for the five individual cost areas within sections of the report. Total costs reported vary depending on the weighting approach used, and within the IA slightly higher total costs are presented – this may have been following further analysis than had been conducted when the KPMG report was published.
[31] Based on discussion within our consortium
[32] Which included costs associated with capturing information from sources and renewable sources, and applying exclusions – ergo comparable to these steps in phase 2

3.4 Comparison to estimates within IA for simplification measures[33]

The regulatory Impact Assessment (IA) relating to the CRC simplification package estimated the 'business as usual' (BAU[34]) costs of administration for organisations in the scope of the policy up to 2025, and the savings that it was expected simplification would deliver. This analysis was based on KPMG's cost of compliance estimates. DECC were able to provide the underlying analysis from the IA to demonstrate expected costs of compliance post-simplification within registration and non-registration years.

While, as described above, simplification (and other factors) have resulted in a reduction in costs between phases, costs have not fallen to the levels that were estimated within the Impact Assessment. The table below draws comparison between the IA estimates and the estimates that were produced using 2015 respondent data (using the same salary estimates as KPMG used in producing their analysis).

Table 8: Comparison between 2015 survey costs and IA estimates

Cost	Estimated compliance costs post simplification from IA	Estimated compliance costs from 2015 Databuild research (using KPMG salary estimates)
Average one-off compliance cost	£16,556	£8,272
Average annual ongoing compliance cost	£4,839	£9,389

Table 8 suggests that while one-off costs were lower than the costs estimated in the IA, ongoing costs remained higher than estimated in the IA. To go some way to explaining the fact that costs did not fall as much as expected:

- Costs for software and installation of meters, and their ongoing maintenance along with any other costs (e.g. licence fees) were not included in the KPMG study, due to uncertainties around the extent to which these were additional. Improvements in the methodology in the current study mean that these costs are included this time - significant efforts were taken to only record the component of associated costs that were additional to CRC, and validate these with respondents. Improved energy management is one of the key objectives of the

[33] DECC, Impact Assessment: Simplification options for the CRC Energy Efficiency scheme to help business - CRC (Amendment) Order 2013
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/65663/7189-ia-gov-resp-crc-simplification.pdf
[34] Business as usual refers to pre-simplification costs

CRC, which also suggests that it is intuitive to include the costs for these items reported by respondents within the analysis.

- Actual costs for many activities were found to be higher or lower than their expected levels within the simplification IA. One-off costs were lower than the figures estimated in the IA, driven by two activities being found to be lower in this research - costs for determining organisational boundaries and gathering declaring emissions data. However, ongoing costs were often found to be higher than the IA analysis estimated; in particular, costs of collating energy supplies, preparing and submitting the report and purchasing/surrendering allowances were proportionally the furthest away from dropping to the estimated levels in the IA.
- While small (and negligible when considering what is driving differences), costs for notifying the regulator were not captured in the previous study.

While caution needs to be taken in comparing individual tasks, due to differences in the way that activities were categorised between this research and the 2011 survey on which the IA analysis was based, we are unable to say with certainty the relative degree to which different factors might be driving the observed differences. However, we are able to say that:

- Had ongoing costs of maintenance for monitoring and reporting systems not been included in the 2015 analysis, ongoing costs from the 2015 analysis would have been only 56% higher than the IA estimates, rather than 94% when these costs are included.

4 Qualitative feedback on the CRC and value of mandatory reporting

4.1 Chapter summary

- Many organisations report that they have taken action within their organisations to reduce compliance burdens, with respondents most frequently citing improvements to internal systems and processes, that they had implemented technical improvements such as better software, or that they had sought external support for compliance (e.g. begun to outsource)
- Some organisations cited that the policy helped raise the profile of energy use at senior level, and had overall resulted in better management of energy. Respondents more frequently commented on the negative consequences of the policy rather than positive impacts.
- When asked specifically to comment on board level involvement, many respondents felt that the CRC had helped to raise awareness at senior level. In terms of negative impacts, it was most frequently cited that there were challenges in securing time / resource at senior level to dedicate to CRC compliance.
- When asked whether public disclosure was beneficial, some respondents felt that this was important to raise the importance of reporting and encourage competition between businesses, but many cited concerns around data being misrepresented / taken out of context (e.g. showing a company's environmental performance to be poor but without accounting for fixed factors such as the protected status of building stocks)
- Approximately half of respondents felt that CRC was more burdensome than other environmental regulations (with private sector organisations more likely to respond with this opinion) though the likelihood of sharing this opinion does not seem to clearly relate to other variables such as scale of consumption.

Respondents were encouraged to answer the questions within section C, which sought opinions in areas such as positive and negative impacts of CRC as a policy. A variable amount of individuals answered each question. These responses are reported within this section, each question in turn. Illustrative verbatim are included throughout.

It is important to note that within the CRC Phase 1 evaluation completed by DECC, respondents were asked to provide qualitative insights. **The analysis presented below is based only on qualitative data provided by respondents in the context of this Costs of Compliance research in 2015/16.**

4.2 Whether organisations have taken action to reduce time or costs of compliance over period in scope of CRC

168 organisations in total provided an answer to this question. Of these, 138 organisations reported taking some action within the period of time they have been in the scope of the CRC.

Thirty reported taking no action. There do not appear to be any clear relationships between the organisations taking action and not taking action – we have examined costs of compliance, number of supply points, complexity factors and sector.

Table 9: Actions taken (n=138, multiple response; private sector n=84, public sector n=54)

Actions taken	**Total number taking action**	Private sector	Public sector
Outsourced/used external resources to assist with compliance activities	39	24	15
Improved internal systems and processes	68	44	24
Implemented technical improvements (new software, AMRs etc.)	49	23	26
General actions to reduce energy usage/invest in energy efficiency (to reduce amount of energy that organisations need to report on)	10	6	4

Organisations taking action most frequently reported that they had improved internal processes (e.g. putting guidance in place, establishing team structures and role responsibilities for tasks associated with compliance) or implemented technical improvements, such as new software and monitoring equipment. The latter is consistent with respondents often reporting costs associated with software and monitoring equipment in both Phases of the CRC.

4.3 What respondents felt have been the positive and negative consequences of CRC

Respondents were asked to comment on what they thought had been the positive and negative consequences of the CRC.

Respondents reported a range of positive consequences arising as a result of the policy, with the most commonly reported factors being overall better management of energy and consumption, and engagement of senior individuals as a result of the policy. The table below presents the frequency of positive consequences identified by organisations completing this question.

Table 10: Positive consequences (n=103, multiple response)

Positive consequences	**Total**	Private	Public
Overall organisation - better management of energy consumption	46	27	19
Engagement of senior management individuals around energy use / emissions	23	7	16
Incentive to invest in energy efficiency and set targets	16	9	7
Provided a new / renewed focus on energy consumption	13	8	5
Carbon emission reporting more efficient/better data quality	12	6	6
Used data collected for CRC for other requirements	8	8	0
Job creation	2	1	1
Other	2	0	2
Improved CSR	1	0	1

Overwhelmingly, most respondents that commented mentioned the additional burden as the most frequent negative consequence. However, there were a sizeable number of responses against other negative consequences, which suggests there are a number of issues that respondents perceive as negative impacts of the policy. The table below presents the frequency of negative consequences cited by those providing a response.

Table 11: Negative (n = 163, multiple response)

Negative consequences	Total	Private	Public
Additional burden	65	40	25
Diversion of resources from energy efficiency / taking action	43	27	16
Ineffective / non-robust /inflexible/unfair	39	25	14
Do it anyway / duplication of effort	29	17	12

4.4 Advantages / disadvantages of senior board level involvement

No patterns were identified in the profile of those reporting advantages / disadvantages to board level involvement.

While some organisations questioned the value of board involvement, most responses suggested that there was perceived to be an advantage in ensuring visibility of the policy and emissions / costs more generally at senior level. The table below provides the frequency of responses to this question.

Table 12: Has advantages (n=131, multiple response)

Advantages	Total	Private	Public
Raises awareness of consumption / emissions and costs at senior level	129	75	54
Improves compliance / accuracy of reporting	5	2	3

34 responses to this question explicitly stated that there were no advantages (this being the response in the box provided to cite ‘advantages’).

Comments around disadvantages broadly hinged on feelings that it was difficult to get enough time for senior individuals to be fully involved in the process, and that this and other factors make compliance activities more arduous overall. Frequencies of response are provided in the table below.

Table 13: Disadvantages (n=43, multiple response)

Disadvantages	**Frequency**	Private	Public
Challenges around time directors can spend in relation to CRC	20	11	9
Amplifies length of time that compliance activities take	13	7	6
Feel no benefits generally / changes to the policy have undermined its original aims and senior individuals have lost confidence	10	8	2
Other	8	5	3

4.4 Desired content of reporting

Respondents were asked what they thought the content of reporting should be. Respondents typically shared views framed around whether current requirements were thought to be ok, or gave views around whether e.g. energy use or total emissions should be the core reporting unit. The frequencies of the items respondents discussed are presented in the table below.

