Title: Simplification options for the CRC Energy Efficiency scheme to help business : CRC (Amendment) Order 2013 **IA No: DECC0066** **Lead department or agency:** Department of Energy and Climate Change (DECC) **Other departments or agencies:** Environment/climate change departments from Scottish Government, Welsh Government and Northern Ireland Executive.	**Impact Assessment (IA)** **Date: tbc** **Stage:** Final **Source of intervention:** Domestic **Type of measure:** Secondary legislation **Contact for enquiries:** **Kiko Moraiz** **Kiko.moraiz@decc.gsi.gov.uk**

Summary: Intervention and Options

RPC: Not Applicable

Cost of Preferred (or more likely) Option				
Total Net Present Value	**Business Net Present Value**	**Net cost to business per year**	**In scope of One-In, One-Out?**	**Measure qualifies as**
£77m	£87m	£-6m	No	N/A

What is the problem under consideration? Why is government intervention necessary?

The CRC Energy Efficiency Scheme (CRC) is a mandatory UK-wide scheme that came into force in April 2010 and is designed to incentivise the uptake of cost-effective energy efficiency measures. Government has committed to simplify the scheme based on stakeholder feedback that it is complex, administratively burdensome, overlaps with other regulatory mechanisms and forces organisations to participate in ways which do not readily align with their natural business structures and processes. Government has therefore proposed a series of simplification measures to reduce the administrative burden on participants whilst broadly maintaining the scheme's emissions coverage and energy efficiency benefits.

What are the policy objectives and the intended effects?

The proposals assessed in this document are designed to simplify the scheme's administrative rules and compliance obligations, resulting in a commensurate reduction in participants' administrative burdens. In addition the proposals are intended to align compliance obligations with organisations' operational structures and procedures, thereby enabling further administrative savings whilst preserving the CRC administrators' ability to enforce effectively the scheme's requirements. These proposals are also designed to broadly maintain emissions coverage and the associated energy efficiency savings.

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What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

The proposal detailed in this IA is the result of significant stakeholder engagement to identify practical simplification measures and a consultation exercise. The 46 measures DECC proposes to implement have been grouped and assessed as three thematic packages depending on whether they influence qualification (A), fuel supply rules (B) or administrative costs only (C). The elements of each package, and the interaction between these, have been stress tested to avoid unintended consequences of the packages as a whole. This grouped approach facilitates the assessment of the measures, which would have involved a significant number of permutations if considered individually. It also mitigates the risk of incompatible measures being selected on the basis of their impacts in isolation. Two options have been considered for this IA: Option 0 - counterfactual business as usual; Option 1 (the preferred option) – packages A, B and C.

Will the policy be reviewed? It will be reviewed. **If applicable, set review date:** 01 / 2014						
Does implementation go beyond minimum EU requirements?			**N/A**			
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	**Micro No**	**< 20 No**	**Small No**	**Medium No**	**Large Yes**	
What is the CO2 equivalent change in greenhouse gas emissions? (Million tonnes CO2 equivalent)			**Traded: 0.3**	**Non-traded: 0.7**		

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible ---------- Date: ----------

Summary: Analysis & Evidence

Policy Option 1

Description: Implementation of the three simplification packages; A - measures which change qualification status and emissions coverage, B – measures which change fuel supply rules and emissions coverage, and C – other measures which do not change qualification and fuel supply rules.

FULL ECONOMIC ASSESSMENT

Price Base Year 2012	PV Base Year 2011	Time Period Years 20	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	**High:** Optional	**Best Estimate: 77**

COSTS (£m)	Total Transition (Constant Price)	Year	Average Annual (excl. Transition) (Constant	Total Cost (Present Value)
Low	Optional		Optional	**Optional**
High	Optional		Optional	**Optional**
Best Estimate				**-285**

Description and scale of key monetised costs by 'main affected groups'

This option combines packages A) affecting qualification for the CRC; B) reducing the number of fuels that are included in the CRC and the regulations for reporting them and C) a simplification of reporting, organisational and trading rules. This option reduces costs for those current CRC participants that no longer qualify under the simplified scheme. For those participants remaining in the scheme, simplified regulations and reporting will deliver reduced costs. As a consequence this IA reports a reduction in administrative costs of £272m. Capital costs fall by £13m. This results in a net reduction in costs of £285m.

Other key non-monetised costs by 'main affected groups'

Some transaction costs such as IT costs for participants derived from having to update data systems to reflect changes imposed by new measures have not been included in the PV. An initial quantification indicates that they are relatively small.

BENEFITS (£m)	Total Transition (Constant Price)	Year	Average Annual (excl. Transition) (Constant	Total Benefit (Present Value)
Low	Optional		Optional	**Optional**
High	Optional		Optional	**Optional**
Best Estimate				**-208**

Description and scale of key monetised benefits by 'main affected groups'

There is a reduction in benefits of £167m through a loss of energy savings brought about by removing CCA and EU ETS overlaps with the CRC and by reducing the number of fuels which participants are required to report on. Air quality benefits fall by £3m and changes to emissions savings result in a fall in benefits of £38m.

Other key non-monetised benefits by 'main affected groups'

Many of the measures in each of the simplification packages have been designed to make the scheme fairer or to reduce the risk of misreporting, misaligned incentives or clarify the scope of the new rules. These measures are necessary for the main simplification measures to work but do not have an impact on their own.

Key assumptions/sensitivities/risks	**Discount rate (%)**	3.5

The calculations of energy efficiency savings have been updated since the 2010 IA and take account of the increase in emissions coverage that has been identified in the first Annual Report of the CRC. Estimates of CRC admin savings are based on commissioned research from KPMG. Although this research focused on minimising reporting bias, the results are based on participants views and have not been fully audited.

Evidence Base

1. This Final Impact Assessment (IA) follows the completion of a consultation published in March 2012 on proposals to simplify the current CRC Energy Efficiency Scheme (CRC). It updates the evidence presented in the Consultation IA by incorporating the following:
   - Comments from the RPC on the Consultation stage IA;
   - Responses received from consultees;
   - New data on Climate Change Agreements (CCA) exemptions obtained from the Environment Agency (EA);
   - Comments from the National Audit Office (NAO) as a result of their assessment of the CRC scheme for the Select Committee;
   - All figures have been updated to 2012 real values using the new sets of energy prices, carbon values and conversion factors outlined in the latest energy projections (DECC Updated Emissions Projections October 2012) [1].

Summary of changes from the previous IA

2. The overall methodology for assessing the impacts of the simplification proposals in this IA remains the same as in the Consultation IA. It evaluates the proposals by comparing them to the 'Business as Usual' (BAU) scheme, which is characterised as a continuation of the CRC Scheme in its current form up to 2030. However, there are some significant changes since the Consultation stage IA which affect the baseline and the assessment of the preferred option's impact.

3. This Final stage IA uses the updated dataset from the Environment Agency (31 May 2012) drawn from July 2011 Annual Report data submitted by Scheme participants. It includes more detailed information on CCA coverage, reflecting the increase in the number of CCA fuels reported which are exempt from CRC. This has the overall effect of reducing the emissions coverage of the CRC baseline relative to that reported in the Consultation IA. There is also a new energy demand trend from the DECC Updated Emissions Projections (October 2012).

4. The RPC opinion on the Consultation stage IA indicated a concern about the level of understanding of the Scheme among stakeholders; this would have affected their ability to respond to the consultation proposals. In response, the full consultation document published alongside the Consultation stage IA set out the full details of the current Scheme design. In addition, DECC hosted two workshops during the consultation period offering stakeholders the opportunity to clarify any issues regarding the current design of the Scheme or the simplification proposals.

5. The CRC is NOT in the scope of One-in, One-out (OIOO) calculations, as it has been classified as an environmental tax by HM Treasury (HMT). Nevertheless, this IA provides further evidence to support the Equivalent Annual Net Cost to Business (EANCB) calculation consistent with the current One-in, One-out Methodology.

6. Some changes have also been incorporated following comments from the National Audit Office (NAO) on the Consultation IA. These include updating estimates for

[1] http://www.decc.gov.uk/en/content/cms/about/ec_social_res/analytic_projs/en_emis_projs/en_emis_projs.aspx

capital expenditure and air quality benefits of the CRC Scheme for the whole period up to 2030 and providing some sensitivity analysis on the impact of the Scheme[2].

7. During the period of consultation, there has been an agreement between DECC, DfE, HMT and the Devolved Administrations (DAs) to remove schools from the CRC in exchange for a GHG emissions reduction target. Consequently, in this Final IA, the CRC baseline has been modified to remove schools from the scheme.

8. In parallel to the consultation process on the simplification proposals, the devolved administration of Northern Ireland (NI) are in the process of deciding whether to terminate their participation in the CRC Scheme. A decision is expected in [insert date] and could affect the valuation of the counterfactual (i.e. baseline) against which the impact of simplification is to be assessed.

Problem under consideration

9. The CRC came into force at the beginning of April 2010. It is designed to incentivise energy efficiency improvements in large non-energy intensive organisations in the public and private sectors. Large businesses and public sector organisations represent around 12% of the UK's total carbon emissions.

10. Despite there being cost effective energy efficiency savings available to these public and private sector organisations, a 2005 independent report by the Carbon Trust demonstrated that these organisations' emissions had remained more or less constant for the last twenty years owing to a range of barriers. These were identified as:

    - The lack of board and senior level awareness of energy consumption issues;
    - The lack of significant financial incentives to encourage energy efficiency savings;
    - The lack of reputational benefits associated with leading in energy efficiency.

11. The CRC employs a range of mechanisms to address each of these barriers:

    - The mandatory monitoring and reporting of energy consumption which is intended to increase awareness of energy use;
    - A requirement on participants to purchase CRC allowances commensurate with their energy usage, thus providing a financial incentive to improve energy efficiency and raise senior level awareness of energy use;
    - The annual publication of a performance league table (PLT), ranking participants on the basis of their energy efficiency achievements in comparison to the previous year, which is intended to create a reputational driver and raise board/senior level awareness of energy use.

12. Given that total energy costs are generally just 1-2% of the total operating costs in the target sector, linking financial and reputational drivers is critical to sustaining senior management focus on energy efficiency.

[2] Sensitivity analysis did not result in any major significant impacts in any of the options and did not produced any significant recommendation.. For simplicity, this analysis has not been reported in this IA.

13. Organisations that qualify for participation i.e. consume more than 6000MWh of electricity per year, are required to undertake a series of compliance activities, such as the annual reporting of their organisations emissions and the surrendering of a commensurate number of CRC allowances; designed to raise both the internal and external profile of an organisation's energy usage – the latter aspect through the publication of an accurate annual performance league table[3]. Further details of the rationale for the scheme and its original design can be found in the October 2009 Impact Assessment and accompanying policy development documents.[4]

Rationale for intervention

14. Since the introduction of the CRC in April 2010, some stakeholders have argued that the scheme is overly complex and administratively burdensome, especially in relation to emissions regulated under the EU Emissions Trading System (EU ETS) or a Climate Change Agreement (CCA). Further, some have also stated that the organisational focus of the scheme is misaligned with their operational management structures and business processes.

15. Consequently, Government announced its intention to simplify the scheme in the Annual Energy Statement published in August 2010. This directly led to a consultation exercise, updated Impact Assessment and an initial Amendment Order in April 2011[5] . The purpose of this 2011 amendment was primarily to create the legislative window in which to undertake a thorough simplification review of the scheme.

16. Significant stakeholder engagement was undertaken to identify, develop and stress-test a range of simplification measures. A suite of high level measures was initially published in January 2011[6] focusing on the five headline areas of i) energy supplies; ii) organisational structure; iii) allowances and banking; iv) qualification and v) reducing the overlap between regulatory mechanisms. Subsequent discussions and engagement facilitated the further development of the proposals, with a number of the measures being discarded on the grounds of practicality, enforceability, stakeholder feedback, or incompatibility with other measures. The headlines of the measures being taken forward were announced in a Ministerial statement in June 2011[7] and set out in a formal consultation published in March 2012.

Description of options considered

17. The consultation sought views on a suite of 46 different simplification measures that were grouped into three packages according to whether they influence qualification for the Scheme (Package A), fuel supply rules (Package B) or administrative costs only (Package C). See Annex B for a full description of all the measures.

3 http:// CRC.environment-agency.gov.uk/pplt/web/plt/public/2010-11/ CRCPerformanceLeagueTable20102011
4 http://www.decc.gov.uk/en/content/cms/consultations/ CRC/ CRC.aspx.
5 http://www.legislation.gov.uk/uksi/2011/234/contents/made
6 http://www.decc.gov.uk/en/content/cms/emissions/ CRC_efficiency/simplification/simplification.aspx
7 http://www.decc.gov.uk/en/content/cms/news/wms_300611/wms_300611.aspx

18. The consultation stage presented three options. As a result of the analysis in the consultation stage IA, option 2 have been discarded and the final IA considers the preferred option (Option 1) against the baseline (Option 0):

    - **Option 0**: The business as usual counterfactual – continuing the CRC scheme in its current form.
    - **Option 1**: Simplified CRC Scheme that implements all three simplification packages (A, B and C)

19. These two options incorporated improved evidence compared to previous impact assessments of the CRC, namely:
    - Detailed coverage data, submitted by participants via Registration and the first Footprint and Annual reports submitted in July 2011.
    - Bespoke DECC commissioned research on administrative costs of the CRC from one of the leading consultants in CRC compliance, KPMG. This research was based on a survey of administrative costs, desk-based research and qualitative interviews with a large number of CRC participants.

20. The intention was for a simplified CRC scheme that would retain the necessary combination of reputational, financial and standardised energy measurement and monitoring drivers; needed to tackle the barriers to the uptake of energy efficiency. The proposals therefore retained the key elements of energy reporting, the purchasing of allowances and the publishing of a Performance League Table and, as a consequence, maintaining CRC emissions savings, with the exception of the necessary adjustments to emissions coverage due to the revised simplification measures.

Summary of Consultation responses

21. The consultation exercise received 255 responses from a wide range of stakeholders, including the private and public sectors, as well as trade associations. In addition, two large stakeholder events were held in London and Manchester (attended by approximately 300 delegates), DECC officials attended CRC events in the Devolved Administrations as well as a number of events organised by stakeholders themselves.

22. Each of the proposals considered in the consultation document were addressed by specific questions. The responses primarily focused on commenting on individual proposals and whether they met the objectives of CRC simplification, namely to optimise the projected energy and carbon savings delivered by the CRC scheme and to reduce its overall complexity; allowing energy efficiency and carbon savings to be delivered, but at a minimum administrative cost.

23. The majority of consultation respondents agreed with the measures proposed and welcomed the complete package of simplification proposals as a step in the right direction. In particular,

- the proposals on simplifying the qualification criteria and threshold; simplifying the supply rules in defining energy supply in the scheme;
- a more coherent policy framework reducing policy overlaps with other climate change/energy efficiency policies (e.g. EU ETS installations, CCA facilities);
- flexible organisational rules to accommodate the natural business/energy management structures; and
- processes of organisations and the allowance sale process in the introductory phase and from phase II onwards

24. However, a number of concerns did emerge around the following issues:-
    - the rules of the CRC could remain too complex and difficult to understand for some organisations, even after the simplification proposals are implemented;
    - the proposals could be more ambitious. Some respondents argued that the number of fuels in the CRC should be reduced to just two (i.e. electricity and gas) as opposed to the four proposed (i.e. electricity, gas, gas oil and kerosene);
    - whether de-minimis thresholds should be adopted to keep administrative costs down;
    - some argued that the estimated administrative cost reductions were too optimistic; and
    - some suggested the CRC should be replaced with a more conventional environmental tax.

