



Department
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Climate Change

Climate Change Agreements: eligibility, metering requirements and target setting guidance

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Climate Change Agreements: eligibility, metering requirements and target setting guidance

Introduction

1. This paper sets out guidance for complying with the Climate Change Agreements (Eligible Facilities) Regulations 2012 (as amended by the Climate Change Agreements (Eligible Facilities) (Miscellaneous Amendment) Regulations 2013) sub-metering requirements for compliance with the 70% rule¹. It also provides guidance on how percentage improvement targets will be set for new entrants and amended for existing participants of the scheme.
2. The Administrator will set all target unit targets according to the standardised methodologies set out in this guidance.

Eligibility and the 70% rule

3. Climate Change Agreements (CCAs) provide a 90% discount for electricity and a 65% discount for other fuels from the Climate Change Levy (CCL) for eligible facilities, in return for meeting agreed quantitative targets for energy reduction. Therefore, it is fundamental that energy use is measured accurately.
4. The Regulations require that reckonable energy² consumed in the CCA installation³ during the previous 12 months must be used to determine the intended supply or use in the following 12 month period. Therefore in order to determine the intended supply or use in the following 12 month period, continuous monitoring of this data is necessary to demonstrate eligibility.
5. Where the energy consumed in the CCA installation is greater than or equal to 70% of the total energy consumed on the site, the CCA facility is considered to be the same as the site and discount from the Climate Change Levy (CCL) can be claimed for 100% of the energy consumed (see figure 1).
6. On the other hand, where the energy consumed in the installation is less than 70% of the total energy consumed, the whole site is not eligible to be covered by a CCA and the CCA can only cover the installation and up to an optional additional 3/7ths of energy consumed in the installation (see figure 2). The addition of the 3/7ths can occur at any point during the agreement, except for the last two months of a target period. Where this occurs, the

¹ The '70% rule' is the colloquial term for the requirement in regulation 3(1)(a) of the Climate Change Agreements (Eligible Facilities) Regulations 2012.

² Reckonable energy is a) energy obtained from the burning or using of relevant commodities in the installation or parts of installations on the site; b) electrical energy supplied to the installation, installations or parts of the installations on the site; c) energy in cooling supplies; or d) energy in supplies of steam.

³ The stationary technical unit (STU) and directly associated activities (DAAs)

CCA facility is defined as either the installation or the installation and up to an additional 3/7ths of energy.

