

<b>Title:</b> Simplification options for the CRC Energy Efficiency scheme to help business : CRC (Amendment) Order 2013  <b>IA No:</b> DECC0066  <b>Lead department or agency:</b> Department of Energy and Climate Change (DECC)  <b>Other departments or agencies:</b> Environment/climate change departments from Scottish Government, Welsh Government and Northern Ireland Executive.	<b>Impact Assessment (IA)</b>		
	<b>Date:</b> 20/12/2011		
	<b>Stage:</b> Consultation		
	<b>Source of intervention:</b> Domestic		
	<b>Type of measure:</b> Secondary legislation		
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<b>Summary: Intervention and Options</b>			<b>RPC:</b> RPC Opinion Status

Cost of Preferred (or more likely) Option				
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB in 2009 prices)	In scope of One-In, One-Out?	Measure qualifies as
£503m	£337m	£-13.8m	Yes	OUT

**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 significantly 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 dramatically 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.

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

The proposals detailed in this IA are the result of significant stakeholder engagement to identify **practical** simplification **measures**. Measures discarded on the grounds of practicality, enforceability or stakeholder feedback are not considered in this IA. 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. Three **options** have been considered for this IA – Option 0 counterfactual business as usual; Option 1 – packages A, B and C and Option 2 – packages B and C. Option 1 is the preferred option as it delivers the greatest reductions in administrative costs – though option 2 also provides for an ambitious package..

<b>Will the policy be reviewed?</b> It will be reviewed. <b>If applicable, set review date:</b> 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.		<b>Micro No</b>	<b>&lt; 20 No</b>	<b>Small No</b>	<b>Medium No</b>	<b>Large Yes</b>
What is the CO2 equivalent change in greenhouse gas emissions? (Million tonnes CO2 equivalent)			<b>Traded:</b> -0.7		<b>Non-traded:</b> -1.5	

*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 Minister: \_\_\_\_\_

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 2011	PV Base Year 2011	Time Period Years 20	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	High: Optional	Best Estimate: 503

<b>COSTS (£m)</b>	<b>Total Transition</b> (Constant Price) Years		<b>Average Annual</b> (excl. Transition) (Constant Price)	<b>Total Cost</b> (Present Value)
<b>Low</b>	Optional		Optional	<b>Optional</b>
<b>High</b>	Optional		Optional	<b>Optional</b>
<b>Best Estimate</b>				<b>-130</b>

**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 £337m. In addition, the cost of purchasing allowances increases by £207m from the baseline due to an increase of coverage resulting from these measures. This results in a net reduction in costs of £130m.

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

Some transaction costs such as IT costs for the Environment Agency and 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. DECC is planning to update these costs for the final IA.

<b>BENEFITS (£m)</b>	<b>Total Transition</b> (Constant Price) Years		<b>Average Annual</b> (excl. Transition) (Constant Price)	<b>Total Benefit</b> (Present Value)
<b>Low</b>	Optional		Optional	<b>Optional</b>
<b>High</b>	Optional		Optional	<b>Optional</b>
<b>Best Estimate</b>				<b>373</b>

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

In addition to the cost reductions set out above, £166m in benefits from simplification measures are derived from the energy and emissions savings brought about by removing CCA and EU ETS overlaps with the CRC and by requiring reporting on 100% of electricity, gas, kerosene and gas oil use - the latter two when used for heating. In addition, revenue raised by government from sale of allowances increases by £207m from the baseline as a result of changes in emissions covered by the new scheme.

**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 that has been identified in the first Annual Report of the CRC. Estimates of CRC admin savings are based on commissioned research from KMPG. Although this research focused on minimising reporting bias, the results are based on participants views and have not been fully audited.

**BUSINESS ASSESSMENT (Option 1)**

<b>Direct impact on business (Equivalent Annual) £m:</b>			<b>In scope of OIOO?</b>	<b>Measure qualifies as</b>
<b>Costs: -13.8</b>	<b>Benefits:</b>	<b>Net: -13.8</b>	Yes	OUT

**Summary: Analysis & Evidence**
**Policy Option 2**

**Description: Implementation of two simplification packages; 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 2011	PV Base Year 2011	Time Period Years 20	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	High: Optional	Best Estimate: 308

<b>COSTS (£m)</b>	<b>Total Transition (Constant Price) Years</b>	<b>Average Annual (excl. Transition) (Constant Price)</b>	<b>Total Cost (Present Value)</b>
<b>Low</b>	Optional	Optional	<b>Optional</b>
<b>High</b>	Optional	Optional	<b>Optional</b>
<b>Best Estimate</b>			<b>-187</b>

**Description and scale of key monetised costs by ‘main affected groups’**

This option reduces administrative costs from participants that will see a much simplified set of regulations and a reduction in the need to report residual supplies.

These options cover two main simplification packages - B) a reduction of 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. As a consequence this IA reports a reduction in costs of £259m. In addition, the cost of purchasing allowances increases by £72m from the baseline due to an increase of coverage resulting from these measures.

**Other key non-monetised costs by ‘main affected groups’**

Some transaction costs such as IT costs for the Environment Agency and 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. DECC is planning to update these costs for the final IA.

<b>BENEFITS (£m)</b>	<b>Total Transition (Constant Price) Years</b>	<b>Average Annual (excl. Transition) (Constant Price)</b>	<b>Total Benefit (Present Value)</b>
<b>Low</b>	Optional	Optional	<b>Optional</b>
<b>High</b>	Optional	Optional	<b>Optional</b>
<b>Best Estimate</b>			<b>121</b>

**Description and scale of key monetised benefits by ‘main affected groups’**

Benefits from this option are derived from the increase in emissions covered by the CRC owing to the inclusion of 100% of residuals from electricity, gas, kerosene and gas oil - the latter two when used for heating purposes (£49m). There are significant savings on the administrative burdens of the scheme which are accounted for in the previous section. In addition, revenue raised by government from sale of allowances increases by £72m from the baseline as a result of changes in emissions covered by the new scheme.

**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	<b>Discount rate (%)</b>	3.5
The calculations of energy efficiency savings have been updated from the 2010 IA and take account of the increase in emissions that has been identified in the first Annual Report of the CRC. Estimates of CRC admin savings are based on commissioned research from KMPG. Although this research focused on minimising response bias, the results are based on participants view s and have not been fully audited.		

**BUSINESS ASSESSMENT (Option 1)**

<b>Direct impact on business (Equivalent Annual) £m:</b>			<b>In scope of OIOO?</b>	<b>Measure qualifies as</b>
<b>Costs: -10.6</b>	<b>Benefits:</b>	<b>Net:-10.6</b>	Yes	OUT

**Evidence Base (for summary sheets)**

1. This Impact Assessment is part of a consultation package to be published in March 2012 which details proposed amendments to the CRC Energy Efficiency Scheme Order 2010 and the CRC Energy Efficiency Scheme (Amendment) Order 2011. The Impact Assessment considers the costs and benefits of the 46 proposals detailed within the consultation document – available at [http://www.decc.gov.uk/en/content/cms/consultations/crc\\_simp\\_cons/crc\\_simp\\_cons.aspx](http://www.decc.gov.uk/en/content/cms/consultations/crc_simp_cons/crc_simp_cons.aspx)

**Background**

2. The CRC Energy Efficiency Scheme (CRC) came into force at the beginning of April 2010. It is designed to incentivise the uptake of cost-effective energy efficiency measures in large public and private sector organisations through the application of financial and reputational drivers. 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.<sup>1</sup>
3. Organisations which qualify for participation are required to undertake a series of compliance activities, such as annual reporting of emissions and surrendering a commensurate number of CRC allowances, which are 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<sup>2</sup>.

**Problem under consideration**

4. Since the introduction of the CRC in April 2010, 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). They have also stated that the organisational focus of the scheme is misaligned with their operational management structures and business processes.
5. Government announced its intention to simplify the scheme in the Annual Energy Statement published in August 2010, which directly led to a consultation exercise, updated Impact Assessment and an initial Amendment Order in April 2011<sup>3</sup>. The purpose of this amendment was primarily to create the legislative window in which to undertake a simplification review of the scheme; the results of which are assessed in this document.
6. This impact assessment considers the options for dramatically simplifying the CRC Energy Efficiency Scheme, which is an emissions trading scheme introduced using powers

<sup>1</sup> <http://www.decc.gov.uk/en/content/cms/consultations/CRC/CRC.aspx>.  
<sup>2</sup> <http://CRC.environment-agency.gov.uk/pplt/web/plt/public/2010-11/CRCPerformanceLeagueTable20102011>  
<sup>3</sup> <http://www.legislation.gov.uk/ukxi/2011/234/contents/made>

contained in the Climate Change Act. **Wider options for amending the energy efficiency policy landscape are out of scope of this impact assessment, as this impact assessment purely looks at options to simplify the CRC.** Options such as raising the climate change levy, or introducing mandatory company reporting through the Companies Act are therefore not assessed, as these policies would be for other departments to introduce using separate powers, and would not be simplifications of the CRC

7. Significant stakeholder engagement has been undertaken in order to identify, develop and stress-test the simplification measures detailed in this document. A suite of high level measures was initially published in January 2011<sup>4</sup> 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 at this stage on the grounds of practicality, enforceability, stakeholder feedback, or incompatibility with other measures. These discarded measures are not considered in this document. The headlines of the measures being taken forward were announced in a Ministerial statement in June 2011<sup>5</sup>. Since this time the measures have been developed further and Government is now in a position to formally consult on these measures (detailed in Section 2).
8. For the purposes of assessing their impacts, the 46 different simplification measures have been grouped into three simplification packages, depending on whether they influence qualification (package A), fuel supply rules (package B) or administrative costs only (package C). However each measure has been assessed individually and the overlaps between proposals have been taken into account to ensure compatibility and to mitigate the risk of unintended consequences.
9. For the purposes of this Impact Assessment three options have been considered.
  - **Option 0:** The business as usual counterfactual – continuing the CRC scheme in its current form, but with updated baseline figures.
  - **Option 1:** Simplified CRC Scheme which implements all three simplification packages (A, B and C – detailed in section 2.1)
  - **Option 2:** Simplified CRC Scheme which implements simplification packages B and C.
10. All three options are based on improved evidence compared to previous impact assessments of the CRC scheme, for instance:
  - There is detailed coverage data, submitted by participants via Registration and the first Footprint and Annual reports submitted in July 2011.
  - DECC has commissioned bespoke 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.

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<sup>4</sup> [http://www.decc.gov.uk/en/content/cms/emissions/CRC\\_efficiency/simplification/simplification.aspx](http://www.decc.gov.uk/en/content/cms/emissions/CRC_efficiency/simplification/simplification.aspx)

<sup>5</sup> [http://www.decc.gov.uk/en/content/cms/news/wms\\_300611/wms\\_300611.aspx](http://www.decc.gov.uk/en/content/cms/news/wms_300611/wms_300611.aspx)

11. The simplified CRC will retain a combination of reputational, financial and standardised energy measurement and monitoring drivers, as these are needed to tackle the barriers to the uptake of energy efficiency. The proposals therefore retain the key elements of energy reporting, purchasing allowances and publishing a Performance League Table. As a consequence, CRC savings have been maintained, except for necessary adjustments to emissions coverage resulting from simplification measures.
12. The next section explains the current scheme and describes the Business as Usual (BAU) option. It sets out the emissions coverage, administrative costs and energy savings as expected under the current scheme. No impacts from tax decisions are assessed in this IA. The allowance costs can be calculated by multiplying CO<sub>2</sub> emissions by the expected allowance price. However, consistent with HMT Green Book Guidance on transfers, it has been treated as a cost to businesses and a benefit to government.
13. The cost of allowances, for all participants outside the Public Sector, is set out in Section 5 along with capital expenditure, administrative cost and energy savings evaluated at market prices.

## **Section 1:**

### **Option 0 - The current CRC scheme (Business As Usual).**

14. The 2006 Energy Review announced that Government proposed to consult on the introduction of a new measure to target energy use emissions from large non-energy intensive organisations which lie outside the EU ETS and Climate Change Agreements (CCAs). As a result, 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 aim to encourage organisations to develop energy management strategies that promote a better understanding of their energy usage and potential for energy reductions.
15. Qualification for the scheme is based on electricity supply across organisations and groups of undertakings, rather than at 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 half-hourly meters.
16. 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 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.

17. The original policy was subjected to a thorough process of review and analysis by Government. This included looking at a broader range of options to address emissions from large, non-energy intensive organisations as well as commissioning more detailed analysis on a possible emissions trading scheme, including a major consultancy study by NERA and Enviro<sup>6</sup> in 2006. This research helped to calculate the level of savings expected from the scheme.

18. Modelled results of the costs and benefits of the current scheme were also published, building on the work by NERA and Enviro. The final IA, published in January 2010<sup>7</sup>, drew together all the relevant evidence on the costs, benefits and overall regulatory burden of the CRC proposal. Since the 2010 Impact assessment DECC has received new evidence on coverage of the CRC 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 baselines figures. The next section updates the previous analysis using this new data provided by the Environment Agency.

### Section 1.1 Business as Usual (BAU) emissions.

19. This section updates emissions coverage of the CRC using data from the first full report from participants which comprises the first Registration, Footprint and Annual reports submitted by participants in July 2011. It then adjusts emission savings and administrative costs based on these new figures.

20. In total, the CRC covers emissions corresponding to about 62 million tonnes of carbon dioxide (MtCO<sub>2</sub>) per year, based on actual returns from the first Annual report. This represents an increase of 14% compared to the emissions coverage estimated in previous impact assessments.

