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EXPLANATORY MEMORANDUM TO THE CRC ENERGY EFFICIENCY SCHEME (AMENDMENT) ORDER 2014

This explanatory memorandum has been prepared by the Department of Energy and Climate Change with input from the Devolved Administrations and is laid before the National Assembly for Wales in conjunction with the above subordinate legislation and in accordance with Standing Order 27.1

Minister's Declaration

In my view, this Explanatory Memorandum gives a fair and reasonable view of the expected impact of the **CRC Energy Efficiency Scheme (Amendment) Order 2014** and I am satisfied that the benefits outweigh any costs.

Alun Davies AM – Minister for Natural Resources and Food

18 February 2014

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1. Description

1.1 This joint Order makes amendments to the CRC Energy Efficiency Scheme Order 2013 (the 2013 Order) in order to finalise simplification of a non-domestic energy efficiency scheme known as the CRC Energy Efficiency Scheme (the CRC Scheme). The UK Government and the Devolved Administrations committed to simplify the CRC Scheme in 2010 and announced its conclusions in December 2012. These changes were enacted in May 2013 through the 2013 Order.

1.2 The simplification conclusions included a commitment to further consider how the CRC Scheme could incentivise participants to take up onsite self-supplied electricity. The UK Government and the Devolved Administrations are proposing that the consumption of energy from supplies that meet the definition of self-supplied renewable electricity will be reported against a zero emissions conversion factor, provided other Government support has not been received for the same supply. In effect, this means that the purchase of CRC allowances will not be required by participants for eligible energy.

1.3 In addition, the UK Government and the Devolved Administrations propose to introduce an exclusion from the CRC Scheme for energy used for metallurgical and mineralogical processes that are deemed eligible for an exclusion from the Climate Change Levy (CCL) as announced by the Chancellor of the Exchequer in Budget 2013. Without the CRC exclusion, holders of Climate Change Agreements (CCAs) (which provide a discount from the CCL and exemption from the CRC Scheme), which are subsequently withdrawn, may become liable for CRC Scheme costs. This is not the policy intent of the Budget 2013 announcement.

1.4 The UK Government and the Devolved Administrations also believe the current drafting of the 2013 Order does not give force to the UK Governments' policy intent on two issues as set out in its conclusion in December 2012. We are proposing to make two drafting changes to avoid double-counting of energy supplies used in third party CCA facilities or EU Emissions Trading System (EU ETS) installations and to allow participants greater flexibility to disaggregate subsidiaries of their organisations. The UK Government and the Devolved Administrations have also taken the opportunity to make a number of technical amendments to the 2013 Order to make the wording of the 2013 Order clearer for participants.

1.5 The UK Government and the Devolved Administrations propose this amendment order comes into force at the beginning of the next phase of the CRC Scheme; on 1st April 2014.

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2. Matters of special interest to the Constitutional and Legislative Affairs Committee

3.1 None.

3. Legislative Background

3.1 The CRC Scheme was introduced by the CRC Energy Efficiency Scheme Order 2010 (SI 2010/768) (the 2010 Order) under powers conferred by sections 44, and 46(3) of and Schedule 2 and paragraphs 9 of Schedule 3 to the Climate Change Act 2008. The CRC Energy Efficiency Scheme (Amendment) Order 2011 (SI 2011/234) (the 2011 Order) postponed the second phase of the CRC Scheme by extending the introductory stage to March 2014 and introduced initial simplification measures. The 2013 Order (SI 2013/1119) delivered 46 proposals to streamline and simplify the CRC scheme. This Order is made under the same powers as the 2010 Order except this Order is subject to the negative procedure (under paragraph 12 of Schedule 3 to the Climate Change Act 2008) as its provisions do not contain any of the matters listed in Section 48(3) of that Act.

3.2 This instrument applies to all of the United Kingdom and is subject to negative resolution procedure.

4. Purpose and Intended Effect of the legislation

4.1 The CRC Scheme is a mandatory UK-wide emissions trading and reporting scheme introduced in April 2010, but the qualification period for the scheme started in 2008. It was designed to improve energy efficiency and drive emission reductions in public and private sector organisations through the application of financial and reputational drivers. It is divided into phases. Phase 1 ran from April 2010 to March 2014 and each phase is divided into compliance years which run from 1st April to 31st March. The next phase begins on 1st April 2014. The Environment Agency, the Scottish Environment Protection Agency, the Natural Resources Body for Wales and the Northern Ireland Chief Inspector administer the scheme.

4.2 Since the introduction of the CRC Scheme in April 2010, stakeholders have argued that it is overly complex and administratively burdensome, especially in relation to emissions regulated under the EU ETS or CCAs. They have also stated that the organisational focus of the CRC Scheme is misaligned with their operational management structures and business processes. The UK Government announced its intention to simplify the CRC scheme in the Annual Energy Statement in July 2010.