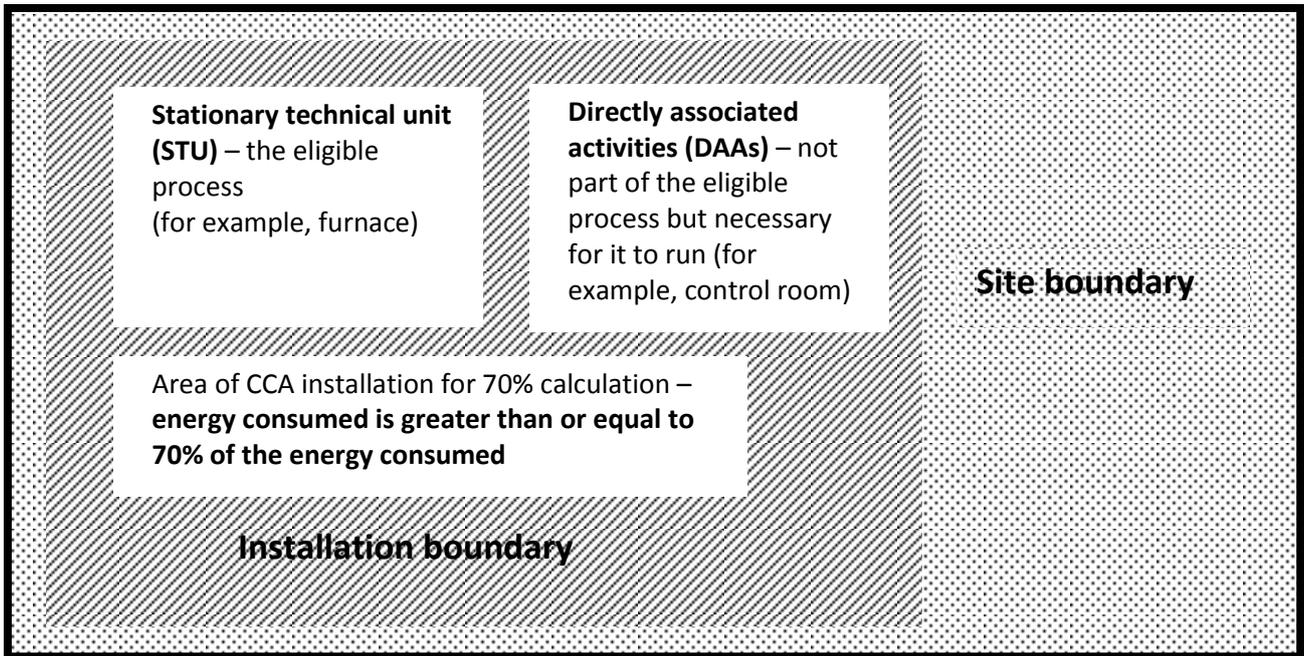


Figure 1. CCA facility boundary where the energy consumed in the installation is greater than or equal to 70% of the total energy consumed on the site.

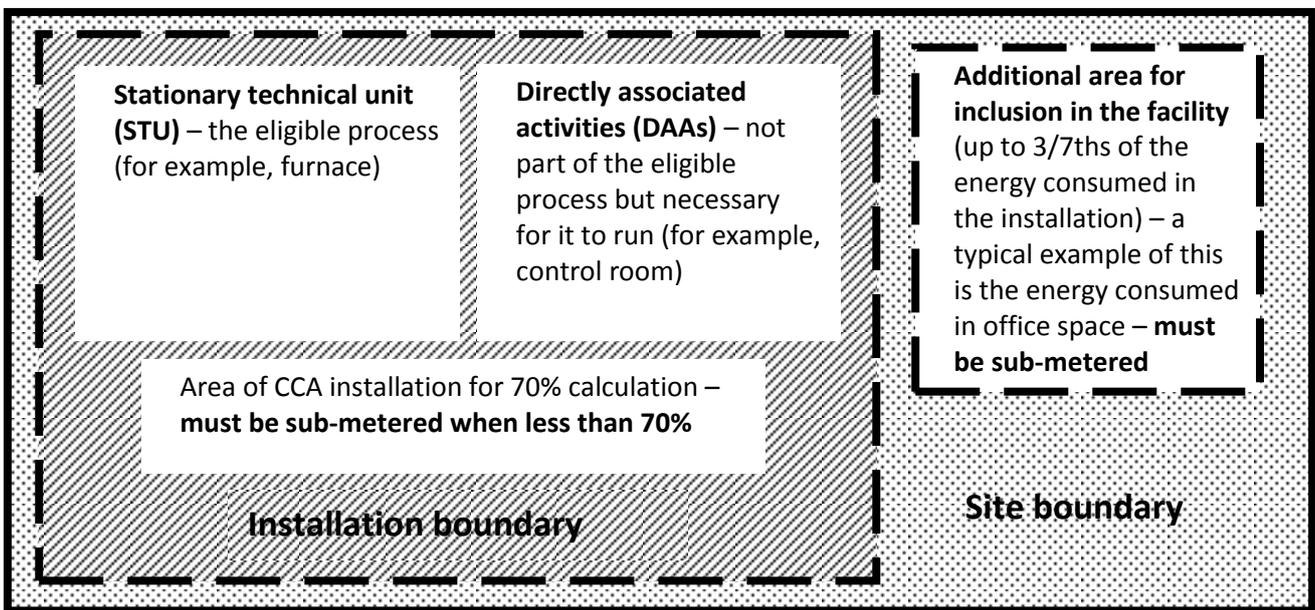


Figure 2. CCA facility boundary (dashed lines) where the energy consumed in the installation is less than 70% of the total energy consumed on the site.

- Before applying to join the CCA scheme, a site should estimate the energy consumed in the installation over the previous 12 months using any existing sub-meters, spot-metering or calculation based on equipment rating and the hours used. The methodology for any estimation must be site specific and must be clearly set out when completing the facility eligibility application in the CCA IT Register. This estimate should be regularly checked by the operator to ensure that the energy consumed in the installation remains correct.