**Table 1 CRC summary data**

<b>Participant Type</b>	
<b>Number of Registrations</b>	2,779
<b>Total Footprint Emissions (tCO<sub>2</sub>)</b>	298,426,694
<b>Total CRC Emissions (tCO<sub>2</sub>)</b>	<b>61,591,852</b>

21. Table 1 provides some statistics on the numbers of reports submitted by 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. The footprint emissions (298.4MtCO<sub>2</sub>) includes emissions already regulated under CCA or EU ETS, as well as participants' electricity, gas and residual fuel<sup>8</sup> use – with the exception of any subsidiaries eligible for one of the three CCA

<sup>6</sup> 28 April 2006 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

<sup>7</sup> Final Impact Assessment on the Order to implement the CRC Energy Efficiency Scheme. DECC January 2010.

<sup>8</sup> 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,

exemptions (See paragraph 23 below) . 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. Consequently, **the actual coverage of the CRC scheme as shown in Table 1 under the term 'Total CRC emissions' (61.6MtCO<sub>2</sub>) is derived by removing CCA and EU ETS emissions, CCA exempt subsidiaries and up to 10% of their residual emissions** This is the figure of relevance for annual reporting, league table performance and surrender of CRC allowances.

22. These Footprint reports have helped government to form a detailed view of the coverage of the CRC. They include characteristics of participants such as industrial classification codes, number of subsidiaries and **Significant Group Undertakings (SGU)** associated with a parent company, and emissions associated with other policies such as CCA and EU ETS. Table 2 below provides details of the sectoral breakdown of CRC coverage.

23. The CRC targets organisations in the commercial and public sectors. Emissions from public bodies represent 30% of emissions. The scheme also covers some light manufacturing sectors that are not party to CCAs and represent about 8% of total CRC emissions. In order to limit CRC overlap with other policies the CRC only covers energy use emissions outside CCAs and the EU ETS, although participants with such emissions are currently required to report on them in their Footprint report once per phase.

24. A CCA exemption excludes 100% of a participant, group or member emissions from the CRC, depending on the type of exemption. There are 3 types of exemptions:

- General exemption: If a participant is a single entity with a CCA installation covering more the 25% of emissions, it can claim a general exemption from the CRC on 100% of all emissions.
- 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.
- Member exemption: For group participants that do not qualify for group exemption, if any member of the group has a CCA installation covering 25% of emissions, all emissions from that member are exempt from the CRC.

**Table 2 CRC allowances by sector**

<b>Sectors</b>	<b>Number of Significant Group Undertakings (SGU)</b>	<b>Percentage of emissions</b>	<b>Sum of emissions (tCO<sub>2</sub>)</b>
Agriculture, Hunting and Forestry	20	0.11%	65,095
Construction	40	0.96%	590,196
Education	7	0.21%	130,867
Electricity, Gas and Water Supply	42	4.61%	2,839,912
Extra-territorial Organisation and Bodies	1	0.01%	4,349
Financial Intermediation	147	4.75%	2,924,862

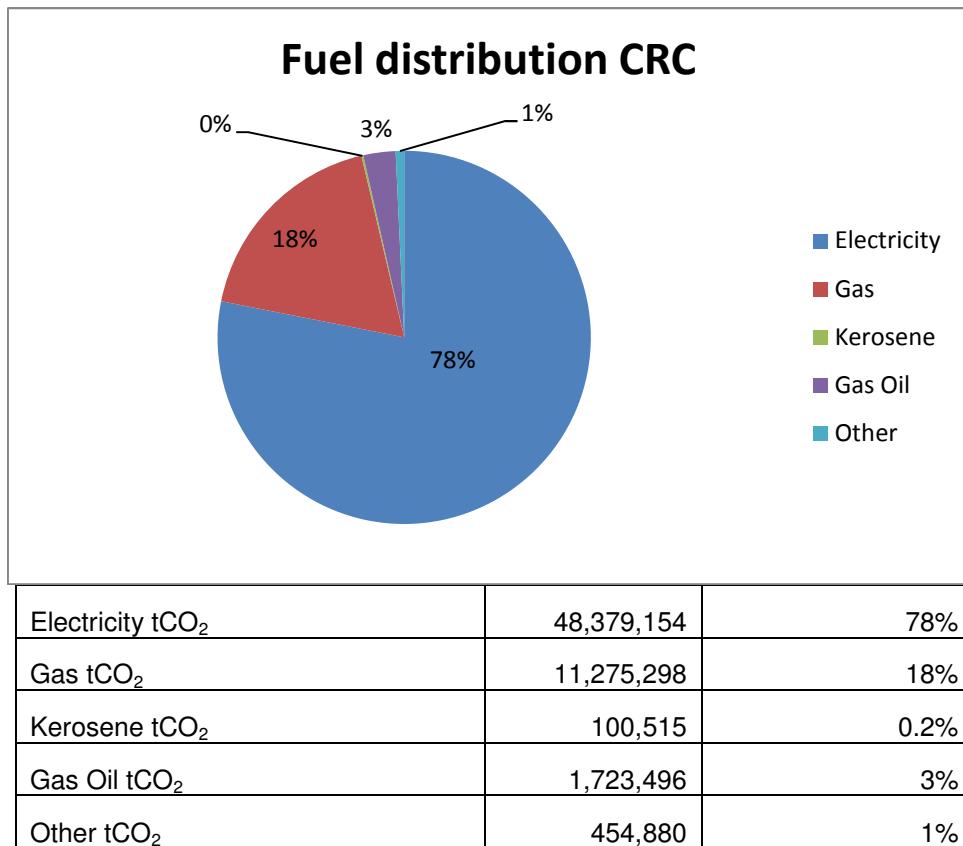
“residual” fuels to ensure that over 90% of their energy use is covered. See <http://publications.environment-agency.gov.uk/PDF/GEHO0510BSNB-E-E.pdf> for further information.



Fishing	1	0.01%	4,541
Health and Social Work	19	0.54%	335,474
Hotels and Restaurants	121	4.16%	2,561,292
Manufacturing	849	8.06%	4,962,015
Mining and Quarrying	58	3.70%	2,275,951
Other Community, Social and Personal Service Activities	143	2.03%	1,251,384
Public Administration and Defence	3	0.05%	31,677
Real Estate, Renting and Business Activities	1284	18.21%	11,215,527
Transport, Storage and Communication	157	6.54%	4,027,098
Wholesale and Retail Trade	213	15.50%	9,545,624
Public Sector	681	30.57%	18,825,988
<b>Total</b>	<b>3786</b>	<b>100.00%</b>	<b>61,591,852</b>

25. The distribution of CRC emissions by fuel as shown in Chart 1 confirms that the majority of CRC emissions are related to Electricity and Gas with only 4% of the emissions not covered by these two sources. This confirms previous estimates of savings by fuel which assumed that emissions from fuels other than electricity and gas would be negligible. However, coverage of electricity at 78% of emissions is higher than the 52% estimated in the 2010 IA<sup>9</sup>. This affects the likely distribution of emissions savings between the traded (EU ETS) and non-traded sectors of the economy, i.e. higher electricity use means more traded sector emissions.

Chart 1 CRC Emissions in the Annual Report 2011



<sup>9</sup> Final Impact Assessment on the Order to implement the CRC Energy Efficiency Scheme, DECC. January 2010. [http://www.decc.gov.uk/assets/decc/1\\_20100120102757\\_e\\_@@\\_crconcia.pdf](http://www.decc.gov.uk/assets/decc/1_20100120102757_e_@@_crconcia.pdf)

## Section 1.2 BAU administrative costs

26. The administrative costs set out in the 2010 IA have been remodelled based on a study commissioned from KPMG specifically to support the simplification review. 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

27. Based on the coverage of the CRC and the MRV costs, the initial CRC IA estimated the amount of effort that would be required for organisations of different sizes to participate in the proposed scheme to be £260m<sup>10</sup> up to 2025.

28. Since NERA's analysis was published<sup>11</sup>, there have been changes in the structure and form of the CRC. These changes have been accounted for and baseline costs modified accordingly.

29. 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<sup>12</sup>. Annex C contains further details of the KPMG survey.

30. The average cost of CRC participation including internal and external costs is represented in Table 3. Internal costs of the CRC involve all activities undertaken by participants in order to comply with registration, annual and footprint reports and includes one-off costs such as identifying half hourly meters or training staff. Many organisations have used external consultants and experts to fulfil many of the CRC tasks (referred to as external costs in the rest of this document). In general, larger organisations have incurred relatively larger external costs as they tend to outsource CRC compliance services. External costs have also been counted as CRC costs when they have been directly associated with the CRC.

31. The different categories in Table 3 represent different weighting approaches to extrapolate the sample results to the whole CRC population. These weightings are based on several

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<sup>10</sup> The original estimate in the 2010 IA was £245m in 2009 prices. This figure has been updated to 2011 prices.

<sup>11</sup> 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.

<sup>12</sup> See Better Regulation Executive guidance at <http://www.bis.gov.uk/files/file44503.pdf>

stratification approaches to the distribution of participants and responses across Standard Industrial Classification (SIC) codes, Geography, Half Hourly Meters, etc. As expected, the administrative costs of the CRC were larger than initially estimated in the 2010 IA. Average cost for year 1 range from about £30K to £36K<sup>13</sup> and for the whole of phase 1<sup>14</sup> range from £53K to £66K, which shows that many of the CRC costs are front loaded. The survey confirmed some of the feedback from participants which indicated that CRC set up costs were higher than expected.

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

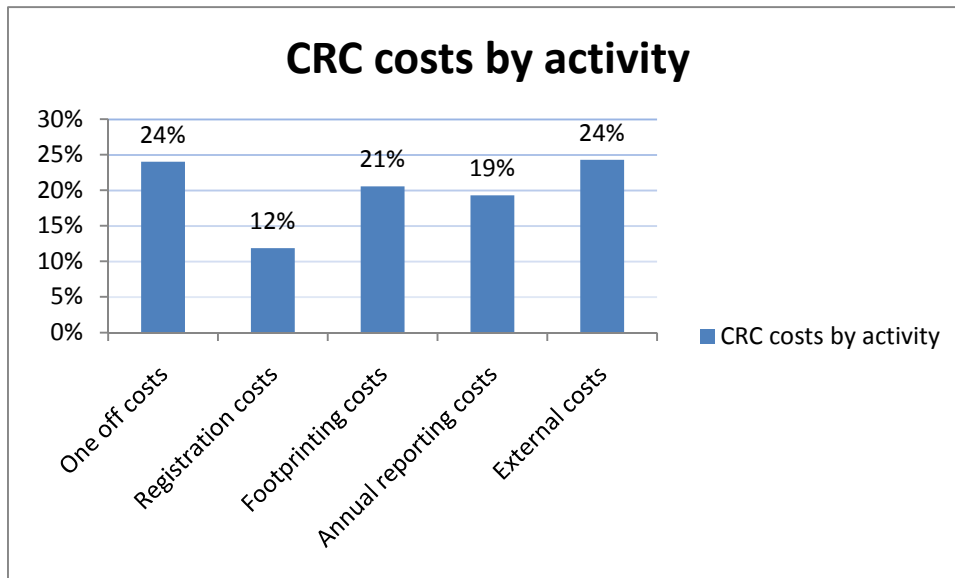
Population segments	Average cost per respondent	
	Year 1 £	First phase £
Half Hourly Meters	31,881	56,850
SIC Codes	34,957	61,923
SGUs	35,050	62,689
Emissions	30,132	53,016
Public / Private	36,460	66,208
CCA Exemptions	33,168	59,314
Geography	35,541	63,370

32. Chart 2 below shows the distribution of all compliance costs by activity related to the CRC apart from trading. These costs relate to One Off Costs, Registration, Footprint, Annual Reporting and the External costs of outsourcing services for compliance. (See Annex A for a graph showing the time line and the frequency at which these activities take place). 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 indicates that administrative costs are estimated to be £97m in year 1 and a total of £484m for the period up to 2025.** This is almost twice as much as the £260m published in the 2010 IA.

<sup>13</sup> 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), understanding the scheme, registering, setting up governance systems and reporting.

<sup>14</sup> 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. A graph showing the length and number of years covered by each CRC phase is shown in Annex A.

Chart 2 Distribution of CRC costs by activity



### Section 1.2.1 Auction and Trading costs

33. The original scheme is based on a cap and trade mechanism which has been one of the areas where participants have raised more concerns in terms of complexity and costs. In particular, the initial allocation of allowances would take place through an auction that would set the price at which government would sell the allowances within the cap each year.

**34. Since trading and the annual auctions will only take place in Phase II, participants have not incurred any costs yet. For this reason, the cost of trading and holding annual auctions has been estimated from different sources.**

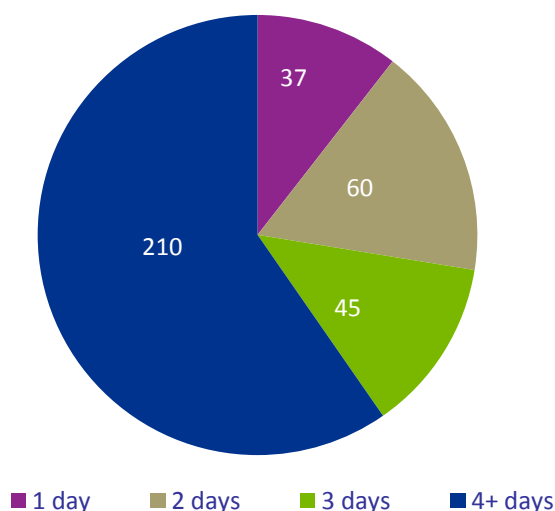
35. This IA has collected estimates about the cost of trading from two sources of evidence.
- In the 2010 IA Nera/Enviros<sup>15</sup> estimated the cost of trading to be 5 days per year for each organisation.
  - One of the questions in the 2011 admin cost survey carried out by KMPG relates to administrative burdens associated with trading. Of the 740 respondents to this survey, 352 (47%) provided an estimate of the time that they would spend on carbon trading. The majority of these respondents (210 or 60%) indicated that they anticipated spending four days or more on carbon trading.