25. Taking all the responses to the simplification proposals into consideration, the Government is satisfied that overall, the simplifications will deliver significant improvements to the Scheme and they reflect changes that the majority of stakeholders wish to see.

26. After analysing the evidence provided by respondents on this issue, the Government has decided that the number of fuels in scheme should be reduced from 29 to 2. The scheme will now only cover emissions generated from the consumption of electricity and gas. On gas, the Government has decided to require participants to report on, and purchase allowances for, gas consumption if it is equal to or exceeds a de minimis threshold equal to 2% of their electricity consumption. Furthermore, since the overwhelming majority of gas use[8] is for heating purposes, Government has decided to require participants to purchase allowances for gas use on the assumption that all gas use is for heating purposes. It is considered that this assumption reduces the administrative costs to participants of distinguishing between gas use for different purposes. However, if a participant wishes to demonstrate that a proportion of their gas use is not for heating purposes, they may do so. The Government maintains that these additional measures combined, contribute towards reducing the scheme's overall complexity and the administrative burden on participants.

[8]This is estimated at around 85% of gas use but can vary between sectors.

27. Government is aware of a difference of opinion among respondents concerning the potential levels of administrative cost savings that can be achieved through the proposed simplification measures. A large part of the administration cost is driven by the monitoring and reporting of energy and emissions, therefore there are concerns that simplification will result in an increase in the overall cost of compliance, including one-off costs in understanding the new requirements to meet CRC liabilities. The Government acknowledges these concerns and (as explained above) has updated the evidence base on the current CRC scheme in a number of areas where robust evidence has been provided.

28. A number of respondents have again called for the scheme to be replaced with a more conventional environmental tax. However this option was out of the scope of this impact assessment; the primary purpose of the consultation being to establish how best to simplify the CRC Scheme and lower the administrative burden for participants.

29. As a result, Option 1 remains the Government's preferred option, although there have been some modifications to the measures proposed under this option to take account of the evidence gathered from the consultation exercise. These modifications are explained below in the section describing Option 1.

Option 0 – The current CRC Scheme (Business as Usual)

30. The CRC was designed as a mandatory scheme aimed at improving energy efficiency and cutting emissions in large public and private sector organisations. The scheme features a range of reputational, behavioural and financial drivers, which together aspire to encourage organisations to develop energy management strategies that promote a better understanding of their energy usage and increase the potential for energy reductions.

31. Qualification for the scheme is based on electricity consumption across organisations and groups of undertakings, rather than on an individual site basis. Organisations qualify as participants if, during the 2008 calendar year, they had at least one half-hourly electricity meter (HHM), settled on the half hourly market and if they consumed at least 6,000 MWh (megawatt hours) through all qualifying meters.

32. Each qualifying organisation needs to understand which energy supplies it needs to report on, and which supplies require allowances to be purchased. This involves several key issues:
    - Understanding its organisational structure;
    - Identifying what energy is supplied to the organisation;
    - Identifying how much of that energy the organisation is responsible for under the CRC;
    - Understanding which supplies count towards qualification and which count towards compliance.

33. As indicated above, there has been an agreement between DECC, DfE, HMT and the Devolved Administrations (DAs) to remove schools from the CRC. As a result,

the impacts of simplification in this IA have been assessed in the context of schools no longer participating in the Scheme.

Cost and benefits of Option 0

BAU emissions

34. The Consultation IA included new evidence on CRC coverage, collated from actual data from the registration process and the first Footprint and Annual reports submitted at the end of July 2011 – all of which were required to provide a complete picture from which to update the baseline estimates of the Scheme.

35. This IA revises the emissions coverage of the CRC using an updated dataset (version dated 31 May 2012) of CRC participants' actual returns from their Annual Reports provided by the Environment Agency[9]. It includes more detailed information on CCA coverage, reflecting an increase in CCA fuels reported which are exempt from the CRC Scheme[10]. This has the overall effect of reducing the emissions coverage of the CRC baseline relative to that reported in the Consultation IA.

36. Table 1 below provides some summary statistics on CRC participants and the emissions coverage of the scheme. Under the current design, participants are required to report on their total emissions that fall within the scope of the scheme once per phase in their Footprint Reports. These footprint emissions (200MtCO_2) include emissions already regulated under CCA or the EU ETS, as well as participants' electricity, gas and residual fuel use[11] – with the exception of any subsidiaries eligible for one of the three CCA exemptions[12]. The purpose of reporting footprint emissions is to establish participants' total emissions, and their subsequent compliance, with the requirement to have at least 90% of their emissions regulated by the CRC, CCA or EU ETS mechanisms.

Table 1 CRC summary data for current scheme

Current Scheme	Participant	UK & Local government (Mandated) Participant	Total

[9]The Consultation IA used an earlier version of data provided by the Environment Agency (version dated 01 September 2011).

[10] The latest data set includes an additional 646 CCA units compared to the provisional version of the data used in the Consultation stage IA which included 1535 CCA units.

[11] Residual fuels are all fuels in the CRC apart from core gas and electricity, in the EU ETS and Climate Change Agreements (CCAs). CRC participants currently need to ensure that at least 90% of their energy use is covered by CRC, EU ETS and CCAs. If electricity and gas, in addition to ETS and CCA supplies do not amount to 90%, then a participant must identify other, "residual" fuels to ensure that over 90% of their energy use is covered. See http://publications.environment-agency.gov.uk/PDF/GEHO0510BSNB-E-E.pdf for further information.

[12] These include: a) General exemption where a participant who is a single entity with a CCA installation covering more the 25% of emissions, can claim an exemption from the CRC on 100% of all emissions; b) Group participants: if after removing all CCA exemptions, the remaining parts of the organisation are supplied with less than 1000MWh of electricity, the whole group is exempt; and c) Member exemption: For any member of a group participant that does not qualify for group exemption, has a CCA installation covering 25% of emissions, all emissions from that member are exempt from the CRC.

Number of participants	2,630	78	2,708 *(2,779)*
Footprint Emissions ($MtCO_2$)	196.7	3.8	200.5 *(199.7)*
CRC Emissions ($MtCO_2$)	54.2	3.5	**57.7** *(61)*

Note: *Figs in brackets reflect those reported in Table 7 of the Consultation IA*

37. The distribution of CRC emissions by fuel (as shown in Table 2) indicates that 97% of CRC emissions are related to electricity and gas use. This confirms consultation stage estimates of fuel savings which assumed that emissions from fuels other than electricity and gas, are negligible.

Table 2 CRC Emissions in the Annual Report 2011 (Current Scheme) by fuel, in $MtCO_2$

Fuel	**$MtCO_2$**	**Percent**
Electricity	46.13	79.9
Gas	9.59	16.6
Kerosene	0.07	0.1
Gas Oil	1.46	2.5
Other	0.52	0.9
Total CRC Emissions	**57.7**	**100%**

38. In conclusion, the removal of CCA and EU ETS emissions, CCA exempt subsidiaries and up to 10% of their residual emissions, and the removal of schools provides an updated estimate of the coverage of the CRC. In total, this update indicates that the **CRC covers emissions corresponding to about 57.7 million tonnes of carbon dioxide ($MtCO_2$) per year**. This is also the figure of relevance for annual reporting, league table performance and surrender of CRC allowances.

<u>BAU administrative costs</u>

39. The 2010 IA identified a number of general administrative burdens which were grouped into categories based on the preferred Monitoring, Reporting and Verification (MRV) rules of the CRC. These categories are:
    - Understanding the rules
    - Initial collection and analysis of energy data
    - Developing a compliance strategy
    - Understanding and participating in an auction
    - Trading activities
    - Submitting data to co-ordinator

- Verifying data
- Energy audit activities
- Other hidden activities

40. Based on the coverage of the CRC and the MRV costs, the initial CRC IA estimated the amount of effort required for organisations of different sizes to participate in the proposed scheme to be £278m[13] up to 2025.

41. Since NERA's analysis of the initial CRC scheme was published[14], there have been changes to the structure and form of the CRC. These changes have been accounted for and baseline costs modified accordingly.

42. In order to assess the extent of administrative costs raised by the current scheme, DECC commissioned consultants KPMG to assist in gathering data, through a survey of participants, to help determine a more accurate estimate of these costs. The analysis was structured in such a way that it allows the impacts of the simplification measures to be estimated using the Standard Cost Model[15]. Annex C contains further details of the KPMG survey.

43. The average cost of CRC participation, including all attributable costs, is represented in Table 3 below. These include the costs of all activities undertaken by participants in order to comply with registration, annual and footprint reports and one-off costs, such as identifying half hourly meters or training staff. Additionally, where organisations have used external consultants and experts to undertake CRC specific tasks (referred to as external costs), then these have also been included. In general, larger organisations have incurred relatively larger external costs as they tend to outsource CRC compliance services.

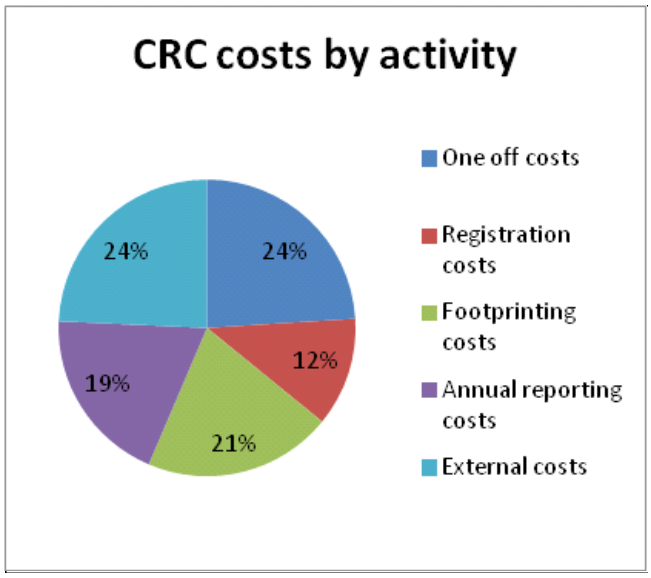
44. The different categories of costs in Table 4 represent different weighting approaches to extrapolate the sample results to the entire CRC population. These weightings are based on several stratification approaches to the distribution of participants and responses across Standard Industrial Classification (SIC) codes, Geography, Half Hourly Meters, etc. Average cost for year 1 range from about £31k to £38k[16] and for the whole of Phase I[17] range from £55k to £68k, which indicates that many of the CRC costs are front loaded. The survey confirmed some of the feedback from participants who indicated that CRC set up costs were higher than expected.

[13] This is equivalent to the estimate set out in the 2010 IA, inflated to 2012 prices.
[14] Energy Efficiency and Trading Part II: Options for the Implementation of a New Mandatory UK Emissions Trading Scheme. Department for the Environment, Food and Rural Affairs. 28 April 2006.
[15] See Better Regulation Executive guidance at http://www.bis.gov.uk/files/file44503.pdf
[16] Year 1 means: all of the costs of complying with the CRC up to the submission of the Year 1 footprint and annual report. This includes one-off costs (costs that are unlikely to occur again),such as understanding the scheme, registering, setting up governance systems and reporting systems.
[17] The CRC has been structured into a number of overlapping phases. Each phase covers a qualification stage, a footprint period and a number of annual report periods in which participants need to buy carbon allowances.

Table 3 Average CRC cost per respondent by stratification method, KPMG survey 2011

Population segments	Average cost per respondent	
	Year 1 £(000)	First phase £(000)
Half Hourly Meters	33	59
SIC Codes	36	64
SGUs	36	65
Emissions	31	55
Public / Private	38	68
CCA Exemptions	34	61
Geography	37	65

Chart 1 Distribution of CRC costs by activity



45. Chart 1 above shows the distribution of all compliance costs by activity related to the CRC, besides trading. These costs relate to One Off Costs, Registration, Footprint, Annual Reporting and the external costs of outsourcing services for compliance. The majority of CRC compliance costs take place in Year 1 of each phase whereas other costs, such as reporting costs, occur annually. **Evidence from the KPMG survey provided an estimate of administrative costs at £100m in year 1 and a total of £499m for the period up to 2025.** This is almost twice as much as the £278m figure published in the 2010 IA.

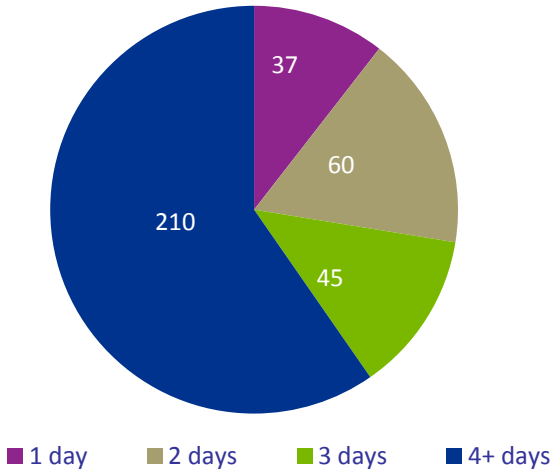
BAU Auction and Trading costs

46. The original CRC scheme is based on a cap and trade mechanism. This has been one of the areas where participants have raised concerns in terms of the complexity and cost implications of this. In particular, the initial allocation of allowances would have taken place through an auction that set the price at which government would have sold the allowances within the cap each year.

47. There is no trading in the introductory phase. Given that trading is expected to be limited in Phase I and the annual auctions will mostly take place in Phase II (i.e. 2013/2014) of the Scheme, participants have not yet incurred any such costs. Consequently, the KPMG survey only gathered information from respondents on their estimation of the time they devote to trading. Of the 740 responses to this survey, 352 (47%) provided an estimate of the time that they spend on carbon trading, with the majority of these (210 or 60%) indicating that they anticipated spending four days or more on carbon trading (See Chart 2). There is additional

evidence within the 2010 IA[18] which estimated the cost of trading to be 5 days per year for each organisation.

Chart 2 Respondents' estimates of anticipated time spent on carbon trading. Source KPMG survey 2011



48. Using the Standard Cost Model (SCM)[19] approach, this IA estimates an average cost of £188 per day, per participant. This is based on middle managers undertaking this role at £26.86 per hour for a seven hour day. Respondents to the 2011 survey who provided an estimate of the time spent on this activity indicated costs of between £188 (if they anticipated spending one day) and £752 based on spending four days on carbon trading (i.e. 4 days @ £26.86/hr for 7 hours). It is not known how many more days per year they could spend on trading when they reported spending 4 days or more. The estimate in the 2010 IA was 5 days per year for the same type of organisations, but given that 40% of respondents in the 2011 survey reported 3 days or less, this IA has set the number of days on average spent on trading at 4 days per year. Respondents to the March 2012 consultation did not raise any concerns or provide any further evidence that would result in alternative estimates.

49. In terms of auctioning, it is estimated that it would take 6 full days of middle management time per year. This is based on the costs for larger participants as reported by the NERA/Enviros study and the evidence from Annual Reports, which suggested that all firms are in the larger category. Consequently, this IA has estimated the amount of time spent on auctioning to be 6 days per year, producing a cost of £1128 per participant; using the same amount of hours per day and staff grades as for trading (i.e. 6 days @ £26.86/hr and 7 hours per day). As a result, the overall cost of the cap and trade mechanism has been estimated at £1880 per year per participant and about £3.9m per year for all 2092 participants. Over the period 2013 to 2030, this amounts to £51m , just £1m less than the £52m estimated in the Consultation IA[20].

[18] See reference to NERA/Enviros report in Footnote 12.
[19] The Standard Cost Model approach includes all wage and non-wage costs. For further details see attached link: Standard Cost Model UK Manual - Department for Business http://www.bis.gov.uk/files/file44503.pdf
[20] These figures have been updated to 2012 prices resulting in a small increase of about £1m.