Table 14: Desired content of reporting (n=125, multiple response)

Content of reporting	**Total**	Private	Public
Energy consumption	58	34	24
Emissions	54	25	29
Financial information should be included in reporting	19	11	8
Explicitly stated that nothing, or as little as possible, should be reported	*30*	*19*	*11*
Other	29	16	13
Explicitly stated to keep CRC as it is at the moment (I.e. consumption / allowances)	*13*	*9*	*4*

Interestingly energy consumption figures and emissions figures were both identified as the key reporting metric – sometimes in tandem, though there were individuals that suggested reporting emissions overall would be more meaningful (even though the collected and reported data relates to consumption within the current scheme).

4.5 Benefits / drawbacks of content being made public

Respondents were asked for their views regarding the benefits and drawbacks of reported information being made available to the public. No patterns were identified in the profile of those reporting benefits and drawbacks.

The benefits stated by respondents were varied, with the most commonly identified being a general uplift in the perceived importance of reporting, and that it can help organisations benchmark themselves, instil a sense of competition against competitors and make available useful information to the public and others – elements which contribute to reputational benefits.

Table 15, below, presents the frequency of different benefits mentioned within responses.

Table 15: Benefits (n=68)

Benefits	**Total**	Private	Public
Provides useful information to public / other organisations	24	10	14
Generally raises importance of reporting	18	9	9
Useful for benchmarking / competition	19	12	7
General transparency (I.e. transparency stated as the reason with little further explanation)	17	8	9
Drives improvements	11	5	6

The key drawback reported by respondents tended to relate to the risk of misinterpretation of data – a feeling that without the detailed understandings of organisational workings and consumption that people may take away incorrect messages from publicly available information.

Drawbacks are presented in Table 16.

Table 16: Drawbacks (n=62)

Drawbacks	**Total**	Private	Public
Issues of misrepresentation due to lack of context, lack of understanding of CRC, carbon emissions generally (etc.)	45	25	20
Information is difficult to compare against other organisations	19	12	7
Adversely raises awareness of consumption of organisation – flagged to suppliers and become subject of increased sales calls from external compliance consultants, other traders	4	0	4
Risks damaging competitive advantage	5	5	0
Explicitly states that no information should be made public	5	4	1
Unable to make changes to reduce emissions, so unhelpful for this reason	3	2	1
Currently information is generally not accessible to the public in terms of format, how likely they are to see it generally (unless specifically looking for it etc.)	3	2	1

4.6 Whether CRC is more or less burdensome than other environmental regulations

This question was asked to organisations that indicated there were other environmental policies that they needed to comply with. 41 responses were included within the analysis. Table 17 below provides the frequencies of responses to this question, along with a few illustrative verbatim for each band. Around half of those responding to the question indicated CRC was more burdensome or much more burdensome, with approximately a third feeling level of burden was similar and just under a sixth said it was less burdensome.

Table 17: Whether CRC is more or less burdensome than other environmental policies (n=41)

	Total	100%	Private	Public
CRC is less burdensome	6	15%	3	3
CRC is more burdensome	13	32%	8	5
CRC is much more burdensome	10	24%	8	2
CRC is neither more nor less burdensome	12	29%	6	6

Discussing the responses in the table above:

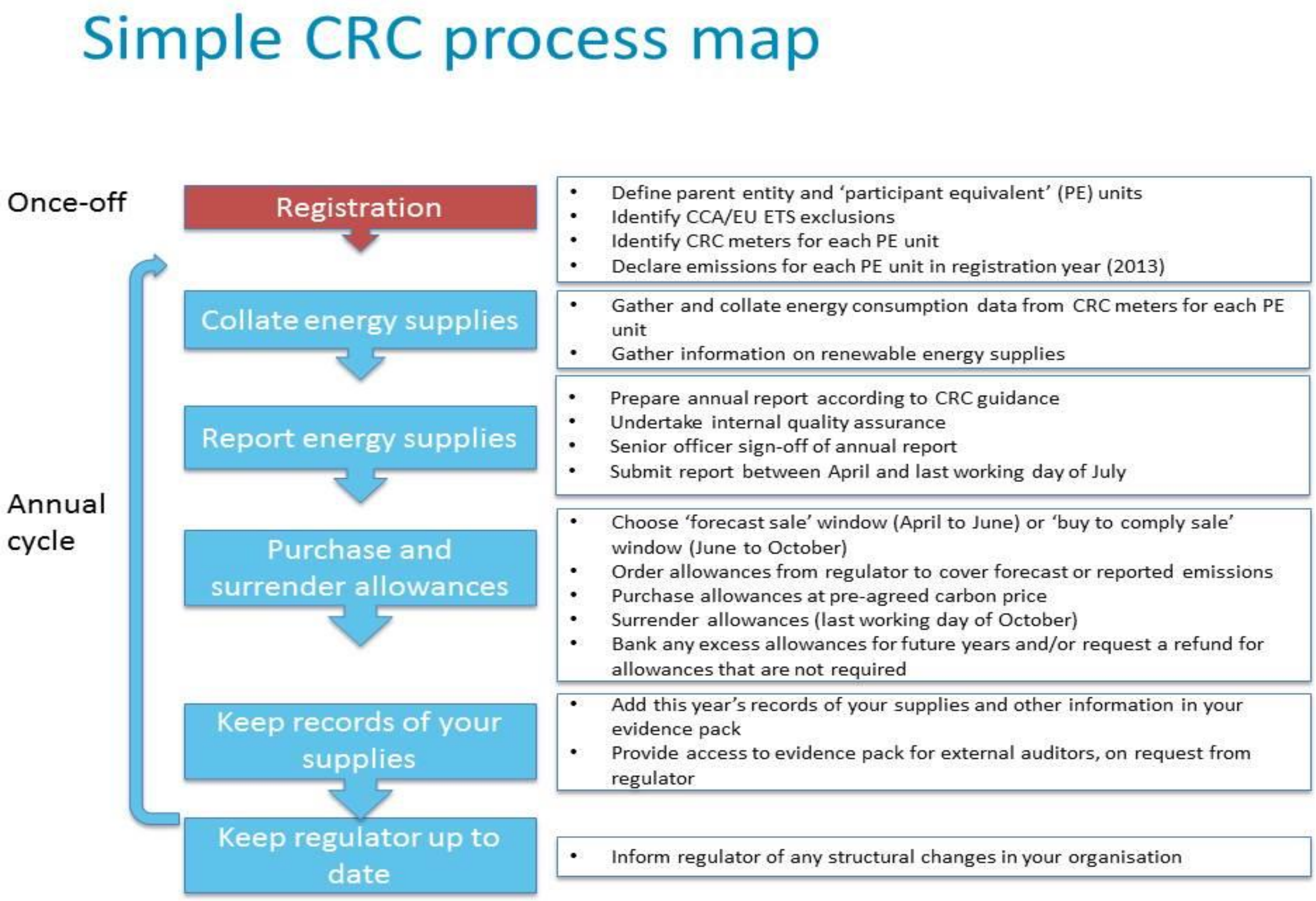
- Those saying CRC was less burdensome compared to other policies displayed a spread of costs of compliance – half were in the lowest quartile (in the lowest 25% of costs) with no one falling in the upper quartile. There appears to be no relationship for these in relation to number of supply points (half reported 1-199 supply points, while half reported over 500). One of the public sector respondents reported complexity in that buildings were leased from more than one landlord
- It appears that those saying that the CRC is more burdensome tend most frequently to be private sector organisations, and within this group, most were manufacturers or those involved in water, sewage and waste. There doesn't appear to be a clear link to number of supply points or organisational complexity. These organisations fell across the entire range of reported costs, but, interestingly, 65% of responders were those reporting costs in the bottom two cost quartiles. This suggests that while some people saying that the policy is burdensome do face large costs, for many the costs in absolute terms are relatively low compared to those incurred by other organisations. 39% of all respondents reported some degree of complexity (e.g. leased properties) around their circumstances; the larger proportion did not report complex circumstances, so it is not the case that these organisations are those facing more complex circumstances across the board. However, sample sizes are low, and other factors may be contributing to certain respondents feeling burden is high where other characteristics may not support this would be the case.

Appendix 1: Methodology

Scoping and survey design

Following on from an inception meeting with DECC, individual workshops took place with DECC and UK environmental regulators[35], and key trade associations representing organisations within the scope of CRC. These workshops helped provide a detailed understanding of the individual tasks[36] that organisations need to undertake to comply with the policy, as well as providing a forum for discussion around successes and challenges and potential steps for further simplification. This helped inform the structure and content of the survey for this work. The high level CRC process map that was developed through these workshops and the subsequent discussion and review process is shown below.

Figure 11: high level CRC process map



[35] Environment Agency, Scottish Environmental Protection Agency, Natural Resources Wales and Northern Ireland Environment Agency
[36] Tasks were specifically those relating to information obligations. Understanding drawn from CRC guidance documentation and the experience of the project team was used to devise an initial process map and list of information obligation tasks for discussion in the workshop. The process map was then amended in line with workshop feedback and follow-up conversations with the regulators and DECC.

To address the research objectives, and acknowledging the type of information that would need to be collected, the approach that was developed focused on use of an online survey, supplemented by telephone contact with participants to improve representation and validate the information supplied. The survey that was designed allowed broad alignment with the Standard Cost Model (SCM) methodology while also providing a high level of granularity around individual tasks.