**36. Following the Standard Cost Model (SCM), this IA estimates an average cost of the time spent on carbon trading that is based on middle managers undertaking this role at £26.05 per hour, and assuming a seven hour day. This results in an average cost per day of £182.35 per participant. Respondents who provided an estimate of time would incur between £182 (if they anticipated spending one day) and £729 based on spending four days on carbon trading (i.e. 4 days @ £26.05/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**

<sup>15</sup> See reference to NERA/Enviros report in Footnote 11.

respondents in the 2011 survey reported 3 days or less, this IA has set the number of days spent on trading at 4 days per year on average.

Chart 3 Respondents' estimates of anticipated time spent on carbon trading. Source KPMG survey 2011



37. In terms of auctioning, this IA estimates that auctioning would take 6 full days of middle management time per year. This is based on the costs for larger participants reported by the NERA/Enviros study and the evidence from Annual reports which suggests 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 £1094 per participant using the same amount of hours per day and staff grades as for trading (i.e. 6 days @ £26.05/hr and 7 hours per day). As a result, the overall cost of the cap and trade mechanism has been estimated at £1823 per year per participant and £3.9m per year for all 2141<sup>16</sup> participants. Over the period 2013 to 2030, this amounts to £50m.

38. **Adding the admin costs from trading and auctioning takes the estimate of total administrative costs of the CRC to £534m**, based largely on evidence from the KPMG survey. The table below summarises the baseline administrative costs of the CRC.

Table 4 Administrative costs (discounted) of the CRC scheme

	£m (2011)
<b>Baseline cost for CRC simplification assessment</b>	
<i>Baseline cost in 2010 IA (with trading)</i>	260
Baseline cost from KPMG survey 2011 (excl trading)	484
Updated total trading & auctioning cost estimate	50
<b>Baseline Cost (KPMG) with trading &amp; auctioning</b>	<b>534</b>

<sup>16</sup> Based on qualification threshold analysis. See Table 6 below.

### **Section 1.3 BAU benefits**

39. There is a large body of evidence suggesting strong potential for reducing carbon emissions cost-effectively through increased energy efficiency in large, non-energy intensive organisations. This potential would not be realised without government intervention. 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<sup>17</sup>.
40. Energy efficiency savings were identified in the 2009 IA and 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 reduced emissions of CO<sub>2</sub>;
  - monetary benefits to the participant organisations (savings on energy bills from investment in energy efficiency); and
  - ancillary benefits in terms of improvements in local air quality.
50. The NERA/Enviros analysis on the impacts of the CRC on carbon savings and energy bills is based on two databases of technological and behavioural measures: NDEEM's<sup>18</sup> abatement cost curves for the non-domestic sector and the ENUSIM model for industrial sectors as modified by Enviros for the Energy Efficiency Innovation Review (2005).
51. 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.
52. Given that footprint and annual reports have produced detailed statistics from CRC participation, this impact assessment has modified the abatement potential initially identified by the NERA/Enviros study, by proportionally increasing the take up rate of abatement potential due to changes in CRC coverage.
53. These savings are in addition to the savings of other policies that overlap in this sector such as Smart Meters, Products Policy and Energy Performance of Buildings Directive (EPBD)). The net present value of the current CRC scheme has been re-estimated in the light of these changes. In comparison with the previous IA, energy efficiency savings overall have increased by 14%. However, it is necessary to allocate savings to each fuel. There are two possible alternatives for updating 2010 savings estimates to new coverage data from the EA:

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<sup>17</sup> The UK Climate Change Programme: potential evolution for business and the public sector (December 2005).

<sup>18</sup> The basic modelling of CO<sub>2</sub> 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.

- a) Increasing all savings to match the change in CRC coverage (14%) and attributing 81% of these savings to electricity and 19%<sup>19</sup> to gas according to the split between the use of these two fuels by CRC participants.
- b) Increasing all savings by 14% and attributing 47% of these savings to electricity and 53% to gas. This is based on the percentage of electricity and gas found in abatement measures in the non-domestic marginal abatement cost (MAC) curve. In order to find this proportion, all the measures that apply to the non-domestic sector with a cost below the cost-effective benchmark value of £16/tCO<sub>2</sub> were extracted from NDEEM MAC curve<sup>20</sup> and each measure associated with relevant savings in electricity or gas.

54. The results of both methodologies are presented in Table 5 below. It is worth mentioning that the proposed simplification changes are not affected by this choice because administrative costs are the same under both scenarios. Therefore, although components of the NPV would differ, the choice of methodology in allocating the fuel split does not affect the decision about the preferred option in this IA.

55. Nevertheless, in estimating an updated net present value of the current CRC scheme, the preferred approach in this IA is the second alternative i.e. assessment based on the fuel split in the abatement technologies found the CRC MAC curve<sup>21</sup>. This is preferred as it is more likely that the increased fuel savings would have a similar distribution as fuel savings in the MAC curve. In general, abatement is associated with particular measures and therefore, this IA adopts alternative approach in b) MAC to update energy savings estimates.

**Table 5 Net Present Value of CRC BAU adjusted to changes in coverage**

Updating Method	Lifetime Change in TRADED INDIRECT emissions (MtCO <sub>2</sub> e)	Lifetime Change in NON-TRADED emissions (MtCO <sub>2</sub> e)	Net Present Value (£m, in 2011 prices, discounted to 2011)	Present Value of Costs (£2011m)			Present Value of Benefits (£2011m)		
				Capital Cost	Admin Cost	Air Quality	Energy Savings	Non-traded sector savings	Traded sector savings
a) CRC	30.6	7.7	7342	267	534	419	6521	345	857
b) MAC	10.2	21.8	4940	267	534	419	4064	974	284
<b>Net Change</b>	<b>-20.3</b>	<b>14.1</b>	<b>-2402</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-2458</b>	<b>629</b>	<b>-573</b>

56. The chart below shows the updated profile of energy savings from the CRC estimated to be in the baseline for the purposes of this IA. The main difference from 2010 IA of the CRC is

<sup>19</sup> Since it is assumed that all savings are shared between these two fuels, the ratio of electricity to gas is used instead of the ratio of electricity to all fuels.

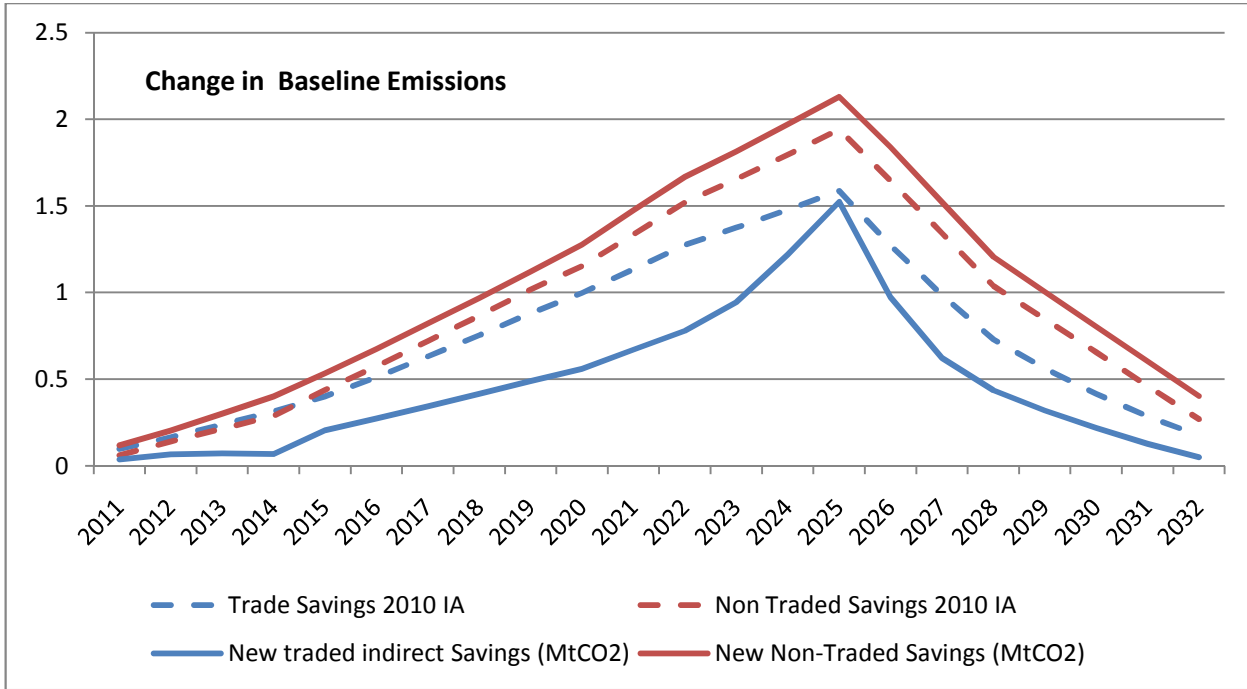
<sup>20</sup> NDEEM MAC curve was run for AEA in September 2010 for a report to DECC on “Assessing the carbon dioxide emissions and cost-effective carbon savings potential for organisations not covered by EU ETS, CCAs or CRC (CESA 0903)”

<sup>21</sup> The results in terms of Traded and Non-Traded savings from the CRC are significantly different depending on the approach used. Updating CRC savings according to the fuel split in the CRC will increase the NPV by £2.4bn and would result in 6 extra million tonnes of CO<sub>2</sub> savings (in the traded sector). This difference is driven by the larger prices and conversion factors of electricity per KWh compared to gas.

based on an increase in emissions coverage of 14%. (See Chart 4 above). Other changes in the baseline can be summarised as follows:

- a) A decrease in manufacturing emissions to 8% of total
- b) An increase of emissions from Public Sector to 30%
- c) An increase in emissions covered by the EU Emissions Trading System (EU ETS) ('traded emissions'), covering 78% of total emissions.
- d) Removal of overlaps with Products Policy in the Traded Sector.

**Chart 4 Adjusted CRC savings**





## Section 2:

### Option 1 - A simplified CRC with the implementation of all 3 packages

57. 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 of the scheme. There are 46 different measures that have been grouped into 3 major simplification packages for the purposes of evaluating the costs and benefits of the measures relative to the counterfactual (Option 0). Under Option 1, all 3 packages will be implemented.

- **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 benefits 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.

### Section 2.1 Cost Benefits analysis

58. Each of the sections below assesses the impact of each package of measures proposed. The ordering of these sections has been set with the aim of ensuring there is consistency between measures, for example, discarding savings from non-qualification measures from participants that would not qualify in Phase II. Each section explains which measures affect emissions coverage, estimates benefits from subsequent emissions savings and administrative costs.

- a. Section 2.1.1 the impact of qualification changes – package A
- b. Section 2.1.3 the impact of fuel supply rules – package B
- c. Section 2.1.4 the impact of the other simplification changes which do not affect emissions – package C
- d. Finally, Section 3 replicates the analysis for packages B and C only. It follows the same methodology and structure but there are no impacts from qualification changes in option 3.

59. There would be 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 £550K based on CRC budget planning by DECC). These costs have not been included in the consultation stage IA as they are highly preliminary. DECC will work with the EA to obtain a more accurate estimation once the proposals are finalised.

## Section 2.1.1 Package A - measures which change qualification status (Option 1 plus A)

64. Measures that affect CRC qualification need to be analysed before any other measure because they have the largest impact in terms of emissions coverage and the rest of the measures proposed would only apply 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 (Please refer to Annex B for a fuller description of these measures):

- **Qualification criteria:** Government proposes to focus the CRC's qualification criteria 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 and this will remove the need to have CCA exemptions.
- **Treatment of trusts:** This proposal would impact on qualification by assessing trusts at an individual, rather than grouped level – although the magnitude of this 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. Government intends to address this data issue by asking a question in the accompanying consultation document.
- **Landlord definition:** This will place the responsibility of supplies on smaller organisations that would not qualify for the CRC if their consumption is below the 6000MWh threshold. This happens when landlords provide land for tenants to erect and occupy their own building. Currently, landlords are responsible for energy supplies but under the new scheme this responsibility would be placed on tenants.
- **Licensed activities:** This measure would exclude electricity and gas supplies used for the generation, transmission or distribution of electricity, or the transport, supply or shipping of gas. By removing these supplies, some firms close to the qualification threshold may no longer qualify for the CRC.

65. Qualification criteria and the removal of EU ETS and CCA facilities have a high impact in terms of coverage and simplification. Both have been fully quantified below. The other three affect a smaller number of participants and emissions and have been partially quantified or assessed on a qualitative basis.

66. The impact on the number of organisations qualifying for the CRC from changing qualification criteria and removal of CCA and EU ETS supplies has been estimated using data from registration, footprint and annual reports. In these reports, organisations provide details of energy supplies as follows:

- In registration reports firms have provided the total amount of qualifying supply, the amount of qualifying supply through settled half-hourly meters and emissions related to CCA facilities for the whole firm.
- In the footprint report, firms provided details of supply by fuels to EU ETS installations except from those who qualified for a CCA exemption at registration.

- In the annual report, firms submitted details of fuel supplies and associated emissions of supplies which qualify for the CRC.