50. The Consultation IA estimated baseline administrative costs of the CRC to be £499m. This estimate was based largely on the KPMG study commissioned specifically to support the simplification review. Evidence from the KPMG survey indicated that administrative costs in year 1, when the majority of compliance costs take place, to be £100m, with a total of £499m for the period up to 2025. This, combined with an estimated cost of £52m in respect of auction and trading costs over the period 2013 to 2030, produced a CRC total administrative cost of £551m. These estimates did not attract any significant comments from respondents to the March 2012 consultation so are considered to be acceptable.

Table 4 Administrative costs (discounted) of the CRC Scheme

Baseline cost for CRC simplification assessment	Consultation IA £m (2012)	Final IA £m (2012)
Baseline cost in 2010 IA (with trading)	*278*	*278*
Baseline cost from KPMG survey 2011 (excl trading)	499	446
Updated total trading & auctioning cost estimate	52	50
Baseline Cost (KPMG) with trading & auctioning	**551**	**496**

51. Consequently, in this Final IA baseline admin costs have been revised to reflect the change in coverage of the CRC, based on the latest dataset of participants, the decision to remove schools, and updated prices using supplementary Green Book guidance[21]. In effect, this reduces the estimated baseline administrative costs (excluding trading and auctioning) to £446m from £499m in the Consultation stage IA. This together with the revised trading and auctioning costs of £50m, provide an updated estimate of £496m for total baseline administrative costs. Table 4 above summarises these changes to the baseline administrative costs of the CRC.

BAU Benefits

52. There is a large body of evidence indicating the strong potential for reducing carbon emissions cost-effectively through increased energy efficiency in large, non-energy intensive organisations[22]. Energy efficiency savings were identified in the 2009 IA and, in the final IA, it is assumed the same savings will continue under the current scheme (adjusted for changes in the baseline). The benefits of each policy option to be implemented include:
    - environmental benefits in terms of a reduction in CO2emissions;
    - monetary benefits to the participant organisations (savings on energy bills from investment in energy efficiency); and

[21] Valuation of energy use and greenhouse gas emissions for appraisal (October 2012).) http://www.decc.gov.uk/en/content/cms/about/ec_social_res/iag_guidance/iag_guidance.aspx
[22] The Carbon Trust, as part of the Energy Efficiency Innovation Review, carried out an analysis of the barriers and drivers for the uptake of energy efficiency measures, The UK Climate Change Programme: potential evolution for business and the public sector (December 2005).

- ancillary benefits in terms of improvements in local air quality.

53. Analysis of the CRC's impact on carbon savings and energy bills is based on the NERA/Enviros study which draws on two databases of technological and behavioural measures: 1) NDEEM's[23] abatement cost curves for the non-domestic sector and 2) the ENUSIM model for industrial sectors as modified by Enviros for the Energy Efficiency Innovation Review (2005).

54. It assumes that over time, and in response to the introduction of the scheme, the existing cost effective potential for emission reductions will be taken up by participant organisations. NERA assumed various take-up rates for the CRC target group. Therefore, take-up of energy efficiency measures depends upon those who participate and on their behaviour once they are in the scheme. This IA has used the central uptake rate assumptions from the NERA model.

55. Given that Footprint and Annual reports have produced detailed statistics from CRC participation, this IA has also modified the abatement potential initially identified by the NERA/Enviros study, by proportionally changing the take up rate of abatement potential in line with this latest evidence on CRC coverage.

56. These savings are additional to the savings of other policies that overlap in this sector, such as Smart Meters, Products Policy, Energy Performance of Buildings Directive (EPBD) and the Green Deal. Consequently, the net present value of the current CRC scheme has been re-estimated in light of these changes.

57. Table 5 below shows the updated baseline Net Present Value (NPV) for the current scheme. This reflects that the CRC Scheme has positive NPV of £3,956m. This is 20% lower than the NPV estimate from the Consultation IA. This change in NPV incorporates the change in the baseline as a result of removing schools from the scheme and a downward revision in administrative costs based on updated information on participants.

58. There has also been an upward revision of the capital cost estimate to £326m to ensure this includes (discounted) costs up to 2030. The initial assessment in the 2010 IA covered capital costs and savings from 2010 to 2015. From 2025 onwards there was a declining trend of legacy savings. These legacy savings have not been estimated in the Final IA. Although there should be a number of savings identifiable after the conclusion of the scheme, it was, at the time of writing, not possible to estimate them robustly. Given that there would be a small difference in legacy savings between simplification options, and that these would be heavily discounted this IA maintains that these savings are not material to the simplification proposals.

59. Finally, the most significant change has been the revision to the air quality estimate. The consultation stage IA did not estimate air quality benefits. They just

[23] The basic modelling of CO2 emission abatement potential in this study relies on two existing models (ENUSIM for industrial sectors and N-DEEM for non-domestic buildings) that have been used previously for a range of UK Government climate change policy assessments. These two model focus on the modelling of the rate of uptake of abatement technologies from industrial processes and buildings respectively. The MACCs from ENUSIM and N-DEEM show the carbon abatement potential available in a given year.

were adjusted from the 2010 IA estimation accounting for the updated coverage of the Scheme. This Final IA has fully modelled the air quality benefits consistently with published IAG guidance and has resulted in a new estimation of air quality benefits in the baseline of £65m.

Table 5 Net Present Value of CRC BAU adjusted to reflect latest evidence

				Present Value of Costs (£2012m)		Present Value of Benefits (£2012m)			
Option	Lifetime Change in TRADED INDIRECT emissions (MtCO2e)	Lifetime Change in NON-TRADED emissions (MtCO2e)	**Net Present Value (£m, in 2012 prices, discounted to 2011)**	Capital Cost	Admin Cost	Air Quality	Energy Savings	Non-traded sector savings	*Traded sector savings*
New Baseline	5.1	21.3	3956	326	496	65	3654	970	90
BAU Consultation IA	10	22	4940	267	534	419	4064	974	284
Net Change	-5	-1	-984	59	-38	-354	-410	-4	-194

Option 1 – A simplified CRC (with the implementation of all three packages)

60. In June 2011, Government published a 'Next steps' document based on stakeholders' feedback on a set of discussion papers, which suggested a number of changes and simplifications to the scheme for Phase II. Subsequently, the March 2012 Consultation document proposed 46 different measures that were grouped into 3 major simplification packages. These were:

- **Package A**. Measures that change qualification status and therefore change the scheme's emissions coverage. An organisation that would cease to qualify as a result of these proposals won't be included in the subsequent analysis of administrative savings.
- **Package B**. Measures that change fuel supply rules and therefore also change the scheme's emissions coverage. Energy supplies removed from the CRC as a result of these measures are subsequently excluded from the cost-benefit analysis.
- **Package C**. Other measures that do not change qualification or fuel supply rules, achieving a straightforward administrative cost reduction without affecting the scheme's emissions coverage. These cover most of the measures simplifying organisational structure, allowance sale process and banking.

61. The majority of respondents agreed with the proposals and welcomed the complete package of simplification proposals as a step in the right direction. While some did raise concerns about certain issues (see Para 23 above), limited analytical evidence on administrative costs was submitted by respondents. Consequently, Government maintains that the overall estimated administrative costs savings are not materially affected by consultation responses.

62. In light of the updated evidence gathered, Government believes that the simplified proposals will deliver significant administrative cost savings and has therefore decided to proceed with the CRC simplification package, with a number of modifications that relate to Package B (measures that affect the fuel supply rules).

Reduction in the number of fuels

63. A number of participants have argued that instead of reducing the number of fuels to four, the number should instead be reduced to two (electricity and gas). The arguments are that gas oil and kerosene make up a small (less than 1%) proportion of most participants' overall supply, thus do not add significant benefit to be included but would reduce administrative costs if excluded. Information from Annual Reports indicate that in the first year of the scheme, gas oil and kerosene consumption amounted to 1.7MtCO2 (around £20m revenue) or around 2.8% of overall scheme coverage. Despite the loss of coverage resulting in some loss in terms of the overall benefit of the scheme, a significant amount of this coverage would regardless have been lost in Phase II on account of the proposal to restrict gas oil and kerosene only to that which is used for heating purposes. Consequently, the additional impact of removing all gas oil and kerosene from the scheme should be minimal. The Government has decided therefore, that the loss of emissions coverage as a result of reducing to two fuels is less of a priority than pursuing a greater reduction in administrative complexity.

Gas only to be reported on within the CRC when are used "for heating purposes".

64. In response to stakeholder suggestions, the Government has decided to restrict the requirement for gas reporting to gas that is used for heat generation only. This modification will not significantly reduce CRC's emissions coverage, as over 90% of gas consumed is for heating purposes which is still included.

65. To avoid increasing administrative costs, it is proposed to introduce an assumption that, unless a participant states otherwise, all gas is used for heating purposes. In addition, (as explained below) the introduction of a de minimis threshold for gas will further simplify the administrative requirements of the Scheme.

De minimis thresholds

66. There was strong support among respondents for the introduction of de minimis thresholds for fuels covered by the CRC. A de minimis threshold should ensure that participants who have very small sources of gas do not have to report these. As a result, the Government has decided to modify the original proposal and introduce an organisation-wide de minimis threshold for gas supply.

Gas – an organisation-based threshold

67. The Government believes it would be beneficial to introduce an organisation-wide threshold so that organisations with very low gas consumption overall do not need to report on their gas consumption at all.

68. The Government has decided to proceed with a 2%[24] de minimis threshold for gas[25]. In order to minimise administrative costs, this de minimis will only be assessed once per phase. This means that for Phase II, if a participant exceeds the de minimis in the reporting year 2014/15, then that participant will have to report their gas for the entirety of the second phase. If the participant does not exceed the de minimis then they will not have to report any gas for the duration of the second phase. This is expected to minimise administrative burdens.

Costs and benefits of Option 1 – full implementation of the simplification package

Package A

69. Measures that affect CRC qualification need to be analysed before any other measure because they impact on the emissions coverage of the Scheme. The remaining measures apply only to those participants who still qualify for the CRC. There are five measures that could have an impact on both administrative costs and emissions coverage (Annex B provides a fuller description of these measures):

- **Qualification criteria:** The CRC's qualification criteria will be based on **settled** half hourly electricity meters instead of a) one half hourly meter and b) 6000MWh through **all** half hourly electricity meters.

- **EU ETS installations and CCA facilities:** Organisations will no longer need to consider electricity supplies to EU ETS and CCA facilities/installations when assessing CRC qualification. This will eliminate the need for CCA exemptions.

- **Treatment of trusts:** This measure, as proposed in the consultation document, would impact qualification for the scheme by assigning the responsibility for trusts in a different way to those outlined in the current arrangements. The magnitude of this impact is currently unknown as data from the first compliance year does not allow for identification of different types of trust that would be affected by the simplification measures. Consultation respondents also did not provide any evidence of the impact.

- **Landlord definition:** The general approach is to place responsibility for emissions on the landlord. However, in very limited circumstances where the tenant is allowed to erect and occupy their own buildings, CRC responsibility will shift to tenants.

- **Licensed activities:** By excluding electricity and gas supplies used for the generation, transmission or distribution of electricity, or the transport, supply or

[24] Sensitivity analysis was carried out for a 5% de minimis threshold which did not produce any significant results. A 2% threshold would capture 99.9% of gas consumption which is currently caught by the scheme and produced the best results in terms of trade-offs between energy coverage and admin savings.
[25] So organisations with a gas consumption of less than 2% of their electricity consumption will not need to report on, or buy allowances in respect of their gas consumption.

shipping of gas from the CRC, some firms close to the qualification threshold may no longer qualify.

70. Qualification criteria and the removal of EU ETS and CCA facilities have the greatest impact on coverage and simplification measures. Both have been fully quantified below. The other three measures have been assessed on a qualitative basis.

Quantified impacts of qualification measures

Impact on coverage

71. The impact of removing EU ETS and CCA installations from qualification has been estimated using data from Registration, Footprint and Annual reports. Removing electricity supplies from CCA and EU ETS installations at the qualification stage not only simplifies reporting, but increases the overall coverage of the CRC. This occurs because if any firm still qualifies after removing CCA and EU ETS supplies, then it will have to bring to the scheme non-CCA emissions that were previously exempt under the 25% rule.

72. For example, a firm responsible for 10,000MWh of electricity supply and 3000MWh of Gas owns a CCA installation that consumes 3000MWh of electricity and 2000MWh of gas. Under the current scheme, the firm qualifies for general exemption and all 13,000 MWh are exempt. However, under the new scheme, it does not have to report CCA supplies but still qualifies with 7000MWh of electricity and will have to report CRC emissions associated with its non-CCA part. That is, 7000MWh of electricity and 1000MWh of gas.

73. This IA recalculates CRC coverage under the new proposals based on the percentage of emissions covered by CCA from different types of exemption reported at registration combined with Footprint and Annual reports. This indicates that the proposed qualification criteria and the removal of EU ETS and CCA facilities has the effect of reducing the number of CRC participants by approximately 1000.

Table 6 Impact on qualifying emissions from package A measures

	Current Scheme	Simplified Scheme – Package A
Registrations	2,764 *(2,779)*	1,722 *(1,735)*
Footprint Emissions ($MtCO_2$)	200.5 *(199.7)*	180 *(184.7)*
Total Emissions for Annual Report (CRC Emissions) ($MtCO_2$)	60.7 *(61.0)*	56.2 *(61.0)*

Note: Consultation IA figures in brackets

74. The change in the results of this IA in comparison to those outlined in the March 2012 Consultation IA, is driven by two main elements:

- First, an updated dataset from the Environment Agency. As a consequence some firms that the Consultation IA suggested would not qualify for the CRC, will in reality, still qualify for the Scheme. However, the number of emissions is lower overall due to the more accurate reporting of CCA target unit data. The reason for this is that the non-CCA emissions in some organisations are much lower than previously estimated, particularly as new analysis concerning qualification includes information from an additional 646 CCA target units.
- Second, the removal of schools from the baseline has a direct impact on the CRC scheme by removing all of the emissions associated with them. It will also have an indirect impact, reducing the number of Local Authorities that qualify for the scheme. The combined impact represents a reduction of emissions in Package A of 4.1MtCO2.

Impact on administrative savings

75. Administrative savings from qualification have been classified into three categories:
    a. A firm not qualifying will not incur any costs from Phase II onwards.
    b. Qualifying firms with CCAs will save on their CCA reporting.
    c. Qualifying firms with CCA exemptions will have to do annual reports.

76. Administrative costs remain unchanged in Phase I because new qualification will not take place until the start of Phase II. However, from Phase II onwards, there will be considerable savings from firms that cease to qualify for the scheme. The number of firms in the CRC will decrease from 2,764 to 1,802. However, costs do not decrease proportionally as smaller organisations which will no longer qualify, also have a lower average cost. The average cost from organisations with less than 10,000 MWh is 47% of the average cost of the remainder of organisations, based on emissions data from Registry and Footprint reports and administrative savings data from the KPMG survey. Estimates of 2010-2011 costs have been excluded because these are one-off costs and cannot be recovered.

77. Some firms will have incurred extra costs by producing annual reports. Based on the estimation of qualifying thresholds in Part I, 93 firms who currently do not need to produce annual reports owing to their holding a CCA exemption will, as a result of the changes, now be obliged to submit an annual report. The unit cost of annual reporting has been estimated at £3093 per firm. Therefore, the aggregate cost for these 93 firms by producing an annual report each year is estimated to be £288k.