4.3 In December 2012[1], the UK Government announced its conclusions on the simplification of the CRC Scheme. The Welsh Government, together with the UK Government and other Devolved Administrations enacted these changes in May

[1] http://www.gov.uk/crc-energy-efficiency-scheme

2013 through the 2013 Order and delivered significant simplifications and consequent cost savings to CRC participants. Changes included:

- Reduction in fuels covered from 29 to 2 – electricity and gas (latter for heating purposes only);
- An organisation-wide 2% de minimis threshold for gas (for heating);
- A reduced reporting burden;
- Removal of the overlap with CCAs and EU ETS schemes; and
- 55% reduction in administrative costs equating to £275 million of savings for participants up to 2030. £61 million net present value of simplification proposals compared to existing scheme.

4.4 To finalise CRC simplification, the UK Government and the Devolved Administrations are making two further amendments in the treatment of renewable energy and energy used in metallurgical and mineralogical processes.

Treatment of renewables

4.5 In the response to its consultation on simplification of the CRC Energy Efficiency Scheme (published in December 2012), the UK Government announced it would consider how the CRC could incentivise the uptake of onsite renewable self-supplied electricity, whilst keeping the energy efficiency focus of the CRC Scheme.

4.6 In its consideration the UK Government and the Devolved Administrations have been conscious not to undermine the core principals of CRC simplification through unnecessarily increasing reporting burdens or duplicating support which is made available through the Renewable Obligation (RO) and Feed-in Tariff (FIT) schemes which are its principle mechanisms to support renewable generation across the economy as this would represent poor value for money for the taxpayer.

4.7. To this end, the UK Government and the Devolved Administrations (from April 2014; the start of the next phase of the CRC Scheme) are proposing to apply a zero emissions conversion factor (through changes to the supply rules) to onsite self-supplied renewable electricity that is eligible for but has not been surrendered to claim Renewables Obligation Certificate (ROC) or FIT scheme payments.

4.8 This will allow CRC participants to select one of the following options (but not both) for the treatment of onsite renewable self-supplied electricity. Option (a), receive revenue from the RO or FIT schemes or option (b), consume the supply (foregoing eligible RO and FIT payments) and receive a reduction in CRC financial liability, as the supply will be rated at a zero-rate emissions conversion factor and not count towards CRC allowance costs. Option (b) will apply to renewable technologies commissioned from 1st January 2008 (the start of

qualification to the CRC Scheme) and specified in section 41(5) of the Energy Act 2008, which qualify for RO and FIT payments. Only renewable electricity supplies generated after 1st April 2014 will be eligible for zero-rating under option (b), ROCs or FITs can never have been claimed for generation from the installation, and no grant from public funds can have been received for the installation.

Energy used in metallurgical and mineralogical processes

4.9 The Chancellor of the Exchequer announced in Budget 2013 that the UK Government would introduce exemptions from the CCL for energy used in metallurgical and mineralogical processes from April 2014. This aims to provide a tax relief to the most energy-intensive businesses as permitted under the Energy Tax Directive, for whom energy makes up a significant proportion of total costs, and helps ensure that UK manufacturers in these sectors remain competitive with producers in other EU member states. Draft legislation has been published by HMRC and has been consulted upon separately, but in its preparation it has come to light that former CCA holders who will no longer need to benefit from the CCL discount that the CCA provides, may become liable for CRC costs for the energy used in eligible metallurgical and mineralogical processes. Allowing this to happen would contradict the original intention of the policy to provide a relief on energy costs for these sectors.

4.10 The UK Government (with the Devolved Administrations) are therefore proposing to introduce a CRC exclusion for energy used in metallurgical and mineralogical processes through changes to the supply rules (i.e. adding a new 'supply deduction' to Schedule 1of the 2013 Order), whereby the energy used for specified metallurgical and mineralogical processes will not be considered a CRC supply for the purposes of both qualification and reporting requirements.

Other issues

4.11 The UK Government and the Devolved Administrations are proposing to amend the current drafting of the 2013 Order because it does not give force to the policy intent. These are:

- Where a landlord and tenant relationship exists and the tenant has a CCA facility or EU ETS installation the landlord who is a CRC participant will be able to exclude the supplies covered under a CCA certificate or EU ETS permit to avoid double counting of supplies regulated by more than one scheme; and
- To allow participants greater flexibility to disaggregate subsidiaries of their organisations at any point within a phase of the scheme by mutual consent i.e. agreement between the highest parent of the subsidiary group and the disaggregated participants for the disaggregation.

4.12 The opportunity has also been taken to make a number of technical amendments to the 2013 Order to make the wording of the order clearer for participants.

Guidance

4.13 The Environment Agency (also on behalf of the devolved agencies) has published detailed guidance on their website describing the obligations that organisations need to undertake to register and fulfil their obligations for the CRC Scheme. They also operate a helpdesk for participants. Current guidance is available at http://www.environmentagency.gov.uk/business/topics/pollution/146886.aspx

5. Consultation

5.1 In November 2013, the UK Government and Devolved Administrations consulted on the two proposals to finalise simplification of the CRC Scheme.