8. If it is determined that the proportion of energy consumed in the installation over the previous 12 month period was greater than or equal to 70% of the total energy consumed on the site, the only meters needed are fixed site meters. If, on the other hand, the energy consumed in the installation was less than 70% of the total energy consumed on the site, the energy consumed in the installation and any additional 3/7ths must be separately sub-metered. These sub-metering rules are consistent with the requirements for compliance with the 90/10 rule of the old CCA scheme (prior to April 2013) and the 'Climate Change Agreements: deadline for data submission and sub-metering requirements' guidance published in May 2013. The 90/10 rule was replaced with the 70% rule to enable fewer installations to be required to install sub-metering. Paragraphs 36 to 39 of this paper set out what happens when there are changes to eligibility.
9. All companies should make a judgement as to whether the benefit of being in the CCA outweighs the cost of sub-metering. Accurate sub-metering will also benefit energy management and costing procedures.

CCA target types

10. There are two levels of target within the CCA scheme – one for the sector known as the 'sector commitment' and one for the operator known as the 'target unit target'.
11. The sector commitments are agreed between DECC and the sector associations. Prior to the start of the new scheme, participants were set new targets lasting until 2020 (target period 4).
12. Targets can be expressed in terms of energy (kWh, MWh, GJ or PJ) or carbon (KgC, tC) and as either absolute or relative. Therefore, there are four types of target that are possible in CCAs:
 - Relative energy (e.g. kWh/m²)
 - Absolute energy (e.g. MWh)
 - Relative carbon (e.g. kgC/tonne)
 - Absolute carbon (e.g. tonnes C)
13. For energy targets, kWh is the most commonly used unit because it is the unit most frequently used in metering the main types of energy (electricity and gas).
14. To measure relative efficiency the throughput of the target unit must be measured using a physical output unit that can be shown to correlate with energy use or carbon production. Examples are units of mass (e.g. kg or tonnes) or volume (e.g. litres or m³) of product. In addition the throughput unit should specify what is being measured, e.g. tonnes shipped or litres produced.
15. Where there are two or more products whose production is measured in different units (for example, litres and m²) or which have significantly different energy intensities of

manufacture, a ratio target can also be calculated for relative targets using the Novem methodology.⁴

16. Target unit targets must be expressed in the same way as the sector commitment in terms of whether carbon or energy is used as the metric for the target, but can differ from the sector commitment in so far as targets for target units in the same sector can be either relative or absolute (e.g. where a sector commitment is in relative energy terms, the new entrant can choose either a relative energy or an absolute energy target but may NOT choose a carbon target). Once a target currency has been determined and the underlying agreement has been signed this cannot be changed until the 2016 review.
17. Conversion factors should be used where units of throughput differ between the sector commitment and the target unit target. Any throughput conversion factors required will need to be justified using past data, and the relationship between the target unit throughput measure and sector commitment throughput measure should be auditable. For example, if throughput is measured in kg of aluminium for the sector commitment and m² of aluminium for the target unit, records of the thickness of the sheet produced will have to be kept at the target unit so that there is an auditable trail supporting the conversion factor used.

Numerical and percentage targets

18. In the sections below, targets may be referred to as either percentage improvement or numerical targets. A percentage improvement target for a target period is the target percentage improvement in performance for that target period relative to performance in the base year. Applying the percentage improvement target for a target period to the base year performance will derive the numerical target for that target period. For example, a target unit has a base year specific energy consumption (SEC) performance of 10kWh/kg and the percentage improvement target for target period 1 is 10%. In this example, the numerical target for target period 1 is 9kWh/kg. The base year performance is required for all target units to enable a numerical target to be calculated.
19. For the base year, a minimum of 12 months continuous representative data is required. This should be for 2008. However, if this is unavailable operators must supply their facilitator with data from the next available 12 month period falling after 2008. All data provided must be representative of the current configuration of the facility and must cover all energy consumed in the facility including renewable and waste fuels⁵.

New entrant eligibility, metering requirements and target setting

Greenfield facilities

20. A Greenfield facility is a site that started operating during the 12 month period prior to the date it applied to join the CCA scheme. A Greenfield target unit will be able to have an agreement from the outset with a percentage target in line with the sector commitment. An estimated baseline performance for the year it started operation will need to be agreed with the Administrator. Where appropriate, this can also include the optional 3/7ths. The

⁴ See Environment Agency Operations Manual and the Technical Annex for information on the Novem methodology

⁵ Exceptions to this include: fuel used as a chemical feedstock, heat recovered from exothermic reactions, electricity generated from the recovery of waste heat.

base year for the Greenfield new entrant will therefore be the first year that the underlying agreement is held.