A survey was previously undertaken in 2011 by KPMG[37] which looked at the costs of compliance for the first year of Phase 1 of the scheme. The 2011 survey was used as the basis for the structure of this survey to allow some comparability, where possible and appropriate, between costs in Phase 1 and costs in Phase 2. The 2011 survey script was adapted to reflect changes between Phases 1 and 2 of the scheme, to further unpack individual stages within tasks, and to include questions to address the new research questions. To encourage respondents to think in terms of all costs at various stages (internal and external), the table structure used within this survey was different to that adopted within the 2011 survey; where internal and external costs were explored in separate consecutive tables. The individual tasks we asked respondents to report against were updated based on the process mapping which emerged from the workshop.

Following the inception meeting, it was highlighted that DECC was also keen to understand the value of reporting to comply with mandatory GHG reporting requirements – a policy requirement affecting large listed companies[38], though some public bodies may be required to report emissions to comply with other legislation and commitments. Where respondents were in the scope of CRC and mandatory GHG reporting, we included questions in the survey specifically to look at GHG reporting in addition to the questions related to CRC costs of compliance. The findings in relation to mandatory GHG reporting costs of compliance are reported separately.

Piloting

To ensure that the research approach would work (e.g. questions were understood, not too onerous to complete) the survey was sent to a selection of 100 organisations representative[39] of the population to pilot the survey. Databuild suggested allowing respondents the choice of responding through either an online survey (in a web browser) or providing data within an MS Excel template. The pilot confirmed that there was appetite for both approaches, and giving respondents the option would improve response rates and accuracy of information.

[37] DECC, Assessing the Administrative Costs of the CRC Energy Efficiency Scheme, 2011, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/42934/4759-kpmg-assessing-admin-costs-crc-scheme.pdf

[38] All quoted companies have to measure and report greenhouse gas (GHG) emissions. Quoted companies are those that are UK incorporated and whose equity share capital is officially listed on the main market of the London Stock Exchange; or is officially listed in a European Economic Area; or is admitted to dealing on either the New York Stock Exchange or NASDAQ.

[39] The pilot sample comprised 71 private and third sector organisation and 29 public sector organisations.

Fieldwork

Following the pilot, a final version of the survey and instructions were produced. The online survey was sent to all 1,858 participant organisations in Phase 2[40], with specific instructions in place to help those who might need to complete the survey for more than one organisation. Four reminder emails were sent across a four week data collection period. To help maximise response rates, DECC and the consortium partners used various channels to encourage participants to respond to the survey, including liaising with trade and industry associations to encourage their members to respond (promoting the survey within e.g. newsletters).

The survey itself was structured as follows:

Section A: Organisational details – information on contact details, organisational sector, any full or partial exclusions from compliance with CRC (due to e.g. other policy commitments) and organisational characteristics (such as whether respondents rent or own buildings – factors that might affect the cost of compliance)
Section B: Costs of compliance – data tables. Respondents were asked to complete three data tables relating to costs of compliance. Within each table respondents were given the space to indicate costs encountered both internally (and by whom) and externally, any other costs associated with specific tasks, and the proportion of costs that were additional as a result of CRC. The three tables were as follows:

a. **One-off costs** – costs undertaken for pre-registration (e.g. understanding rules) and registration
b. **Ongoing costs –** costs incurred for recurring activities within a 12 month period
c. **Voluntary and other costs** – any costs that were undertaken by respondents voluntarily to improve compliance related processes, and costs for any tasks not specified within previous tables

A fourth table was presented to those also subject to mandatory GHG reporting. This included one-off, ongoing and voluntary costs associated with mandatory GHG reporting within a single table.

Section C: Qualitative feedback – this included questions on the value of specific elements of the CRC (and their value more widely – factors such as the value of reporting and involvement of senior level board members), positive and negative consequences as a result of compliance.
Additional questions were asked to those also subject to mandatory GHG reporting to gather feedback on the value of GHG reporting. This will be reported separately.

As well as the online survey, organisations were contacted by telephone to explain / promote the research, check and probe data, and encourage representation in sub-sectors where relatively few responses were received. An extension to the data collection deadline was applied as many participants indicated that Christmas and workloads at the end of the year meant they would not be able to complete a survey response in December, but would try and find time early in January 2016.

[40] Based on a recent database supplied by the regulators, to ensure that late entrants were included

Data checking and validation

Completed responses were reviewed throughout the fieldwork and analysis period to understand acceptable ranges for data and investigate any suspicious data that may adversely influence the analysis.

Representativeness: Telephone contact was used to encourage representation in sub-sectors where few or no responses were received. Broadly, this exercise was successful, though it was not possible to achieve interviews with some of the smallest sub-sectors in the population; namely agriculture, forestry and fishing; activities of extraterritorial organisations; administrative and support service activities; and construction. In other sub-sectors, higher representation than prevalence in the population was achieved; most notably for manufacturers and the public sector. A discussion of representativeness can be found in section 2.1.

The data were weighted to counter the effects of over-representation of the public sector within the sample, and, for the purposes of the analysis, sub-sectors were grouped according to whether they were public or private sector. Further information on achieved outcomes is provided later in this appendix.

Potentially erroneous data: Data were checked both internally within the team at Databuild and Verco to identify figures at the extremes of the overall distribution. Verco were well positioned to comment on other outliers, such as unexpected figures within specific parts of the population, based on their experience in offering compliance services for CRC participants. Data captured within the survey, such as relating to exemptions and number of supply points, were also analysed throughout the data collection process to compare cost responses of organisations with different characteristics e.g. comparing costs of those with a high number of supply points, to identify any potentially spurious data. Where outliers were identified, particularly where outliers were identified and respondents themselves indicated that responses were ‘rough’ estimates, these were flagged for a follow-up telephone interview to unpack and understand responses. Following these interviews, amendments were made where appropriate. Where extreme outliers had been identified and follow-up conversations could not be conducted, or where follow up conversations did not provide confidence that data were accurate, in a small number of cases (4% of completed interviews, 10 cases) responses were excluded from the analysis.

Calculation of costs and analysis

In estimating the overall administrative cost incurred by CRC participants, we employed the Standard Cost Model (SCM) approach. Respondents were presented with a list of administrative tasks that CRC participants need to undertake in order to comply with the policy (information obligations). For each task, they were asked to provide the amount of time in hours per year spent for compliance across four staff categories[41]:

1. Directors
2. Senior management
3. Middle management
4. Administrative staff

[41] In agreement that the approach employed by KPMG was appropriate to adopt within this research

They were also asked to provide the total external cost they incurred for each of those tasks, e.g. fees for external consultants to whom they outsourced part of or the entire task. Alongside internal and external costs, respondents were also asked to provide any other administrative costs they incurred for complying with CRC and that were not covered by the other cost categories.

To monetise the internal time spent internally for each task, we used assumptions based on the ONS Annual Survey of Hours and Earnings (ASHE). ASHE provides data on levels, distribution, and make-up of earnings and hours worked for UK employees in all industries and occupations. The assumptions used for the hourly earnings of each staff category are shown in the table below.

Unfortunately, due to methodological changes in the ASHE since the 2011 assessment of CRC costs of compliance was undertaken, the earnings of chief executives and directors of major organisations (used in the last study to monetise internal time spent by Directors) is no longer reported as a separate category.

In order to estimate what this figure might have been had it continued to be reported separately, we investigated the historical relationship between the median hourly earnings of all UK employees and the median hourly earnings of chief executives/directors of major organisation, and found that their ratio had been approximately 4.5 in the period 2005-2010, i.e. prior to the above mentioned methodological changes[42].

We applied this factor to the current (2014) estimate of median hourly earnings for UK employees to get an estimate of the median hourly earnings of chief executives in the UK. The new assumption (which we have adopted for this research) was substantially higher than the figure reported for the new Chief Executives and Senior Officials category (£51.93 per hour compared to the ASHE 2014 SOC unit group 1115 Chief Executives and Senior Officials at £41.65 per hour) and more in line with the estimates of online websites that administer large databases of individual salary profiles[43]. In calculating the total cost, we assumed an uplift of 30% to account for overheads. This is the standard assumption used in the Standard Cost Model and is recommended by the Cabinet Office's SCM methodology document.

[42] This assumption may present some bias here considering economic growth across the period – however because the majority of time and costs are associated with middle managers, with only a small proportion of cost associated with Directors, the results are not particularly sensitive to this assumption.