5.2 The UK Government (for and on behalf of the Devolved Administrations) received a total of 31 consultation responses, the majority of which agreed with the measures proposed. Whilst several respondents queried why the incentives offered under the RO and FIT payment schemes would be a barrier to zero-rating all onsite self-supplied renewables electricity, or using actual emissions for the technology in use, the majority of respondents accepted the position that allowances not required to be purchased would be an additional (double) benefit that would not provide additional renewables deployment or provide value for money. The overwhelming majority of respondents supported the proposal to implement the new supply deduction for energy used in metallurgical and mineralogical processes from the start of the next CRC phase in April 2014.

5.3 As a result of the broadly positive feedback on the proposed amendments, UK Government (with the agreement of the Devolved Administrations) have decided to implement the proposals as set out in the consultation document. The proposed drafting amendments that were omitted from the 2013 Order have also been well received.

6. Regulatory Impact Assessment

6.1 The overall net benefit of implementing these proposals is estimated at -£52 million (present value, based on 3.5% social discount rate) over the next 20 years. This is a relatively small loss in carbon savings that should compare to a significant reduction on direct cost to businesses that is represented by the CCL exclusion for mineralogical and metallurgical sectors that fits in to achieving the wider UK Government and the Devolved Administrations objective of reducing regulatory costs.

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6.2 An Impact Assessment is attached to this memorandum and will be published alongside the Explanatory Memorandum on the UK Government website at www.gov.uk and on www.legislation.gov.uk. The Impact Assessment has been prepared with input from the Devolved Administrations.

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Title: Finalising CRC simplification: treatment of renewable energy & the metallurgical and mineralogical sectors **IA No: DECC0157** **Lead department or agency:** Department of Energy and Climate Change (DECC) **Other departments or agencies:** Environment/climate change departments from Scottish Government, Welsh Government and Northern Ireland Executive.	Impact Assessment (IA) **Date: 10/2/2014** **Stage:** Enactment **Source of intervention:** Domestic **Type of measure:** Secondary legislation **Contact for enquiries:** **Kiko.Moraiz@decc.gsi.gov.uk**

Summary: Intervention and Options

RPC: Not Applicable

Cost of Preferred (or more likely) Option				
Total Net Present Value	**Business Net Present Value**	**Net cost to business per year** (EANCB in 2009 prices)	**In scope of One-In, Two-Out?**	**Measure qualifies as**
[-52]	[-40]	-3	No	N/A

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

This Impact Assessment focuses on assessing two measures: a) delivering a government commitment announced in December 2012 to consider how to incentivise onsite renewable self-supplied electricity in the CRC Scheme; and b) introducing an exclusion from the CRC for energy supplied to metallurgical and mineralogical (min/met) processes in response to changes to the Climate Change Levy (CCL) announced at Budget 2013. Government intervention is necessary to ensure that the CRC Scheme is delivering the original intentions of simplification and to avoid introducing unintended CRC liabilities as a result of changes to the CCL.

What are the policy objectives and the intended effects?

The policy objectives are a) to further incentivise deployment of onsite renewable self-supplied electricity generation within the CRC population of businesses, and b) to avoid unintended consequences of the proposed exclusion of min/met processes from the Climate Change Levy.

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

In respect of measure a) a number of options to incentivise onsite renewable self-supplied electricity generation within the CRC population were explored but discarded as they would duplicate support provided by other DECC policies, resulting in poor value for money and carrying state aid risks. The measure presented in this IA represents the best balance between incentives and risks.

For the min/met sectors, the CCL exclusion would result in new financial liabilities under the CRC Scheme where their eligible energy is no longer covered by a Climate Change Agreement. In order to avoid this unintended consequence the only proposed measure is to introduce an exclusion from the CRC for relevant supplies. If do nothing was chosen, then min/met businesses would face additional CRC costs.

Will the policy be reviewed? It will be reviewed. **If applicable, set review date:** 2016

Does implementation go beyond minimum EU requirements?			**N/A**		
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	**Micro No**	**< 20 No**	**Small No**	**Medium No**	**Large Yes**
What is the CO2 equivalent change in greenhouse gas emissions? (Million tonnes CO2 equivalent)			**Traded: [0.1]**	**Non-traded: [0.2]**	

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: ----------

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Summary: Analysis & Evidence

Policy Option 1

Description: This IA covers the impact of implementing measures to remove from the CRC Scheme, supplies from eligible renewable sources and to exclude emissions from metallurgical and mineralogical processes.

FULL ECONOMIC ASSESSMENT

Price Base Year 2012	PV Base Year 2011	Time Period Years 20	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	**High: Optional**	**Best Estimate: [-52]**

COSTS (£m)	**Total Transition** (Constant Price)	**Average Annual** (excl. Transition) (Constant Price)	**Total Cost** (Present Value)
Low	Optional	Optional	**Optional**
High	Optional	Optional	**Optional**
Best Estimate			**[-6]**

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

This option combines two measures A) incentivising onsite renewable self-supplied generation and B) excluding energy supplies for min/met processes. This option reduces administrative and capital costs to businesses by £6m as a number of participants would leave the CRC as a result of the min/met exclusion.