67. The analysis for package A is set out as follows:

- The first part evaluates the impact of **qualification criteria** on the number of participants and emissions covered by the scheme. That is, the impact of moving to qualification based on settled half hourly meters for thresholds between 6000MWh and 3000MWh. It also evaluates the impact of removing **EU-ETS and CCA installations** from qualification. These measures can be assessed using data on electricity supply by different types of organisation in the Registration and Footprint reports.
- Once the number of firms and resulting emissions have been determined, the analysis then quantifies the administration savings from the qualification criteria changes.
- The third part assesses the smaller impacts of the three measures that have not been quantified in the NPV calculations.

### Impact on number of participants and emissions from qualification criteria measures

68. Table 6 shows the results of changing the qualification criteria from all half hourly meters to settled half hourly meters. In the current scheme there are 2765 participants, with 61MtCO<sub>2</sub>. Changing the threshold criteria to settled half hourly meters, with a threshold of either 3000MWh or 6000MWh results in a similar level of emissions. There is only a small loss of emissions because this measure affects only smaller organisations around the qualification threshold. In addition, around one third of organisations would not qualify for phase II if the qualification criteria is set to settled half hourly meters.

**Table 6 Effects on emissions and number of participants from changing qualifying thresholds**  
**Current Scheme**

Type of Exemption	Number of firms	Emissions tCO <sub>2</sub>
None	1,886	56,724,022
Expected <sup>22</sup>	7	-
Member Only	255	4,281,869
Group	463	40,379
General	154	26,246
Total	2,765	61,072,516 <sup>23</sup>

### **6000 MWh settled only & no CCA or EU-ETS**

Type of Exemption	Number of firms	Emissions tCO <sub>2</sub>
None	1526	53,783,015
Expected	1	-

<sup>22</sup> There are 7 organisations that contacted the Environment Agency giving evidence of CCA exemptions. However, they had not yet declared their CCA exemption at the time of compiling the database.

<sup>23</sup> 14 firms have been excluded from this total owing to poor data quality.

Member Only	132	6,170,812
Group	59	981,442
General	17	64,181
total	1735	60,999,451

#### 3000 MWh settled only & no CCA or EU-ETS

Type of Exemption	Number of firms	Emissions tCO <sub>2</sub>
None	1672	55,043,378
Expected	1	-
Member Only	174	6,350,374
Group	65	988,075
General	22	78,077
total	1934	62,459,903

69. There is some uncertainty associated with emissions that could be brought in by organisations currently outside of the CRC if the qualification threshold was lowered to 3000MWh. Data in the Environment Agency relates to participants only and cannot identify how much coverage would increase by this measure from firms outside of the scheme. However, analysis from 2010 IA shows negative tradeoffs between emissions and administrative costs for organisations below 6000MWh and given the small loss of coverage, DECC proposes to keep the threshold at 6000MWh. The rest of the analysis has been performed at this 6,000 MWh threshold, which reduces uncertainty about administrative impacts considerably<sup>24</sup>.

#### Impact of removing EU ETS and CCA installations from qualification

70. 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 happens 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 exempted using the 25% rule (See paragraph 23).

71. For example, a firm responsible for 10,000MWh of electricity supply and 3000MWh of Gas owns a CCA installation that consumes 3000MWh and 2000MWh respectively. Under the current scheme, it 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 and would have to report CRC emissions associated with its non-CCA part. That is, 7000MWh of electricity and 2000MWh of gas.

<sup>24</sup> See NERA/Enviros reference above.

72. 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 results in a decrease in the number of participants but an increase in CRC coverage. Thus, removing CCA emissions from qualification brings in emissions from non-CCA parts of the organisation.

### Results

73. Calculations using the CRC database indicate that although a large number of organisations would no longer qualify for the scheme, 98 organisations would increase their coverage by 3.3MtCO<sub>2</sub>, thereby offsetting the loss of emissions from the smaller number of participants.

**Table 7 Qualifying emissions from simplified and old scheme**

Participant Type	Old Scheme	Simplified Scheme
	Total	Total
Registrations	2,779	1,735
Footprint Emissions (tCO <sub>2</sub> )	199,739,030	184,779,267
Fuel Source Emissions (tCO <sub>2</sub> ) (Core + All Residual)	65,192,428	61,631,457
Core Non EU ETS and CCA Electricity Energy Use (tCO <sub>2</sub> )	47,055,492	44,837,249
Core Non EU ETS and CCA Gas Use (tCO <sub>2</sub> )	10,887,283	10,180,408
<b>Total Emissions for Annual Report (CRC Emissions) (tCO<sub>2</sub>)</b>	<b>61,072,516</b>	<b>60,999,451</b>

74. Even if the CRC's emissions coverage is maintained, simplification package A generates large impacts on the CRC because

- a) The number of participants is significantly reduced, by c.1000 from 2765 to 1735, through the proposal to set the qualification threshold at 6,000MWh of settled half hourly metered electricity only (instead of all half hourly meters).
- b) A considerable number of emissions are brought back into the scheme from existing participants through the removal of the CCA exemptions.

75. The result is small reduction in CRC emissions of 73KtCO<sub>2</sub> which is a negligible impact over the 20 years appraisal period. However, this package reduces administrative cost as a significant number of organisations won't be qualifying from Phase II. The analysis of this impact is explained in the section below.

### Administrative savings from qualification criteria measures

76. Administrative savings from qualification have been classified into three categories:

1. A firm not qualifying will incur no costs in Phase II and onwards
2. Qualifying firms with CCAs will save on their CCA reporting.
3. Qualifying firms with CCA exemptions will have to do annual reports.

77. Administrative costs remain unchanged in Phase I because new qualification won't take place until the start of Phase II. However, from Phase II onwards there would be considerable savings from firms that cease to qualify for the scheme. The number of firms in the analysis decrease from 2,765 to 1,735. However, costs do not decrease proportionally

as smaller organisations which will no longer qualify, also have lower average cost. Average cost from organisations with less than 10,000 MWh is 47% of the average cost of the rest of organisations, based on emissions data from Registry and Footprint reports and admin savings data from the KPMG survey. Estimates of 2010-2011 costs have been excluded because these are one off costs and cannot be recovered.

78. Some firms would have incurred extra costs producing annual reports. Based on the estimation of qualifying thresholds in Part I, 98 firms with CCA exemption would have to submit an annual report. The unit cost of annual reporting has been estimated to be £3000. This is based on an average cost of £7000 for annual reports in the KPMG survey. As a result of simplification, therefore, the aggregate cost for these 98 firms of doing an annual report each year is estimated to be £294K.

79. In addition, 37% of participants will no longer qualify from Phase II onwards. On aggregate, simplifying qualification and removing overlaps with CCAs and EU ETS policies would reduce administrative costs from £534m in the baseline to £393m. However, there would be a small loss of emissions of 0.2 MtCO<sub>2e</sub> associated with simplification which will have some impact on the benefits. This reduction in administrative costs is calculated as follows:

- Removing 18% of all footprint costs. The estimated 18% reduction in footprint costs from removing qualification is based on the KPMG survey of cost changes from the 37% of firms who no longer qualify for the CRC under the proposed changes;
- Increasing costs from annual reporting from firms that are bringing emissions into the scheme as a result of removing the 25% exemption. This is estimated to be 98 firms at a (undiscounted) cost of £3000 per report which equates to £294k per year;
- Including the cost of trading for participants that do not have general or group exemptions.

80. The NPV of **Package A** estimates both the administrative savings of £141m compared to the baseline and the impact of a small decrease in coverage of 0.2MtCO<sub>2e</sub><sup>25</sup>. This in turn has resulted in:

- loss of benefits associated with carbon values of £3m in the non-traded sector and £2m in the traded sector and of £2m in air quality benefits.
- Energy savings loss of £22m
- Lower cost of capital investment of £1m in abatement technologies.

**Table 8 Summary of costs and benefits from qualification measures**

			Net Present Value (£m, in 2011 prices, discounted to 2011)	Present Value of Costs (£2011m)		Present Value of Benefits (£2011m)			
Option	Lifetime Change in TRADED INDIRECT emissions (MtCO <sub>2e</sub> )	Lifetime Change in NON-TRADED emissions (MtCO <sub>2e</sub> )		Capital Cost	Admin Cost	Air Quality	Energy Savings	Non-traded sector savings	Traded sector savings

<sup>25</sup> All these benefits has been evaluated following the IAG guidance, whereas capital costs have been updated by the proportional change in carbon savings compared to the baseline.

0	10.2	21.8	4940	267	534	419	4064	974	284
1 (A)	10.2	21.8	5053	266	393	417	4042	970	282
<b>Net Change</b>	<b>-0.1</b>	<b>-0.1</b>	<b>113</b>	<b>-1</b>	<b>-141</b>	<b>-2</b>	<b>-22</b>	<b>-3</b>	<b>-2</b>

81. As Table 8 indicates, this package will reduce emissions energy savings marginally but would generate a considerable reduction in administrative costs and would generate a positive net present value of £113m more than the net present value of the BAU.

#### Assessment of measures not included in NPV calculations of Package A

82. In addition to the main measures quantified above, this package contains another three measures that would have smaller impacts but 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 only affect 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.

83. Although these measures are not quantified, stakeholder feedback has indicated that they will contribute to simplifying the CRC. DECC has not identified any additional administrative costs associated with them. However, these measures could slightly reduce participation in the CRC from some firms at the margin of the qualifying threshold, but at this stage the impact on emissions is considered to be negligible.

84. These three measures are explained below in more detail and DECC would be seeking views about their impacts during the consultation process:

- **Treatment of trusts.** Government proposes to treat trusts as undertakings for the purposes of the CRC and introduce a set of rules which would place the CRC responsibility with the party who has greatest influence over the energy efficiency opportunities depending on the type of trust. The rationale behind this was to simplify the treatment of trusts by aligning the treatment of them with their treatment under tax and insolvency law which views each trust separately and ignores the identity of the legal entity which is the trustee. The proposal would avoid the imposition of disproportionate burdens on trustees. It would allocate responsibility for the CRC to an entity with a genuine commercial interest in the property and its use, and with reasonable access to the information and resources necessary for effective and efficient compliance with the CRC.

85. Our proposal to revise the treatment of trusts is likely to only impact on the qualification status of those trusts with multiple beneficiaries who own property assets. The analysis of this measure has been done separately because the fields in the CRC database that describe the type of organisation (such as industrial classification - SIC - codes or type of participant) do not allow different types of trust and other types of firms, such as financial institutions or management holdings, to be distinguished.

86. The recent KPMG survey does however facilitate limited analysis and identification of such trusts through its question on respondents' main activities. This survey covers 30% of all organisations with multiple SGUs and therefore does provide a sufficiently large sample of firms that fall in this category.

87. According to the survey responses around 15 organisations would meet the following two conditions, and therefore be within scope of the simplification measure:

- a) It is a trust with real estate properties
- b) Qualifying electricity consumption is below 3 times the 6000MWh threshold<sup>26</sup>.

88. There is no further information that can help to distinguish between different types of trusts. This IA assumes that 50% could fall into trusts with multiple beneficiaries that could disaggregate as a result of this measure. Therefore, this IA estimated around 7 organisations that could fit into this category with 381,053 tCO<sub>2</sub> emissions. Given that these organisations are at the high end of administrative costs, administrative burdens would fall significantly for the few organisations concerned. At the same time the measure is not expected to change emissions abatement potential since these organisations have only limited management control over the energy consumption of the assets they own.

**89. Given the degree of uncertainty about trust coverage in the CRC, the above calculations have not been included in the overall Net Present Benefits (NPB), as DECC will be seeking views and further evidence on this issue during the consultation process.**

**90. The other two measures** in this package are designed to realign supplies with the party responsible for them, improving the fairness of the scheme and re-aligning incentives for energy efficiency. **The impacts are unknown to government at this stage but the consultation process will seek clarification on these measures.**

- **Landlord definition.** Government proposes to amend the landlord/tenant rule so that landlords providing land for tenants to erect and occupy their own building under a ground lease arrangement will be able to claim unconsumed supply in respect of energy supplies to their tenants. It is a deliberate policy position that CRC responsibility should reside with the party most able to influence energy consumption (the landlord), rather than the party responsible for using most of the energy. However Government acknowledges that this position does not necessarily apply to ground lease arrangements, where the respective ability of the parties to influence energy consumption may be reversed. The rationale for this proposal is therefore primarily to address the fairness issue for parties involved in such agreements although Government acknowledges this may impact on qualification levels as CRC responsibility is placed on potentially smaller tenants. However the magnitude of this position is unknown due to organisations in such positions not having existing CRC compliance duties.

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<sup>26</sup> This is a rule of thumb which will ensure that the analysis captures all firms that would cease to qualify if a high degree of disaggregation takes place.



- **Licensed activities.** Government proposes to exclude electricity and gas supplies used for the generation, transmission or distribution of electricity, or the transport, supply or shipping of gas ('licensed activities'), irrespective of whether self-supplied or supplied from a third party. Currently electricity and gas supplied internally within an organisation, rather than via a third party, are excluded where used for their fuel specific licensed activities. This proposal will therefore align the self-supply and third-party supply arrangements as well as reducing the reporting requirements on participants and enabling a significant simplification through the removal of Electricity Generating Credits. The proposal will impact on qualification by removing some electricity supplies which would have previously contributed towards qualification, as well as the broader scheme's emissions coverage, although the magnitude of this is unknown due to Government being unsighted as to the end use of participant's supplies. Government will therefore address this information gap through a question in the accompanying consultation document.

