techUK

Climate Change Agreement
Consultation on scheme extension and future reforms
techUK response: Data Centres (DATC)

June 2020

Introduction

techUK is the UK trade body for the digital technology industry and we administer the Climate Change Agreement for the UK's data centre sector. Over 170 data centre sites currently participate in the scheme, which provides much-needed support, helping to level the playing field on energy costs between the UK and other markets, and boosting investor confidence. We were delighted with the decision to extend the scheme and to reopen it to new participants. This is particularly welcome because our sector is growing and the premature closure placed new entrants to the market at a disadvantage and generated uncertainty.

Although it is not mentioned in the consultation, the impacts of COVID-19 need to be acknowledged and accommodated. We are living in extraordinary times and business as usual rules may no longer be appropriate. We are very concerned that businesses already struggling will face heavy buyouts at the end of 2020 and these will reflect the business environment, not energy efficiency performance. We think that government should review the effect of COVID-19 on the ability of participants to meet current targets as well as longer term consequences.

We have set out our answers to the questions below but if further information is needed, please do not hesitate to get in touch. There are links to our formal reports on our sector progress against targets at the end of this response.

1 Do you agree with the proposed dates for the target and certification periods?

Yes.

2 How would these dates effect you and/or businesses within your sector?

These dates would not be problematic.

3 Do you agree with the proposal to maintain the current scheme eligibility criteria?

Yes, if the purpose of the scheme is primarily to protect energy intensive sectors. However, recent communications seem to have reinterpreted the scope and intention of the CCA as an energy efficiency scheme. The primary objective of the CCA was to protect UK business competitiveness from unilaterally high energy costs and incentivise investment (see below). While improved energy efficiency was an important condition, it was not the primary aim.

If, however, carbon savings are prioritised then we would suggest expanding scope to include enterprise (in-house/non-commercial) data centres as this would drive energy stewardship, improved efficiency, transparency, benchmarking and accountability within the part of the sector that is currently ineligible for the scheme but where there is potential for significant energy savings.

4 Do you agree that we should re-open the extended scheme to allow new entrants to join existing sector agreements?
Yes.

5 If so, do you agree with the process for enabling this?
No, we strongly disagree with the process, which is subject to multiple shortcomings:

The timing for new entrants is unfeasible: many data centre operators with new, eligible sites cannot divert resources to complete the application process at the speed required: COVID-19 response for data centres includes stepping up activities like "smart hands" which in real terms means the operators perform servicing and other activities on behalf of customers so that the latter do not need to visit sites. This minimises footfall and routes for infection but increases the operational workload. Managerial workload is also very heavy at present, developing and implementing new measures and working around restrictions whilst often dealing with increased demand for customer services. There are also multiple restrictions on non-essential inspections and audits, and on movement between sites. For more on the actions and precautions that operators have been taking see our COVID-19 dossier here or see our information hub: https://www.techuk.org/covid-19-information-hub/data_centres

The unfeasibly short window is likely to prevent new entrants to the market from participating and will place them at a competitive disadvantage to existing players.

6 Do you agree with the proposal to use calendar year 2018 for the target baseline?
No, this makes no sense and adds pointless complexity. For data centres the baseline was 2011. Changing the baseline entails significant administrative burden. We propose that the original baseline of 2011 is retained. None of our operators argued for changes to the baseline and we are not aware of participants from other sectors raising issues, so we are unsure where the claim that sectors had asked for a later baseline originated.

7 Do you agree with process as set out for agreeing sectoral targets?
No. We consider the process as set out is not only inappropriate but demonstrates a poor understanding of the mechanics of the scheme. CCA targets are, and should remain, sector specific: no two sectors are alike and a bespoke target appropriate to circumstances - challenging but achievable - is an important incentive for energy stewardship and investment. An arbitrary target is not.

Each sector already has a sector specific target which was negotiated between the sector and Government in 2012/13. We do not understand why these could not have been extended to 2022. We would support the process of proposing a target based on existing target trajectory and then allowing sectors to submit a counterproposal.

8 Do you agree with the proposal that surplus should not be brought forward for use in the added target period?

No, companies that have made major investments and have delivered more savings than the target required will be unfairly penalised. In particular this will discourage those operators that have made commitments to larger, costly projects with longer term payback – which is one of the biggest challenges that schemes like this have to overcome.

9 Do you agree with the proposal to increase the buy-out price to £18/tCO2e?

No. Some operators will struggle to meet their target; not because they have failed to implement efficiency measures but because of their business model. There were some very large buyouts at the end of the previous period and these fell disproportionately upon operators with mature facilities and more traditional business models. This is likely to happen again, only the impact will be more pronounced if the buy-out charge increases. In particular, those servicing traditional enterprise customers are facing reduced customer demand as a result of COVID-19, whilst restrictions under the pandemic will have limited their ability to attract new customers. Operators in this position will fail to meet their targets. This has nothing to do with efficiency.

10 What would the financial and operational impacts be of this buy-out change to you and/or businesses within your sector?