[43] E.g. www.payscale.com

Table 18 Hourly earnings assumptions across staff categories

	Directors	Senior Managers	Middle Managers	Administrative Staff
Median hourly earnings (excluding overheads)	£51.93	£38.33	£27.83	£10.30
Source	Derived – *process described above*	2014 ONS Annual Survey of Hours and Earnings	2014 ONS Annual Survey of Hours and Earnings	2014 ONS Annual Survey of Hours and Earnings
Median hourly earnings (including overheads - assumption 30%)	£67.51	£49.83	£36.18	£13.39
Description in SOC 2010	N/A	Minor SOC Group 111: Chief executives and senior officials[44]	Minor SOC Group 113: Functional managers and directors	Sub-major group 41: Administrative occupations
Code in SOC 2010[45]	N/A	111	113	41

We removed from our cost estimates any cost or proportion of cost that would have been incurred anyway, even in the absence of CRC – for example where respondents informed that maintenance of systems was for the benefit of multiple policies, they were asked to provide the portion of the cost that was not related to CRC compliance, so that analysis could be undertaken on only the portion that was additional because of the policy. This was done in order to ensure that all costs were additional as a result of the CRC. The cost incurred by each participant per task was calculated as follows:

- Cost of director time = Hours of directors*67.51
- Cost of senior management time = Hours of senior management*49.83
- Cost of middle management time = Hours of middle management*36.18
- Cost of administrative staff time = Hours of administrative staff*13.39

- Total internal cost=(Cost of director time + Cost of senior management time + Cost of middle management time + Cost of administrative staff time)*% attributable to CRC

[44] This category consists of Chief Executives, senior officials, elected officers and representatives
[45] Directly aligned with the codes used by KPMG in the Phase 1 Cost of Compliance research

- Total cost=Total internal cost + ((External cost[46] + Other costs)*% attributable to CRC) + charges[47]

The total cost incurred included registration and annual subsistence fees paid by each participant. These fees equate to £2,240 for the first year and £7,400 across all five years of Phase 2[48].

As described above, all figures in the report are weighted to adjust for the over-representation of public sector within our sample. We opted not to weight our findings according to subsector of activity, because coverage by subsector was satisfactory, largely reflecting the distribution within the CRC participant population. We are also confident that our sample across different sectors is fairly representative in terms of factors that may influence the amount of costs incurred, such as organisation size and consumption.

Based on the analysis outlined above, we are able to report mean costs across individual tasks, as well as estimates of the mean total cost incurred in year 1 and in Phase 2 as a whole. Throughout the report we have reported averages as

- These do not tend to differ substantially from the median and better reflect the distribution of the data[49]
- Outliers included in the analysis were validated in the data validation process.

Once the costs of compliance were calculated, analysis was carried out to identify and understand relationships between different variables and the scale of costs, using Stata to examine the significance of relationships, taking into account adjustments required to adjust for the over-representation of the public sector in the sample.

The population of CRC participants and the sample completing the survey

In total, 1,858 organisations are required to participate in and comply with the requirements and information obligations of Phase 2 of the CRC. Of these, approximately 73% are private sector organisations and 27% are in the public sector. Manufacturers (10.4% of total) and professional, scientific and technical services (14.0% of total) represent the largest individual private sector sub-sectors within the population[50].

In total, 236 survey responses were collected within the data collection period.

[46] E.g. external consultants
[47] Registration and subsistence fees
[48] Based on the assumption that fees other than registration and subsistence are likely negligible for purposes of these calculations e.g. very few organisations tend to pay other charges, such as charges for changing information, and when paid these are very low in relative terms when compared to registration and subsistence fees. This assumption was arrived at through discussion with the regulators to ensure its appropriateness
[49] This also aligns with the KPMG research which reported on average, rather than median, values.
[50] However, it should be noted that there are organisations that operate in multiple sub-sectors which will make categorising organisational activities – and the overall proportion of participants operating in particular subsectors – impossible to report precisely from the available data.

Of these 236 completed surveys, 10 responses were removed from the final analysis presented in this report. The figures supplied in these 10 responses were identified as incomplete or contained significant outliers (i.e. deemed as likely to be subject to error or impossible to validate prior to the analysis).

A higher response rate was achieved from the public sector, with a lower response rate achieved within the private sector. For the purposes of the analysis data have been weighted to correct for the over representation of public sector organisations and under-representation of private sector organisations.

For the majority of private sector sub-sectors, a good representation was achieved (with their prevalence within the sample being approximately equal to or slightly higher than prevalence of the sub-sector within the population)

There were some sectors for which no interviews were achieved; these were a mix of sub-sectors we would expect to be both energy intensive and non-intensive, including construction, administrative and support service activities, and extraterritorial activities. In total these comprise 8.8% of the population. Attempts were made to encourage participation in this sector, but no respondents went on to fully complete their response. This may be indicative of complexities around number of sites or nature of activities (e.g. temporary sites and energy use for construction companies) but the fact we anticipate these will be a mixture of intensive and non-intensive organisations means that we do not believe the exclusion of these sub-sectors will significantly distort the analysis. DECC may wish to focus additional resource within future survey work to engage with these sectors.

For most other sub-sectors, representation within the sample was slightly higher than that within the population; sub-sectors included accommodation and food services, financial and insurance activities, human health and social work activities, information and communications, manufacturing, mining and quarrying, public sector, transportation and storage, and water sewerage and waste.

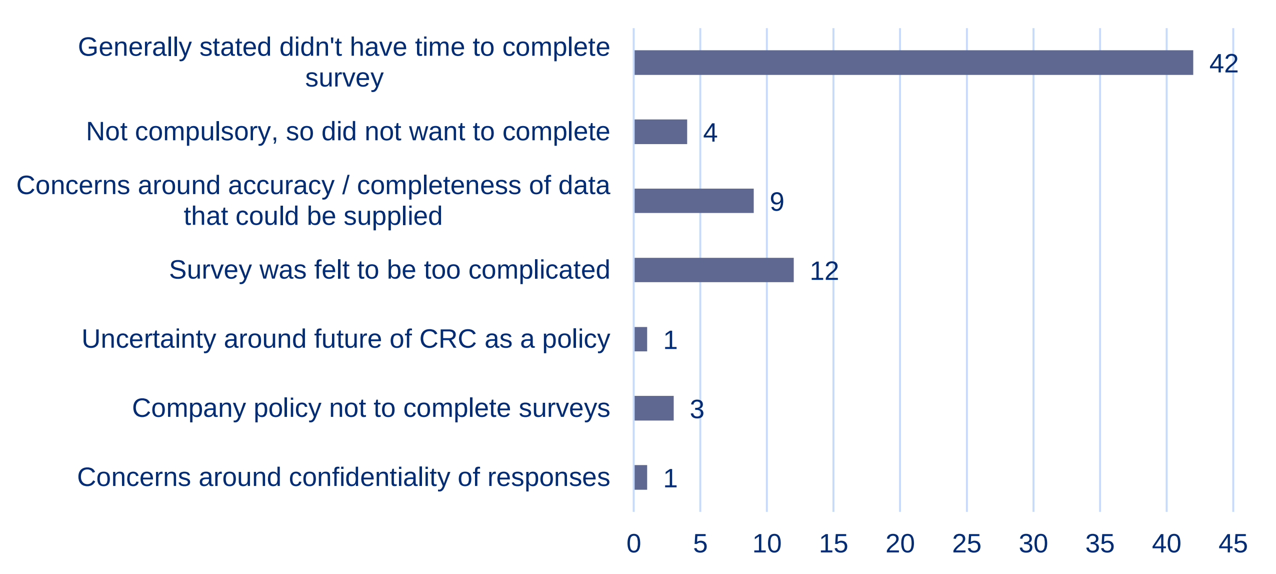
Response rate and non-response

236 completed responses, from the 1,858 invitations that were distributed, represents a 12.7% response rate overall. Excluding ten responses that were not included in the final analysis, this equates to a response rate of 12.2%.

72 respondents who did not complete the survey provided the main reason for not doing so during recruitment calls; this also includes a selection of approximately 28 targeted calls which were made to those who had not responded at the end of data collection to understand reasons. These responses were recorded in spite of efforts made by DECC, the research partners and other bodies to encourage participation – such as DECC supplying a data protection / confidentiality notice which was clearly linked within the survey introduction, and Databuild providing detailed instructions and the offer of one-on-one support to help respondents who felt that the survey was complex.

The most common factor for organisations not completing the survey was generally a lack of time to complete the survey, with some indicating this was exacerbated by other work commitments at the end of the 2015 calendar year and beginning of the 2016 calendar year. The second highest reason for non-completion was cited to be perceived complexity on the part of the respondent.

Figure 12: Main reason for not completing the survey (n=72)



There was limited opportunity to explore the underpinning influences behind organisations finding or arriving at the conclusion that they didn't have time for the survey.

The response rate achieved within the CRC cost of compliance research was lower than the concurrent EU ETS cost of compliance research. The research itself and DECC suggest that some possible reasons for this may be around uncertainty over the future of the policy.

Variance of cost estimates

Responses indicated that the costs associated with individual tasks (information obligations) varied considerably more from organisation to organisation for some tasks than others. Tasks where variance was especially high included the following:

Table 19: Individual tasks displaying high variance

One-off	Weighted average	Variance
Other one-off compliance activities	£179	±63%
Ongoing		
Notifying the regulator of any changes: Mergers, acquisitions, sales	£109	±92%
Other annual compliance activities not included in the table	£232	±90%
Collating energy supplies: Understand and apply exclusions	£566	±72%

Commenting on Table 19:

- Variance around registration reflects that some organisations reported relatively little in terms of additional time costs associated with registration (over and above costs recorded against the core categories prompted by the survey) whilst some organisations did incur some additional time costs during registration[51].
- The average time cost associated with contacting the regulator(s) is low, and the variance reflects the fact that those reporting these costs will range from having had little contact (e.g. one simple change) vs. those for whom circumstances have changed to a much greater extent (e.g. undergone a merger). The expedience of the service provided by regulators may have also influenced the amount of time that participants report against communications activities.
- Other costs generally showed high variance depending on what these related to (with software / equipment costs varying based on scale of exposure and variations in the amount spent by the organisation)
- Applying exclusions varies, again, because some organisations face higher number of exclusions (ergo more complexity) while for others this was simpler / fewer exclusions were present.