### **Section 2.1.2 Package B - measures that would impact on fuel supply rules in the CRC (Option 1 plus B)**

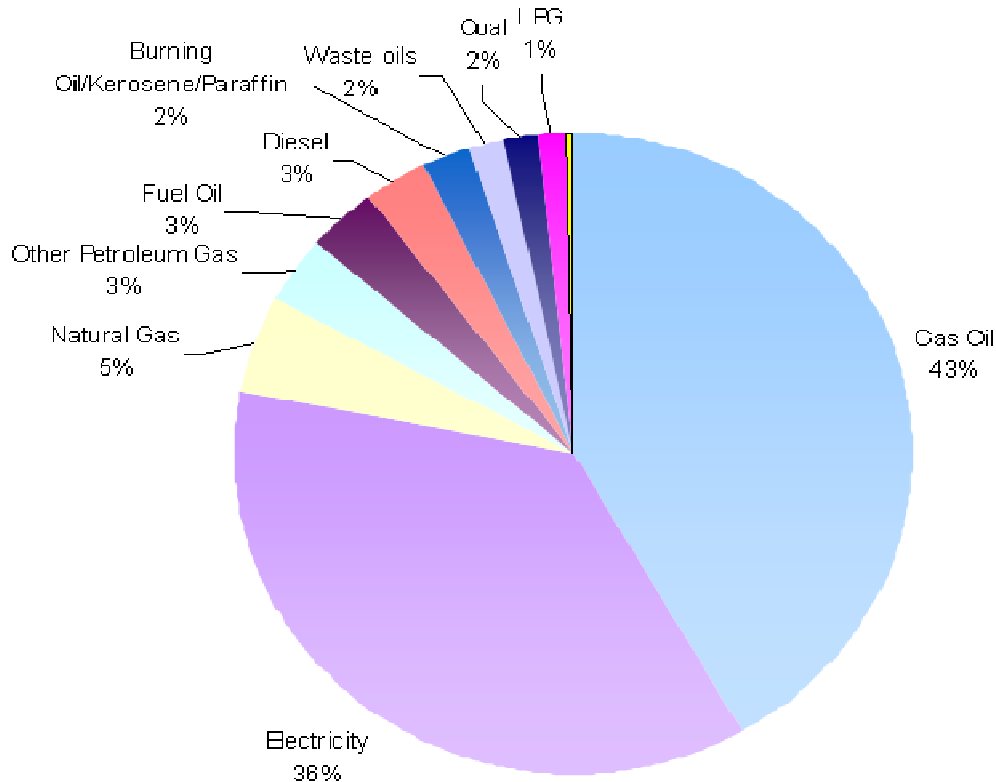
91. Measures that affect fuel supply rules in the CRC would also have an impact on emissions covered by the scheme but to a lesser extent than qualification measures. The two main measures have been fully quantified. However, the impact of some other measures in this section is difficult to quantify because they apply to very limited or special cases, they cover only certain types of supply relationships, they are intended to prevent perverse incentives or are proposed on ground of fairness, with no impact on cost or emissions.
92. There are two measures in this package that could lead to significant changes in the CRC. These are:
- **Reduce the number of fuels.** Government proposes to reduce the number of fuels covered by the scheme from 29 to 4 (electricity, gas, gas oil and kerosene – the latter two were supplied for heating purposes).
  - **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 would not count for qualification, participants would report 100% of their supplies of four fuels.
93. Analysis for this IA based on the Annual report indicates these four fuels represent c. 96% of the scheme's total emissions, with the other 25 fuels accounting for the remaining 4% (see Chart 5 below). Stakeholder feedback has indicated a disproportionate administrative burden associated with reporting on these smaller emission sources. This proposal will reduce the reporting requirements on participants whilst broadly maintaining emission levels.
94. This package results in a positive NPV with a reduction of administrative costs and an increase in emissions covered by the scheme. This is because the administrative resources dedicated to monitoring and reporting residual fuels (i.e. smaller sources which are annually reported where required to comply with the 90% applicable percentage) are disproportionate

given that residual fuels represent only 6% of all CRC supplies<sup>27</sup>. The majority of these residuals come from residual electricity and Gas Oil, both included in the new scheme. (See Chart 5 below).

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<sup>27</sup> Chart 2 shows that fuels apart from electricity, gas, kerosene and gas oil cover only 458KtCO<sub>2</sub> of CRC emissions whereas in the KMPG survey, the time spent monitoring and reporting these fuels represents 6% of administrative costs for all activities in a Footprint year.

Chart 5 CRC residual emissions. Source: Environment Agency



95. Reducing the number of fuels covered by the CRC would be expected to reduce emissions covered by the CRC. However, in the new proposals, removing the 90% applicable percentage means that participants would now have to report 100% use of electricity, gas, gas oil and kerosene. The overall impact is actually a net increase in emissions of 2.2 MtCO<sub>2</sub>.<sup>28</sup> This is owing to the fact that there is a large proportion of these four fuels in the residual measurement list. As a result, this measure brings more emissions under the scope of the CRC and simplifies reporting requirements.

96. The administrative costs associated with reporting residuals has been identified in the KPMG survey from savings on time spent on compiling and reporting residual supplies in the footprint and annual reports. In the baseline, participants spend £900k annually gathering data for non-core sources. Removing these costs for qualifying participants results in a total of £18m of discounted savings over the period to 2030.

97. 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 therefore presented in Table 9 below show the impact of combining package B with package A. **Package A and B reduce administrative costs by £159m from the baseline and increases coverage of the CRC by 0.7 and 1.5 MtCO<sub>2</sub> in the traded and non-traded sectors respectively.**

<sup>28</sup> Estimated using data from Footprint and Annual Reports.

**Table 9 Combined impact of packages A + B**

Option	Lifetime Change in TRADED INDIRECT emissions (MtCO2e)	Lifetime Change in NON-TRADED emissions (MtCO2e)	Net Present Value (£m, in 2011 prices, discounted to 2011)	Present Value of Costs (£2011m)		Present Value of Benefits (£2011m)			
				Capital Cost	Admin Cost	Air Quality	Energy Savings	Non-traded sector savings	Traded sector savings
0	10.2	21.8	4940	267	534	419	4064	974	284
1 (A+B)	10.9	23.3	5265	285	375	430	4202	995	297
<b>Net Change</b>	<b>0.7</b>	<b>1.5</b>	<b>325</b>	<b>18</b>	<b>-159</b>	<b>11</b>	<b>138</b>	<b>22</b>	<b>13</b>

Assessment of measures not included in the NPV calculations of Package B

98. In addition to the main measures quantified above, package B contains another four measures that have not been quantified because:

- These measures 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 compared to a relatively low impact.

99. Although these measures are not quantified, stakeholder feedback has indicated that they will contribute to simplifying the CRC. DECC has not identified any additional administrative costs associated with them.

100. These measures are explained below in more detail and DECC would be seeking views about their impacts during the consultation process:

- **Unmetered supplies:** Government proposes to extend the scope of the scheme to include passive pseudo half hourly and pseudo non half hourly unmetered supplies. The rationale for this simplification proposal is to remove the unintended disincentive for upgrading passive supplies to dynamic arrangements whilst bringing additional energy efficiency savings within scope of the scheme.
- **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. Currently such domestic meters are within scope of the scheme where the associated property is provided in conjunction with a person's education, employment, service or care. Stakeholder feedback has highlighted some complexity associated with identifying domestic supplies – the bulk of which are out of scope of the scheme. The rationale is that this proposal will significantly simplify how organisations identify and exclude supplies used for domestic accommodation, without significant emissions coverage implication – as most of the emissions would have already been removed under the domestic accommodation exclusion.
- **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. Currently the scheme rules allow participants to claim an energy supply is 'unconsumed', and therefore not their responsibility under CRC, where it is procured on behalf of another party – irrespective of the downstream supply arrangements. The rationale for this proposal is to simplify the treatment of unconsumed supply and mitigate the risk of emissions loss from the scheme.

- **Natural Gas:** Government proposes to restrict the scope of self-supplied gas to natural gas only. The self-supply of other forms of gas (eg biomethane) will be out of scope of the scheme. However any gas supplied via the gas network will be in scope and reportable at the natural gas conversion factor – irrespective of the gas' constituency. This proposal will align the scheme's treatment of renewable heating and power.

### **Section 2.1.3 Package C - other measures which do not change qualification and fuel supply rules**

101. In the previous sections, the IA has dealt with two packages of measures that reduce the number of qualifying fuels and simplify the qualification process. However, 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, requirements to keep records, registration changes or the allowance sale process.

102. These measures simplify many of the areas that create unnecessary administrative burdens and were identified in the wider consultation with participants that took place in April 2011. The DECC commissioned survey from KPMG has quantified administrative savings from these measures. 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. Many participants have commented, through the KPMG survey, that the creation of a new set of rules for organisational grouping under the CRC (when compared to other groups such as tax or company reporting) has presented a considerable challenge. For further details of these measures see Annex B.

103. Beginning with the measures related to the **allowance sale process**, the sale of allowances will continue on a fixed price basis and this would remove most of the difficulties associated with carbon trading and auctions. However, there are proposals to the current scheme affecting Phases I and II:

- **Simplifying allowance sales in the introductory phase.** Government has previously announced its intention to apply a retrospective only sale of CRC allowances for 2011-12 emissions. Government now proposes to apply purely retrospective sales in respect of the 2012-13 and 2013-14 reporting years, rather than having a combination of forecast sale of allowances and a retrospective buy-to-comply approach. This proposal will give participants time to get used to the other elements of the scheme before trading commences in the second phase. It will also

reduce administrative costs as there is no need to forecast energy use at the beginning of the year. This is considered to be minimal and is therefore not quantified.

- **Simplifying allowance sales from Phase II onwards.** Government proposes not to implement a cap on allowances from Phase II onwards. The scheme's previous intention was to have a cap and trade mechanism, with a safety-valve linked to the EU ETS, in the second and future phases. CRC participants have argued that, for those of them unfamiliar with carbon trading, having a cap would increase their costs of compliance, as it would require them to spend a great deal of time developing auctioning strategies. Government therefore proposes not to introduce a cap from Phase II onwards, instead allowing participants to purchase allowances in one of three different ways – at a forecast sale, at a buy-to-comply sale or buying from other participants. The buy-to-comply sale will necessarily be at a higher price than the forecast sale in order to create an incentive for participants to purchase allowances at the forecast sale.

Having a forecast sale and a buy-to-comply sale will give participants greater certainty over the price range within which they will need to buy allowances, and will remove the need for auctioning strategies. The three options for purchasing allowances gives participants flexibility over how they comply with the financial elements of the CRC scheme. Removing the safety-valve mechanism has the additional benefit of no longer requiring participants to understand the EU carbon market.

104. In Phase II of the scheme, trading will take place on a voluntary basis and participants would 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 and should reduce them as the proposal is a simplification for participants. The lack of evidence upon which to base an estimate means that this proposal has not been quantified in this IA. **DECC will be seeking views and evidence on any costs and savings on this proposal during the consultation process.**

105. There are a number of other measures in this package which aim to simplify the areas that create unnecessary administrative burdens for firms:

- **Organisational structure rules:** Government proposes to change the organisational rules of the scheme to provide greater flexibility to undertakings as to how they participate in the scheme. Following qualification, participants will be able to disaggregate any of their subsidiaries on an annual basis to allow the monitoring, management and reporting of energy use to proceed at a level which best suits each organisation. This flexibility offers the potential to reduce ongoing administrative burdens for large and complex groups to align their CRC participation with their operational and energy management structures, whilst minimising disruption for organisations that are content with current rules. It also encourages greater effectiveness in driving energy efficiency by allowing CRC participation to be targeted at the organisational level most able to effect change. Disaggregation would be optional and as such DECC would

expect parent organisations to opt for disaggregation when this reduces compliance costs across the group.

- **Designated changes:** Government proposes to reduce the notification and reporting requirements related to organisational structure change during a phase. Currently a suite of ‘designated change’ provisions detail how organisational changes involving CRC participants and Significant Group Undertakings (SGUs) will be managed, notified and reported. These include duties on the CRC administrator to update historic emissions and league table details in light of such changes. The Government proposes to reduce complexity by replacing the SGU concept with a ‘Participant Equivalent’ being a single undertaking that would qualify for CRC in its own right at qualification. This will reduce annual reporting burdens, as participants will report annually on Participant Equivalents rather than SGUs. Designated changes will cover changes that involve CRC participants and Participants Equivalents. Additional proposals simplify and reduce what information has to be reported to the CRC administrator, when and by whom – all of which will reduce administrative burdens and complexity.
- **Automatic re-registration:** Government proposes to simplify the registration process for those organisations whose details remain unchanged from their previous CRC registration. Currently participants are required to undertake the full registration process irrespective of whether their registration details have changed since their previous registration. Government proposes automatic re-registration will simplify the process for both participants and the CRC administrators, with commensurate reductions in administrative burden. New entrants and participants with amended details or those wishing to disaggregate their undertakings will still be required to undertake the full registration process.
- **Supply at the direction of another party:** Government proposes to amend the fuel supply definition to provide additional clarity on supply liability for complex purchasing arrangements, especially where involving the direction of a third party. The criteria would be amended so that an organisation would be responsible for fuel supplies it receives, or supplies made at its direction. The rationale for this proposal is to reduce complexity and the risk of emissions loss from the scheme.
- **Payment requirement:** Government proposes to remove the payment criterion from the supply rules in order to capture complex supply arrangements. Currently organisations must meet all the fuel supply criteria (agreement, payment transfer, receipt of supply and metering (if electricity or gas)) to be considered responsible for an energy supply under CRC. The rationale behind this simplification is that the current criteria may lead to unintended emissions loss under some contractual scenarios.
- **Aligning the emission factors:** Government proposes to adopt the emissions factors used for greenhouse gas reporting purposes, which are updated annually, as opposed to fixing emissions factors for each phase as per the current drafting. The rationale behind this is to provide greater alignment between policies and to help simplify the policy landscape. This proposal will reduce the administrative burden by making it easier for

organisations which are subject to both policies to fulfil their obligations as they will only need to refer to one set of emission factors.