78. There are some one-off costs for the Environment Agency (EA) as a result of these proposals. These costs are related to updating the information management and IT systems. An initial view is that they would be minimal (around £567,000 based on CRC budget planning by DECC).

Table 7 Summary of costs and benefits from Package A qualification measures

	Net Present	Present Value of Costs (£2012m)	Present Value of Benefits (£2012m)

Option	Lifetime Change in TRADED INDIRECT emissions (MtCO2e)	Lifetime Change in NON-TRADED emissions (MtCO2e)	**Value (£m, in 2012 prices, discounted to 2011)**	Capital Cost	Admin Cost	Air Quality	Energy Savings	Non-traded sector savings	*Traded sector savings*
Baseline	5.1	21.3	3956	326	496	65	3654	970	90
1A	4.9	20.9	3960	319	377	63	3555	952	86
Net Change	**-0.2**	**-0.4**	**3**	**-7**	**-119**	**-2**	**-99**	**-19**	**-4**

79. About 35% of participants will no longer qualify for the Scheme from Phase II onwards. On aggregate, simplifying qualification and removing the overlaps with CCAs and EU ETS policies is estimated to reduce administrative costs from £496m in the baseline to £377m[26]. However, there will be an estimated loss of 0.6 $MtCO_2e$ emissions savings associated with simplification which will impact on the benefits of the Scheme by
    - reducing the value of energy savings by £99m;
    - reducing traded and non-traded carbon savings by £23m.

80. This reduction in benefits is offset by the reduction in administrative costs of £119m and capital costs of £7m. Overall there is only a 0.1% difference in NPV between both options. This small reduction in NPV is justified because future energy savings are more uncertain than the reduction in administrative costs. Table 7 above sets out the impacts of implementing Package A.

Non-quantified impacts of qualification measures

81. Three of the qualification measures (i.e. treatment of trusts, landlord definition and licensed activities[27]) have not been quantified because:

    - They will have no significant impact on aggregate emissions or administrative burdens but would redistribute responsibility for CRC emissions more fairly.
    - These measures would affect only a very limited number of participants and the costs of gathering reliable data, at the required level of disaggregation, would be disproportionate compared to a relatively low impact.

82. Although these measures are not quantified, stakeholder feedback has indicated that they will contribute to simplifying the CRC. There was strong support amongst consultation respondents for the landlord definition licensed activities measures as these provide clarity and remove ambiguity which in turn, reduces administrative costs. Although DECC has not been able to estimate the administrative impacts associated with these measures, they could slightly reduce CRC participation from some firms at the margin of the qualifying threshold. However, their impact on emissions is considered to be negligible overall.

[26] This is equivalent to an 21% reduction of baseline cost plus the discounted cost of £288k for the annual reports to be submitted by the 93 firms with CCA exemption, from Phase II to the end of the assessment period.
[27] See Annex A for an explanation of proposals around these measures.

Package B

83. Measures that affect fuel supply rules in the CRC would also have an impact on emissions covered by the scheme although to a lesser extent than qualification measures. The two main measures have been fully quantified. However, the impact of some other measures in this section is difficult to quantify for a number of reasons. For instance, they apply to very limited or special cases, cover only certain types of supply relationships and are intended to prevent perverse incentives or are proposed on the grounds of fairness, with no impact on cost or emissions.

Quantified impacts of fuel supply related measures

84. There are two measures in this package that could have a significant impact on CRC participants. These are:

- **Reduce the number of fuels**. Government will reduce the number of fuels covered by the scheme from 29 to 2 (electricity, gas).
- **Remove the 90% applicable percentage**. Participants are currently required to ensure that at least 90% of their emissions are regulated by the EU ETS, CCA or CRC, as appropriate. As CCA and EU ETS will not count for qualification, participants will now be required to report 100% of their electricity and gas consumption if they exceed the de minimis threshold.

85. Analysis for this IA, based on the Annual report, indicates that these two fuels represent c. 96% of the scheme's total emissions, with the remaining 27 fuels accounting for the remaining 4% (see Table 2 above). Consequently, this proposal will reduce the reporting requirements on participants whilst broadly maintaining emission levels.

86. Reducing the number of fuels covered by the CRC is expected to reduce the total emissions covered by the CRC. However, in the new proposals, the overall impact is a small loss in emissions coverage of 1 $MtCO_2$[28] given that removing the 90% applicable percentage rule means that participants would now have to report 100% of electricity and gas use.

87. The administrative costs associated with reporting residuals were identified in the KPMG survey from savings on time usually spent compiling and reporting residual supplies in the footprint and annual reports. In the baseline, participants spend £1.09m annually gathering data for non-core sources. Removing these costs for qualifying participants results in a total of £31m of discounted savings over the period to 2030.

[28] Estimated using data from Footprint and Annual Reports.

88. For the purposes of this IA each package is assessed sequentially and on the basis of the full implementation of the preceding package. The figures presented in Table 8 below show the impact of combining package B with the preceding package A. **Packages A and B combined reduce administrative costs by £150m from the baseline and decrease traded and non-traded savings in emissions by 1 MtCO2.**

Table 8 Summary of costs and benefits from Package A and B combined

				Present Value of Costs (£2012m)		Present Value of Benefits (£2011m)			
Option	Lifetime Change in TRADED INDIRECT emissions (MtCO2e)	Lifetime Change in NON-TRADED emissions (MtCO2e)	**Net Present Value (£m, in 2012 prices, discounted to 2011)**	Capital Cost	Admin Cost	Air Quality	Energy Savings	Non-traded sector savings	*Traded sector savings*
Baseline	5.1	21.3	3956	326	496	65	3654	970	90
1A+1B	4.7	20.6	3911	313	346	62	3487	938	84
Net Change	**-0.3**	**-0.7**	**-46**	**-13**	**-150**	**-3**	**-167**	**-32**	**-6**

Non-quantified impacts of fuel supply related measures

89. In addition to the main measures quantified above, package B contains four additional measures that have not been quantified as they would only affect a very limited number of participants and the costs of gathering reliable data at the required level of disaggregation would be disproportionate given their relatively low impact. These measures are:

- **Unmetered supplies:** Government proposes to extend the scope of the scheme to include passive pseudo half hourly and pseudo non half hourly unmetered supplies.
- **Profile classes:** Government proposes to remove domestic electricity meters of profile class 01 ('domestic unrestricted') and 02 ('domestic Economy 7') from the scope of the scheme, along with non daily metered gas supplies below 73,200kWh per annum.
- **Unconsumed supply:** Government proposes to limit the circumstances in which unconsumed supply can be claimed to scenarios where the downstream supply relationship meets the CRC's supply criteria.
- **Natural Gas:** Government proposes to restrict the scope of self-supplied gas to natural gas only.

90. All four measures were strongly supported by consultation respondents because they would provide additional clarification on the simplified scheme. On unmetered supplies, it was acknowledged that it would add to overall liability, however, this would be compensated by improved energy data on actual costs which will help manage energy efficiency in future. On unconsumed supply, respondents were not convinced the proposal would result in any major cost savings but, on balance, concluded that it was right that "party A" should be responsible for the supplies it receives, or supplies made at its direction. No further evidence on the impacts of these measures was provided by consultation respondents.

Package C

91. A number of the proposed measures will not impact on the coverage of emissions or energy savings. These measures cover a wide range of areas such as organisational rules, the requirements to keep records, registration changes and the allowance sale process (see Annex B for details of these measures). They simplify many of the areas that create unnecessary administrative burdens and were identified in the wider consultation with participants in April 2011. In addition, the KPMG survey has quantified the administrative costs from these activities. For example, organisational rules have been identified as one of the largest areas of complexity. Several other areas of the CRC have proven to be more complex to implement than originally intended, particularly around organisational boundaries.

Quantified impacts of Package C measures

92. There are a number of other measures in this package which aim to simplify the areas that create unnecessary administrative burdens for firms. These include: making the organisational rules more flexible; allowing for automatic re-registration; clarifying the supply rules; creating a more consistent approach to emissions factors; requiring fewer annual reports; and clarifying the obligations on energy suppliers.

93. The impacts of these measures are heavily interdependent and many affect several sources of administrative cost. For example, proposals about designated changes are also going to affect footprint reporting costs, maintaining organisational structure records in the Annual report, training costs and one-off costs. At the same time, some of the main sources of cost in the CRC (see Table 9) are simplified by several of these measures. For example, the cost of compiling the Annual Report evidence pack is affected by measures such as organisation structure, designated changes and, extension of annual energy statement obligation.

94. It is not possible to fully identify the impact of each measure individually so DECC has generated an estimate based on the stakeholder engagement exercise published in January 2011[29] which identified the proportional reduction in costs that these measures would deliver relative to the updated baseline. Responses to the March 2012 consultation have also been considered.

29 http://www.decc.gov.uk/en/content/cms/emissions/ CRC_efficiency/simplification/simplification.aspx

95. **Table 9 gives the current breakdown of average administrative costs, by activity as a proportion of total Business as Usual administrative costs and how these proportions change as a consequence of the proposed measures.**

96. Some of these cost reductions are certain, such as the need to gather data on residual sources which is going to be eliminated. However, it is more difficult to assess the savings from other areas, such as the reduction in compliance training costs for participants.

97. There is also some uncertainty over these costs in the future. Theoretically, in the absence of any further changes to the scheme, no re-training should be required unless there is a loss of knowledge in the organisation as a result of staff movements. Given that the average time in post could be less than five years, some of these costs could be incurred again. On the other hand participants should, in theory, have embedded their knowledge within the governance systems of the organisation (e.g. via electronic systems, spreadsheets, policies and procedures, CRC methodology documents, ISO14001 procedures etc) which means that the level of any re-training required should be significantly reduced. However, any estimate of the level of this re-training would be extremely variable and subject to multiple factors.

Table 9 Breakdown of CRC administrative costs

CRC activities as a proportion of total BAU cost in a Footprint and Registration Year	**BAU**		**New Scheme**	
	Footprint and Registration Year	**Annual Report Year**	**Footprint and Registration Year**	**Annual Report Year**
One off Costs				
Understanding the rules of the CRC (including attending training courses etc)	14%	-	7%	-
Educating the organisation on the CRC (not on energy management in general)	7%	-	4%	-
Other	4%	-	0%	-
External Costs				
CRC Training	2%	-	1%	-
Determining Organisational Boundaries	3%	-	1%	-
CRC Evidence	1%	-	1%	-
Outsource CRC Compliance	6%	-	3%	-
Data /invoice collation/compilation specifically for CRC	2%	-	1%	-

External/ outsourced internal audit or reviews	3%	-	1%	-
Others	4%	-	2%	-
Registration costs				
Determining your organisational boundaries and structure at 31/12/08	4%	-	2%	-
Identifying your 2008 HHMs and AMR usage	4%	-	0%	-
Understanding and disaggregating your SGUs	1%	-	0%	-
Claiming CCA exemption (if relevant)	1%	-	0%	-
Registration for CRC scheme	2%	-	1%	-
Others	0%	-	0%	-
Footprint Reports				
Determining structure as at 1.4.2010	2%	-	1%	-
Developing CRC compliance methodology	4%	-	2%	-
Gathering data on core sources (non CCA / EU ETS)	5%	-	5%	-
Assessing CCA / EU ETS emissions coverage	1%	-	0%	-
Gathering data on residual sources	4%	-	0%	-
Submitting your footprint report evidence pack	5%	-	2%	-
Others	0%	-	0%	-
Annual Reports				
Maintaining org structure records	2%	2%	1%	1%
Maintaining source list	2%	2%	0%	0%
Gathering data on core supplies	4%	4%	4%	4%
Gathering data from non-core sources	2%	2%	0%	0%
Collating information on renewables	0%	0%	0%	0%
Gathering early action metrics data	2%	2%	0%	0%
Reviewing and testing data	3%	3%	1%	1%
Internal audit/sign off by management	2%	2%	1%	1%
Compiling annual report evidence pack	3%	3%	1%	1%
Liaising with the EA with questions etc.	1%	1%	1%	1%

Others	0%	0%	0%	0%
Total	**100%**	**21%**	**45%**	**10%**
Savings from BAU	-	-	**55%**	**11%**

98. The administrative savings from this package have been estimated by multiplying the percentage reduction in each of these activities as a result of simplification measures by the administrative costs that take place in each year up to 2030. Since administrative costs are much higher in a Footprint Report year which occurs in the first year of every phase, Footprint and Annual report years have been estimated separately.

99. CRC administrative costs have been estimated by the KPMG survey to be £100m in the first footprint year and £446m[30] for the whole period up to 2030. These proposals save £55m in a footprint year and £2m in an annual report year. Taking into account the impact of previous packages (A and B) which remove a large number of fuels and firms, the final impact of the scheme is a 55% reduction of administrative costs from £496m to £224m.

100. The figures presented in Table 10 summarise the combined impact of all of the simplification measures. The final NPV of simplification proposals is £77m larger in the simplification option when compared to the baseline. This is mainly driven by a large reduction in administrative costs of £272m which is partially offset by a loss of energy savings of £167m. There are other small changes in capital costs, air quality benefits and carbon savings.

Table 10 Summary of costs and benefits from all three simplification packages A, B and C

			Net Present Value (£m, in 2012 prices, discounted to 2011)	**Present Value of Costs (£2012m)**		**Present Value of Benefits (£2012m)**			
Option	Lifetime Change in TRADED INDIRECT emissions (MtCO2e)	Lifetime Change in NON-TRADED emissions (MtCO2e)		Capital Cost	Admin Cost	Air Quality	Energy Savings	Non-traded sector savings	*Traded sector savings*
Baseline	5.1	21.3	3956	326	496	65	3654	970	90
1A+1B+1C	4.7	20.6	4033	313	224	62	3487	938	84
Net Change	**-0.3**	**-0.7**	**77**	**-13**	**-272**	**-3**	**-167**	**-32**	**-6**

Non-quantified impacts of Package C measures

101. The CRC was originally intended to be a cap and trade scheme, but Government has decided to significantly simplify the process for selling allowances, in line with the proposals in the consultation document. The sale of allowances will continue on a retrospective, fixed price basis in the first phase.

[30] Note that there are some extra £50m from trading costs in the baseline. See table 4

102. In Phase II of the scheme, trading will take place on a voluntary basis and participants are going to have the option of following a buy-to-comply approach. DECC's view is that these changes to the allowance sale process will not impose additional administrative burdens but will instead reduce them as the decision is a simplification for participants.

103. The IA estimates that the cost of buying allowances represents 1 day per year of middle management time at £27/hr. Consultation respondents who commented on allowance sale process were positive about the impact of the proposed measures and did not provide any further evidence on costs.

Summary of changes since Consultation Stage IA

104. The consultation stage claimed £347m in administrative savings (Table 11). Following revised analysis, these savings have been reduced by £75m to £272m. These is due to an decrease in baseline administrative costs (£55m) and an increase in final administrative costs of the simplified scheme (£ 22m). This changes can be explained as follows:

105. Baseline Change: The administrative cost of the CRC in the final IA is £55m lower than in the consultation stage. To a large extent this is due to changes in the baseline coverage of the scheme. Due to the removal of schools, baseline administrative costs have decreased by £33m.

106. The main explanation for a further decrease of £20.5m is that the consultation stage overestimated baseline administrative costs related to the early action metrics by applying them to Phase II of the scheme. In the second phase, these administrative costs should not be present, either in the baseline or the simplified CRC.

107. The final £1.5m difference can be explained by a reduction in trading cost in the final IA. This is because the updated dataset from the EA includes new data on CCA participation from participants. The final data set contains a higher number of general and group exemptions than in the consultation stage baseline. Firms with general and group exemptions do not need to trade or surrender allowances and the cost associated with these activities goes down with the number of exemptions.