Overall, the spread of variance against specific sub-tasks ranged from ±19% (cost of submitting report) up to the ±92% for notifying the regulator of any changes. For a number of activities the level of variance was lower, suggesting that costs of tasks for organisations were fairly similar. These activities include:

- Cost of submitting report – ±19%
- Ordering allowances from the regulator - ±20%
- Reporting: internal quality assurance - ±21%
- Surrendering allowances – ±21%
- Reporting: senior officer sign off – ±22%.

These generally appear to be tasks which are more consistent in terms of what people need to do for compliance e.g. organisational circumstances will influence how long it takes to identify the number of allowances which need to be purchased, but purchasing and submitting these will incur similar administrative costs across the board.

Limitations

Research of this nature can be challenging for a number of reasons[52] – not least the fact that an approach that would maximise the amount of useful data that could be collected within the available resources inevitably relies on respondents themselves estimating costs of compliance. As outlined above steps were taken within data validation and analysis to mitigate this and other challenges. Below we describe the risks and limitations that DECC should be aware of, the mitigating actions taken, and (if any) implications for interpreting the results.

[51] Internal meetings were mentioned as one contributor to these other costs.
[52] Including complexity, ensuring sufficient understanding from respondents of what is required to feed into meaningful analysis – striking a balance between granularity of information (how far costs can be broken down against individual activities) and the survey appearing too complex to complete – to leverage a level of response to inform analysis.

Risk / limitation	Mitigating actions and discussion
Reliance on respondents to provide data, and overall inaccuracies in the calculated administrative costs due to bias, human error or ineffective data collection. **The approach rested on respondents correctly understanding the questions, how to respond and what data to provide. In addition, there is a risk that respondents might exaggerate costs to influence (bias) the research findings, or that respondents with atypical costs were more likely to respond. The data that respondents were asked for may not be readily available or easy to calculate, meaning a risk that estimates may not be accurate.**	- Several steps were taken to limit the likelihood of these risks affecting the cost estimates: o Detailed instructions were provided, and one-on-one telephone support was available to help organisations to complete their responses o Respondents had the ability to pause and re-start their submission, or complete their response in an Excel template – so that people could go away and collect data / confer with colleagues to populate their response o Stringent and ongoing data checking and validation within Databuild and Verco took place throughout, to 'sense check' figures that respondents were giving and ensure these were realistic o Telephone follow-up interviews were completed with respondents to confirm data and explore any extreme values in further detail o Respondents were able to indicate how confident they were in the data that had been provided, for consideration within the data validation and analysis process o Comparison of data with previous study was conducted to give some sense of the scale of figures overall (noting that significant outliers had also been removed from KPMG's analysis in the assessment of administrative costs of compliance for Phase 1)
There is a risk that some actions taken by organisations in complying with the requirements of CRC may have been undertaken anyway, or would still be undertaken in future if the CRC were to cease e.g. production of company sustainability report. **Processes, practices and any material purchases may be utilised for wider compliance activities, not limited to only CRC, and/or at the discretion of the organisation to derive benefit**	- Respondents were asked to indicate the % of costs that would have been incurred anyway, to allow calculation of costs that are additional due to the CRC. The costs of compliance reported within this report exclude any costs / portion of costs that respondents indicated would be incurred anyway in the absence of CRC - Any suspicious data were explored with Verco and checked with respondents where applicable.
Some specific strata within the total population held few members, and interviews were not achieved with all sub-sectors. **Some groups within the population are very small, and it was not possible to achieve representation with all sub-sectors.**	- A number of methods were used to encourage participation within the survey, including promoting it through trade and industry bodies. There are some sub-sectors for which interviews were not achieved – namely activities of extraterritorial organisations, administrative and support services, and construction. - The sub-sectors for which interviews were not achieved were small in terms of their prevalence in the population, and also represented a mix of sectors we expect would be both energy and non-energy intensive (rather than being skewed towards e.g. energy intensive organisations, which may suggest that the figures arrived at through our analysis may be low). We consider the overall sample achieved to be broadly representative, and suitable for use in estimating the costs of compliance for a typical participant. - Responses have been pooled into whether they were private or public sector for the purposes of analysis. Some individual sub-sectors, such as manufacturing, can be discussed individually because they are

	prevalent in the population and many responses to the survey were received.
Organisations that need to comply with the CRC can possess characteristics that make compliance particularly complicated. **Factors such as multiple policies influencing an organisation, whether buildings are rented or owned, and whether organisations are headquartered here or internationally can influence the complexity of complying with CRC, and therefore reported costs. There is not a single typical business. This introduces risk around firstly identifying and then understanding the effects of complexity.**	- Organisations were asked within the survey to indicate whether they possessed any characteristics that may make compliance more complex – such as whether buildings were owned or leased (and from one or several different landlords), and the degree to which energy use was exempt from CRC due to being covered by other policies. - While this approach does not allow for robust exploration of individual factors and their effect on costs (due to working with small samples possessing specific characteristics), this does allow some analysis at the collective level around how complexity affects costs.
The degree of detail within databases that could be supplied by DECC and / or the regulators for this research presented some boundaries around the population analysis that could be completed prior to commencing data collection, more of which may have helped inform sampling and targeting of telephone resource. **In particular, data was not available to explore the total number of supply points (including gas meters), and known exemptions arising from other policies.**	- Questions were included within the survey to capture any information that could not be analysed beforehand. This helped us to examine the data as it was collected, compare responses between survey participants, and to set priorities for the data validation process and work to improve the representativeness of the sample.
Certain compliance steps will need to be undertaken by organisations not falling within the population of Phase 2 participants. **For example, it is not possible to report on the time and associated costs that organisations who identified they weren't in scope spent determining this outcome.**	- Total reported costs will therefore not include information from those that identified they were not in scope during the pre-registration stages for Phase 2. However, figures for these steps from organisations that were in scope for Phase 2 could be examined within a separate piece of work to produce an estimate if DECC or the regulators know the number of organisations that needed to go through pre-registration and then identified they fell out of scope.
To improve the granularity of information (unpacking tasks) and improve compliance with SCM, the survey became longer and data tables were more	- Email reminders were used and respondents were supported to help complete their survey, and offered alternative means of doing so through either the grid or online survey options. - Arising from the fact that several respondents indicated an inability to provide a response to the survey prior to Christmas, data collection

complex than the 2011 survey. In addition, respondents suggested that the timing of data collection around Christmas 2015, and their consequent reduced availability influenced response rates.	was extended into January 2016 to increase the number of completed responses. Following this extension, a significant further number of responses (59) were received.

Appendix 2: Further analysis

A number of other relationships in the data were explored. For most of the sub categories below, high level comparisons have been drawn for the purpose of this first draft report.

Relationship between costs and degree of compliance outsourced

The data was examined to understand if there was a relationship between the degree of costs that were outsourced and the overall cost of compliance. This followed an examination of costs between public and private sector organisations, where private sector organisations appear to be spending more on the same tasks than their public sector counterparts partly driven by greater dependence on external consultants. Table 20 provides this analysis.

Table 20: Relationship between costs of compliance and proportion of total costs that are outsourced (N=1,858, n=226)

Row Labels	Count of CRC participant number	Weighted average
1 No external costs	133	£16,201
2 0-10%	14	£27,881
3 10-30%	22	£24,374
4 30-50%	22	£31,065
5 Over 50%	35	£40,722
Grand Total	**226**	**£23,231**

While there are relatively few cases in some of the bands, this analysis found that there were significant differences in the costs experienced by those who outsourced activities against those that do not. Organisations with a greater number of supply points will clearly have a larger amount of data to collect and will often tend to be more complex. This appears to encourage the use of consultants to assist with compliance.

Table 21 shows the statistical significance of the relationships that were explored, showing that the most significant relationship when comparing those with no external costs and those where over 50% of costs were met externally (as would be expected).

Table 21: Statistical significance of comparisons between categories (banded)

Proportion of external costs	No external costs	0-10%	10-30%	30-50%	Over 50%
No external costs		90%	90%	90%	99%
0-10%					
10-30%					90%
30-50%					
Over 50%					

Relationship between costs and level of exclusions

This relationship was explored, and results do indicate that those dealing with exclusions need to spend more time on that obligation (and experience higher costs), but observed variations were not found to be statistically significant – suggesting no clear relationship between the total level of exclusions and costs.

Relationship between costs and other indicators of structured organisational complexity

Respondents were asked to indicate whether their organisation was or operated in such a way that may introduce complexity in relation to CRC compliance. Respondents were asked yes or no to the following factors to indicate whether they felt a particular circumstance applied to them:

- If above half of all buildings were leased rather than owned by the organisations
- If buildings were leased from more than one other landlord / management organisation
- If the organisation was headquartered internationally as part of a multinational.

One-hundred-and-twenty-three organisations indicated that they possessed one or more of the factors that were explored.

Table 22 shows that organisations that possessed one or more of these factors reported higher costs of compliance than those without. These figures are not statistically significant, but the findings appear in line with what we would expect – that certain factors do add complexity and therefore cost to compliance activities.