- **Revision of emission factor for self-supplied electricity:** Government proposes to recognise the efficiency benefits of on-site electricity generation by revising the emissions factor to take account of the lower transmission losses. Currently all electricity supplies are reported at the grid average emissions factor, 0.541kg CO<sub>2</sub>/kWh, which is comprised of two elements, a generational element (c.93%) and transmission loss element (c. 7%). This proposal will recognise on-site (self-supply) generation as being more efficient than a grid supply arrangement owing to lower transmission losses. It will not introduce additional administrative burdens and will help to reincentivise on-site generation for a relatively small emissions loss.
- **Extension of annual energy statement obligation:** Government proposes to extend the annual energy statement obligation to the suppliers of gas oil and kerosene. Currently licensed suppliers of electricity and gas are obliged to provide an annual energy statement where so requested by CRC participants. Extending this obligation to the suppliers of gas oil and kerosene will facilitate the move to 100% reporting of gas oil and kerosene. This proposal can be introduced alongside the existing Registered Dealers in Controlled Oils (RDCO) scheme, administered by HM Revenue & Customs, to avoid additional administrative burdens on gas oil/kerosene suppliers.
- **Energy suppliers' statements:** Government proposes to amend the provision in the CRC for energy suppliers to provide annual energy statements to CRC participants when requested. The amendment would modify the provision so that energy suppliers would be able to provide an annual statement using 12 months of billed supply that may not match the CRC compliance year exactly but is within 30 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. Reducing the amount of supplies that are estimated would lessen the potential of the 10% uplift on estimated supplies which can in turn reduce the number of allowances needed.
- **Electricity Generating Credits (EGCs):** Government proposes to remove the CRC's Electricity Generating Credits (EGCs) provisions. EGCs are currently available for generation in a limited range of circumstances and 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. The rationale for this proposal is that the wider simplification proposals could lead to unintended consequences if the EGC provisions remain as currently drafted, with participants claiming credits where the input fuel into the generation process was out of scope of the scheme. The proposal would also remove all of the complexity associated with EGC eligibility and clearly place the net CRC obligation on the electricity supply as well as addressing unintended consequences associated with the current drafting of the Order. The removal of EGCs would have the additional benefit of aligning the treatment of



unsubsidised on-site generation with all other forms of generation, helping to reinforce the energy efficiency focus of the scheme.

- **2013/14 annual reports:** Government proposes to remove the requirement to submit an annual report for the first year of the second phase in 2013-14. Under current scheme rules participants would have to submit two annual reports in respect of their 2013-14 emissions. One annual report would cover emissions for the last year in the introductory phase based on the existing set of reporting requirements. The other annual report would be based on the simplified reporting requirements, and would purely be used to create a baseline for the performance league table that would be published in 2015. The proposed simplification is to remove the requirement for the second of these annual reports to be completed. Therefore no league table will be published in 2015. Government considers it is untenable for participants to submit two annual reports, based on two separate sets of rules, in the same year. Removing the requirement for one of the reports should reduce the reporting burden in the 2013-14 year and not create additional administrative burdens for participants.
- **Data retention:** Government proposes to reduce the period for which records should be retained. Participants are currently required to retain their initial reports for the duration of their participation in the scheme, and all subsequent annual reports for at least 7 years after the end of the relevant phase. Stakeholder representation has indicated these requirements are excessive and impose significant data storage and administrative costs on participants. The proposal to reduce the data retention period to 6 years after the end of the scheme year in question will simplify the legislative provisions in this area and reduce these associated costs.

106. The impacts of these measures are heavily interdependent and many affect several sources of administrative cost. For example, proposals about designated changes would 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 10) 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.

107. It would be quite difficult 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<sup>29</sup>. It identified the proportional reduction in costs that these measures would deliver relative to the updated baseline. **Table 10 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.**

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<sup>29</sup> [http://www.decc.gov.uk/en/content/cms/emissions/CRC\\_efficiency/simplification/simplification.aspx](http://www.decc.gov.uk/en/content/cms/emissions/CRC_efficiency/simplification/simplification.aspx)

108. Some of these cost reductions are certain, such as the need to gather data on residual sources which would be eliminated. However, it is more difficult to assess savings from other areas such as the reduction in compliance training costs for participants.
109. There is also some uncertainty over these costs in the future. Theoretically, in the absence of any further changes to the scheme, there shouldn't be any re-training required unless there is a loss of knowledge in the organisation as a result of staff movements. Given the average time in post could be less than 5 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. 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 a lot of factors.
110. Given this uncertainty this consultation is seeking views from participants on which proportion of administrative cost will still be present in the new scheme after simplification.

**Table 10 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
<b>One off Costs</b>				
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 (please describe below)	4%	-	0%	-
<b>External Costs</b>				
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%	-
<b>Registration costs</b>				
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%	-
<b>Footprint Reports</b>				
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%	-
<b>Annual Reports</b>				
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%
<b>Total</b>	<b>100%</b>	<b>21%</b>	<b>45%</b>	<b>10%</b>
<b>Savings from BAU</b>	<b>-</b>	<b>-</b>	<b>55%</b>	<b>11%</b>

111. 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. Footprint year administrative costs have been estimated by the KMPG survey to be £97m per year. Given that there is a reduction in the number of qualifying firms as a result of the previous packages, these costs have been reduced by 18%<sup>30</sup> to £80m.

112. In the baseline Annual report year, only 21% of the costs of a full Footprint Report year would take place as most reporting requirements take place at the beginning of every phase. Based on the KMPG survey, these costs are £17m. The impact of simplification is shown in Table 11 below.

**Table 11: Summary of impact of Package C simplification measures**

	<b>Baseline Costs following change in qualification (£2011m)</b>	<b>Simplified Scheme costs (£2011m)</b>
Cost in Footprint & Registration Year	80	36
Cost in Annual Report Year	17	8
<b>Undiscounted savings to 2030</b>		
Savings from all Footprint years	-	177
Savings from all Annual Report Years	-	140
<b>Total Undiscounted savings</b>	<b>-</b>	<b>317</b>

113. In respect of a Footprint Report year, under the simplified scheme, only 45%<sup>31</sup> of the £80m baseline costs, that is £36m, would take place in each footprint year. Given that there are 4 footprint Report years, this amounts to undiscounted footprint savings of £177m up to 2030.

<sup>30</sup> See Paragraph 79

<sup>31</sup> 45% as identified in Table 10 as the proportion of BAU Footprint Report year costs to remain following simplification.

114. In respect of an Annual Report year, under the simplified scheme, only 10%<sup>32</sup> of the £80m baseline cost would take place, that is £8m in each Annual Report year. Given that there are 16 Annual report years up to 2030, aggregate savings from these years total £140m up to 2030.
115. The total administrative savings from Package C is £317m. After discounting this is equal to £178m which is additional to the £141m of savings from Package A and £18m from Package B. This results in the combined administrative savings of £337m reported in Table 12.
116. Table 12 below also provides the Net Present Value of all the measures in Option 1 (packages A, B and C) which increases NPV by £503m to £5.4bn. The whole package of measures reduces administrative burdens of the CRC by £337m, from £534m to £197m, or by 63% .

**Table 12 Savings from all packages in Option 1**

Option	Lifetime Change in TRADED INDIRECT emissions (MtCO <sub>2e</sub> )	Lifetime Change in NON-TRADED emissions (MtCO <sub>2e</sub> )	Net Present Value (£m, in 2011 prices, discounted to 2011)	Present Value of Costs (£2011m)		Present Value of Benefits (£2011m)			
				Capital Cost	Admin Cost	Air Quality	Energy Savings	Non-traded sector savings	Traded sector savings
0	10.2	21.8	4940	267	534	419	4064	974	284
1 (A+B+C)	10.9	23.3	5443	285	197	430	4202	995	297
<b>Net Change</b>	<b>0.7</b>	<b>1.5</b>	<b>503</b>	<b>18</b>	<b>-337</b>	<b>11</b>	<b>138</b>	<b>22</b>	<b>13</b>

### Section 3:

#### Option 2 – a simplified CRC with the implementation of packages B and C

117. Under this option all measures in packages B and C would be implemented . Package A (measures which change qualification status) would not be implemented. The details of the simplification measures of packages B and C remain as covered in Section 2. For instance
- Package B: Measures that change fuel supply rules, and therefore also change the scheme’s emissions coverage. Energy supply removed from the CRC are not evaluated in the cost benefits analysis.
  - Package C. 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 measures simplifying organisational structure, allowances and banking.

<sup>32</sup> 10% as identified in Table 10 as the proportion of BAU Annual report year costs to remain following simplification.

118. The following paragraphs estimate the impact of the measures related to package B - changing fuel supply rules which will affect emissions and energy savings and finally, estimates the admin cost of the rest of measures in Package C. The evaluation of this option has used the same approach as under Option 1. However since Option 2 excludes Package A, it has the same qualification criteria and as a result, the same number of participants as in the baseline (i.e. 2141 participants).
119. On its own, Package B achieves some changes in both admin cost and energy savings. Table 13 shows admin savings of £79m. Package B generates energy savings of £48m, carbon savings of £12m and an increase in the NPV of £128m from £4.9bn in the baseline to £5.1bn.

**Table 13 Impact of Option 2 Package B**

Option	Lifetime Change in TRADED INDIRECT emissions (MtCO <sub>2</sub> e)	Lifetime Change in NON-TRADED emissions (MtCO <sub>2</sub> e)	Net Present Value (£m, in 2011 prices, discounted to 2011)	(£2011m) Present Value of Costs		Present Value of Benefits (£2011m)			
				Capital Cost	Admin Cost	Air Quality	Energy Savings	Non-traded sector savings	Traded sector savings
0	10	22	4940	267	534	419	4064	974	284
2(B)	11	23	5068	280	455	423	4110	981	289
<b>Net Change</b>	<b>0</b>	<b>1</b>	<b>128</b>	<b>13</b>	<b>-79</b>	<b>4</b>	<b>48</b>	<b>7</b>	<b>5</b>

120. Adding Package C measures has an impact on administrative costs alone i.e. there is no impact on emissions covered by the scheme. Overall, Package C measures reduce admin costs by a further £180m to £275m. The combined effect of Packages B and C result in an approximately 50% reduction in admin costs from £534m to £275m and an NPV of £5.2bn, £308m higher than the baseline of £4.9bn.

**Table 14 Impact of Option 2 Package B plus C**

Option	Lifetime Change in TRADED INDIRECT emissions (MtCO <sub>2</sub> e)	Lifetime Change in NON-TRADED emissions (MtCO <sub>2</sub> e)	Net Present Value (£m, in 2011 prices, discounted to 2011)	(£2011m) Present Value of Costs		Present Value of Benefits (£2011m)			
				Capital Cost	Admin Cost	Air Quality	Energy Savings	Non-traded sector savings	Traded sector savings
0	10	22	4940	267	534	419	4064	974	284
2 (B+C)	11	23	5248	280	275	423	4110	981	289
<b>Net Change</b>	<b>0</b>	<b>1</b>	<b>308</b>	<b>13</b>	<b>-259</b>	<b>4</b>	<b>46</b>	<b>7</b>	<b>5</b>

121. Government proposes to fully implement Option 1 (Packages A, B and C), as it provides the greatest administrative cost reductions. The following three sections therefore relate to the implementation of Option 1.

#### **Section 4: One In, One Out calculation – for Option 1 (A, B and C)**

122. Under the Coalition Agreement no new primary or secondary UK legislation which imposes costs on business or civil society organisations ('ins'), can be introduced without the identification of existing regulations for which an equivalent value can be removed ('outs'). This section looks at the impacts of Option 1 on the One In, One Out policy.

123. The simplification of CRC will deliver significant savings compared to the baseline situation of the existing scheme. These savings are estimated at around 2/3 of current administrative burdens

124. In the CRC baseline around 20% of participants and 30% of emissions originate from the public sector. Under the new scheme, there would be significant changes in the number of firms qualifying. Based on the analysis of Registration and Footprint reports, the non-public sector will represent 67% of organisations and 73% of emissions.
125. The One In, One Out figures apply to the non public sector only, so the savings that would have been enjoyed by public sector organisations have been removed from this calculation. **Using the One In, One Out formula, with a 20 year appraisal period and a 3.5% discount rate, the equivalent annual net benefit to business (the “out”) is estimated at £13.8m**

## Section 5: Financial Impact on Business of Option 1

126. Since the decision to remove revenue recycling was made back in October 2010 as part of the Comprehensive Spending Review, the CRC combines regulatory elements such as the Performance League Table and taxation aspects associated with the cost of allowances.
127. The net present value calculations treated 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<sup>33</sup>. 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 cost from this sector.
128. 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<sup>34</sup>. 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 that overlap with the CRC.
129. The impact of allowances has been calculated projecting CRC coverage in tonnes of CO<sub>2</sub> after removing efficiency savings from baseline energy projections. DECC has no control over the future price of allowances because this is set by HMT in the budget process. Consequently, this IA uses (real) prices as currently set at £12 for the first two years and £16 after and a discount rate of 3.5%. Administrative and capital cost are also adjusted to remove public bodies from the estimations. The results are presented in the Table 15 below.

**Table 15 CRC Impact on Business**

<b>CRC Impact on Business £2011m</b>	<b>Baseline</b>	<b>Option 1</b>	<b>Option 2</b>
Cost of allowances	7843	8049	7915
Energy Savings	2679	2687	2611
Admin Costs	391	141	201
Capital Cost	196	209	205
<b>Net cost of Business</b>	<b>5750</b>	<b>5713</b>	<b>5710</b>

<sup>33</sup> 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.