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

BENEFITS (£m)	**Total Transition** (Constant Price)	**Average Annual** (excl. Transition) (Constant Price)	**Total Benefit** (Present Value)
Low	Optional	Optional	**Optional**
High	Optional	Optional	**Optional**
Best Estimate			**[-58]**

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

These measures would result in a reduction of energy savings attributable to the CRC Scheme and an associated reduction in emissions covered by the Scheme. The reduction of energy savings would also impact on other ancillary benefits such as air quality. The loss of benefits is driven by a reduction of £44m in energy savings, £13m in Carbon savings and £1m in Air Quality benefits. This represents a decrease of £58m in the Present Value of benefits. CRC liability benefits for CRC participants have not been accounted for in this section as they represent a net transfer between participants and government but they have been included in calculating direct costs and benefits to business.

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

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

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Evidence Base (for summary sheets)

1. This Impact Assessment (IA) follows the completion of a consultation published in December 2013 entitled 'Finalising CRC simplification: treatment of renewable energy & the metallurgical and mineralogical sector'. It reflects an assessment of the measures that Government will introduce (i.e. the preferred option) having incorporated responses received from consultees.

Problem under consideration

2. The IA focuses on two main issues:

    a. A measure to deliver the December 2012 commitment in the Government Response on simplifying the CRC Energy Efficiency Scheme, to consider how the CRC can incentivise the uptake of onsite renewable self-supplied electricity; and

    b. A measure to introduce an exclusion from the CRC for energy supplied to metallurgical and mineralogical (min/met) processes, in response to changes to the Climate Change Levy (CCL) announced at Budget 2013.

3. The December 2013 consultation also proposed amendments to legislative text to ensure the CRC Order delivered on Government policy proposals on supplies used in a third party CCA facility or EU ETS installation and organisational disaggregation in a landlord-tenant situation. These two proposals were changes that Government introduced through CRC simplification, the impacts of which have been assessed in the Simplification Final Stage Impact Assessment of December 2012 (and updated in February 2013)[2] and no additional impacts are assessed in this IA.

Rationale for intervention

4. The rationale for introducing these two measures is twofold:

Delivering the CRC simplification package – incentivising renewable self-supplied electricity

5. The CRC Simplification conclusions published in December 2012 explained that whilst the focus of the CRC is on energy efficiency, Government recognises the importance of and potential for further incentivising the growth of renewable generation under the CRC. Government therefore committed to consider how the CRC could incentivise the uptake of onsite renewable self-supplied electricity.

[2] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/153713/CRC_Simplification_Final_Stage_Impact_Assessment_December_2012__FINAL_IA_GB_.pdf

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Removing unintended CRC liabilities for metallurgical and mineralogical sectors

6. In addition, Government is introducing an energy supply exclusion from the CRC for min/met processes. This is because exclusion for these sectors from the Climate Change Levy (CCL), as announced in Budget 2013, may mean that former holders of Climate Change Agreements (which provide a discount from the CCL and exclusion from CRC) become liable for CRC costs. This is an unintended consequence of the CCL exemption. The CRC exclusion aims to protect Government's policy intention for the CCL exemption, to support the competitiveness of UK businesses that are energy intensive.

Description of options considered

Incentivising onsite renewable self-supplied electricity

7. The consideration of options for incentivising renewable energy in the CRC, was constrained by the need to take into account the scope and impact of DECC policies targeted at promoting renewable energy generation across the wider economy. In particular, the Renewable Obligation (RO) and Feed-in Tariff schemes (FIT). It is essential that any CRC approach does not lead to duplication of support which would represent poor value for money to the taxpayer.

8. Following the December 2013 consultation, Government has decided that the consumption of energy from supplies that meet the definition of self-supply renewable electricity generation will be reported against a zero emissions conversion factor, providing these supplies have not been surrendered to claim ROC or FIT payments. In effect, this means that CRC allowances will not need to be purchased for eligible renewable energy.

9. Crucially, this will apply to all eligible supplies from April 2014. Eligible supplies are those that meet the criteria for claiming ROCs or FITs, which are from installations commissioned form 1st January 2008 (the start of qualification for the CRC scheme) and which are eligible for but have **not** received payments under the Renewable Obligation and Feed-in Tariff schemes.

Excluding energy from metallurgical and mineralogical processes from the CRC

10. The Budget 2013 announcement to exclude from the CCL energy used in min/met processes aims to provide a tax relief to the most energy-intensive businesses as permitted under the Energy Tax Directive, and for whom energy makes up a significant proportion of total costs, and to help ensure that UK manufacturers in these sectors remain competitive with producers in other EU member states.

11. One consequence of the announcement is that where a CCA is withdrawn (as holders no longer need to benefit from the CCL discount that a CCA provides), former holders may become liable for CRC costs for the energy used in eligible

min/met processes. In some cases, CCA coverage will have provided for a supply deduction for min/met process energy from the CRC to date.

12. Without further measures this supply deduction would cease to apply, and min/met process energy would no longer be excluded from the CRC. Allowing this to happen would contradict the original intention of the policy to provide a relief from energy costs for these sectors. Government is therefore going to introduce an exclusion from the CRC for eligible min/met process energy to remove this liability.