Table 11. Difference in administrative costs between Consultation and Final IA

£m (2012)	Consultation IA	Final IA	Difference
Baseline	551	496	-55
Package 1A	405	377	-28
Package 1A + 1B	387	346	-41
Package 1A +1B +1C	203	224	21
Change in Admin costs of preferred package (relative to baseline)	347	271	-75

108. Package 1A: Administrative costs decreased in Package A by £28m due to the removal of £31m of these costs the removal of schools from the baseline. However, there was an increase by £3m in this package due to another improvement in the modelling of the final IA. The consultation stage overestimated administrative costs because footprint costs were confused with annual reporting costs, which resulted in the annual reporting costs being underestimated previously.

109. Package 1A + 1B: The administrative costs of package 1A+1B are also lower compared to the consultation stage due to the reduction of £29m from the baseline. The other £12m is explained by a revision in the number of full participants as a result of the proposed changes. A lower proportion of qualifying firms does not change the unit cost but decreases the number of firms experiencing administrative costs, and also benefitting from the reduction in the number of fuels. Some of these differences are also driven by new data obtained for the final IA and by the reduction in the number of fuels .

110. Package 1A + 1B + 1C: Administrative costs in this package are £21m higher than in the consultation IA. However the underlying change is much larger because the final IA has a lower baseline due to the removal of schools and updated datasets. Due to revisions to the estimates there has been a decrease of £61m in administrative savings, that combined with a £40m lower baseline in package 1A + 1B, results in a £21m difference.

111. The combined effect of all 3 packages in option 1 (the preferred option) is an increase in administrative costs of £75m in the final IA compared to the consultation stage IA. In summary, the differences in administrative between consultation stage and final IA can be explained by changes in the baseline and revisions to the previous estimates, including:

- Removal of schools from CRC participation
- Revisions to ensure that footprint costs and annual report cost apply to relevant years in Phase I, which reduces administrative costs of this package.
- The use of an updated dataset
- Revisions in light of responses to the consultation i.e. changes in participation and the number of fuels covered by the Scheme.
- The administrative costs of calculating core supplies was previously assigned to non-core supplies, and vice versa. The Final IA eliminates this problem. Since the administrative costs related to core supplies are much larger than the administrative cost related to estimating residuals, this explains why the overall administrative costs of a simplified CRC are larger in the final IA than the consultation IA.

Direct costs and benefits to business – for Option 1

112. Since the decision to remove revenue recycling in October 2010 as part of the Comprehensive Spending Review, the CRC combines regulatory elements (such

as the Performance League Table) with taxation aspects associated with the cost of allowances.

113. The net present value calculations treat the cost of allowances as a cost to business and a benefit to government with a neutral impact on the Net Present Value since it represents a net transfer between participants and government[31]. In order to estimate the financial impact on CRC businesses, this IA has excluded the proportion of energy savings in public sector from the calculation. It also excludes emissions, allowances and other costs from this sector.

114. Energy savings related to business only have been calculated by multiplying the amount of energy saved by the CRC with the market price of the respective energy source in the IAG guidance[32]. These savings are all additional savings and do not include other savings that will take place in these sectors from Products Policy, Smart Meters and Building regulations, all of which overlap with the CRC.

115. The impact of allowances has been calculated projecting CRC coverage in tonnes of CO_2 after removing efficiency savings from baseline energy projections. The future price of allowances is set by HMT in the budget process. Allowance prices for the CRC have been set at £12 for the first two years of the scheme. Consequently, this IA uses (real) prices; currently set at £12 for the first three years. For future years, the price will be £16 and at a discounted rate of 3.5%. Administrative and capital cost are also adjusted to remove public bodies from these estimations. The results are presented in the Table 12 below.

Table1 2 CRC Impact on Business

CRC Impact on Business £2011m	Baseline	Option 1
Cost of allowances	10,680	9,449
Energy Savings	2,041	1,927
Admin Costs	400	181
Capital Cost	263	254
Net cost of Business	9,303	7,957

116. The aggregate cost of allowances in the baseline has been calculated by multiplying 52MtCO2 of emissions each year[33] with the price of allowances. This results in £9,303m of discounted costs up to 2030. The equivalent cost in Option 1 is £7,957m. This is slightly lower because this option reduces emissions coverage

[31] This in accordance with appraisal guidance from: the Green Book published by HMT; IAG guidance on carbon appraisal by DECC; and the One in One Out evaluation guidance published by BIS.
[32] See DECC IAG guidance for policy appraisal www.decc.gov.uk/en/content/.../iag_guidance/iag_guidance.aspx
[33] This is only for the first year as for subsequent years the analysis takes into account the impact of savings and energy demand projections for business and commercial sector in DECC's Energy Model as published in October 2011:
http://www.decc.gov.uk/en/content/cms/about/ec_social_res/analytic_projs/en_emis_projs/en_emis_projs.aspx

by an average of 2MtCO2 per year up to 2030, representing a reduction in financial impacts to businesses of £1,346m over the whole period with respect to the baseline. This corresponds to an annualised value of £91m.

117. In terms of financial impact the cost of allowances is higher than energy savings with a net impact on CRC businesses of £7.9bn over the whole period of appraisal. Compared to the £1,286bn of turnover reported by these organisations in their 2010 Footprint reports, the CRC represents 0.03% of the turnover of currently registered businesses for just one year.

118. The simplification of the CRC will deliver significant savings compared to the baseline situation of the existing scheme. These savings are estimated at around 55% of current administrative burdens. The reasons behind the difference from the consultation IA, which estimated 63% savings, are explained in paragraph 110.

119. In the CRC baseline, around 80% of participants and 70% of emissions originate from the non-public sector. Under the new scheme, there will be significant changes in the number of firms qualifying. Based on the analysis of Registration and Footprint reports, the non-public sector will represent 72% of organisations and 80% of total emissions.

120. Since the net cost to business calculation applies to the non-public sector only, the savings accruing to public sector organisations have been removed. This calculation covers a reduction in administrative cost of £272m and £12.5m in Capital cost and a decrease in energy savings of £166.9m resulting in £117.7m decrease in direct costs. This analysis covers only direct costs to 1300 organisations that will remain after the application of simplifying proposals. After removing the public sector, it results in a £91.2m reduction of direct costs to businesses. On this basis, using a 20 year appraisal and a 3.5% discount rate, the equivalent annual net benefit to business is estimated to be £5.9m.

121. The simplification proposals covered in this IA are estimated to bring an annual reduction in administrative costs of £18m and net cost to businesses of £5.9m. When including the cost of allowances (which does not affect the NPV results) it would reduce the cost to businesses by £91.2m per year.

Table 13. ALL tables are: central prices & central uptake; Option 1A+1B+1C

These are with respect to the baseline		
Net Savings	-166.9	
Capital Cost	-12.5	
Admin Cost	-272.0	
Net change in direct costs		-117.7
Net only business		-91.2

Deflated value (2009)	-87.2
EANCB (£m)	**-5.9**

Risks and Assumptions

122. There are three areas of this IA where there remains some degree of uncertainty:

- There is limited information of CRC savings which have not been updated since the 2010 IA.
- Data issues around CRC reporting. The Environment Agency have not yet carried out audits on the reports submitted and there is no requirement to report from firms with exemptions or those outside of the scheme.
- Respondents to the administrative burdens survey have an incentive to overstate costs. The methodology has been designed to limit bias but there are some limitations to the methodology which is discussed further below in Section 6.3.

Each of these is discussed in more detail below.

CRC Savings

123. CRC savings are based on abatement potential identified in the Non-Domestic Energy Efficiency Model (NDEEM). There are a number of limitations to this model:
- The underlying data is outdated and thus does not reflect any new technologies, policy changes or the actual costs of abatement.
- NDEEM does not match the CRC policy needs. For example, industrial process emissions are not covered by this model.
- NDEEM works at an aggregate sector level and therefore ignores the effects of commercial and industrial structure which applies within sectors (e.g. different size and type of production process and whether their fuel use is traded or non-traded and, in the case of companies, across sectors). Note the CRC is based on companies rather than sites or processes).

124. Finally, the NERA/Enviros model has not accounted for the impact on emissions savings of the proposed move to replace the cap and trade mechanism with a fixed price sale of allowances. However, in the absence of any evidence of what this impact would be, this IA has no basis for estimating such an impact.

Data Issues from the Registration and Footprint report

125. CRC participants need to submit the following reports:
- A registration report, including participant's characteristic, emissions and qualifying supplies. Some firms claim a general or group exemption at registration and as a result they do not need to submit any further reports

- A footprint report once per phase. This gives an account of all emissions covered by the organisation. Some firms can claim general or group exemptions at this stage and submit no further reports
- An annual report. Firms with no exemption or member exemption need to submit an annual report covering all of their CRC emissions.

126. Although actual data from the annual report[34] represents a considerable improvement on the existing evidence, there are still some issues around the quality of data obtained from registration and footprint reports. For example, some firms have reported kWh figures in MWh which increase emissions by 1000 times. Other firms have made mistakes on the type of exemption, for example, claiming a group exemption when they should claim a member exemption.

127. The Environment Agency maintains the CRC database and is planning to take a number of audits over the coming years, however, the results will not be available in time for this IA. However, it is expected that the accuracy of reporting will increase with subsequent annual reports and this would be taken into account DECC's plan for the evaluation of the CRC.

128. Registration and footprint reports are important in the analysis of qualification measures. This data is crucial in order to identify the reduction on qualifying emissions because:
- New qualification rules will only cover electricity supplies through settled half hourly meters
- CCA and EU-ETS supplies will not count towards qualification

129. Unfortunately, these emissions are not covered in annual reports. So this IA relies on registration and footprint report data. DECC has tried to overcome the lack of robustness by producing a matching exercise at meter level for participants with CCA exemptions. DECC statisticians advised against this approach because the match rate was very low and would introduce considerable bias.

130. Therefore, this IA has used footprint and registration data. This has been based on identifying the difference between company emissions and CCA emissions in these reports in order to:
- Eliminate outliers, (for example, firms reporting an impossible amount)
- Correct entries when errors have been identified by the EA (the EA can notify participants but cannot change them)
- Estimate total emissions for each individual firm.

131. This approach has some risks

[34] Annual report results have been QA by statisticians using DUKES and have concluded that the results are from both sets of data and are compatible (except for public sector energy consumption because there are a large number of lease properties in the public sector that would not show in DUKES.

- It has identified a number of large outliers, but less serious mistakes would have escaped from basic checks
- There have been a large number of manual modifications, which can involve some human error. This risk can be reduced by quality assuring the results.

Administrative Survey Results

132. Although the research has been designed to minimise bias[35] KPMG cannot verify the reliability or accuracy of any of the information obtained. Some of the key limitations of the methodology are:

- Almost all data is provided by participants and based on their own estimates of the time incurred. Few captured actual data on time sheets, particularly in relation to the split of administration time by CRC activity.
- There is significant variability in the average costs per participant throughout this report. This is driven by the heterogeneity of participants. There are substantial variations in the size, complexity and the approach of CRC participants, even within similar strata. The result of this is that one cannot control the robustness of the results with standard deviation estimates).

Conclusions

133. The issues mentioned above are within the acceptable limits of evidence and it would be quite disproportionate to improve on the robustness of current estimates. For example, it would take an extremely onerous survey to determine the administrative costs associated with each aspect of the CRC and it would have been seen as a further increase in red tape.

134. Despite the limitations highlighted above, the evidence set out in this IA does represent a significant improvement in the existing evidence base for the following reasons:
- It is based on actual data on CRC participants drawn from Registration, Footprint and Annual reports submitted to the Environment Agency in July 2011, the first time these have been submitted.
- Consultants KPMG have conducted a comprehensive survey of participants designed to identify administrative costs of the current scheme and evaluate the impact that the proposed simplification measures will have on these costs.

Wider impacts

135. This IA quantifies the direct impact on businesses of the proposed simplification measures. The following impacts have been considered as having none or negligible effects:

- Costs in employment

[35] This involved qualify checks, error correction and follow up interviews with survey participants.

- Barriers to start up and other impacts in small and medium size business
- Competitive distortions
- Regional distortions
- Social impacts such us well being, human rights and inequality

Annex A Profile of savings from simplification measures

Energy and Carbon Emissions Savings

Part A of this annex shows annual energy and emissions (split between traded and non-traded) savings in the BAU, and (preferred) Option 1 up to 2030.

Table 14 BAU

	Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Energy TWh																					
Public	Electricity	0.08	0.17	0.17	0.16	0.51	0.68	0.85	1.02	1.21	1.39	1.66	1.94	2.17	2.39	2.63	2.27	1.90	1.48	1.21	0.93
	Gas	0.18	0.33	0.48	0.64	0.84	1.06	1.30	1.52	1.76	2.01	2.31	2.62	2.87	3.11	3.38	2.97	2.55	2.07	1.76	1.46
Commerce	Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.93	0.23	0.00	0.00	0.00	0.00
	Gas	0.36	0.65	0.96	1.28	1.70	2.14	2.60	3.05	3.53	4.04	4.64	5.25	5.76	6.24	6.78	5.96	5.11	4.16	3.54	2.92
Industry	Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	Gas	0.05	0.09	0.13	0.17	0.22	0.28	0.34	0.40	0.46	0.53	0.61	0.69	0.76	0.82	0.89	0.78	0.67	0.55	0.47	0.38
Emissions savings MtCO2	Traded indirect	0.04	0.09	0.09	0.07	0.22	0.23	0.27	0.28	0.30	0.27	0.28	0.35	0.37	0.50	0.61	0.38	0.28	0.19	0.14	0.10
	Non-Traded Direct	0.11	0.20	0.29	0.39	0.51	0.64	0.78	0.92	1.06	1.22	1.40	1.58	1.74	1.88	2.04	1.80	1.54	1.25	1.07	0.88

Table 15 Option 1

	Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Energy TWh																					
Public	Electricity	0.08	0.16	0.16	0.14	0.48	0.64	0.81	0.98	1.15	1.33	1.59	1.86	2.08	2.30	2.53	2.18	1.82	1.42	1.16	0.89
	Gas	0.18	0.31	0.46	0.62	0.81	1.03	1.25	1.46	1.70	1.94	2.23	2.53	2.78	3.01	3.27	2.87	2.46	2.01	1.71	1.41
Commerce	Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.73	0.06	0.00	0.00	0.00	0.00
	Gas	0.36	0.63	0.93	1.24	1.64	2.06	2.51	2.94	3.40	3.90	4.49	5.08	5.57	6.04	6.56	5.77	4.95	4.03	3.43	2.83
Industry	Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Gas	0.05	0.08	0.12	0.16	0.21	0.27	0.33	0.39	0.45	0.51	0.59	0.67	0.73	0.79	0.86	0.76	0.65	0.53	0.45	0.37
Emissions savings MtCO2	Traded indirect	0.04	0.08	0.08	0.06	0.21	0.22	0.25	0.26	0.28	0.25	0.27	0.34	0.36	0.45	0.56	0.34	0.27	0.18	0.14	0.09
	Non-Traded Direct	0.11	0.19	0.28	0.37	0.49	0.62	0.76	0.89	1.03	1.17	1.35	1.53	1.68	1.82	1.98	1.74	1.49	1.21	1.03	0.85

Part B Monetised results

Part B shows monetised results for admin costs, capital costs, energy savings (amount of energy multiplied by the variable price of energy in the IAG guidance) and carbon savings (the amount of carbon multiplied by the corresponding traded or non-traded value