21. Where the energy consumed in the installation is estimated to be greater than or equal to 70% of the site's total energy consumption, the facility will not require sub-metering but will require fixed site metering to measure the energy consumption for the next 12 month period.
22. Where the energy consumed in the installation is estimated to be less than 70% of the sites' total energy consumption, the facility will need to install sub-metering to measure the energy consumption for the next 12 month period, and also sub-meter up to an optional additional 3/7ths.
23. In both cases, the facility is required to agree with their facilitator, on behalf of the Administrator, a date by which it will have 12 months continuous data available to add into their agreement and from which a numerical target will be calculated. It is expected that installation of the sub-metering will occur within 6 months from when the need for sub-metering is identified. This also applies to any sub-metering required for the inclusion of the optional 3/7ths.
24. With regards to the end of target period report, where a Greenfield facility joins the scheme in the final 12 months of a target period, it will report against the numerical target calculated using the estimated interim baseline that was agreed with the facilitator, on behalf of the Administrator. A revised numerical target will be calculated for future reporting once the full 12 months actual consumption data is available.
25. Examples of a Greenfield facility are:
 - a brand new facility with new equipment carrying out activities and processes that have not been carried out previously; or
 - a facility wishing to enter the scheme that has closed down and undergone a complete replacement of plant and been re-commissioned such that 12 months of baseline data, representative of the newly commissioned site, cannot be provided.

Brownfield facilities

26. A Brownfield facility is an existing site. To enter into a CCA, the existing operator will have been running the site without any structural changes and collecting the requisite data for at least 12 months prior to entering into an agreement. Therefore, a representative baseline should exist and the site will be expected to be able to produce data against which future numerical targets can be set. As such, a new Brownfield facility will only be able to enter an agreement once it can provide 12 months of continuous data. Unlike the situation for Greenfield sites, it will not be able to claim CCL discount until this time.
27. There are situations where a Brownfield facility may not have the requisite 12 months consumption data for the previous 12 month period and will need to collect these data before they are able to enter into a CCA. Examples of which are as follows:
 - an existing facility with an agreement has closed down for a period of time and re-started production with (or without) a new owner and without any structural changes to the facility, so that the configuration of the site remains the same, since it closed;

- previous data are not available (e.g. the facility went into administration *and* the administrator refused the new owner access to previous records).

Targets for new entrants

28. The relevant sector commitment (or sub-sector commitment where this exists) will be used to set the percentage improvement target of a target unit where:

- a facility or group of facilities is entirely new to the scheme and becomes a target unit;
- a facility which was formerly covered by the umbrella agreement of a different sector is moved into a new sector and becomes a target unit in that new sector **unless**, as a result of applying the percentage sector commitment to the target unit baseline, the numerical target calculated for the next target period implies a target performance that has already been achieved. Where this occurs the target unit will retain the original performance improvement target.

29. Where the base year of the newly created target unit is more recent than 2008 or that of the base year of the sector or sub-sector, the target will be adjusted accordingly in line with paragraph 32.