Table 22: Relationship between costs of compliance and other organisational complexity (N=1,858, n=226)

Row Labels	Count of CRC participant number	Weighted average
Has some other organisational complexity	123	£24,811
No complexity	103	£20,627
Grand Total	**226**	**£23,231**

Tables 23, 24 and 25 explore the three factors individually – which show greater variation between costs when buildings are leased from more than one other organisation, and for multinationals.

Table 23: Relationship between costs of compliance and proportion of building ownership / leasing (N=1,858, n=226)

Row Labels	Count of CRC participant number	Weighted average
Over half of all buildings are leased, rather than owned by the organisation	62	£23,147
Did not possess characteristic	164	£23,178
Grand Total	**226**	**£23,231**

Table 24: Relationship between costs of compliance and leasing from multiple sources (N=1,858, n=226)

Row Labels	Count of CRC participant number	Weighted average
Buildings are leased from one or more separate organisations	79	£21,478
Did not possess characteristic	147	£25,910
Grand Total	**226**	**£23,231**

Table 25: Relationship between costs of compliance and multinational status (N=1,858, n=226)

Row Labels	Count of CRC participant number	Weighted average
The organisation is headquartered internationally as part of a multinational	50	£22,385
Did not possess characteristic	176	£25,143
Grand Total	**226**	**£23,231**

These tables suggest some association between measures of complexity and costs, but these were not found to be statistically significant.

Comparison of costs between those in both Phases or new in Phase 2

Emissions analysis was conducted to examine £ / TCO_2 and relationship with the number of supply points.

Table 26: Average total costs associated with emission bands (n=226)

Emissions (tCO_2)	n	Average total cost (including subsistence fees)
Less than 10,000	93	£14,407
10,000 - 25,000	82	£20,726
25,000 - 50,000	31	£25,990
Over 50,000	20	£41,880
Grand Total	**226**	**£23,231**

As shown in the table above, compliance with the CRC is more burdensome for those organisations that lie at the lower end of the emissions range. The average compliance cost for organisations with emissions less than 10,000 tCO_2 is £14,407, whereas the average compliance cost for organisations with emissions that exceed 50,000 tCO_2 is £41,880. The difference between the two groups is statistically significant at the 99% level. The findings suggest a linear relationship between emissions and cost of compliance; the more emissions an organisation has, the greater the cost of compliance.

Table 27 demonstrates much higher costs per tonne of emissions for smaller emitters. The average cost per tonne for organisations with emissions less than 10,000 tCO_2 is £4.32, whereas the average cost per tonne for big emitters with emissions more than 50,000 tCO_2 is £0.33. The difference between the two groups is statistically significant at the 99% level.

There seems to be a strong correlation between number of supply points and emissions; as shown in the table below, organisations with many supply points are big emitters, and thereby bear greater compliance costs. By contrast, participants with fewer supply points tend to be smaller emitters on average and incur lower compliance costs.

Table 27: Average cost per tonne of CO2 emissions associated with emission bands (n=226)

Emissions (tCO_2)	n	£/tCO_2
Less than 10,000	93	4.32
10,000 - 25,000	82	1.33
25,000 - 50,000	31	0.83
Over 50,000	20	0.33
Grand Total	**226**	**2.41**

Table 28: Average compliance costs and average emissions per supply points band (n=226, N=1,858)

Number of supply points band	n	Average weighted total cost (including subsistence fees)	Average emissions (tCO_2)
<10	43	£13,169	6,323
10-49	66	£16,541	13,405
50-199	51	£25,939	18,582
200-499	35	£31,402	29,104
>500	31	£40,037	162,651
Total	**226**	**£23,231**	**35,592**

Table 28 shows a correlation between increasing number of supply points and increasing costs of compliance – as would be expected given the correlation between number of supply points and emissions that is demonstrated in the table above. Costs are lower (statistically significantly so) for those with fewer than 50 total supply points when compared with those organisations that possess more than 50 total supply points. Table 29 shows the degree of statistical significance associated with the comparison of supply point bands.

Table 29: Degree of significance of costs of compliance and total number of supply points (banded)

Number of supply points	<10	10-49	50-199	200-499	>500
<10			90%	99%	99%
10-49			95%	95%	95%
50-199					
200-499					
>500					

GHG reporting – costs of compliance and qualitative feedback

The CRC cost of compliance survey was distributed to the entire population of CRC Phase 2 participants. Within this population, DECC were aware that there would be organisations who fell within the scope of another policy, mandatory GHG reporting, which applies to UK quoted companies[53]. DECC were therefore keen to try and assess the costs of compliance for organisations needing to report on GHG emissions, and to capture feedback on the value of doing so for these businesses (to feed into the business tax landscape review and help inform the Government policy portfolio).

An additional section was included in the CRC cost of compliance survey for organisations that are required to report on GHG emissions. This was an online survey so we were reliant on respondents self-identifying that they had some requirement to report on their GHG emissions.

It should be noted that *this survey was only aimed at CRC participants* rather the wider population of organisations in scope of mandatory GHG reporting[54]. Therefore, these results are

[53] Quoted companies in this respect are those that are UK incorporated and whose equity share capital is officially listed on the main market of the London Stock Exchange; or is officially listed in a European Economic Area; or is admitted to dealing on either the New York Stock Exchange or NASDAQ. Companies within the scope of the regulation must adhere to its requirements.

[54] As a secondary consideration within the wider CRC survey resource was not expended to identify and increase representation with those in scope of mandatory GHG reporting

unlikely to be representative of the wider population (due to the fact that we did not survey quoted energy intensive businesses and those below the CRC consumption threshold). Small sample sizes are a key limitation in terms of what can be concluded and so the results should be treated as indicative.

Seventeen organisations supplied information on costs associated with mandatory GHG reporting. Data are not weighted, and population data for policies other than CRC has not been gathered.

Table 30: Private sector administrative costs of mandatory GHG reporting compliance (n=17)

	Average total cost	Total average external cost	Total average internal cost	Of which: Directors	Of which: Senior Managers	Of which: middle managers	Of which: administrators	Other costs
One-off costs of complying with mandatory GHG reporting - including the time spent understanding the rules, educating the organisation and installing software	£2,796	£908	£1,888	£67	£585	£1,125	£111	£0
Ongoing time and costs per annum spent gathering, verifying and publishing data on domestic transport emissions	£2,474	£1,941	£532	£21	£116	£301	£94	£0
Ongoing time and costs per annum spent gathering, verifying and publishing data on domestic on-site emissions energy-related	£7,164	£5,042	£2,122	£21	£139	£1,766	£195	£0
Ongoing time and costs per annum spent gathering, verifying and publishing data on domestic on-site	£1,465	£294	£1,170	£21	£94	£955	£100	£0

emissions non energy-related								
Ongoing time and costs per annum spent gathering, verifying and publishing data on your international emissions (transport and on-site emissions)	£1,396	£955	£441	£21	£123	£218	£79	£0
TOTAL (average 2014-15)	**£15,294**	**£9,141**	**£6,153**	**£153**	**£1,056**	**£4,365**	**£579**	**£0**

Sample sizes and the sampling approach do not permit a robust trend analysis, but tentative observations of the data above include:

- Average total compliance costs for the seventeen respondents for the 2014-15 compliance year were £15,274
    - 18% of this total was associated with one-off activities – including the time spent understanding the rules, educating the organisation and installing software
    - 73% was associated with gathering, verifying and publishing data on domestic emissions; the majority of which was associated with on-site energy related emissions
    - 9% was associated with gathering, verifying and publishing data on international emissions
- External costs associated with outsourcing account for 60% of compliance costs
- As was observed for CRC participants, a large proportion of internal costs fall with middle managers; however administrators were not heavily involved at any stage of the process. Senior managers were associated with the second highest cost, and reported most input for one-off activities.

Qualitative insights in relation to Mandatory GHG Reporting

This section provides a summary of responses to other questions included within the cost of compliance survey for private sector organisations (n=17) subject to mandatory GHG reporting requirements:

In the absence of GHG reporting requirements, would your organisation have publicly reported its domestic GHG emissions? (n=17). Just over half reported that they would have publicly reported this information in the absence of the policy.

- Yes – 9 organisations – 53%
- No – 5 organisations – 29%
- Don't know – 3 organisations – 18%.

In the absence of GHG reporting requirements, would your organisation have publicly reported its international GHG emissions? (n=17). Over half of those with international emissions reported that they would have publicly reported this information in the absence of the policy.

- Yes – 8 – 48%
- No – 4 – 23%
- Don't know – 2 – 11%
- Not applicable – 3 – 18%.

What are the costs and benefits of reporting GHG emissions (n=17)

Benefits (n=7)

- Better overall understanding of emissions – 4 organisations
- A driver for improvements – 2 organisations
- Reputational benefits – 1 organisation
- Provides consumers and others with information – 1 organisation.

Respondents, in general, seemed to speak more favourably when describing costs and benefits of GHG reporting in comparison to CRC. The most frequently reported benefit was giving organisations a better understanding of emissions.