Final IA. Discounted value of Energy and Administrative savings																						
		Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Admin costs	Baseline		19.7	19.1	76.3	20.0	19.3	18.6	18.0	64.3	16.8	16.2	15.7	15.2	54.1	14.2	13.7	13.2	12.8	45.6	11.9	11.5
	Option 1		16.2	14.3	35.5	7.6	7.4	7.1	6.9	29.4	6.4	6.2	6.0	5.8	24.8	5.4	5.2	5.1	4.9	20.8	4.6	4.4
Discounted capital costs	Baseline		12.6	12.2	13.3	17.2	16.6	17.4	16.2	15.6	29.2	23.5	22.7	16.9	19.6	18.9	13.3	12.1	10.7	8.9	7.8	6.5
	Option 1		12.6	12.2	12.7	16.5	15.9	16.7	15.5	15.0	28.0	22.5	21.7	16.2	18.7	18.1	12.8	11.6	10.2	8.5	7.5	6.2
Energy Savings	Baseline	Electricity	4.3	9.3	9.4	9.4	33.2	44.2	57.7	69.1	80.0	90.6	107.9	124.7	140.1	175.0	220.6	153.2	112.5	84.0	68.3	51.1
		Gas	9.6	21.5	32.2	46.3	65.4	80.3	95.4	104.3	112.6	124.6	138.6	151.7	161.0	168.7	177.2	150.7	124.9	98.4	81.0	64.7
	Option 1	Electricity	4.3	8.7	8.5	8.1	31.5	42.0	55.0	65.9	76.4	86.6	103.4	119.7	134.7	157.8	201.8	137.4	108.1	80.6	65.4	48.9
		Gas	9.6	20.7	31.0	44.6	63.1	77.5	92.0	100.7	108.7	120.3	133.9	146.7	155.7	163.1	171.5	145.8	120.9	95.3	78.4	62.6
Carbon savings	Baseline	Traded	0.5	0.5	0.5	0.4	1.2	1.3	1.5	1.6	1.8	1.7	3.1	5.3	7.0	11.4	15.8	11.0	9.0	6.6	5.3	3.8
		Non Traded	6.2	11.0	15.9	20.8	27.0	33.3	39.7	45.7	51.8	58.1	65.7	73.0	78.6	83.6	89.1	76.9	64.6	51.6	43.1	34.7
	Option 1	Traded	0.5	0.5	0.4	0.4	1.2	1.3	1.5	1.6	1.7	1.6	2.9	5.1	6.8	10.3	14.5	9.9	8.7	6.4	5.1	3.6
		Non Traded	6.2	10.6	15.3	20.0	26.0	32.1	38.3	44.1	50.0	56.2	63.5	70.6	76.0	80.9	86.2	74.4	62.5	50.0	41.7	33.5

Annex B– details of proposed simplification measures

Measures under Package A

Proposal 1 – Qualification criteria - Organisations must currently assess their status against two criteria to determine whether they qualify for CRC participation - i) presence of at least one settled half hourly electricity meter; and ii) a total qualifying electricity supply of at least 6,000MWh in the qualification year. Organisations meeting both criteria are required to participate in the CRC.

The first criterion is restricted to **settled**[36] half hourly electricity meters and is a subset of the second criterion, which is focused on all half hourly metered electricity supplies.

Government proposes to base CRC qualification on supplies through settled half hourly meters only from Phase II onwards. This approach would address the complexity associated with the current arrangements, as well as removing the short-term disincentive to install/activate advanced meters. It would also facilitate the administrator's checking of registration data.

Proposal 2 - Qualification threshold - In the informal discussion document Government suggested that the move to settled half-hourly meter based qualification may require a reduction in the threshold in order to maintain emissions coverage. However subsequent modelling has suggested that retention of the current 6,000MWh threshold would broadly maintain emissions coverage at the current levels, although the number of qualifying organisations will be reduced. Government proposes this is a desirable situation, facilitating the removal of administrative requirements on a sizeable number of participants whilst maintaining the emissions coverage and the energy efficiency benefits of the scheme.

Proposal 9: Landlord definition – under the current definition where one party ('tenant' or licensee) occupies premises with the permission of another ('landlord') and receives an energy supply from their landlord, the supplies of energy are treated as the CRC responsibility of the landlord. Landlords are not able to claim unconsumed supply in respect of energy supplies they provide to their tenants or

[36] There are currently about 111k settled half hourly electricity meters (HHMs) in the UK. Such meters are defined in the CRC as performing two functions: measuring electricity supplied to a customer on a half hourly basis for billing purposes and measuring electricity for the purposes of balancing the loads on the grid in respect of the wholesale electricity market. These meters are mandatory in Great Britain where the average peak electricity demand over the three months of highest consumption within a year exceeds 100kW over the previous 12 months. However, these meters have also been installed on a voluntary basis where the owners wish to collect data on their electricity consumption for energy management purposes before the existence of Automatic Meter Reading (AMR) meters. In Northern Ireland the meters have been mandatory since November 2007 where a site's Maximum Import Capacity exceeds 70kVA. Before this date no meters in NI were fitted on a mandatory basis.

licensees ('landlord/tenant rule'). Premises are defined as land, vehicle, vessel or movable plant. Stakeholder feedback has suggested there should be a distinction between providing land on which the tenant builds its own building, under a ground lease arrangement, and providing a building for the tenant to occupy. This is because there is a significant difference between these cases in the ability to influence energy consumption.

It is therefore proposed to enable parties which provide a tenancy of land to other parties, to build their own buildings to claim unconsumed supply in respect of energy supplies to such properties constructed on the tenanted land i.e. a building lease. This would have the effect of transferring CRC responsibility from the 'landlord' to the 'tenant' in such scenarios.

As per proposal 8, the 'landlord' in this scenario would only be able to claim unconsumed supply where their relationship with the 'tenant' met the simplified supply criteria. Under this proposal there may be a small risk of emissions loss as CRC responsibility is passed to organisations which may not have qualified for CRC participation.

Proposal 10: Licensed activities – under the current Order electricity or gas supplied within an undertaking or public body and used for the direct purposes of specific 'licensed activities' (electricity used for generation, transmission or distribution of electricity, gas used for the transport, supply or shipping of gas) is excluded from the scheme under paragraphs 6 and 7 of Schedule 1. This exclusion was originally provided to recognise the circumstances of electricity and gas suppliers. However stakeholder representations have identified an inequity between internally ('self') supplied electricity and gas, which is excluded where used for such purposes, and supplies from third parties which is within scope of the CRC, irrespective of whether subsequently used for such licensed activities. It is therefore proposed to align the licensed activity exclusion so that supplies from third parties are excluded from the scheme where directly used for such 'licensed activities'.

In addition it is also proposed to extend the current exclusion to electricity used for the purposes of transporting, supplying or shipping of gas, and for gas used for the purposes of generating, transmission or distribution of electricity (i.e. cross licensed activities). Under the current drafting of the Order, electrically powered gas compressors will also be within the scope of the scheme; however under this proposal such uses will be excluded.

This will effectively mean that gas supplies will only be considered within the CRC's scope when used for non-electricity generating/non gas distribution purposes. In addition, this will facilitate the removal of the Electricity Generating Credit (EGC) provisions.

Proposal 17: EU ETS Installations and CCA Facilities - the CRC has been designed to target emissions which are not regulated under a Climate Change Agreement (CCA) or in the EU Emissions Trading System (EU ETS). Stakeholder feedback has indicated that the processes designed to avoid double regulation have introduced significant complexity on organisations with CCA or EU ETS emissions. Under the current CRC rules, organisations must report their CCA and EU ETS emissions in their footprint report. Furthermore, they must annually report and surrender CRC allowances for electricity supplies to EU ETS installations and any supplies outside of their CCA facility/EU ETS installation boundary.

Organisations with a CCA may currently apply for any of the three exemptions (member, group or general), subject to their circumstances. The process for understanding, applying for, and verifying eligibility for the exemptions has been the subject of stakeholder criticism as to its complexity. In addition, electricity supplies to EU ETS installations are within scope of the CRC, which has led to further stakeholder complaints – given the generation emissions are already regulated under the EU ETS.

Government therefore proposes to simplify the CRC's treatment of CCA and EU ETS emissions by amending the scheme's supply rules to remove all energy supplies to CCA facilities and EU ETS installations from the scheme, irrespective of whether self-supplied (e.g. electricity generated on site) or supplied via a third party. There will no longer be any CRC obligations in respect of the energy supplies to such facilities/installations. This means that participants will no longer need to surrender CRC allowances in respect of electricity supplied to EU ETS installations.

Under this proposal electricity supplies to CCA facilities/EU ETS installations will no longer need to be considered when assessing CRC qualification. This amendment will facilitate the removal of the three CCA exemptions, thereby requiring those organisations which qualify on the basis of electricity supplied to their non CCA facilities and EU ETS installations to participate in the scheme and comply with its compliance obligations.

Proposal 33- Treatment of trusts – much of the commercial property in the UK is tenanted. For a number of commercial, legal and tax related reasons. Investment in

UK commercial property takes place through a variety of holding structures and involves complex arrangements including assets through a trust structure.

The only trust assets which are relevant for the purposes of the CRC Scheme are those which are capable of receiving a supply of electricity, gas or other fuels. Such assets fall in two categories:

- real property;
- shareholdings in companies (or analogous interests in other types of undertaking) which own real property.

Assets held on trust are held by the trustee, in a fiduciary capacity[37], for the benefit of one or more beneficiaries. The Companies Act 2006 states that shareholdings in companies held by a person in a fiduciary capacity shall be treated as not held by him (i.e. it belongs to the beneficial owner for which the trustee holds the legal title). Therefore CRC responsibility is with the beneficiaries of the trust for shareholdings. Government does not plan to change these rules.

Stakeholders have raised concerns about the current CRC rules in relation to property assets held on trust. The current CRC rules places responsibility for CRC on the party (the trustee) that has no economic interest in the property and no control over the energy efficiency performance of the assets held in trust (unlike a parent undertaking).

Due to the range of ways that investors can hold property and the different categories of property trust, there is not a one size fits all policy solution for where CRC responsibility should lie. Therefore in order to simplify the treatment of trusts and place CRC responsibility with the party who has greatest influence over the energy efficiency opportunities, Government intends to put in place a set of rules to determine where CRC responsibility should lie.
For trusts where there is one controlling beneficial owner, these will be grouped with the beneficial owner for qualification purposes and participation.

For trusts that have engaged an operator to carry out regulated activity, responsibility would rest with the operator for the trust. For qualification purposes all trusts that the operator is responsible for would be aggregated together, but allowed to disaggregate for participation in CRC under the simplified disaggregation rules.

[37] "fiduciary capacity" means where a person (a trustee) holds property as its nominal owner for the good of one or more beneficiaries

For all other trusts that do not meet either of the above criteria, CRC responsibility would rest with the trustee. For qualification purposes, all trusts that the trustee is responsible for would be aggregated together but allowed to disaggregate for participation in CRC under the simplified disaggregation rules.

Where the real property assets are held on trust by more than one trustee, the qualifying electricity supply to the property in a particular trust should be the responsibility of the trustee which assumes responsibility for the electricity supply to those property assets held in trust. Where no single trustee assumes individual responsibility for such supplies, the trustees must decide amongst themselves which of them is to assume such responsibility for the purposes of the Scheme. In the event that the trustees cannot decide who is to assume such responsibility, they should notify the relevant administrator, to enable the administrator to liaise with the trustees with a view to broker an agreement regarding which trustee assumes responsibility for the supplies. This is in line with the current rules.

Measures in Package B

Proposal 12: Reduce the number of fuels – currently CRC participants are required to report on 29 energy and fuel types where their arrangements meet the CRC's supply definition. During the consultation a number of participants argued that instead of reducing the number of fuels to 4, the number should instead be reduced to 2 (electricity and gas). The arguments are that gas oil and kerosene make up a tiny (less than 1%) proportion of most participants' overall supply and it will reduce the administrative costs. In the first year of the scheme, gas oil and kerosene consumption, from annual reports, amounted to 1.7MtCO_2 (around £20m revenue) or around 2.8% of overall scheme coverage. A loss of coverage will result in some loss of the scheme's benefits, but a significant amount of this coverage will already be lost in Phase two on account of the proposal to restrict gas oil and kerosene to that which is used for heating purposes so the actual impact of removing all gas oil and kerosene from the scheme should be less. However, the Government has decided that the loss of coverage as a result of reducing to two fuels is less of a priority than pursuing a greater reduction in administrative complexity.

In response stakeholder suggestions, the Government has decided to restrict the requirement for gas reporting to gas that is used for heat generation only. This modification will not significantly reduce CRC's emissions coverage, as over 90% of the gas consumed is for heating purposes.

Gas – under this proposal relevant supplies of metered gas from the gas network will remain within scope of the scheme, although bottled/unmetered sources will be out of scope, as will gas directly used for electricity generation. As per the current Order, the natural gas conversion factor will apply to all such grid supplies, irrespective of

any future biomethane component, as the carbon benefits of such biomethane generation will be recognised under the Renewable Heat Incentive (RHI) – where the benefit resides with the producer. This position continues to be aligned with the CRC's treatment of grid-supplied 'green' electricity.

The retention of this generic definition of 'gas' for self-supply purposes will run contrary to our simplification announcement about moving to four fuels. It is therefore proposed to restrict the self-supply of gas provision to natural gas only. Organisations producing and using other forms of gas, such as biomethane, will not be required to report such use under the self-supply provisions.

Proposal 14: 90% applicable percentage – participants are currently required to produce a footprint report in the first year of each phase, the purpose of which is to confirm the participant's compliance with the 90% applicable percentage rule (where participants have to ensure that at least 90% of their emissions are covered by the EU ETS, CCA and CRC schemes). The 90% applicable percentage was originally introduced to reduce the reporting burden on participants by enabling them to discount up to 10% of their smaller emission sources from the scheme. Additional complexity was introduced through the core/residual source distinction, where supplies meeting the CRC's 'core supplies' definition have to be included in participants' footprint and annual reports. Residual sources are only required to be reported where they have been included on the residual measurement list to make up any shortfall below the 90% figure.

It is proposed to require participants to report on 100% of their relevant electricity and gas supplies, as defined in the Order. Such a proposal would maintain emissions coverage levels in light of reducing the number of fuels covered by the scheme. It would also enable the removal of the requirement to submit a footprint report, as evidence of compliance with the 90% rule would no longer be required, as well as aid the maintenance of a residual measurement list. It will also remove the distinction between core and residual meters.

There was strong support for the introduction of de minimis thresholds for fuels covered by the CRC. Therefore, going beyond what was proposed in the consultation, Government has decided to introduce an organisation-wide de minimis threshold of 2% for gas supply. In order to minimise administrative costs, this de minimis will only be assessed once per phase. So for Phase two, if a participant exceeds the de minimis in the reporting year 2014/15 then that participant will have to report their gas for the entirety of the second phase. If the participant does not exceed the de minimis then they will not have to report any gas for the duration of the second phase. This is expected to minimise administrative burdens.

Proposal 7: Profile classes – Government has considered, in the past, removing the requirement for a meter to establish a CRC supply relationship. Stakeholder feedback has indicated this approach would cause difficulties for participants when they are attempting to accurately compile annual report data as well as establish supply responsibility. Government therefore proposes to retain the meter requirement but restrict those meter profiles within scope to facilitate the exclusion of domestic supplies. This will be done through excluding supplies via electricity meters of profile classes 01 ('domestic unrestricted') and 02 ('domestic Economy 7') which are predominantly used by domestic customers. Electricity supplied via meters of profile class 03 through to 08 and 00 will remain in scope of the scheme.