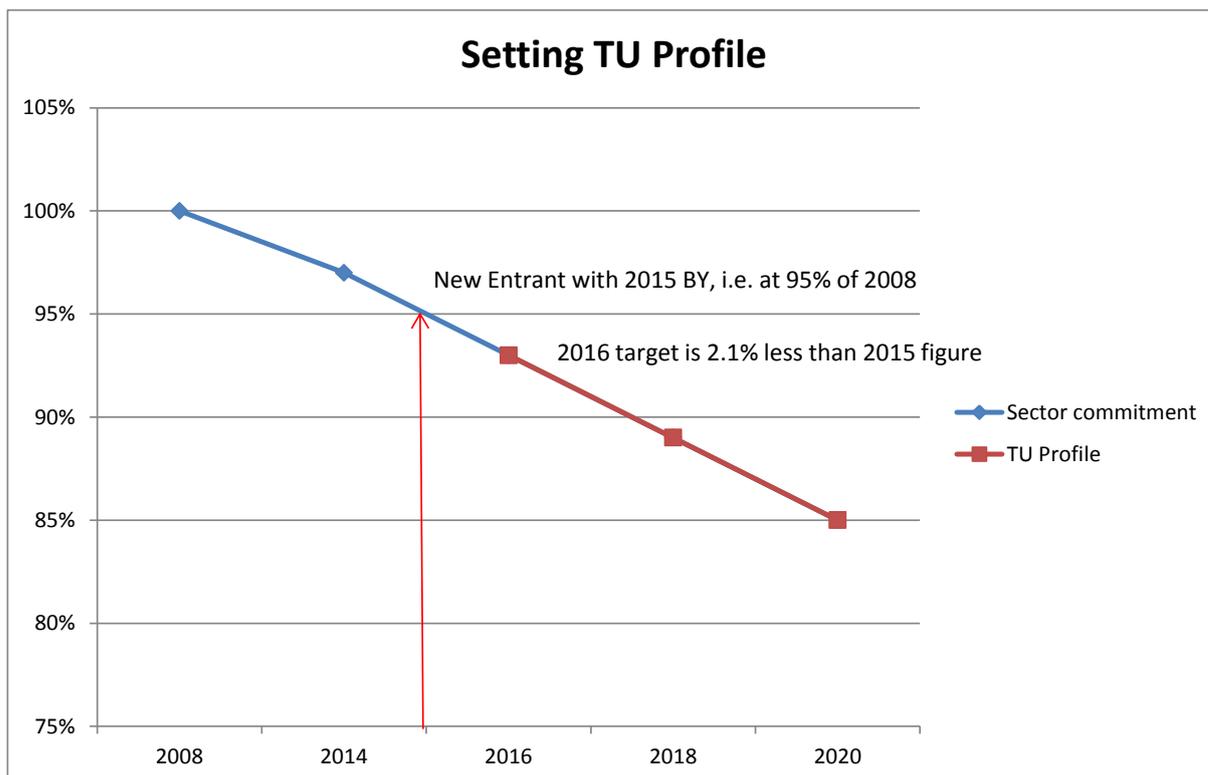
30. Where a facility re-joins the scheme as a target unit having previously left voluntarily or following a termination of the underlying agreement by the administrator, the percentage improvement target awarded to the target unit will be the greater of either the original percentage improvement target for the target unit, or the relevant sector or sub-sector commitment percentage improvement target.

Setting a target profile for new entrants

31. New entrants that have 2008 as a base year will be expected to take the target profile agreed for the sector as a whole whenever it joins the scheme. The target profile is based on reporting performance at the end of each milestone period for each 24 month target period to 2020. An example target profile could be 3% by 2014; 7% by 2016; 11% by 2018; and 15% by 2020. So if a target unit joins in 2017 with a 2008 baseline, they would still be required to achieve a target of 11% by 2018 and 15% by 2020.

32. The target profile for new entrants that do not have 2008 as the base year will be calculated differently. For example, if the new entrant's base year was 2015 we will assume that it had already reached the required savings from 2008 (midway between the 2014 (3%) and 2016 (7%) targets, i.e. 5% savings from 2008, or 95% of 2008 energy consumption). The remaining targets would be calculated by linear interpolation based on this position – so the 2016 target would be $(0.95-0.93)/0.95 = 2.1\%$, the 2018 target $(0.95-0.89)/0.95 = 6.3\%$ and the 2020 target $(0.95-0.85)/0.95 = 10.5\%$.

33. The graph below shows the principle.



34. This process will be followed unless, as a result of applying this, the target calculated for the next target period implies a lower level of performance than the most recent performance available for the new entrant. Using the example in the text above, if the new entrant wishing to join the scheme in 2015, with a 2008 base year, has in the period between 2008 and 2015 achieved a performance improvement of 7%, then the percentage improvement for 2016, with respect to the 2008 base year, will not be 7% because this level of improvement has already been achieved. In this case the percentage improvement target for 2016 is given by:

$1 - [0.93 \times (0.93 / 0.95)] = 1 - 0.9104 = 8.96\%$, where 0.93 is the actual performance in 2015 with respect to the 2008 base year and $(0.93 / 0.95)$ is the ratio of performance implied by the sector commitment between 2015 and 2016.

Deadlines for new entrants

35. Notification of new entrants wishing to join the scheme must happen no less than 2 months before the commencement of the next target period. New entrants cannot be added during the final target period.