Increasing the buy-out costs seems counter-intuitive at this time. The impacts will vary because some operators will not pay buyout, but will include:

Distraction from core business: in general our operators will be intensely focused either on COVID-19 response and recovery. For some, the priority will be business survival which may involve a change to their operational model to attract a different customer base. For others, where there has been a surge in demand, they are focused on ensuring capacity is available to meet customer demand. All operators have to deal with maintenance and construction backlogs. Investment in energy efficiency projects is unlikely to be top priority during this time, when the focus will be on business continuity and resilience. This means that additional buyout costs could distract resource from these more important priorities.

Financial burden: operators may have to pay buyouts because they are too preoccupied with ensuring the continued resilience of the UK's data infrastructure to focus on energy. This is a bit like giving parking tickets to nurses doing overtime. COVID-19 has underlined just how dependent we are on data centres, a fact that was recognised by DCMS who negotiated key worker status for staff and stood up a specialist team for the sector.

Customer distress: Many operators are having to accommodate customers in financial distress and this will inevitably impact their ability to make investments – or alternatively to provide favourable or extended terms. Some are expediting payment or providing other means of support to sub-contractors in financial distress in order to maintain the integrity of their supply chain. It is a bad moment to be adding cost.

Investment priorities: over the next couple of years energy efficiency investment will have to take second place to dealing with business recovery from COVID-19 and accommodating the uncertainties of Brexit.

Erosion of funding pot for efficiency investment: Accrued cash can only be spent once: if it is used up paying buyout fees then it cannot be available to invest in efficiency measures.

11 Do you agree with the proposal to increase the financial penalty price in line with the buy-out cost per tCO2e for the appropriate target period?

We do not agree with the new buyout but we would agree that the penalty should be in line with whatever buyout is applicable.

12 Do you agree with the proposal to maintain other scheme rules and processes for the purpose of this extension?

Yes, except for closing the scheme during the final period as this makes the application window hopelessly short for operators. If a 2018 base year is adopted this will require new agreements. Operators should then be allowed to make additional changes, for instance bubble sites that were not previously bubbled.

13 Do you agree with the proposed timeline for the target setting and agreement variation process?

No: the windows for submitting new entrant applications and also for the target counterproposal are wholly inadequate. Operators are in recovery mode and most will find it difficult, if not impossible, to meet these deadlines. The proposal smacks of the "*Beware of the Leopard*" scene from *The Hitchhiker's Guide to the Galaxy* and even the shortest period of reflection should suggest that reopening a scheme and then ensuring that it is impossible for new participants to join is no way to support energy intensive industries and certainly runs counter to the excellent support being given by Treasury to aid economic recovery elsewhere. To an objective reviewer this proposal risks appearing at best, straight from *Yes, Minister,* and at worst, deranged.

We appreciate the Government wants the new agreements issued before the 5th target period starts, but there is no reason why agreements cannot be revised to cope with new sites joining after the target period starts (Schedule 1, Clauses 9.5 and 9.7 of both the Umbrella and Underlying Agreements). If such a change is made then it is feasible for new sites to join and for target negotiations to be concluded during 2021.

14 How would the proposed timeline affect you and/or businesses within your sector?

The proposed timeline is a barrier to entry, is frustrating and unhelpful. Our businesses are flat out dealing with COVID-19 response and recovery. Operators have critical infrastructure to run, under extremely difficult circumstances. They are not in a position to negotiate detailed targets or ponder future projections, partly because current demands on staff will not allow it and secondly because they have no idea how the pandemic will affect their future business, or in some cases, whether there will be a future business to set a target for. The proposals need to recognise that market and operational conditions bear no relation to business as usual and are unlikely to do so for some time.

15 What are your views on the eligibility criteria for sectors and operators to join any future CCA scheme?

See our comments below. CCAs make a material difference so we would propose expanding the eligibility criteria to include enterprise sites and energy intensive sectors that contribute to critical national infrastructure and/or have significant growth potential.

16 Is the previously used energy intensity and trade intensity criteria a suitable method for determining eligibility for sectors in the future?

Yes and no.

Energy intensity: the energy intensity metric does provide a relatively simple indication of the importance of energy costs but may not reveal the sensitivity of an organisation to energy price fluctuations which will also depend on things like profit margin and where their competitors are based.

Trade intensity: the current trade intensity criterion (see below) is dysfunctional. Data is the most mobile commodity on earth and very vulnerable to offshoring and carbon leakage, but because data cannot be weighed or counted on shelves the sector cannot be assessed and the metric fails.

Criticality and growth potential: We think that two other criteria are needed: firstly the criticality of an industry and secondly its growth potential. These should factor in some way in the assessment criteria for measures of support. (see below)

17 Would an energy intensity test at facility level be a suitable method, in part, for determining eligibility for a future scheme?

No. This would create enormous complexity for operators with multiple sites. Workloads may be moved between sites and therefore these figures would change constantly.

18 What changes could be made to drive more savings from those sectors the evaluation found to be delivering less than energy-intensive sectors?

N/A: data centres are energy intensive and have achieved over 16% improvement so we are not in a position to comment.