In addition, Government proposes introducing a similar meter-based exclusion for domestic gas supplies. Gas meters are not profiled in a similar way to electricity meters, although gas supply points with an annual quantity of 73,200 kWh or less are widely recognised as domestic, small supply points. Government therefore proposes to exclude non daily metered supply points receiving annual gas supplies of 73,200 kWh or less.

Proposal 8: Unconsumed supply – there is potential under the current supply rules for emissions loss from the scheme, particularly in cases where a participant claims unconsumed supply, and where the downstream organisation does not qualify for the scheme, or the downstream relationship does not meet the supply criteria.

Government therefore proposes limiting the circumstances in which unconsumed supply can be claimed to those where the immediate downstream relationship meets all aspects of the supply definition – including the metering provision. The downstream organisation does not need to have actually qualified for CRC participation in order for unconsumed supply to have been claimed; only for their relationship to meet the supply criteria.

Measures in Package C

Proposal 3: Automatic re-registration – Government acknowledges stakeholder feedback about the scope for streamlining the CRC's registration process. It therefore intends to introduce an automatic population mechanism for those participants whose details remain unchanged from those provided in the registration phases of previous phases. New entrants, participants with amended corporate structures, or those wishing to disaggregate undertakings, will be required to

undertake the full version of registration. However, in both scenarios, participants will be required to satisfy relevant audit and identity checks by the administrator.

Proposal 4: Supply at the direction of another party – recent engagement has identified stakeholder confusion in the application of the CRC's supply rules for complex purchasing arrangements, especially where involving the direction of a third party. Government therefore proposes to amend the supply definition in order to provide additional clarity in third party scenarios. The criteria would be amended so that party 'A' would be responsible for the supplies it receives, or supplies made at its direction. Such an approach would tighten the supply rules and reduce complexity. 'A' may still be able to claim unconsumed supply, subject to its circumstances.

Proposal 5: Payment requirement – The current criteria require the transfer of payment in order to establish a supply relationship. Government understands this position may lead to unintended emissions loss under some contractual scenarios. It is therefore proposed to remove the payment criterion from the supply definition in order to capture complex supply arrangements. Government proposes the removal of this criterion will not fundamentally increase the scope of the scheme, as the inclusion of those supply relationships failing the supply criteria (e.g. waste as an input fuel into Energy from Waste plants) is mitigated by the revision of total fuels covered by the scheme (see proposal 12).

Proposal 6: Unmetered supplies – the current supply criteria require the presence of a meter upon which payment is based to establish a supply relationship or for the supply to be a dynamic pseudo half hourly unmetered supply. This has resulted in a discrepancy between the treatment of unmetered supplies used for street lighting, with supplies provided on a dynamic[38] pseudo half hourly basis being within scope and currently contributing to CRC qualification. Unmetered supplies provided on a passive pseudo half hourly basis or pseudo non half hourly basis are currently

[38] Dynamic pseudo Half Hourly meters allocate the unmetered consumption across the half hourly periods by reference to the operation of a number of actual photocells (PECUs) as recorded by one or more PECU Arrays, or by making use of actual switching times reported by a Central Management System (CMS). In either case the pseudo meter defaults to a passive mode using calculated times of switch operation in the event of the actual switching times not being available.
Passive pseudo Half Hourly meters allocate the unmetered consumption across the half hourly periods by reference to the calculated sunrise/sunset times. They cannot use data as recorded by a PECU Array or CMS.

Pseudo Non Half Hourly meters involve the calculation of an Estimated Annual Consumption (EAC) by the Distribution Business. The EAC is then allocated across the half hourly periods using Settlement profiles. Instead of using a PECU Array, CMS or calculated sunrise/sunset times, an annual hours figure is used. This figure is published by ELEXON for each Distribution area.

excluded in their entirety from the scheme. This has resulted in the unintended consequence of a disincentive to upgrade unmetered supplies to a dynamic basis. Upgrading to a dynamic basis is desirable on account of the additional reporting functionality that dynamic supplies provide – analogous to Automated Meter Readings. It has also acted as an incentive for many local authorities to downgrade their dynamic supplies to passive status in order to reduce their CRC exposure.

The proposal extends the categories of unmetered supplies within scope of the CRC to include passive pseudo half hourly and pseudo non half hourly unmetered supplies. Organisations would be required to annually report and surrender allowances in respect of such supplies, although they would not contribute towards CRC qualification. Dynamic pseudo half hourly unmetered supplies would remain within scope of the scheme but would no longer contribute towards qualification (see proposal 1 – qualification).

Proposal 11 – Revision of emission factor for self-supplied electricity - Currently all relevant electricity supplies are reported in the CRC at the grid average emissions factor – termed the 'electricity consumed figure' in Defra's Greenhouse Gas Reporting Guidelines. This figure is comprised of two elements – a generational element , and a transmission loss element. Government intends to recognise the efficiency benefits of on-site electricity generation relative to a grid solution by removing the transmission loss aspect of the emissions factor for self-supplied electricity. As such organisations which self-supply electricity i.e. generate and supply within their undertaking/public body level, will be able to apply an emissions factor of the grid rolling average for electricity generated, irrespective of how the electricity is generated.

For example the latest grid rolling average factor for electricity generated (2010 figure) is 0.47916kg CO2 per kWh. These emission factors will be updated annually as per proposal 13 in this consultation document, and are therefore included here for indicative purposes only.

Proposal 13 – Aligning the emission factors - under the current rules the emission factors for CRC are fixed for the duration of each phase. The rationale behind fixing the CRC emission factors for a phase was to incentivise participants to adopt energy management strategies to reduce emissions, and incentivise performance. Fixed emission factors would also be helpful in giving additional certainty when setting an emission cap, and ensuring consistency within the

Taking into account our proposal above on the reduction of fuels, emission factors will be published each year on the DECC website for the following fuels: rolling grid

average electricity and natural gas. These emission factors will be based on those in Defra's Greenhouse Gas Reporting Guidelines which are updated annually and published on the Defra website[39]. As indicated in proposal 11, emission factors for electricity will vary dependent on whether it is self supplied or supplied electricity from a third party.

Proposal 15: Extension of annual energy statement obligation - under the current Order there is an obligation on the licensed suppliers of electricity and gas to provide an annual energy statement where so requested in a timely manner by CRC participants (Article 63). This requirement is enabled via a modification to the suppliers' OFGEM licences (GB only) which has an appropriate enforcement regime for non compliance. Proposal 12, designed to reduce the number of fuels to electricity and gas that CRC participants are required to report, means that this proposal to extend the existing obligation to provide an annual energy statement to the suppliers of gas oil and kerosene can be removed.

Proposal 16 - Energy suppliers statements – the current obligation on licensed energy suppliers to provide CRC participants with an annual statement was introduced in order to assist participants in determining their organisation's energy supply. It therefore reduces the administrative burden of gathering data on energy supplies. The first annual energy statements were sent out to participants following the first compliance year in 2010-11.

Government has worked with energy suppliers to improve the annual energy statements for the remainder of Phase 1. OfGem have updated the guidance on providing an annual energy statement, associated with the licence conditions. This provides clearer guidelines on the level of information required, and encourage suppliers to provide a document which is more user friendly alongside a locked down version. Secondly, the CRC Regulators will update their guidance to participants to provide further detail on using their own data from meter reads and understanding their annual energy statement following the updated guidance from OfGem.

Some of the difficulties from the annual energy statement have been created by the requirement to align the billing data with the CRC compliance year. This has meant in some cases that energy suppliers have been required to pro rata billing data at the start and end of the year, creating estimates for those periods. To mitigate this problem, Government proposes to amend the relevant provision in the CRC Order to allow energy suppliers to provide an annual statement using 12 months of billed

[39] Insert link

supply that may not match the CRC compliance year exactly but is within 30 calendar days of the compliance year. This annual statement would be acceptable for CRC purposes. This proposal would help mitigate the potential mismatch between billing periods and the CRC year and therefore reduce the amount of supplies that are estimated.

Proposal 18: Electricity Generating Credits (EGCs) – EGCs are currently available in a limited range of circumstances to recognise smaller scale electricity generation outside of the EU ETS which is not subsidised by either Renewable Obligation Certificates (ROCs) or Feed in Tariff (FIT) payments. EGCs can be claimed to reduce a participant's footprint emissions and CRC emissions, with a commensurate reduction in the number of CRC allowances required to be surrendered.

It is proposed to remove the EGC provision (currently Article 31) from the CRC Order. Currently participants are required to report the input fuel into the generation process, report any commensurate self-supplied electricity and report the volume of EGCs claimed, where eligible. Under proposal 10, no fuel would be considered as a CRC supply, and therefore reportable, where used as an input fuel into an electricity generating process. The proposed removal of EGCs would effectively mean that participants would be required to report and surrender CRC allowances for all electricity meeting the supply and self-supply definitions, without being able to use EGCs as a means of reducing their CRC liability. The net impact on the scheme's emissions coverage should be minimal as the removal of the liability on the input fuel will be mitigated by the associated removal of EGCs –there will be administrative savings associated with not having to report the input fuel.

Proposal 19: Increasing the flexibility for disaggregation – In response to stakeholder feedback, Government proposes to change the organisational rules of the scheme to provide greater flexibility to undertakings concerning how they participate in the scheme. This means retaining current rules for qualification so that, at the beginning of each phase, participants register on behalf of the whole group. However, DECC propose to extend the disaggregation provision to allow any undertaking within the group to disaggregate, providing that mutual agreement is indicated by all parties as explained in proposal 20.

There will be no minimum threshold for subsidiaries to disaggregate, and no requirement that the remainder of the group must exceed the qualification threshold. Therefore Government proposes to remove the Significant Group Undertaking

(SGU) concept (schedule 4 (2)) for the purposes of determining what size of organisation can participate in the CRC. The information requirements on SGUs at registration and in annual reports will also be removed.

Proposal 20: Mutual consent to disaggregation - Similarly to current rules, DECC would require that disaggregation can only occur where there is mutual consent between the applicant due for disaggregation and the parent group. In addition, Government proposes to require consent from its subsidiaries (if any) when they are not included in the disaggregation.

Proposal 21: Disaggregation during the first year of a phase – If a participant wishes to disaggregate at registration, Government proposes to simplify the process for requesting this. So all that needs to occur is that the parent group must, when registering; request disaggregation as part of the registration process. Then, any disaggregated undertakings must register before the last working day of April of the subsequent reporting year, in line with the consent process set out above. If these steps occur, the administrator will approve the disaggregation in time for the first reporting year of the phase.

Proposal 22: Introducing annual disaggregation - To allow for maximum flexibility, Government proposes that groups have the opportunity to disaggregate undertakings on an annual basis. The application for registering as a disaggregated CRC participant can be submitted via the Registry at <u>any point,</u> in any compliance year.

Proposal 23 – Disaggregation of Academies (England only) - Currently maintained ('state-funded') schools in England are grouped with their funding local authority for the purposes of CRC participation. Similarly, Academies are grouped with the local authority in whose area they reside. In both situations the liability for compliance with the CRC's obligations resides with the local authority, although there is a duty on each school to provide relevant data to facilitate local authorities' compliance. Local Authorities can recharge the costs of CRC allowances from both their maintained schools and Academies' emissions to the central part of the Dedicated Schools Grant (DSG).

Stakeholder representation has indicated that local authorities have limited influence over Academies' energy use due to the arms length nature of their relationship and their inability to directly recharge Academies' budgets. Feedback has indicated this is

becoming a more significant issue due to the increasing number of maintained schools converting to Academy status.

Government proposes to continue with the current grouping arrangements, as detailed above, and with the current recharging arrangements from the DSG, which should not change the costs and benefits of the current situation.

Proposal 24: Re-define and re-name Significant Group Undertakings (SGUs) - Feedback suggests that the SGU concept has caused participants difficulty. Government therefore proposes to scrap the SGU concept for accounting for changes involving large organisations and to replace it with a simpler definition that covers single undertakings only. This will remove the complexity around nested SGUs (i.e. SGUs within SGUs in a CRC participant) and related complexity in accounting for these. Going forward, designated changes will only cover CRC participants and single undertaking members of a participant that were large enough to qualify for the CRC in their own right at qualification (a "Participant Equivalent"). Qualification will thus be based on the qualification year.

Proposal 25: Requirement to report on Participant Equivalents' emissions at registration and in annual reports - Currently, CRC participants are required to report all of their SGUs emissions both at registration and in annual reports. This enables the Administrator to update the historical averages corresponding to an SGU when a change occurs. Government proposes to remove reporting requirements related to SGUs at registration and in annual reports and to replace it with a requirement to report on Participant Equivalents instead. Therefore, when a designated change occurs that involves a Participant Equivalent, the EA will update historical averages to reflect the change in the PLT.

The new requirement to report annually on large single undertakings rather than SGUs should bring a net simplification, as participants already collect emissions data at an undertaking level in order to maintain evidence packs.

Proposal 26: When a Participant Equivalent leaves a CRC participant and joins another CRC participant, this is a designated change - When a Participant Equivalent ('C') leaves a CRC participant ('A') but joins another CRC participant ('I'), DECC proposes to maintain the rules currently used for SGUs but to apply them to the Participant Equivalent instead. As per current rules, 'I' reports on 'C's emissions for the whole year, buys allowances for 'C' for the whole year in which the change occurs. 'I' can request that 'C' continues as a separate participant.

Proposal 27: When a Participant Equivalent joins a non-CRC participant or becomes a standalone entity, this is a designated change - To maintain emissions coverage of the scheme, DECC will still capture changes that involve a Participant Equivalent ('C') when they leave a CRC participant ('A') and join a non-CRC participant ('N'), or they leave a group and do not become a member of another group (i.e. become a standalone entity). In these cases, DECC will require the Participant Equivalent to register with the scheme and carry on as a CRC participant for the remaining of the phase. Government proposes to make it optional, not mandatory, for non CRC participants that acquire a Participant Equivalent to register on their behalf, thus reducing burdens on the former.

Proposal 28: When a CRC participant joins a non-CRC participant, this is a designated change - In order to maintain emissions coverage of the scheme, when a CRC participant ('A') joins a non- CRC participant (N), DECC will require that the CRC participant either carries on as a separate participant or is absorbed by the new owner. Government proposes to make it optional, not mandatory, for non CRC participants that acquire a participant to register on their behalf, thus reducing burdens on the former.

Proposal 29: Review of liabilities for designated changes - As per current rules, the members of the group will be jointly and severally liable with the group, from time to time. To reduce burdens on non CRC participants, they will not be jointly and severally liable with the CRC participant or Participant Equivalent that joins their group, if they do not register on their behalf during a phase.

Proposal 30: Maintain rules that deal with responsibility for emissions following a designated change - In order to ensure a simpler administration of these changes, especially where there have been a number of changes for the organisation during the year, Government proposes to maintain current rules whereby, when a designated change occurs, the new owner will be responsible for emissions for the whole year in which the change occurs. Therefore only the position at the end of the year is relevant for the purposes of annual reporting and purchase and surrender of allowances, as the responsibility for supplies goes back to the start of the year.

Proposal 31: Reduce reporting burdens related to organisational changes occurring post-qualification - Government intends to reduce reporting burdens on participants to account for changes occurring in the post-qualification period (the period between qualification and registration) so that the information requested on organisations in the qualification year is not duplicated (i.e. provided by the old owner and the new one). The following simplifications are proposed:

When a CRC participant ('A') joins another CRC participant ('B') in the post-qualification period, only 'B' needs to register and provide information in respect of 'A'. Similarly, when a Participant Equivalent leaves 'A' and joins 'B', only 'B' will provide information on the Participant Equivalent, both 'A' and 'B' must register.