13. This will be done via a new 'supply deduction' whereby the energy used for specified min/met processes will not be considered a CRC supply for the purposes of both qualification and compliance. The existing provisions for the exclusion of CCA energy is delivered in an analogous way in the current CRC Order via a 'supply deduction' in Schedule 1 paragraph 29.

14. The detailed scope intended for the min/met and CCL exclusion, and so the detail of what the CRC supply deduction will need to cover to avoid the unintended consequences, has been published in a draft legislation paper for the Finance Bill 2014[3].

Summary of consultation responses and government response

15. The Government received a total of 31 responses to the consultation, 23 from CRC participants including the private and public sectors, and 8 from non-CRC participants. The majority of consultation respondents agreed that the proposed measures would deliver the Government's policy intent for the CRC on simplification and promoting the uptake of renewable energy, and support the effective implementation of the CCL exemption for min/met processes to help protect the competiveness of UK energy intensive businesses.

16. A number of concerns were raised in relation to self-supplied onsite renewables. For instance:
    - Proposals do not go far enough and a limited amount of large generators would face a disproportionate impact;
    - Feed-in-Tariffs do not reflect the return on investment faced by CRC participants;
    - There is no clear rationale to exclude renewable generation based on the start date of the CRC Scheme.

17. Prior to the consultation, a number of options to incentivise onsite renewable self-supplied electricity generation within the CRC population were explored but discarded as they would duplicate support provided by other DECC policies, resulting in poor value for money and state aid risks. Government has decided that the measure presented in this IA represents the best balance between incentives and risks.

[3] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/264648/Draft_clauses_and_explanatory_notes_for_Finance_Bill_2014.pdf

18. In relation to the exclusion of min/met supplies, participants asked for a proportionate approach to accounting for energy covered by a CCA, such as the Directly Associated Activities or under the 70:30 rule, that would not be eligible for the min/met supply deduction.

19. However, there is still some uncertainty in accounting for what energy would not be eligible for the min/met supply deduction that cannot be resolved until DECC and the Environment Agency announce further details on the timing and process for withdrawal of CCAs. It is envisaged that this process will take place during the course of 2014.

20. Government also received comments on the economic analysis and costs of the two measures. These related mainly to the cost impact of the CRC Scheme overall rather than the two measures assessed in this IA. Whilst some respondents questioned the assumptions employed in the economic analysis, no specific data evidence was provided that would enable the estimates presented in the consultation document to be revised.

21. In conclusion, Government acknowledges the concerns raised, but does not think they call for a revision of the estimates presented in the consultation document. The issues mentioned above are within the acceptable limits of evidence and it would not be possible to improve the assessment presented in this IA that would be proportionate in terms of cost and additional burdens on CRC participants.

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

22. In this IA, the Business as Usual (BAU) option reflects the current Scheme following the implementation of the simplification changes enacted in May 2013 through the CRC Energy Efficiency Order 2013 (2013 Order) and the added emissions from the min/met sector as a result of the CCL exemption announced at Budget 2013 (See para 30-36 for details of the estimated relevant min/met emissions).

23. Costs and benefits of the BAU are presented in Table 1 below. Although these are consistent with the cost benefit assessment of the simplification measures in the December 2012 IA (updated in February 2013), values in this IA have been updated to reflect new energy demand trends and policy overlaps published in DECC's most recent Updated Emissions Projections (UEP) of October 2013[4].

[4]Updated energy and emissions projections: 2013, https://www.gov.uk/government/publications/updated-energy-and-emissions-projections-2013

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Table 1 Net Present Value of CRC BAU updated

				Present Value of Costs (£2012m)		Present Value of Benefits (£2012m)			
Option 0	Lifetime Change in TRADED INDIRECT emissions ($MtCO_2e$)	Lifetime Change in NON-TRADED emissions ($MtCO_2e$)	**Net Present Value (£m, in 2012 prices, discounted to 2011)**	Capital Cost	Admin Cost	Air Quality	Energy Savings	Non-traded sector savings	*Traded sector savings*
Simplification package February 2013	*4.9*	*20.8*	*4096*	*318*	*228*	*63*	*3543*	*949*	*86*
BAU	3.8	18.7	2809	346	228	43	2419	852	68

24. Comparing this updated baseline with the assessment of the values in the Simplification IA, there is a significant reduction in energy savings which is driven by lower energy demand projections in the public and industrial sectors in the latest UEP. A lower energy demand projection has resulted in a reduction of total lifetime carbon savings in the CRC of 3.2$MtCO_2$ over the period 2011 to 2030, and a reduction in overall Net Present Value of the policy, although the policy remains net positive overall.

Option 1 - Measures to incentivise onsite renewable self-supplied electricity and exclude metallurgical and mineralogical processes (Preferred option).

