

Climate Change Agreements



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What are they?

Climate Change Agreements (CCAs) are voluntary agreements that allow eligible sectors to receive up to a **90% reduction** in the Climate Change Levy (CCL) if they sign up to challenging energy efficient targets agreed with the government.

They offer a **90%** reduction on CCL on electricity and **65%** on other fuels.

CCAs are available for the ten main energy-intensive sectors of industry (aluminium, cement, ceramics, chemicals, food and drink, foundries, glass, non ferrous metals, paper and steel) and over thirty smaller sectors, and in agriculture; livestock units for the intensive rearing of pigs and poultry. As of April 2014 mineralogical or metallurgical processes are exempt from CCL and if participating in the CCA scheme they can choose whether to withdraw from the scheme.

So far:

*A total of **53 industrial sectors** across **9,000 sites** have signed up to the targets*

*The current recent scheme runs from **2013-2023***

Expectations:

*If the sectors meet their targets from **2013-2020** against agreed baselines this would reduce emissions of carbon dioxide by **19 million tonnes***

*Reduce primary energy consumption by approximately **100 TWh***

*Estimated savings to participants on the CCL of **£300 million a year***

There are two types of CCAs

– umbrella agreements and underlying agreements

The Department of Energy and Climate Change (DECC) and industry sectors negotiate umbrella agreements. Together, they agree the energy efficiency targets for the sector – the sector commitment. The agreement is then held between the sector association and the Environment agency (the administrator). Umbrella agreements list the processes that are eligible for CCAs.

An underlying agreement is held by a site, or group of sites, owned by an operator within a particular sector. This contains energy of carbon efficiency targets appropriate for their type of operation. Sector associations manage the underlying agreements for businesses in their sector. An operator that wants to enter into a CCA must apply first to their sector association.

How do CCAs work?

An operator that has a CCA will measure and report its energy use and carbon emissions against agreed targets over four, two-year target periods.

If an operator has several eligible facilities it can hold individual CCAs for each or choose to group them into one CCA. The target would therefore be shared across grouped facilities.

Once a facility, or a group of facilities, has a CCA in place, they are referred to as a target unit.

If the operator meets its targets at the end of each reporting period it continues the scheme and is eligible for the discount on the CCL.

Details on businesses that hold CCAs are published every month for each sector.

Checking your eligibility:

The Environment Agency has produced a summary of processes within each sector that are eligible for a Climate Change Agreements. See Appendix A of the CCA operations manual.

You can download the contact details for sector associations on <https://www.gov.uk/climate-change-agreements--2> and also view the list of the Umbrella Agreements.

Setting up a CCA:

When applying you need to provide information about:

-  *Both the specific facility carrying out your eligible process and the site it is located at*
-  *Any existing or previous CCAs or EU emissions trading system permits, or any environmental permits you have*
-  *Your manufacturing process, including flow maps and site plans*
-  *Other activities directly associated with eligible process that are technically connected and will have an effect on CO₂ emissions*
-  *The amount of energy used by the facility running the eligible process, and by your entire site.*

Setting up a CCA:

Your sector association will check your application/supporting evidence before submitting to the Environment Agency.

Your application and supporting evidence will be reviewed by a technical consultant facilitator who specialises in your sector from the Environment Agency. They will check if you're eligible to hold a CCA.

The EA will email your nominated person with its decision, copying in your administrative contact and sector association. If your application is approved the email will include your CCA. Once you confirm receipt of the CCA by email this is email assent, the agreement comes into force and you will go live on the CCA register. If refused, the EA will explain why.

How much will it cost?

*The annual charge from **1st April 2014** is **£185.00**. This cost is multiplied by the number of facilities included in your agreement.*

*There is **no VAT** to pay.*

The charges apply in full, regardless of whether the CCA is held for part or all of a calendar year.

Payment will be made to your sector association and they will pay the Environment Agency on your behalf.

What are the targets?

The energy efficiency targets vary by sector with Laundries having one of the most stretching targets.

The targets are set out in the CCAs.