Comments provided by respondents include:

> *"Costs of reporting are very significant but benefits are also significant, as reporting acts as an incentive to continuously improve on performance"*
>
> *"We believe that it is vital to provide access to transparent, reliable and comparable information to support financing and investment in energy efficiency and low carbon measures. The most efficient way of doing this is by reporting on both absolute and specific intensity measures"*
>
> *"The impact of good reporting and good performance is strong with our customers"*
>
> *"We don't believe there are negative impacts of reporting on GHG emissions".*

Costs (n=6)

- Expensive to report on emissions – 3 organisations
- Unwelcome additional burden – 1 organisation
- Inaccurate / unfair as reliant on grid electricity factors (which fluctuate) – 1 organisation
- Absolute figures do not reflect investments that have been made / are planned to reduce emissions – 1 organisation

Respondents most frequently commented on the cost associated with reporting on GHG emissions. A selection of verbatim include:

"They are a minor annoyance, in time and cost, and provide no benefit to the company"

"More time/resource/funds could be spent on reducing emissions/consumption instead of reporting/collating data we already use for internal reporting/energy wastage reduction"

"GHG emission data may not accurately reflect efforts by company to reduce emissions"

What are the advantages or disadvantages associated with complying with GHG reporting on your organisation? (n=12)

Following on from discussion of the costs and benefits of reporting GHG emissions, respondents were asked for thoughts on the advantages and disadvantages of needing to comply. In many cases the responses echoed those to the previous question. Points raised in this section are additional comments made by respondents.

More organisations reported advantages than disadvantages. Few respondents only reported a disadvantage; most were able to weigh up the advantages even in light of (what appear to be in some instances) references to costs around compliance.

General comments included:

"We don't believe that there are any disadvantages associated with complying with GHG reporting"

"There are no disadvantages if you do it well and engage properly as an organisation".

Advantages (n=11)

"The main advantage is it does bring the subject of GHG emissions to the attention of Senior Management and Investors"

"The positives outweigh the negatives of administrative burden as investors can readily see that the Company is actively reducing emissions and also aids in e.g. FTSE4Good and CDP ratings"

"Compliance is the first step - subsequent good reporting and good performance are where advantages accrue from stakeholder and customer engagement"

"Measurement has helped us to understand our emissions, the energy use that drives them, and set targets to lower this"

"As a responsible business complying with any legislation is a big advantage in terms of building trust with stakeholders".

Disadvantages (n=4)

“Time, money and effort for no material gain”

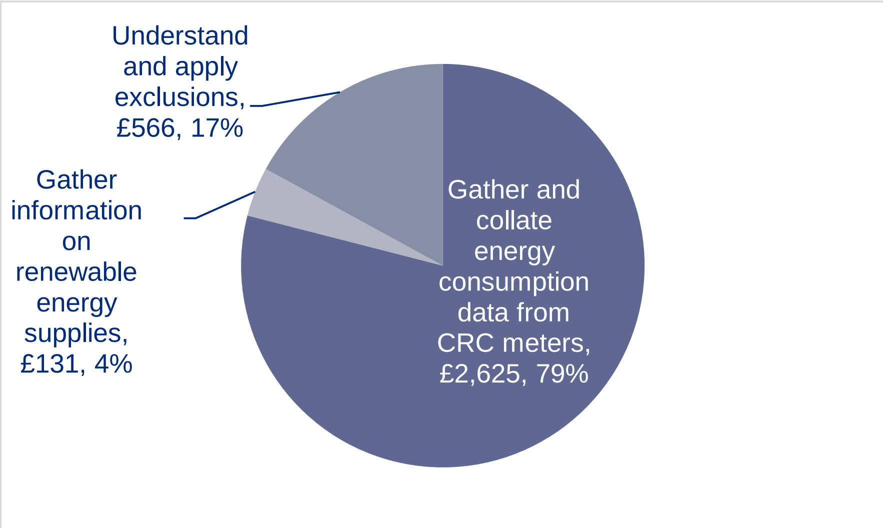
“Administration time and effort”

“It is time consuming”.

Appendix 3: Breakdown of grouped costs

In the analysis of ongoing tasks in section 2.3, some multi-faceted activities, such as collating energy information, were grouped and reported collectively. The figures below present the breakdown of these to their individual sub-activities.

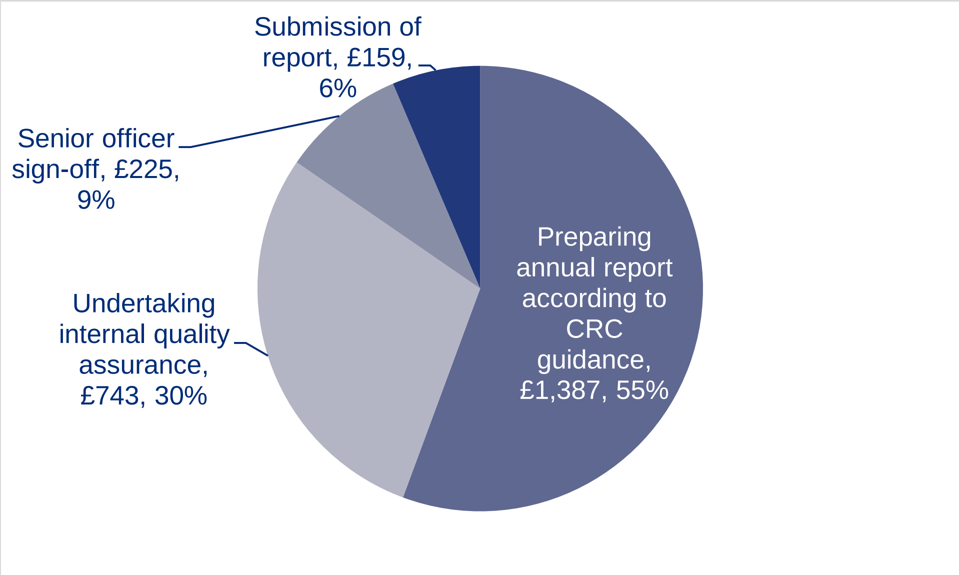
Figure 13: Costs for ongoing sub-tasks – collating energy information (N=1,858, n=226)



This shows that the highest proportion of costs are associated with gathering and collating data from meters; almost four-fifths of costs were associated with this step. This is partly driven by a high proportion of this cost (39%) being external, with external consultancies offering solutions of which capturing energy consumption data is often a core service. Most of the internal component (86%) of this cost falls with middle managers and administrators, as would be expected – the 'day to day' tasks associated with compliance, of which this is the largest average ongoing cost. Renewable sources make up a very small proportion of the total cost.

A relatively large proportion of time is spent understanding and applying exclusions, given that the key task here is collecting information to understand exposure to the policy requirements (e.g. consumption for which allowances must be purchased). The complexity of this stage reflects the fact that costs of directors and senior managers' time is proportionally higher at a quarter of the cost (compared to e.g. 14% of the internal cost of gathering / collating data). On average a high proportion of the cost of this task (59%) also falls externally. This supports the proposal put forward earlier that the complexity and risks of applying exclusions means organisations tend to outsource this cost.

Figure 14: Costs for ongoing sub-tasks – reporting (N=1,858, n=226)

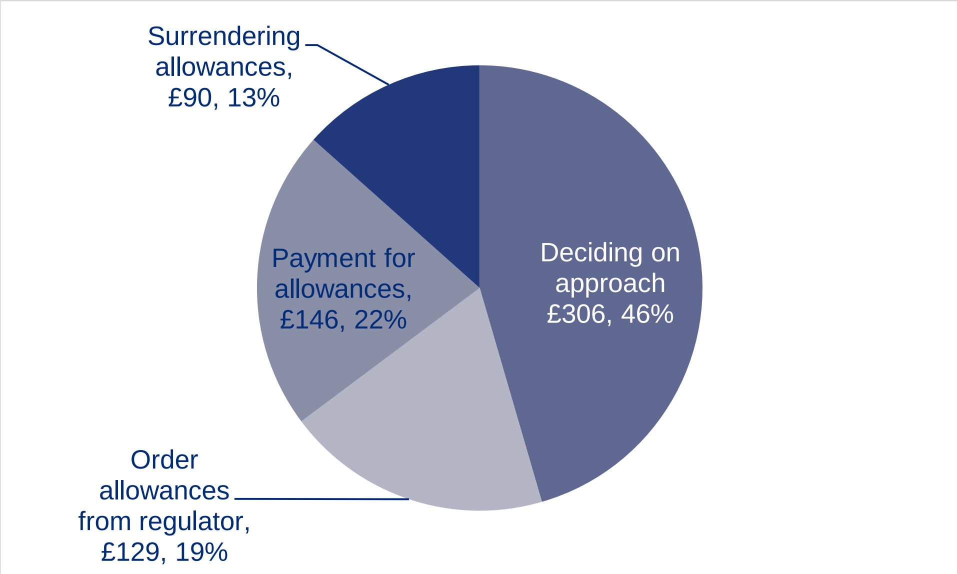


This shows that most of the cost within the reporting category is associated with preparing the actual report, with 45% of the cost relating to quality, signoff and submission. 80% of the cost of preparing the report falls with middle managers and administrators; this falls to 72% at the quality assurance stage, as would be expected with more senior figures having greater involvement in checking the report.