<sup>34</sup> See DECC IAG guidance for policy appraisal [www.decc.gov.uk/en/content/.../iag\\_guidance/iag\\_guidance.aspx](http://www.decc.gov.uk/en/content/.../iag_guidance/iag_guidance.aspx)

130. The aggregate cost of allowances in the baseline has been calculated multiplying 61MtCO<sub>2</sub> of emissions each year<sup>35</sup>, by the price of allowances. This results in £7,843m of discounted costs up to 2030. The equivalent cost in Option 1 is £8,049. This is higher because this option increases emissions coverage by 25MtCO<sub>2</sub> up to 2030, representing an increase in the discounted cost of allowances of £207m with respect to the baseline. Equally, in Option 2, the cost of allowances has been estimated to be £7,915, or a net increase of £72m relative to the baseline.

131. In terms of financial impact the cost of allowances is higher than energy savings with a net impact on CRC businesses of £5.7bn over the whole period of appraisal. Compared to the £1,110bn of turnover reported by these organisations in their Footprint reports, the CRC represents 0.5% of the value of currently registered businesses. Results from Option 2 in the IA are presented in the last column of Table 15 above.

## Section 6: Risks and Assumptions

132. 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 below.

### Section 6.1: CRC Savings

133. 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 old and does not reflect 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

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<sup>35</sup> This is only for the first year as for subsequent years the analysis takes into account 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](http://www.decc.gov.uk/en/content/cms/about/ec_social_res/analytic_projs/en_emis_projs/en_emis_projs.aspx)



and, in the case of companies, across sectors. (the CRC is based on companies rather than sites or processes).

134. 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. **DECC will be seeking views and evidence from respondents to the consultation.**

## **Section 6.2: Data Issues from the Registration and Footprint report**

135. 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 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 CRC emissions.

136. Although actual data from the annual report<sup>36</sup> 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 mistake on the type of exemption, for example, claiming group exemption when they should claim a member exemption.

137. The Environment Agency is planning a series of audits in information packages submitted but the results will not be available in time for this IA.

138. 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 would not count towards qualification

139. 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.

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<sup>36</sup> 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).

140. 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 has been identified by the EA (The EA can notify participants but cannot change them)
  - Estimate total emissions for each individual firm.
141. This approach has some risks
- This approach 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).

### **Section 6.3: Administrative Survey Results**

142. Although the research has been designed to minimise bias<sup>37</sup> KPMG cannot verify the reliability or accuracy of any 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 as few captured actual data within time sheets, particularly in relation to the split of administration time by CRC activity.
  - There is a significant variability in average costs per participant throughout this report. This is driven by the heterogeneity of participants. There are substantial variations in the size, complexity and approach of CRC participants, even within similar strata. (This means that one cannot control with standard deviation estimates for the robustness of the results).

### **Section 6.4: Conclusions**

143. 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 a 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.
144. 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 would have on these costs.

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<sup>37</sup> This involved qualify checks, error correction and follow up interviews with survey participants.

## Section 7: Summary of preferred option

145. Government proposes to fully implement Option 1 – packages A, B and C. This option will deliver net benefits (PV) of £503m above the Business as Usual counterfactual through avoided costs to the c.1000 organisations who will no longer qualify for the scheme. It will also reduce administrative costs for participants remaining in the scheme by £337m through a significantly simplified set of regulations and compliance obligations, whilst broadly maintaining the scheme’s emissions coverage and efficiency savings. Government proposes that the implementation of Option 1 is preferable to either Option 2 (packages B and C) or the counterfactual Option 0 on account of the greater NPV benefits from a more targeted population of participants.

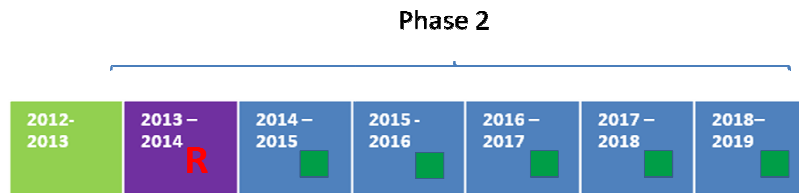
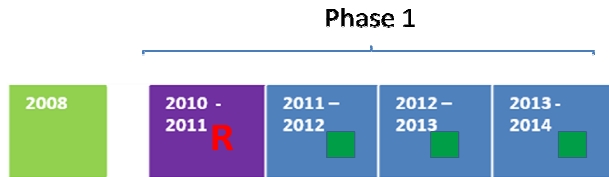
146. Annex D shows the profile of savings over the period of assessment from 2011 to 2030 covering the main impacts and Table 16 below shows the summary of the key results for Option 1 and 2. The preferred option would achieve not only a higher NPV and carbon reductions, but also larger administrative savings. Comparing only cost to business, under Option 1, they would still be better off as administrative savings compensate for the slightly higher value of carbon allowances (See Table 15). Finally, this option would generate an OUT in the OIOO calculation of £13.8m per year.

**Table 16 Summary of Options compared to BAU**

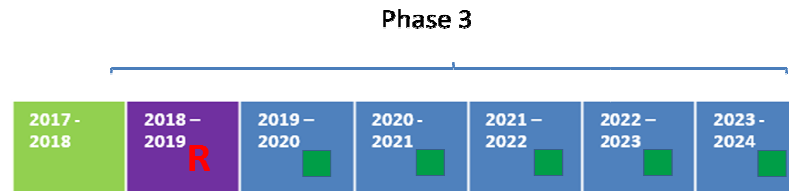
	Change in TRADED emissions (MtCO <sub>2</sub> e) covered by CRC	Change in NON-TRADED emissions (MtCO <sub>2</sub> e) covered by CRC	Net Change in NPV	Change in Administrative Cost
Option 1	0.7	1.5	503	-337
Option 2	0	1	308	-258



# Annex A – CRC Phase overlaps, as per current legislation

## CRC phase overlaps – as per current legislation



Only phases 1-3 shown. Phases 4 onwards operate in a similar pattern



 Qualification Year  
 Surrender of allowances required

**R** Registration between 1<sup>st</sup> of April and September 30<sup>th</sup>

 Annual Report

 Annual Report and footprint report

## 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<sup>38</sup> half hourly electricity meters and is a subset of the second criterion, which is focused on all half hourly metered electricity supplies.

Following stakeholder engagement Government proposes to base CRC qualification on supplies through settled half hourly meters only from phase 2 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 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 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.

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<sup>38</sup> 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.

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 be within 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 scope of the CRC where 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 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, and 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 involve 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<sup>39</sup>, 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).

In response to stakeholder feedback and in order to simplify the treatment of trusts, Government proposes to treat trusts as undertakings for purposes of CRC. Treating trusts

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<sup>39</sup> "fiduciary capacity" means where a person (a trustee) holds property as its nominal owner for the good of one or more beneficiaries

as undertakings would keep the CRC responsibility of individual trusts separate from each other and trustees. This option would ensure the removal of joint and several liability among separate trusts.

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 Government is proposing a set of rules to determine where CRC responsibility should lie. These rules seek to implement the principle that the CRC responsibility should rest with the party who has greatest influence over the energy efficiency opportunities.

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 one 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 of such inability to make a decision. The administrator will then liaise with the trustees with a view to brokering 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. Stakeholder feedback has indicated a disproportionate administrative burden associated with reporting on lesser used fuels, even with the 90% applicable percentage approach. It is therefore proposed to reduce the number of fuels covered by the scheme to electricity, gas, gas oil (diesel) and kerosene – the latter two only when used for heating purposes. Government had considered focusing on electricity and gas only, given that c. 93% of CRC emissions result from core electricity and gas supplies. However stakeholder feedback indicated the need to include gas oil and kerosene in order to avoid unequal treatment for heating supplies in Northern Ireland and rural communities.

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.

Supplies of gas oil and kerosene, plus gas as detailed, used as an input fuel into a process whose primary purpose is the generation of heat, either via a boiler or hot water arrangement will be in scope. However supplies of these fuels for electricity generating purposes or where the generation of heat is a secondary output will be outside of the scope of the scheme. It is acknowledged there will be a new administrative requirement for participants to distinguish between fuel used for heating purposes and fuel used for electricity generation, although it is proposed to allow some estimation leeway for how organisations determine this split.

**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, and all their gas oil and kerosene supplies where used for heating purposes. 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, and to maintain a residual measurement list. It will also remove the distinction between core and residual meters.

**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 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. Participants will have to assess the status of such supply points on an annual basis to determine whether they are eligible for the exclusion. Excluded supply points may be brought into scope mid-phase if the annual supply through the meter exceeds 73,200 kWh of gas - effectively re-designating the meters as 'large gas point meters' under Schedule 2 of the Order.

**Proposal 8: Unconsumed supply** – there is potential under the current supply rules for emissions loss from the scheme 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 previous phase's registration. 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 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 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<sup>40</sup> 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 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 of 0.541kgCO<sub>2</sub>/kWh – termed the ‘electricity consumed figure’ in Defra’s Greenhouse Gas Reporting Guidelines. This figure is comprised of two elements – a generational element, which has a grid average emissions factor of 0.500kgCO<sub>2</sub>/kWh, and a transmission loss element, which has an average emissions factor of 0.041kgCO<sub>2</sub>/kWh. Government proposes 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 0.500kgCO<sub>2</sub>/kWh to such self-supplied electricity, irrespective of how the electricity is generated. All other supplied electricity from a third party will be subject to the electricity consumed emissions factor of 0.541kgCO<sub>2</sub>/kWh, irrespective of how the electricity is generated.

These emission factors will be updated annually as per proposal 13 in this consultation document, and are therefore included here for indicative purposes only.

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<sup>40</sup> 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.

**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 CRC league table.

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, natural gas, gas oil and kerosene. 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. 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.

Government proposes facilitating the move to 100% reporting by extending the existing obligation to provide an annual energy statement to the suppliers of gas oil and kerosene. Registered suppliers of such fuels already provide data of a very similar nature to HM Revenue and Customs under the Registered Dealers in Controlled Oils (RDCO) scheme, so such a requirement would not introduce a significant additional burden on the suppliers. Government acknowledges that such suppliers will not be able to determine the final use of their supplies (e.g. diesel could be used for both heating and transport purposes) – but providing a total annual figure will facilitate the CRC participants' final assessment of the split between heating purposes and other uses.

**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 is working with energy suppliers to improve the annual energy statements for the remainder of Phase 1. OfGem are in the process of updating the guidance on providing an annual energy statement, associated with the licence conditions. This will provide 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 propose to amend the relevant provision in the CRC Order so that energy suppliers can provide an annual statement using 12 months of billed 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 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 therefore 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 – although 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 as to 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 concept of the Significant Group Undertaking (SGU) (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 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 this is done 6 weeks before the end of April the disaggregated participant could participate in the forward sale of allowances. 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. Application for registration as a disaggregated CRC participant can be submitted via the Registry at any point in any compliance year other than the registration 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 from 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 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** - If, after a designated change, a new participant fails to register within the required timeframe or if it fails to report emissions and surrender allowances, DECC proposes the following allocation of liability:

- The old owner will be liable under CRC if a Participant Equivalent becomes a standalone entity and fails to register. Following registration, the standalone entity will have separate liability;
- The new owner will be liable under CRC if a Participant Equivalent or CRC participant becomes part of a non CRC participant;
- If the change involves the transfer of a disaggregated CRC participant – there will be no joint and several liability with the new group, if the disaggregated participant carries on as a separate participant after the change. If it does not continue as a separate participant, it will share joint and several liability with the group it joined.

As per current rules, when apparent changes in control occur due to undertakings going into insolvency or administration procedures, this is not a designated change, and the participant would remain liable for accounting for emissions and purchasing allowances.

**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 group 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'. The same rules would apply to a Participant Equivalent that leaves 'A' and joins 'B'.

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 rules, a registration must be completed by the last working day of April of the 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. This was in order to provide participants with an extra year of reporting, complying and surrendering allowances in 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. Government has already announced that for the 2011/12 reporting year, the allowance sale will be held after the end of the reporting year, at a price of £12/tCO<sub>2</sub>.

For the remainder of the introductory phase, Government plans to continue with retrospective allowance sales, so participants have more time to get used to reporting and measuring their emissions, prior to the beginning of the second phase of the scheme, when trading will start.

**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 mean that there will be no need to have auctions, which should lower the administrative costs for participants as there will be no need to develop auctioning strategies. While DECC recognises that not having a cap will reduce the level of certainty over the emissions savings that the CRC will deliver, it should increase the level of certainty over the price and therefore simplify 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, so that 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. This therefore means there is 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 removing the possibility of being able to buy additional CRC allowances via the safety valve mechanism as this would be unnecessary.

In addition to the option to buy 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 be able to benefit by selling these allowances to other CRC participants who would otherwise need 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. So essentially they can be banked from year to year, but not from phase to phase. For the introductory phase, given DECC is proposing that all of the sales should be retrospective; this ability to bank allowances should not be required by any participant.

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 price crash from year to year, which could exist if no banking was allowed and the market became over-supplied with allowances. So 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 were to increase too steeply then participants would try to buy all their allowances for the phase in the first forecast sale and simply bank them until they were needed. This would reward cash-rich participants at the expense of others. This therefore 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 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, in the second phase, 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 -**

Currently, 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. Because of the changes that are being put in place, the annual report for the second phase would have slightly different information to the annual report for the first phase. This would be a double burden on participants that DECC would like to avoid.