25. Implementing measures to incentivise onsite renewable self-supplied electricity and excluding energy supplies from min/met processes that are eligible for the exemption from the CCL will impact on the value of the CRC via:

- A reduction in emissions covered by the CRC; and
- A reduction in the number of CRC participants

Estimated uptake of onsite self-supplied renewable generation

26. This measure provides a choice for participants between either claiming a subsidy for their renewable generation via a ROC or FIT, or reducing their CRC liability. While there is significant uncertainty associated with the uptake estimates (we have not undertaken primary research to ascertain companies' intentions), the relative value of the CRC relief when compared to existing incentives available through RO and FIT payments, suggests a small impact.

27. Some companies with existing onsite renewable generation capacity may wish to take advantage of the zero rating policy. However, the scope of this effect would be limited to generation capacity that was (a) installed after the start of the CRC (in 2008) and before the launch of FITs and the Renewables Obligation (RO);

and (b) did not take advantage of the FITs and RO qualification window (available to all such generation).

28. Therefore, estimated uptake of this measure is based on existing and new generation but, in both cases, we believe this would be relatively small based on the following considerations:

    a. **Existing generation** would only cover onsite renewable installations commissioned during the lifetime of the Scheme since 2008, the first CRC qualification year. These installations would have been eligible for RO or FIT payments but did not claim, and would therefore qualify for zero rating in the CRC. The extent of the generation captured in this category would be reported in the CRC Annual Reports within existing onsite generation from Energy Generating Credits (EGC).

    However, reporting data does not provide the relevant detail to enable us to distinguish (within EGC generation) between technologies that qualify for ROCs and FITs and those that do not. For simplicity, this IA assumes that the majority of EGCs are related to energy from waste facilities which do not qualify for ROCs (but see 'Risks and assumptions' below).

    Furthermore, we have removed all self-supply EGC from waste and water companies on the assumption that these all generate energy from waste. Table 2 below shows that 10% of self-supply EGCs in 2012-13 relates to non-waste/water companies. By excluding waste/water company supplies, the total amount of existing self-supplied generation in 2012-13 that could qualify for zero rating is 22,409 MWh (10,738 tCO2). Whilst some consultation respondents indicated that not all their energy is generated from waste, they did not provide evidence that would enable us to revise this assumption. This estimate is subject to the further assumption that existing capacity in 2012-13 would continue unchanged throughout the period 2014-15 to 2016-17.

Table 2 CRC Annual Report Data – Self Supply Electricity[5]

Reporting Year	Self-Supply EGC (MWh) from Waste/Water	Self-Supply EGC (MWh) from Non Waste/Water	Percentage of Self-Supply EGC from Non Waste/Water
2011-12	224,502	82,867	37%
2012-13	231,341	22,409	10%

[5] Environment Agency

b. **New generation** uptake is expected to be relatively small. The monetary value of zero rating CRC self-supplied onsite renewable generation is 0.76p/kWh (equivalent to £16/tCO_2[6]). This incentive is considerably lower than the support offered by FITs and ROCs, which ranges from 4.6p/kWh to 17.5p/kWh. Since ROCs and FITs pay at least five times more than CRC allowance zero rating, it is unlikely that CRC participants that qualify would choose CRC allowance zero rating over a ROC or FIT subsidy. There could be some isolated cases where participants would prefer the CRC zero rating but, in the absence of other information, we have not considered any additional uptake from new generation.

29. Overall, the total amount of take up this measure is estimated to result in and would qualify for CRC allowance zero rating is approximately 22.5 GWh or 11 KtCO_2.

Estimated CRC liabilities for metallurgical and mineralogical sectors

30. Estimating the impact of the measure to avoid min/met sectors falling into the CRC as a result of the CCL exclusion for min/met processes, has required us to identify emissions from two possible sources:

a) CRC emissions from min/met processes not covered by CCAs or EU ETS – these will result in a reduction of emissions covered by the CRC; and

b) CRC emissions from CCAs (as a result of the 70:30 rule or directly associated activities) that may not be covered by the min/met processes – these will result in an increase of emissions covered by the CRC.

Source (a) - Emissions not covered by CCAs or EU ETS

31. We have identified the min/met sectors that do not have CCA agreements and extracted all the CRC emissions related to these sectors from the CRC database. A draft list[7] of eligible min/met processes has been matched to SIC code classifications. The list was then matched against the corresponding SIC codes in CCAs. Finally, a number of SIC codes that do not correspond with a CCA sector were identified and are listed in Table 3 below.

32. Using data submitted by CRC participants in their annual reports for the sectors in Table 3 we estimate that the amount of CRC emissions related to organisations that fall within the min/met category and would now be excluded from the CRC, is 252KtCO_2. Assuming a constant level of emissions and a price of £16/tCO_2, the associated CRC allowance revenue impact would be £4m per year.

[6] This figure is expressed in real terms and is equivalent to the average of £15.60 and £16.40 announced by HMT in the Autumn Statement 2013.

[7] A final list will be confirmed by HMT for the Finance Bill after 1 April 2014.