19 How could targets be set to enable greater levels of additional carbon savings from a longer-term scheme?

As mentioned above, the CCA scheme was implemented to meet two objectives: protecting the competitiveness of energy intensive industries after the introduction of the CCL, and secondly to incentivise investment in efficiency. However, additional carbon savings could be achieved by the following modifications:

Carbon and renewables: Companies do not hold separate budgets for carbon savings and energy efficiency: these projects are funded from one source. So the next CCA scheme should move to carbon targets and encourage companies to implement a wider spectrum of carbon and energy reduction projects. A future CCA also needs to accommodate renewables, not just the purchase of certified renewable power but it needs to recognise activity that contributes to additional generation, through technologies like fuel cells, via onsite generation or power purchase agreements (adding onsite generating capacity to existing data centre facilities is frequently impractical).

Payback: Operators need the CCA scheme to provide sufficient signals of support to enable high cost, longer payback projects to deliver acceptable ROI to go ahead. For instance, operators are currently conducting R&D into fuel cells and battery storage and if these technologies are to be adopted rapidly, financial assistance to help free up the supply chain may be necessary.

Variable rebate: The rebate could be varied to match the potential savings available in a given period.

Long term policy stability: Many sites in our sector are owned by international companies with European-wide or global operations. Investment and expansion decisions are made at this level and energy cost is a major factor. Operators need long term commitment from government to provide stability and predictability for investment decisions.

20 What maximum payback should be considered for technologies in scope for target setting for a longer-term scheme?

Two years. Everybody, including government, knows that companies will only implement projects with an ROI of two years or less. If the payback period is to be extended then the degree to which that can be achieved will be dictated by the support available.

21 Which technologies should be considered in setting longer-term targets?

Within data centres there is a wide array of proven technologies with different paybacks, but the key priority is to take a system approach. This is a very detailed area and we would be happy to organise a workshop or other forum for information exchange on relevant technologies in this space.

22 For any potential longer-term CCA scheme beyond this extension, what other changes would you like to be considered?

Accommodate criticality in eligibility criteria: World class data infrastructure is critical for our economic wellbeing and also, as clearly revealed over the last few months, is absolutely essential in terms of national resilience. So far there have been no UK data centre outages attributable to COVID-19 and the sector has underpinned not just the continued provision of digital services, but everything from government communications to supermarket logistics. The collective move to Zoom and other online collaboration tools relies on data centres, along with a myriad of other activities that have enabled at least part of our economy to keep going. This critical infrastructure is run by commercial entities who have to compete in the real world: we need to ensure that UK capacity remains sufficient to support our future needs.

Accommodate growth potential: the CCA scheme has occasionally been criticised as a means to delay the inevitable for declining industries. This is too simplistic a view because in supporting mature industries government is also supporting complex supply chains. However, factory closures result in political exposure whilst missed growth opportunities, such as a data centre that is never built, do not. The CCA presents a perfect opportunity to foster growth industries and digital infrastructure is unlikely to be the only candidate.

Expand definition of eligible data centre facility: As mentioned above, expanding the definition of the eligible data centre facility to include enterprise data centre operations (which would not usually pass the energy intensity criterion) would provide two significant benefits:

- Firstly, carbon savings: we believe that as much as 2TWh of power is wasted annually in enterprise facilities, especially in distributed IT and small server rooms. The CCA provides a means to identify and address waste in this part of the sector.
- Secondly, energy data: one significant benefit of the CCA has been the high quality of energy data that it has generated at sector level. Almost all eligible commercial sites participate so we have robust, audited consumption data for the commercial sector.

However, this only provides part of the picture and expanding the scheme to enterprise operators would enable robust data to be produced on the whole UK sector. This in turn would provide a vital benchmark, especially when we are trying to track the movement of activity and associated energy flows within the sector, for instance when consolidating distributed IT into commercial facilities, and would help to inform future policy.

Sensible metrics: we would like to see metrics in line with modern business realities. The current criteria seem to be modelled on nineteenth century economic structures. Tradability for instance relates to the proportion of imported products on retailers' shelves compared to those produced domestically. Data is not like shoes and this metric cannot be meaningfully applied within our sector. In such circumstances, the metric should be deemed inadequate rather than the sector being excluded for "failing" to meet it.

Stringency test: we do not believe that the stringency test should be applied when a company changes ownership because it is anticompetitive. It should not be applied for administrative reasons. However, we understand why the stringency test is applied when a site joins a CCA late.

Bubbling: data centre operators run multiple sites as a single operation and do not have different savings strategies or budgets for each site. We therefore need to maintain the option for operators to group sites together – bubbling – into target units so that they can take a strategic approach to investments, for instance, targeting major refits where most needed within their portfolio of sites rather than having to do smaller, piecemeal changes across the board.

Further reading

- CCA first findings report: https://www.techuk.org/insights/reports/item/2773-climate-change-agreement-for-data-centres
- CCA Report against first target: https://www.techuk.org/images/CCA_First_Target_Report_final.pdf
- CCA Report of progress against second target: https://www.techuk.org/images/CCA_Second_Target_Report_04.pdf

Contacts

- For more on our data centre programme see: techUK data centre programme: https://www.techuk.org/focus/programmes/data-centres
- Data centre programme overviews, 2019 overview and 2020 Q1 overview

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