Government therefore proposes to remove the requirement to submit an annual report in respect of 2013-14 emissions, for the second phase. So 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 for the Performance League Table. It means that it will not be possible to publish a Performance League Table, in the current format, in Autumn 2015. However, as the proposal 42 on the Performance League Table demonstrates, Government are removing the reputational element of the scheme from the legislation and putting the detail in guidance. This will give additional flexibility 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 annual report 2011/12 this would now have to be held for 6 years, until April 2018 - under the current scheme requirements this would have been until April 2021.

- 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 benefit if reported emissions data could be split according to whether the emissions came from England, Scotland, Wales or Northern Ireland. This would allow Devolved Administrations to better track their progress 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 an option to report the geographical split of their emissions data in their annual reports on a voluntary basis.

**Proposal 43: Performance League Table -** Stakeholders have provided feedback relating to the Performance League Table 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 have questioned the current Performance League Table and its associated metrics.

Government believes that it is important to see what impact the Performance League Table 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 the reputational element of the scheme at this point.

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 more easily revisit the nature of the reputational element of the scheme in future, in the light of evidence from the operation of the scheme in its early years and also in light of 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 mature, 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 for appeals 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 Government departments and their devolved administration equivalents 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 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 powers to manage and determine all CRC appeals. This change will completely remove the Secretary of State and the devolved administration equivalents from the CRC appeal process.

**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.

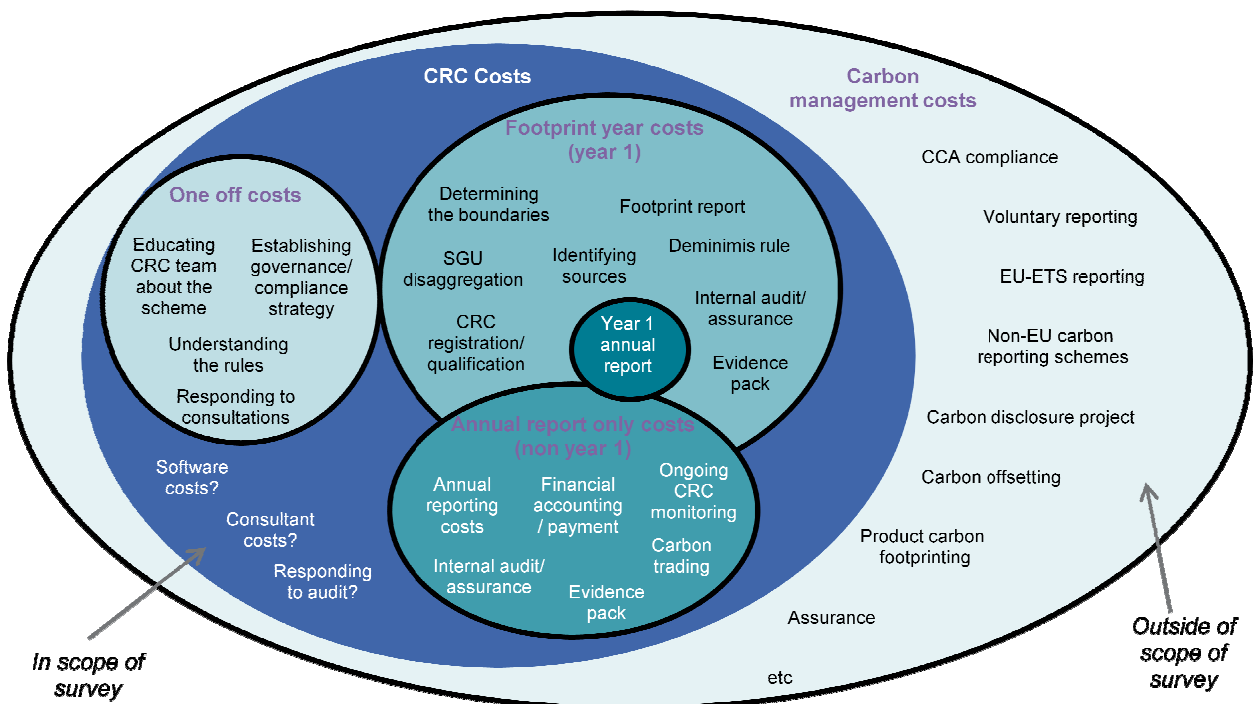
## ANNEX C – KPMG Survey of CRC participants

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 exaggeration of CRC costs by participants but it also recognised the difference between general carbon management costs and those that are ‘additional’ as a result of the introduction of the CRC. 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 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 cost (which occur once per phase or in a life-time), footprint costs, annual costs and external costs.

Chart C1: CRC administration (Source KPMG survey of CRC 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 than 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 of advising more than 80 CRC participants on CRC compliance. This research used the following SCM codes and descriptions:

<b>Staff category per survey</b>	<b>SCM code and description</b>
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)

## ANNEX D - Profile of savings from simplification measures

### Part A 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, Option 1 and Option 2 up to 2030.

#### BAU

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Energy TWh</b>																					
<b>Public</b>	<b>Electricity</b>	0.10	0.18	0.19	0.18	0.55	0.73	0.92	1.11	1.31	1.50	1.79	2.09	2.31	2.55	2.79	2.36	1.89	1.42	1.13	0.83
	<b>Gas</b>	0.20	0.34	0.50	0.67	0.89	1.12	1.37	1.62	1.87	2.13	2.46	2.78	3.03	3.29	3.55	3.07	2.54	2.01	1.68	1.34
<b>Commerce</b>	<b>Electricity</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.72	1.24	0.41	0.00	0.00	0.00	0.00
	<b>Gas</b>	0.39	0.68	1.01	1.34	1.79	2.25	2.75	3.24	3.75	4.28	4.94	5.59	6.07	6.60	7.14	6.16	5.10	4.04	3.37	2.69
<b>Industry</b>	<b>Electricity</b>	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	0.05	0.00	0.00	0.00	0.00	0.00
	<b>Gas</b>	0.05	0.09	0.13	0.18	0.23	0.30	0.36	0.43	0.49	0.56	0.65	0.73	0.80	0.87	0.94	0.81	0.67	0.53	0.44	0.35
<b>Emissions savings MtCO2</b>	<b>Traded indirect</b>	0.04	0.07	0.07	0.07	0.20	0.27	0.34	0.41	0.49	0.56	0.67	0.78	0.94	1.22	1.52	0.97	0.62	0.44	0.32	0.22
	<b>Non-Traded Direct</b>	0.12	0.20	0.30	0.40	0.53	0.67	0.82	0.97	1.12	1.28	1.47	1.67	1.81	1.97	2.13	1.84	1.52	1.21	1.00	0.80

#### Option 1

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Energy TWh</b>																					
<b>Public</b>	<b>Electricity</b>	0.11	0.19	0.20	0.20	0.57	0.76	0.96	1.16	1.36	1.56	1.86	2.17	2.40	2.64	2.89	2.36	1.89	1.42	1.13	0.83
	<b>Gas</b>	0.20	0.35	0.52	0.69	0.92	1.16	1.41	1.67	1.93	2.20	2.54	2.87	3.12	3.39	3.67	3.07	2.54	2.01	1.68	1.34
<b>Commerce</b>	<b>Electricity</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.90	1.45	0.41	0.00	0.00	0.00	0.00
	<b>Gas</b>	0.41	0.70	1.04	1.38	1.84	2.33	2.84	3.35	3.87	4.41	5.10	5.77	6.27	6.81	7.36	6.16	5.10	4.04	3.37	2.69
<b>Industry</b>	<b>Electricity</b>	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	0.08	0.00	0.00	0.00	0.00	0.00
	<b>Gas</b>	0.05	0.09	0.14	0.18	0.24	0.31	0.37	0.44	0.51	0.58	0.67	0.76	0.82	0.89	0.97	0.81	0.67	0.53	0.44	0.35
<b>Emissions savings MtCO2</b>	<b>Traded indirect</b>	0.04	0.07	0.08	0.08	0.21	0.28	0.36	0.43	0.51	0.58	0.70	0.81	1.04	1.32	1.65	0.97	0.62	0.44	0.32	0.22
	<b>Non-Traded Direct</b>	0.12	0.21	0.31	0.41	0.55	0.69	0.85	1.00	1.16	1.32	1.52	1.72	1.87	2.03	2.20	1.84	1.52	1.21	1.00	0.80



## Option 2

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Energy TWh</b>																					
<b>Public</b>	<b>Electricity</b>	0.10	0.18	0.19	0.19	0.56	0.74	0.93	1.12	1.32	1.52	1.82	2.11	2.34	2.58	2.82	2.36	1.89	1.42	1.13	0.83
	<b>Gas</b>	0.20	0.34	0.51	0.67	0.90	1.13	1.38	1.63	1.89	2.15	2.49	2.81	3.06	3.32	3.59	3.07	2.54	2.01	1.68	1.34
<b>Commerce</b>	<b>Electricity</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.78	1.31	0.41	0.00	0.00	0.00	0.00
	<b>Gas</b>	0.40	0.69	1.01	1.35	1.80	2.28	2.78	3.28	3.79	4.32	4.99	5.65	6.14	6.67	7.22	6.16	5.10	4.04	3.37	2.69
<b>Industry</b>	<b>Electricity</b>	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	0.06	0.00	0.00	0.00	0.00	0.00
	<b>Gas</b>	0.05	0.09	0.13	0.18	0.24	0.30	0.36	0.43	0.50	0.57	0.66	0.74	0.81	0.88	0.95	0.81	0.67	0.53	0.44	0.35
<b>Emissions savings MtCO2</b>	<b>Traded indirect</b>	0.04	0.07	0.07	0.07	0.21	0.28	0.35	0.42	0.49	0.57	0.68	0.79	0.98	1.25	1.57	0.97	0.62	0.44	0.32	0.22
	<b>Non-Traded Direct</b>	0.12	0.21	0.30	0.40	0.54	0.68	0.83	0.98	1.13	1.29	1.49	1.69	1.83	1.99	2.15	1.84	1.52	1.21	1.00	0.80

## 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).

Discounted (3.5%) value £2011m			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Admin costs	Baseline		20.5	19.8	80.7	22.0	21.3	20.6	19.9	67.9	18.6	17.9	17.3	16.7	57.2	15.6	15.1	14.6	14.1	48.2	13.2	12.7
	Option 1		9.8	9.5	34.9	6.2	6.0	5.8	5.6	29.4	5.2	5.1	4.9	4.7	24.8	4.4	4.3	4.1	4.0	20.9	3.7	3.6
	Option 2		32.5	31.4	42.4	7.5	7.2	7.0	6.8	35.7	6.3	6.1	5.9	5.7	30.1	5.3	5.1	5.0	4.8	25.3	4.5	4.3
Discounted capital costs	Baseline		13.4	12.9	14.1	18.3	17.6	18.4	17.1	16.6	31.0	24.9	24.0	17.9	20.7	20.0						
	Option 1		14.3	13.8	15.0	19.5	18.8	19.7	18.3	17.7	33.1	26.6	25.7	19.1	22.1	21.4						
	Option 2		15.0	14.5	15.7	20.4	19.7	20.6	19.2	18.5	34.6	27.8	26.9	20.0	23.2	22.4						
Energy Savings	Baseline	Electricity	8.4	15.0	16.5	15.1	43.8	56.8	69.2	78.3	89.6	101.5	123.5	141.9	167.4	220.9	275.2	182.2	124.1	91.4	70.8	51.8
		Gas	14.7	26.8	41.0	56.9	74.2	90.7	100.8	106.6	119.4	131.7	147.2	161.2	169.7	178.4	186.8	156.2	125.1	95.9	77.3	59.9
	Option 1	Electricity	8.8	15.8	17.7	16.6	45.9	59.2	72.2	81.5	93.2	105.6	128.3	147.4	184.7	240.1	297.7	182.2	124.1	91.4	70.8	51.8
		Gas	15.2	27.6	42.2	58.7	76.6	93.6	104.0	110.0	123.2	135.9	151.9	166.4	175.1	184.2	192.8	156.2	125.1	95.9	77.3	59.9
	Option 2	Electricity	8.5	15.2	16.9	15.5	44.4	57.5	70.1	79.3	90.8	102.8	125.1	143.8	173.4	227.5	283.1	182.2	124.1	91.4	70.8	51.8
		Gas	14.9	27.0	41.3	57.4	74.9	91.6	101.8	107.7	120.7	133.0	148.8	163.0	171.5	180.4	188.9	156.2	125.1	95.9	77.3	59.9
Carbon savings	Baseline	Traded	0.5	0.9	1.1	1.0	3.4	4.7	6.1	7.7	9.5	11.7	15.7	20.1	26.4	36.5	48.4	32.5	21.7	15.8	12.0	8.4
		Non Traded	6.5	11.1	16.1	21.0	27.4	34.0	40.6	47.0	53.3	59.6	67.6	75.1	80.1	85.5	90.7	76.8	62.4	48.4	39.6	31.0
	Option 1	Traded	0.5	1.0	1.1	1.2	3.5	4.9	6.4	8.0	9.9	12.2	16.3	20.9	29.1	39.6	52.3	32.5	21.7	15.8	12.0	8.4
		Non Traded	6.8	11.4	16.6	21.7	28.3	35.0	41.9	48.5	55.0	61.5	69.7	77.5	82.7	88.2	93.6	76.8	62.4	48.4	39.6	31.0
	Option 2	Traded	0.5	0.9	1.1	1.1	3.4	4.8	6.2	7.8	9.7	11.8	15.9	20.4	27.3	37.6	49.7	32.5	21.7	15.8	12.0	8.4
		Non Traded	6.6	11.2	16.2	21.2	27.7	34.3	41.0	47.5	53.9	60.2	68.3	75.9	81.0	86.4	91.7	76.8	62.4	48.4	39.6	31.0