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Table 3 Min-Met sectors with no CCA agreement

List of min/met sectors with no CCA agreement.	SIC Code
Processing of nuclear fuel	D.23.30
Manufacture of concrete products for construction purposes	D.26.61
Manufacture of ready-mixed concrete	D.26.63
Manufacture of mortars	D.26.64
Manufacture of fibre cement	D.26.65
Manufacture of other articles of concrete, plaster and cement	D.26.66
Cutting, shaping and finishing of stone	D.26.70
Production of abrasive products	D.26.81
Precious metals production	D.27.41
General mechanical engineering	D.28.52

Source (b) - CRC emissions from CCAs that may not be covered by the min/met processes

33. Eligibility for the CRC supply deduction is based on NACE codes for processes eligible for the CCL exemption published in draft legislation by HMRC in December 2013. Government is continuing to consider the list of eligible processes and is due to finalise this list in the Finance Bill 2014 after April.

34. This new 'supply deduction' would not cover 100% of the emissions covered by the relevant CCAs. Some processes currently covered by a CCA as Directly Associated Activities (DAAs) or under the 70:30 rule, may not be eligible for the min/met supply deduction and so may become liable for CRC payments where the implementation of the CCL exemption leads to a CCA withdrawal. Engagement with industry will soon be undertaken setting out the implications of CCA withdrawal.

35. However, at present, DECC has not been able to quantify the impact of this measure owing to a lack of data at the level of disaggregation necessary to distinguish between supplies from core processes, DAAs and the 70:30 rule.

36. Having considered the possible range of impacts, we believe the emissions that would fall back into the CRC Scheme would be relatively small because:

- DECC consulted with industry on the impact of this measure as part of the CCA simplification consultation. The response to the consultation indicated that only a limited amount of energy would be captured by the 70:30 rule.
- The majority of the energy captured by CCAs would also be within an EU ETS installation (given the new treatment of these installations in the CRC); and
- Given the majority of emissions would be excluded, the remaining supplies might not meet the 6000 MWh qualification threshold for CRC participation.

Quantified impacts of the preferred option

37. The impacts of the measures included in the preferred option have been assessed relative to the BAU set out above in Option 0.

38. Figures in Table 4 present the joint impact of these measures on the CRC Scheme NPV. These have been calculated by adjusting the Simplification IA of December 2012 (updated in February 2013) to the changes in emissions coverage of the Scheme identified in the previous section i.e. a reduction in the emissions covered by the CRC of 11KtCO_2 and 252KtCO_2, from onsite self-supplied renewable energy and min/met exclusions respectively. This adjustment pro rates energy, carbon savings and capital costs to the change of emissions resulting from the two measures. At the same time, the change in administration cost has been adjusted to the number of CRC participants that would fall out of the scheme as a result of min/met exclusions (note only the min/met measure reduces administration costs driven by participants leaving the Scheme).

39. Reducing the number of participants reduces the emissions covered by the CRC by 0.3MtCO_2 overall, and a £44m reduction in energy savings. Additionally, fewer participants in the Scheme also results in a small reduction of £1m in administration costs. The net impact is a reduction of £52m or 2% of the Net Present Value over the period 2011 to 2030, although the Scheme overall remains net positive. Of the £52m reduction in NPV, this IA has estimated that the majority (£40m) would be associated with a loss to Business Net Present Value. This takes into account loss of energy, capital and administrative savings[8.] Overall, these reductions are justified by providing wider policy coherence with renewables and by safeguarding the full benefits to the min/met sector from the CCL exemption.

[8] Since there is no information on capital cost and administrative cost, this IA has adjusted Business Net Present Value by a scaling factor of 77%, which corresponds to the ratio of business to total emissions in the Simplification IA (February 2013).This results in a loss to Business Net Present Value of £40m.

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Table 4 Cumulative Impact of proposals, 2011 -2030

			Net Present Value (£m, in 2012 prices, discounted to 2011)	**Present Value of Costs (£2012m)**		**Present Value of Benefits (£2012m)**			
Option	Lifetime Change in TRADED INDIRECT emissions ($MtCO_2e$)	Lifetime Change in NON-TRADED emissions ($MtCO_2e$)		Capital Cost	Admin Cost	Air Quality	Energy Savings	Non-traded sector savings	*Traded sector savings*
BAU	3.8	18.7	2809	346	228	43	2419	852	68
Option 1	3.7	18.4	2758	340	227	42	2375	841	66
Net Impact	**-0.1**	**-0.2**	**-52**	**-6**	**-1**	**-1**	**-44**	**-11**	**-2**

40. Note that the Net Present Value calculations treat the cost of allowances as a cost to business and a benefit to Government but with a neutral impact on the Net Present Value since it represents a net transfer between participants and Government[9].

Direct costs and benefits to business

41. Direct costs to business of participation in the CRC Scheme are mainly driven by the cost of allowances. Other costs to businesses such as administrative and capital expenditure costs are considered to be negligible because the impact of these measures in energy savings is minimal (about 1% of carbon savings).

42. The net cost to business calculation applies to the non-public sector only. Some of the savings in CRC allowances cost from renewables could be attributed to local authorities and other public organisations. However, given the small coverage identified, this IA assumes that this would be minimal and they have not been deducted from the overall costs.