Existing facilities eligibility, metering requirements and target setting

Change in eligibility

36. In accordance with rules 3 and 11⁶ where it is identified either in the normal course of business, at the HMRC annual review or during audit, that the energy consumed in the installation has fallen to less than 70% of the total energy consumed on site, the operator must notify the administrator within 20 days of becoming aware that this has occurred. The configuration of the facility will then be amended to reflect the change in eligibility and

⁶ Schedule 1 of the rules for the operation of Climate Change Agreements and the Technical Annex

the numerical target may be adjusted accordingly. Sub-metering must also be installed to gather 12 months of actual consumption data for the newly configured installation, and any additional 3/7th of energy that the operator wishes to include in the facility.

37. This consumption data will be necessary in order to reconstruct the 2008 baseline or where this is not possible, create a new representative baseline. While the sub-metered data is being collected, the energy consumption for the previous 12 month period (or that supplied for the HMRC annual review) will be used to form an estimated reconstruction of the baseline performance for the original base year. This can include the optional 3/7ths where required. To calculate a new numerical target, the original percentage improvement target will be applied to this revised baseline. Once 12 months actual consumption data has been gathered (including the optional 3/7ths where required) the process for reconstructing the baseline performance will be repeated.
38. Where it is identified that the energy consumed in the installation increases to a value equal to or greater than 70% of the total energy consumed at the site, where possible the original baseline will be reconstructed to reflect the new configuration of the CCA facility⁷ and the existing target percentage improvement will be applied to the reconstructed baseline.
39. With regards to the end of target period report, where the change in eligibility is identified in the final 12 months of a target period it will report against the numerical target calculated using the estimated interim baseline that was agreed with the facilitator, on behalf of the Administrator. A revised numerical target will be calculated for future reporting once the full 12 months actual consumption data is available.

Facilities entering and exiting target units

40. The sector or sub-sector percentage commitment will be applied to a new facility or group of facilities entering the scheme with the intention of joining an existing target unit. The baseline of the target unit receiving the new facility or group of facilities will be varied to reflect the addition, and the percentage improvement target will be adjusted to reflect the inclusion of the facility/facilities.
41. In accordance with rules 9 and 10⁸, to ensure that the same sector target percentage improvement and target energy savings are delivered after facilities enter or exit a target unit, the following will apply:
- where a facility leaves a target unit as a result of being sold to a new operator, that facility will take with it the original percentage improvement given to the target unit it has left. The baseline of the target unit it has left will be varied to reflect the loss of the facility and this target unit will retain the same percentage improvement target as before the variation. If the leaving facility joins another target unit, the baseline of the receiving target unit will be varied to reflect the gain of the facility. The percentage improvement target of the receiving target unit will be recalculated to reflect the addition of the facility. If the percentage improvement target given to the facility is different from the percentage improvement target of the receiving target unit, then the percentage improvement target of the receiving target unit will change as a result of this process;

⁷ Installation and optional additional 3/7ths

⁸ Schedule 1 of the rules for the operation of Climate Change Agreements and the Technical Annex

- where a facility leaves a target unit and joins an existing target unit, or continues in the scheme as a target unit in its own right, and the operators of the two target units are the same, the distribution of effort handed down by the operator to the individual facilities in the target unit losing the facility will be maintained. The baseline of both target units will be varied to reflect the loss and inclusion of the facility. In accordance with the bubbling rules⁹, this type of change is only permitted during the data correction window.

42. Consistent with the Technical Annex¹⁰, a stringency test will be carried out on the newly calculated numerical targets, calculated using the methodologies above. Where the newly calculated numerical targets are found not to be stringent, as defined in paragraph 68 of the Technical Annex, an adjustment will be carried out using the methodology outlined in paragraph 69 of the Technical Annex.

43. Where a facility leaves a target unit as a result of closure and is not part of a change of ownership, this will be regarded as an act of rationalisation and the original target unit target and base year performance will be retained.

Change in operator of a target unit

44. Where a facility or group of facilities, operating as a single target unit with no change to the eligibility of the site are subject to a change of operator, the original target unit target and base year performance will be retained.

2016 sector commitment review

45. Sector commitments will be reassessed in 2016 and where appropriate will be adjusted accordingly. Where the sector commitment changes, sector associations will be able to redistribute the target unit targets. The target setting process for any new entrants joining the scheme after the 2016 review should follow the procedures outlined in this guidance.

⁹ http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/LIT_7911_6a1fc4.pdf

¹⁰ <https://www.gov.uk/search?q=climate+change+agreements+technical+annex&tab=government-results>