Examples of agreements for each sector can be found on

<https://www.gov.uk/government/collections/climate-change-agreements-umbrella-agreements>

Performance figures published 2011

	<i>All sectors excluding Steel</i>		
	<i>Actual (MtCO₂/year)</i>	<i>Target (MtCO₂/year)</i>	<i>Actual minus Target (MtCO₂/year)</i>
<i>Absolute savings from Base Year - Target Period 1</i>	7.0	4.6	2.4
<i>Absolute savings from Base Year - Target Period 2</i>	6.9	3.1	3.8
<i>Absolute savings from Base Year - Target Period 3</i>	9.1	6.4	2.7
<i>Absolute savings from Base Year - Target Period 4</i>	12.1	8.7	3.4
<i>Absolute savings from Base Year - Target Period 5</i>	15.4	13.6	1.7
	<i>Steel Only</i>		
	<i>Actual (MtCO₂/year)</i>	<i>Target (MtCO₂/year)</i>	<i>Actual minus Target (MtCO₂/year)</i>
<i>Absolute savings from Base Year - Target Period 1 (With adjusted target)</i>	9.4	1.4 (7.7)	8.0 (1.7)
<i>Absolute savings from Base Year - Target Period 2 (With adjusted target)</i>	7.6	2.4 (6.1)	5.2 (1.5)
<i>Absolute savings from Base Year - Target Period 3 (With adjusted target)</i>	7.3	2.7 (5.9)	4.6 (1.4)
<i>Absolute savings from Base Year - Target Period 4 (With adjusted target)</i>	8.3	2.4 (7.7)	5.9 (0.6)
<i>Absolute savings from Base Year - Target Period 5 (With adjusted target)</i>	13.1	4.4 (12.2)	8.7 (0.9)

Target not met or exceeded:

If your target unit does not meet its target at the end of the target period you must pay a buy out fee. This will allow you to remain in the CCA scheme and continue to receive the CCL discount in the next target scheme.

*The fee is **£12 per tonne of CO2 emitted** over your target. E.g. exceeding by 1,000 tonnes would mean a buy out fee of £12,000.*

If not paid by the deadline, the Environment Agency will decertify you from the scheme and you won't be eligible for CCL discount. You will also be barred from re-entering the scheme in the next certification period.

If your emissions are lower than your target, the surplus will be converted into equivalent tonnes of CO2 and recorded in the CCA register. This surplus will be used at the end of future reporting periods in case you don't meet your targets.

Advantages:

- *Widespread improvement in energy management systems*
- *Energy efficiency becomes a greater priority among participating firms*
- *If targets are met, discount will be applied to CCL and energy usage will be lower*
- *Both the above mean an overall reduction of energy bills*
- *Participation in the scheme means you don't have to participate in Carbon Reduction Commitment scheme, which is expected to have harder targets.*
- *Performance shows that industries within the scheme have performed well*
- *With so many climate change related levies it helps to reduce increasing costs*

Data Centres:

- *Data centre businesses providing colocation space (both wholesale and retail) are eligible. The definition of the eligible process is where:*
- *The business activity is the leasing or licensing of a data facility which is being used as a data centre, “data centre” means a room, or rooms sharing the same electricity supply circuit, occupied mainly or exclusively by computer equipment which is enabled to transfer data electronically. Where in respect of the room/rooms:*
 - a) the temperature and humidity is regulated in connection with the operation of the computer equipment*
 - b) the electricity supply is at least 200kW*
 - c) electricity is supplied by a back up electricity supply when the mains supply is interrupted.*

Data Centres: What are the targets?

- *The sector target has been agreed as a 15% reduction in PUE by 2020 over a 2011 baseline. Early adopters who already have a low PUE will not be penalised, this sector target has been amortised over the industry based on the application of a universal requirement to reduce non-IT energy by 30%.*
- *Individual site targets will be expressed in terms of a reduction in site PUE over the same period but will depend on how the baseline PUE for that site compares to the baseline PUE for the industry's (which is set at 2)*

Data Centres: What are the targets?

The 30% reduction in non IT power is a clever way of amortising the target fairly over the sector but the individual targets, just like the sector targets, will still be expressed as a required reduction in PUE. Your target reduction will depend on how your baseline PUE compares to the sector average for 2011. So...