Benefits to businesses from incentivising onsite self-supplied renewable energy

43. This impact has been estimated by converting projected electricity generation from eligible supplies into CRC allowances using currently published emissions factors[10]. Our assessment takes into account the 22,409 MWh identified above that could qualify for zero rating and assumes this capacity remains constant. On this basis, the impact associated with the existing stock of onsite generation would be £0.17 million per annum reduction in allowance liabilities for CRC participants.

[9] This in accordance with appraisal guidance from: the Green Book published by HMT; IAG guidance on carbon appraisal by DECC; and the One in Two Out evaluation guidance published by BIS.
[10] https://www.gov.uk/crc-energy-efficiency-scheme

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Benefits to businesses from the metallurgical and mineralogical exclusion

44. Table 5 shows the projected emissions that would be covered by this exclusion in each annual report from 2014-15 to 2019-2020[11], and the associated revenue impact (in real 2012 prices).

45. This impact has been estimated by:
    - Identifying all CRC emissions in the CRC report that relate to min/met processes not covered by CCAs;
    - Applying the CRC projected emissions trend for the period 2014-15 to 2019-20; and
    - Multiplying projected emissions by the relevant price of allowances.

Table 5 Reduction of CRC allowance liabilities of the min/met exclusion

Min-Met sector with no CCA agreement.	Annual Report Emissions 2010-2011	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Total Emissions tCO_2	252,415	217,345	214,838	212,636	212,017	211,096	210,696
Total CRC Allowance Impact by year Real (2012) £m	2.7	3.4	3.4	3.5	3.6	3.8	3.8

Net cost to business per year

46. The net cost to business per year is a reduction of £3m (EANCB in 2009 prices)[12]. It has been estimated by aggregating benefits from renewables up to 2030 and the min/met exclusion and transforming all revenues from 2012 to 2009 prices and discounting these by the annuity rate. Although the CRC is not in scope of One In Two Out, reporting benefits to business in EANCB in 2009 prices allows for comparison with other policies.

Risks and Assumptions

Onsite self-supplied renewables

47. Estimates of renewable uptake presented in this IA are subject to considerable uncertainty because in the first two years the CRC Scheme generated some

[11] These values have been projected to 2030 to estimate the overall NPV but Table 5 only shows up to 2020.
[12] EANCB = Equivalent Annual Net Cost to Business
http://www.bis.gov.uk/assets/biscore/better-regulation/docs/o/11-671-one-in-one-out-methodology.pdf

unreliable EGC data due to the complexity of reporting. In the annual reports of 2010-11 and 2011-12, EGCs were subject to significant revisions. As a result, estimates of EGCs emissions are based in data reported for 2012-13 only.

48. In addition, this IA assumes that there are no eligible supplies from EGCs generated by waste treatment and water companies. Some consultation responses challenged this assumption, indicating that some of the generation from this sector could come from qualifying technologies. Although no evidence was submitted that would enable us to revise our estimate of onsite self-supplied renewables, this IA considers the relative impact on our results from alternative assumptions:

- 5% of the energy from these technologies that generate electricity from EGCs would qualify for the exemption
- 10% of the energy from these technologies that generate electricity from EGCs would qualify for the exemption

Table 6 Sensitivity of assumption on eligible EGCs from waste and water companies

Assumption	NPV of the CRC	Impact on Emissions covered CRC ($MtCO_2$)	Impact on Annual Revenue (£m) at £16/tCO_2
None	2758	0.01	0.17
5%	2757	0.02	0.26
10%	2752	0.02	0.35

49. Table 6 above shows the impact on the estimates presented in this IA from using alternative assumptions of eligible EGCs from waste and water companies. Although the impact on emissions doubles relative to the assumption in the IA, it is against a very low emissions impact base. There is a larger impact on revenues, double in the case of the 10% sensitivity. However, this too is set against a low base.

50. The impact of alternative assumptions is small and therefore our assumption in the preferred option is valid.

Mineralogical and metallurgical exclusion

51. The following assumptions and caveats apply to the calculation of the impacts of the min/met exclusion:

- In estimating the annual revenue impacts, it is assumed that emissions follow the CRC emissions trend.

- Reporting for the CRC is based on the SIC code of the parent organisation[13] but this does not mean that 100% of these emissions would be related to the same sector. For example, an organisation could be classified as Precious Metals Production while owning a subsidiary in the hospitality sector.
- Min/met processes do not cover total energy reported by CRC participants. As a consequence, not all the energy used by these participants would qualify for exclusion.

52. It is likely that the impact of the last two assumptions will be negligible because removing energy from energy intensive processes may well result in an organisation falling below the CRC qualification threshold.

Wider impacts

53. This IA quantifies the direct impact on businesses of the proposed simplification measures. The following impacts have been considered as having no or negligible effects:

1. Costs in employment
2. Barriers to start up and other impacts in small and medium size business
3. Competitive distortions
4. Regional distortions
5. Social impacts such us well-being, human rights and inequality

[13] Or Participant Equivalent