The Government proposes that when a Participant Equivalent leaves a CRC participant and does not become a member of another group, they both need to register as participants. To reduce reporting burdens, Government proposes that the old parent group will not be required to provide information which applied to the Participant Equivalent in the qualification year at registration, as this information will be submitted by the Participant Equivalent as part of its registration.

The Government proposes to make it optional, not mandatory, for non- CRC participants that acquire a qualifying group or Participant Equivalent to register on the Participant Equivalent's behalf, thus reducing burdens on the former.

Proposal 32: Notification and registration timing – We propose to extend the registration window for designated changes. Currently a registration must be completed within 3 months of the change occurring. Under the proposed revised rules, a registration must be completed by the last working day of April of the compliance year following the transaction. The Administrator must be informed of a designated change within 3 months of the change, or if the designated change occurs at the end of the compliance year, by the last working day in April.

Proposal 34: Simplifying the allowance sale in the introductory phase - In the CRC Amendment Order, which came into force in April 2011, Government extended the introductory phase so that there would be three years of allowance sales in the introductory phase – in respect of emissions in 2011/12, 2012/13, and 2013/14. At the same time, the first sale of allowances in the second phase of the CRC was delayed, until the year 2014/15. The logic behind this decision was to provide participants with an extra year of reporting, complying and surrendering allowances during the introductory phase.

Within the phases set in the CRC Order, the timing of sales is a matter to be determined in regulations to be made by the Treasury under section 21 of the Finance Act 2008. For the 2011/12 reporting year, the allowance sale washeld after the end of the reporting year, at a price of £12/tCO_2.

For the remainder of the introductory phase Government plans to continue with retrospective allowance sales, so that participants have more time to adjust to reporting and measuring their emissions; imperative prior to the beginning of the second phase of the scheme.

Proposal 35: Phase two and beyond: moving away from cap and trade - Under the provisions of the Climate Change Act, the CRC must be a trading scheme. However, in order to simplify this trading element, DECC plans to move away from the original intention to impose a cap on allowances that can be issued. Not imposing a cap on allowances will means that there will not be a need for auctions, which should lower the administrative costs for participants as the need to develop auctioning strategies has been removed. While DECC recognises that not having a cap will reduce the level of certainty concerning the emissions savings CRC will deliver, it has the benefit of increasing the level of certainty over the price; consequently simplifying the business case for energy efficiency investments.

Proposal 36: Fixed price sales – As a consequence of proposal 35, Government proposes that in the second phase of the CRC there should be two fixed-price sales of allowances. One forecast sale, at the beginning of the year, and one buy-to-comply sale, after the end of the reporting year. The price at the forecast sale will be lower than the price at the buy-to-comply sale, this ensures participants have an incentive to forecast their emissions before the start of the year and buy allowances in advance. However, participants would have the choice to purchase allowances at either sale.

Proposal 37: Removing the safety valve - The buy-to-comply sale at the end of the year would effectively put in place a maximum price that participants would have to pay to cover their CRC liabilities for that year. As a result, there will be no further need to retain the previous safety valve mechanism, whereby participants could buy additional CRC allowances via the safety valve mechanism. Government therefore proposes to remove the option of buying additional CRC allowances via the safety valve mechanism as it is deemed unnecessary.

In addition to the possibility of buying allowances at the forecast sale at the beginning of the year, and the option to buy allowances at the buy-to-comply price at the end of the year, participants will also be able to buy allowances on the secondary market. This ability to trade will mean that participants who have surplus allowances after the forecast sale will benefit by selling these allowances to other CRC participants, who otherwise would have needed to buy at the buy-to-comply sale.

Proposal 38: Banking - Currently, allowances are valid within the introductory phase of the CRC, but not beyond the end of the first phase. Essentially they can be banked from year to year, but not from phase to phase.

In the second phase and beyond, Government proposes to continue to allow banking within a phase of the scheme. This avoids the risk of a year to year price crash, which could occur if no banking was allowed and the market became over-supplied with allowances. In sum, if a participant purchases more allowances than they need at the forecast sale, they will have two options for how to treat the excess allowances – they can either sell them on the secondary market or bank them.

One consequence of allowing unlimited banking within a phase is that it would limit the trajectory at which the allowance price could increase. If the price was increased too steeply then participants would try to buy all their allowances for the phase in the first forecast sale and simply bank them until needed. This would reward cash-rich participants at the expense of others. As a consequence, this limits the ability of Government to increase the allowance price in order to ensure that the scheme's objectives are being delivered.

In order to give Government the flexibility to increase the price from one phase to the next, DECC proposes to prevent the banking of allowances between phases.

Proposal 39: Surrender deadline - Given that the reporting deadline for the scheme is the last working day of July, we propose to extend the surrender deadline to the end of September so that participants have extra time (after the end of the reporting deadline) to purchase and surrender allowances.

Proposal 40: Removing the requirement for a Phase II annual report in 2013-14
As it currently stands, in the last year of the introductory phase (2013-14) participants would be required to submit two annual reports. One annual report would be for the final year of the introductory phase, according to which they would need to surrender allowances. The second annual report would be to cover the first year of the second phase, and would be for the purposes of compiling the Performance League Table. As a result of the aforementioned changes, the annual report for the second phase would have slightly different information to the annual report for the first phase. This would result in a double burden on participants that Government is keen avoid.

Government therefore proposes to remove the requirement to submit an annual report in respect of 2013-14 emissions for the second phase. As a result, the only annual report that will need to be submitted in respect of 2013-14 emissions will be

for the last compliance year of the introductory phase. This would reduce the overlap between the introductory phase and second phase.

This proposal would have an implication on the Performance League Table. It means that it will not be possible to publish a PLT, in the current format, in Autumn 2015. However, as proposal 43 on the PLT demonstrates, Government are removing the reputational element of the scheme from the legislation and putting the detail in guidance. This will give the additional flexibility needed to review the reputational element in future years.

Proposal 41: Reducing burdens associated with data retention - Under the current rules participants are required to maintain records of their first footprint report, first annual report and their first position in the performance table for as long as they are subject to the CRC. For all other annual reports, there is a requirement to keep these for at least 7 years after the end of the phase in which the scheme year in question relates. This means that the records for annual reports would need to be held by participants for up to 12 years. Stakeholder feedback has indicated that this is an excessive period of time to retain records associated with the CRC and has a significant cost impact in data storage terms. Government therefore proposes to reduce the length of time participants need to retain records:

- The first annual report, which would have to be kept for the length of the time which the participant was part of the scheme, to now be held for at least six years after the end of the first annual report scheme year.

- The length of time that individual annual reports are required to be kept to be reduced to at least six years after the end of the scheme year in question. This would mean that for the 2011/12 annual report it would now have to be held for six years, until April 2018 - under the current scheme requirements this would have been until April 2024.

- Evidence packs which support each annual report should be kept for at least six years after the end of the scheme year to which it relates.

- The length of time that the first footprint report is required to be kept should be reduced to six years after the end of the scheme year in question. This would mean the first footprint report now be held for at least 6 years. Under the current scheme requirements this would have been for as long as the organisation was a participant in the scheme.

- The first position in the performance table to be kept for at least six years, after the end of the scheme year in, which the first performance league table was published. This can be contrasted with the current rule which is for however long the participant still remains part of the scheme.

Proposal 42: Voluntary reporting of geographical emissions data- Government has identified that there would be an added benefit if reported emissions data could be split according to whether the emissions derived from England, Scotland, Wales or Northern Ireland. This would allow Devolved Administrations to track their progress better against their respective emission reduction targets. Under current reporting rules, it is not possible to split an organisation's reported emissions data on this basis. One potential solution to this problem would be to give participants the option to report the geographical split of their emissions data in their annual reports, on a voluntary basis.

Proposal 43: Performance League Table (PLT)- Stakeholders provided feedback relating to the PLT during the informal dialogue process. There is a large degree of consensus about the usefulness of having a reputational driver for energy efficiency; however stakeholders questioned the current PLT and its associated metrics.

Government believes that it is important to see what impact the PLT has in creating a reputational driver for energy efficiency. Government needs to learn the lessons from the publication of the first couple of Performance League Tables before making a decision on whether to amend this element of the scheme. This means it is not possible to make a decision on the nature of this reputational element at present.

Going forward, Government proposes to retain a reputational driver for the scheme. However, the detailed rules on the nature of the reputational driver, and the metrics used, will be removed from the legislation and placed in guidance. This will allow Government to revisit in future, far more easily, the nature of the reputational element of the scheme, in the light of evidence from the operation of the scheme in its early years, as well as inevitable wider policy developments.

Proposal 44: Fees and charges - for administering the scheme will be reviewed for future phases to ensure charges reflect future compliance activities

The scheme administrators intend to retain the same level of charges as currently exist. The type of charges will also remain the same, with the single exception of the proposed administrative charge in respect of purchases of allowances via the Safety Valve (as this is no longer required).

In future phases, as the scheme and its membership matures, the administrators will review the charge levels to ensure the charges reflect future compliance activities.

Proposal 45: Appeals - Under the current CRC Order the Secretary of State and his devolved administration equivalents are the appeal bodies when appeals are raised under the CRC Order. These appeal bodies may delegate the management of appeal hearings to an independent third party, whilst commissioning recommendations from such parties in respect of each appeal. The actual appeal determination may not however be delegated by the appeal bodies. Appeals by an Administrator are the exception to this provision, with the CRC Order stipulating the use of an independent third party to determine such appeals.

It is proposed that from phase two onwards the General Regulatory Chamber of the First Tier Tribunal is specified as the appeals body for all of the CRC appeals in England and Wales. Scottish ministers will be appointed in respect of appeals in Scotland. In all instances, the distinction between appeals by Government and non-Government participants will be removed and these independent third parties will have the power to manage and determine the outcome of all CRC appeals.

Proposal 46: Scheme guidance – This will be reviewed and consolidated for both the introductory phase and future phases. The administrators are currently conducting a review of the guidance for the introductory phase and have recommended the existing guidance products (approximately 27 separate documents) should be reduced to three documents covering:

- Qualification
- Compliance
- Use of the Registry

The revised guidance for Compliance and Use of the Registry is anticipated to be published in 2012. For future phases the consolidated guidance will be updated to reflect the outcome of the simplification review.

ANNEX C – KPMG Survey of CRC participants

Consultants KPMG carried out an online survey over summer of 2011 which provided detailed information relating to the time and cost associated with CRC compliance. Splitting the time and cost incurred between the various activities required for CRC compliance allows the impacts of individual simplification measures to be estimated with greater accuracy.

The methodology was designed to avoid any exaggeration of the costs associated with the CRC by participants, but the difference between general carbon management costs and those that are 'additional' as a result of the introduction of the CRC are also recognised. These costs not only need to be segregated by activity, but also by frequency, as a small cost incurred on an annual basis may quickly outweigh a single cost incurred once per phase.

Chart C1: CRC administration (Source KPMG survey of CRC costs)

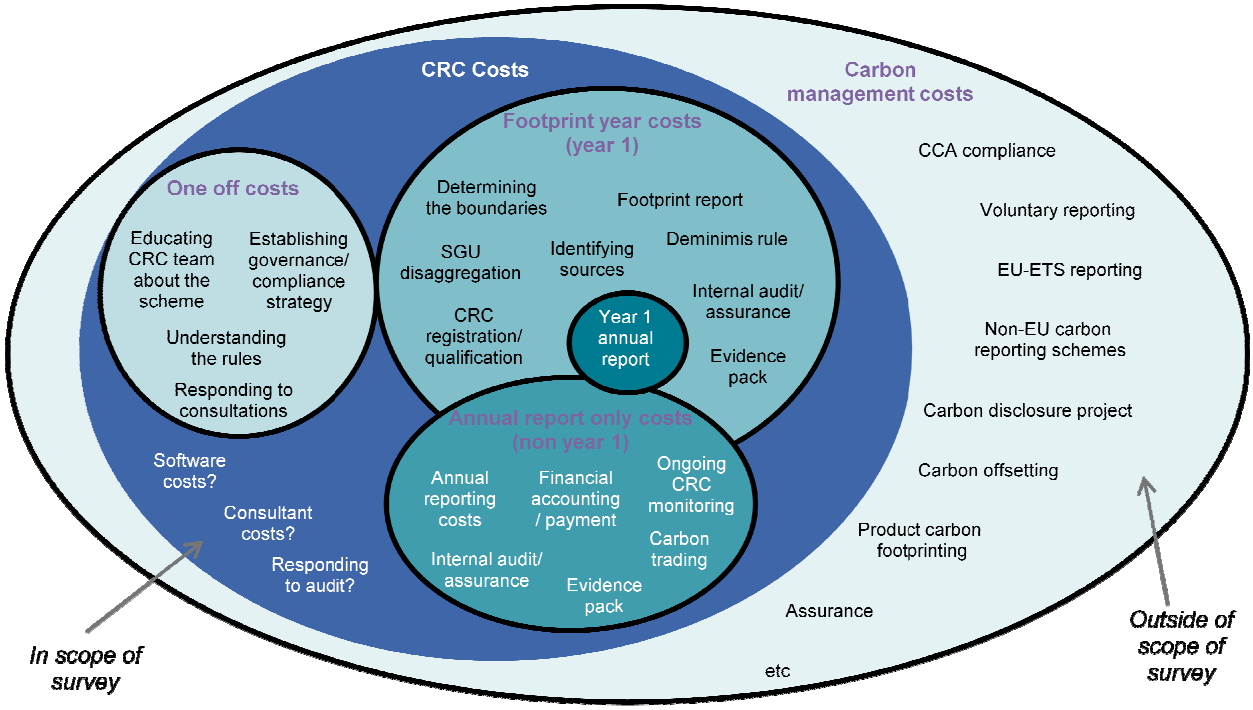


Chart C1 shows the administrative costs analysed by KPMG. These costs are grouped by major activities associated with the CRC scheme and exclude administrative costs that occurred as a result of general energy management or other schemes. These costs fall mainly into four categories: one-off costs (which occur once per phase or once in a life-time), footprint costs, annual costs and external costs.

The survey questions were developed by KPMG in discussion with DECC. Prior to the survey, KPMG engaged with a stakeholder group to discuss and test the survey approach. This allowed them to assess whether the proposed survey was appropriate and would work effectively whilst minimising the requirements on respondents. Subsequently, KPMG launched a large scale web-based survey of CRC participants to determine the administrative cost to these organisations of the implementation of the CRC requirements.

In addition to the survey, KPMG conducted more that 40 in-depth interviews with a number of CRC participants, to understand how they had calculated the administrative cost of the CRC and to seek their views on those aspects that give rise to the most significant burdens.

The survey was carried out in August 2011 and received 740 responses (representing 26.5% of all CRC participants), which was above the initial target level. Responses were weighted to the whole CRC population across six categories. The survey also obtained at least a 25% response rate for each of the six following categories:

- Public, private and third sector
- Emissions bandings
- By number of Significant Group Undertakings
- Number of Half Hourly Meters
- SIC (Standard Industrial Classification) code
- CCA exemption status

After estimating time spent in each activity by different types of participants, the associated costs have been calculated, consistent with the Standard Cost Model (SCM). KPMG reduced the number of possible staff grades and their descriptions from those presented in the SCM to better reflect job descriptions involved in CRC compliance within organisations. This is based on their experience advising more than 80 CRC participants on CRC compliance. This research used the following SCM codes and descriptions:

Table 21 Staff cost per hour

Staff category per survey	SCM code and description
Directors and Department Heads	1112 – Directors and Chief Executives of major organisations (£61.04/hr)
Senior Management	111 – Corporate Managers and Senior Officials (£44.7/hr)
Middle Management	113 – Functional Managers (£26.05/hr)
Administrators	41 – Administrative Occupations (£10.49/hr)