If your baseline PUE is	Then YOUR target is	So...your milestones are...	Target end 2014	Target end 2016	Target end 2018	Target end 2020	Your final PUE should be
<i>All figures relate to % reduction in PUE</i>							
1	0%		0	0	0	0	1
1.5	10%		0.68	5.56	9.16	10	1.35
2	15%		1.00	8.33	13.75	15	1.7
2.5	18%		1.20	10.0	16.50	18	2.05
3	20%		1.33	11.1	18.33	20	2.4

-  Sites with higher PUEs will have to make larger reductions than sites with lower baseline PUEs. PUE will be measured on the basis of total energy to site divided by total energy to the IT (similar to the Green grid PUE 2)
-  The targets will be reviewed in 2016 when more sophisticated metrics and standards are likely to be available. The targets are not punitive and are designed to allow growth while encouraging energy efficiency.

Data Centres:

What if you fail to meet the targets?

*Failing to meet targets will mean you have to buy out enough carbon to make up the difference between your target and what you have achieved. There are four target milestone and carbon has to be bought out at each stage if a target is missed. The price is **£12.00 per tonne**.*

*The below table shows the impact of buying out carbon for a Data Centre with an annual power use of **10,000Mwh**, equating to an annual energy bill or around **£1m**.*

Illustrating buy-out costs

Here are some scenarios illustrating the difference between the benefits per two year target period and the buy-out costs if you fail to meet your two year targets. Annual CRC exemption and CCL rebate benefits are shown, plus total benefits for each two year target period (annual CRC and CCL benefits are added together and multiplied by 2). These two year totals need to be set against the total buy-out costs for each period. The scenarios show the impacts of no improvement is made but the individual figures work if you fail to make progress in a single period. Be aware, however, that the first period (to end of 2014) is already well underway so the benefits will not be for the full two years and instead must be calculated pro-rata from the time you join the scheme.

Energy use and % target PUE reduction	Tonnes CO2 emitted	CRC avoided annual	CCL rebate annual	Total benefit/ 2 year target period	Scenario	Total buy out costs 1st 2 yr target period (end 2014)	Total buy out costs 2nd 2 yr target period (end 2016)	Total buy out costs 3rd 2 yr target period (end 2018)	Total buy out costs 4th 2 yr target period (end 2020)
10,000MWh Target 10%	5210	£86,560	£48,690	£270,500	Zero Improvement	£847	£6,946	£11,460	£12,504
10,000MWh Target 15%	5210	£86,560	£48,690	£270,500	Zero Improvement	£1,250	£10,416	£17,068	£18,756
10,000MWh Target 20%	5210	£86,560	£48,690	£270,500	Zero Improvement	£1,667	£13,893	£22,924	£25,008

Based on CRC priced at £16 per tonne, CCL at .524p per KWh (rebate at 0.487p)

Data Centres:

What are the timescales?

- The CCA for data centres became law on 1st July 2014. The targets were agreed on 14th July and you can now register for the scheme. Each application is checked by Tech UK and approved by the environment agency. Once approved, the EA issue an Underlying agreement (individual agreement for each participant) and as soon as the participant assents to the agreement the scheme starts and tax rebate/CRC exemptions can be claimed. Tech UK anticipate that companies who have already registered will be claiming their rebates some point in August.

Data Centres: How do you sign up?

Contact the Tech UK helpline to check your eligibility. Energy data will need to be checked to see if it is fit for purpose and you can demonstrate that you have at least 12 months auditable PUE data for each site.

The contact details are:

Name: Emma Fryer

Tel: 02073312160

Email: Emma.Fryer@techUK.org

Address: 10 St Bride Street, London, EC4A 4AD

Website: <http://www.techuk.org/about-the-cca>

Disadvantages:

-  *Cost to be involved in the scheme*
-  *Buy out fee to pay when targets aren't met, barred from next scheme if under perform*
-  *Targets considered to be challenging (although performance figures show success)*

Useful links:

[*https://www.gov.uk/climate-change-agreements--2*](https://www.gov.uk/climate-change-agreements--2)

[*https://www.gov.uk/government/collections/climate-change-agreements-reduced-rate-certificates*](https://www.gov.uk/government/collections/climate-change-agreements-reduced-rate-certificates)

[*https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/290177/LIT_8176_181205.pdf*](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/290177/LIT_8176_181205.pdf)

[*https://www.gov.uk/government/collections/climate-change-agreements-umbrella-agreements*](https://www.gov.uk/government/collections/climate-change-agreements-umbrella-agreements)