Interestingly only 40 respondents (18%) reported any cost associated with director involvement for signing off the report, suggesting that senior managers are undertaking this task in some organisations or that the time spent by directors is negligible. 64% of respondents suggested that directors were involved within quality assurance, suggesting that for the other 36% quality assurance was carried out by senior managers with directors having no visibility. This could suggest that for some organisations Directors really only have a noticeable input at the one-off stages, handing over compliance to senior managers for ongoing compliance activities where we might expect that Directors may continue to have some level of involvement. The task with the highest external proportion of cost (34%) is the preparation of the report, which is again a task typically offered by many service providers.

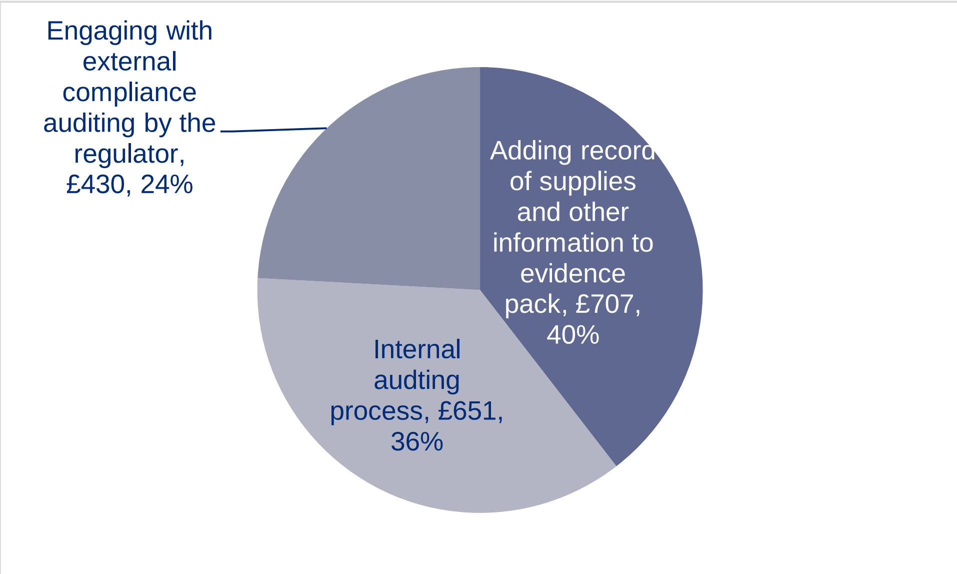
Only a small proportion of total costs for this task is associated with reporting the data within the IT system for reporting.

Figure 15: Costs for ongoing sub-tasks – purchase and surrender of allowances (N=1,858, n=226)



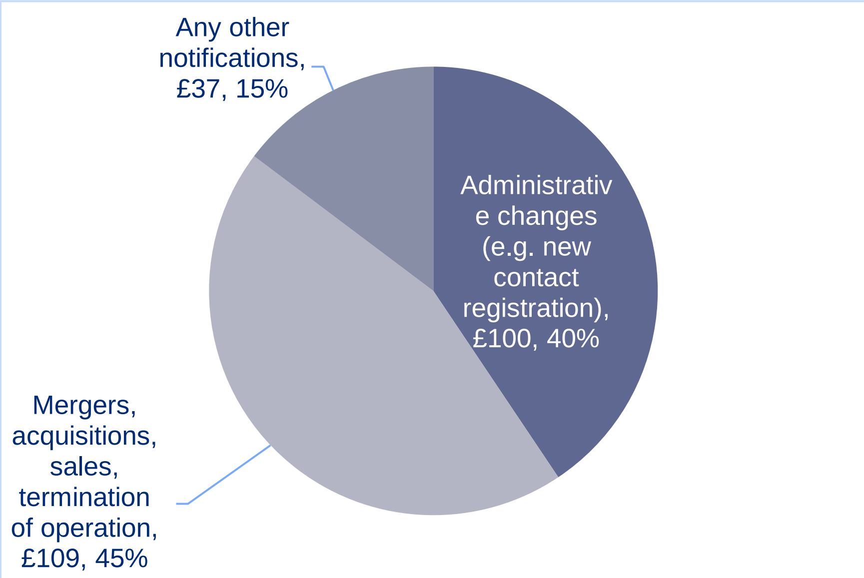
The highest cost in the purchase and surrender of allowances category – just under half - is associated with deciding on the overall approach in relation to allowances, with the remainder associated with the practical steps of ordering, paying for, and surrendering allowances. In terms of deciding the approach, there wasn't found to be a high external component of this cost (12%) suggesting that organisations are more likely to be managing this internally. The data suggests that roughly half of the cost of deciding on the approach is met by the two senior roles, with the other half met by middle managers & administrators – suggesting that all roles have involvement at this stage.

Figure 16: Costs for ongoing sub-tasks – record keeping & auditing (N=1,858, n=226)



This shows that the costs of keeping records up to date and internal audit are broadly similar. Those in middle management and administrator roles are the highest proportion of the cost of record keeping (78%) as would be expected, while this falls slightly at the audit stage (73%) where more senior individuals become involved.

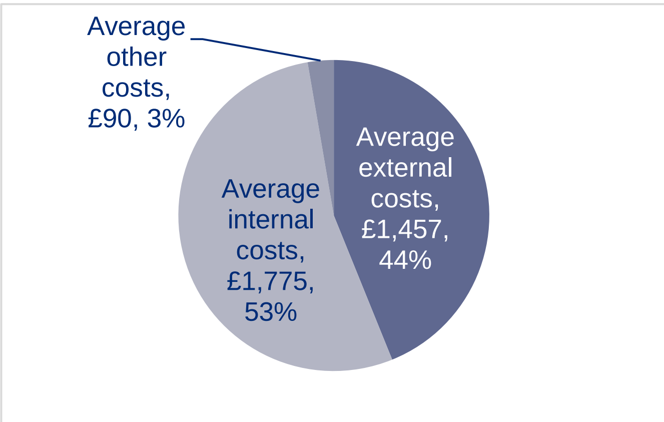
Figure 17: Costs for ongoing sub-tasks – notifying regulator of changes (N=1,858, n=226)



All staff roles had some involvement in these tasks, with 38% of the total cost associated with directors and senior managers, suggesting these individuals may be the lead points of contact, or that board need to consider CRC implications within e.g. merger & acquisitions decisions. 62% of the cost of notifying the regulators in relation to mergers, acquisitions, sales and termination of operation fell externally, suggesting this is another step where organisations seek external support to understand and communicate the effects of these activities.

As noted previously, the highest proportion of external costs within ongoing activities was associated with ongoing maintenance of monitoring and reporting systems. Collating energy supplies also had a high proportion of cost associated with external spend in relation to internal costs.

Figure 18: Breakdown of total costs of collating energy supplies (N=1,858, n=226)



Appendix 4: Further information on CRC simplification

Three major simplification packages were proposed and subsequently taken forward within Phase 2[55]:

- **Package A.** Measures that changed the qualification status and therefore changed the scheme's emissions coverage. Measures were designed to exempt certain organisations from policy compliance altogether – so affected the number of organisations which needed to comply.
- **Package B.** Measures that changed the fuel supply rules and therefore also changed the scheme's emissions coverage. These measures were designed to change the amount of energy consumption that was within scope of CRC, which would influence both one-off and ongoing costs
- **Package C.** Other measures that did not change qualification or fuel supply rules, but that would achieve a straightforward administrative cost reduction without affecting the scheme's emissions coverage. These measures were general quality of life improvements for participants and covered most of the measures simplifying organisational structure, allowance sale process and banking. These measures would influence both one-off and ongoing costs.

CRC simplification contained 46 proposals and the key changes introduced through the simplification packages included[56]:

- The reduction in reportable energy supplies from 29 to two – gas (used for heating purposes only) and electricity
- An overall reduction in the number of organisations in scope for Phase 2 of the CRC (through measures such as exempting schools and qualification criteria resting on settled Half Hourly Meters only)
- The reporting of 100% of relevant electricity and gas supplies being required

[55] DECC, Impact assessment: Simplification options for the CRC Energy Efficiency scheme to help business - CRC (Amendment) Order 2013, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/65663/7189-ia-gov-resp-crc-simplification.pdf

[56] Environment Agency, The simplification of the CRC Energy Scheme, 2013, http://webarchive.nationalarchives.gov.uk/20140328084622/http:/cdn.environment-agency.gov.uk/LIT_7669_1408de.pdf

It should be noted that simplification steps were not universal across the whole of the United Kingdom – for example, schools were not removed from scope in Scotland.

- Exclusion of domestic gas supplies and any other gas supplies with an annual quantity of 73,200kWh or less
- Exclusion of electricity supplies from domestic sources and those indicated by meter profile classes 01 (domestic unrestricted) and 02 (domestic Economy 7)
- Introduction of an organisation-wide 2% de minimis threshold for gas
- Restriction of the circumstances where Electricity Generating Credits could be claimed
- Changes to the deadlines for obtaining and surrendering allowances
- Abolition of Performance League Tables. This was substituted by the Environment Agency publishing annual data on participants' energy use and emissions.

Collectively these measures were designed to make the CRC less complex/administratively burdensome and easier for organisations to comply with Phase 2 (though, noting that due to organisational circumstances there would still be organisations for whom compliance was more burdensome than others).

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1 Victoria Street, London,SW1H 0ET
www.gov.uk/beis