EU ETS Phase IV / The Future of Carbon Pricing in the UK
techUK response to the 2019 consultation

July 2019

We are pleased to have the opportunity to provide input to this consultation. We were also grateful to be included in the HMT/BEIS round tables earlier this year to discuss the future of carbon pricing which were extremely useful and we would also like to thank the BEIS and HMT officials who attended our sector meeting on 21st June, another constructive interaction. Sitting at the fringes of ETS as we do, these were instructive in clarifying elements of the scheme unfamiliar to us and the respective roles of UK and EU policy makers.

techUK represents the UK data centre sector, an electro-intensive, growing and economically valuable modern industry. Our digital economy and our highly networked society rely on data and connectivity being managed securely and efficiently.

Our sector is a real success story, is globally important and underpins a fast-growing internet economy worth over £225 billion[1]. Data centres enable a digital sector that accounts for 16% of domestic output, 10% of employment and 24% of total UK exports[2]. Each new data centre contributes between £397 M and £436 M GVA per year to the UK economy[3]. The contribution of each existing data centre is estimated to lie between £291 M and £320 M per annum.

Data centres provide the technical infrastructure for financial services, aerospace, transport, healthcare, retail, utilities, government services, education and research. Data centres are where our industrial strategy meets our digital strategy.

Data Centres and ETS

The data centre sector is characterised, perhaps uniquely, by high installed generating capacity and minimal activity. Despite negligible scope 1 emissions, a number of UK data centres are obliged under EU ETS. Operators do not trade allowances: they cannot predict in advance how many they need, because generator running is dictated by external factors related to grid supply and stability, so have to purchase allowances at market rate. There is no scope for implementing efficiency measures – the generators must be tested and maintained. If there is an emergency they must run.

Other nation states have explicitly or implicitly placed such plant out of scope of ETS and we believe that the UK should make sector-specific concessions to address those instances where installations are not the target of the legislation and where implementing ETS delivers no policy outcome.

Only limited elements of the consultation are relevant to data centre operators. These are

a) the proposals for simplified MRV and
b) the proposals for implementing the provisions of Article 27A.

We have therefore answered Question 34 and Questions 65-74.

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[1] Boston Consulting Group 2013, The 4.2 Trillion Opportunity: The Internet Economy in the G-20

[2] Frontier Economics 2017: The UK Digital Sectors After Brexit: https://www.techuk.org/insights/news/item/10086-the-uk-digital-sectors-after-brexit

[3] https://digitalrealty.box.com/s/bserfy44rne36jxupnnnirdcbwdcvp7f

Monitoring, Reporting and Validation

Q34

a) Do you agree with any (or all) of the proposals for MRV simplification in a UK ETS? (Y/N)

No

b) Do you agree to those proposals that would also apply to a Carbon Tax? (Y/N)

No – the same reservations apply to a carbon tax

c) ***Please expand on your answers, providing supporting evidence where possible***

Re point 126: Aggregating source streams for reporting: we believe that the same *de minimus* should be applied for aggregating small streams for the main scheme and the low emitters opt out and that in both cases it should be 1000 tonnes. A number of our operators will find themselves obliged under the full scheme because the scope is inappropriate, and this will primarily affect new and growing sites. It is unlikely that scope 1 emissions for these sites will exceed 1000 tonnes and aggregating at this level would reduce the (already significant) compliance burden for these installations. It would be instructive to see a calculation of the percentage of total emissions that a 1000 tonne threshold would represent. Moreover, these emissions are still being reported, just not segregated.

Re point 129: Frequency of improvement reporting: for installations purely used to provide business continuity there is no scope for improvement: operators still need to test and maintain plant, and if there is an emergency they will be run until the power supply is restored, so such measures should be waived as they are irrelevant.

Re point 131: Simplification of monitoring: The UK urgently needs to implement simplified monitoring and issue some broad criteria to identify which installations could be considered simple emitters. We would suggest the following:

- Ultra-Low emitters – not because their emissions are simple but because they are too low to justify detailed reporting, which makes no material contribution to policy objectives.
- Source streams that are negligible should be exempted from monitoring and reporting by the application of a *de minimus* threshold – a 10t limit might be appropriate, but a lower threshold would also be acceptable. We have evidence that data centre operators have to report gas used as fuel in staff kitchens and in maintenance equipment, down to single gas canisters for oxy-fuel welding. This serves no practical purpose.

The UK data centre sector has already agreed with the Environment Agency a streamlined approach to accounting for fuel use in generators. Provided emissions are below 1000t annually, operators are allowed to calculate fuel use. In reality this is far more accurate than trying to measure fuel consumption in large tanks. The relevant factors are generator capacity, run time and load. Fuel invoices can be provided if additional evidence is needed. Calculating emissions from fuel consumption is then a simple case of applying the relevant conversion factor. See our guidance note: https://www.techuk.org/images/Note_04d_Measuring_fuel_to_your_generators.pdf

See also:

- Emergency generation in data centres: https://www.techuk.org/images/techUK_TechCttee_Briefing_Emergency_Generation_1701.pdf
- Sector position on Phase III ETS: http://www.techuk.org/images/techUK_DCC_Com_1602_EU_ETS.pdf

Article 27A

65 a) Do you support the proposed implementation of an Article 27a exemption scheme, as a proportionate measure to simplify the scheme and reduce administrative burdens for installations with very low emissions? (Y / N) b) Please expand on your answer and give evidence where possible.

Yes, we support the implementation of an Article 27a exemption scheme for ultra-low emitters. We are also very pleased to see that no generating capacity threshold has been imposed, since our sector is characterised by high capacity and very low activity. Obviously, we would prefer an approach that simply places such installations out of scope of EU ETS, since their contribution to carbon emissions is negligible, they add no liquidity to the scheme because they do not trade allowances and applying EU ETS to them delivers no policy outcome. In Germany this is enshrined in domestic law: "*generators larger than 3 MW only deployed to ensure security of supply (as in data centers), are explicitly exempt even if their cumulative capacity reaches 20 MW. The obvious reason for this exemption is that they hardly ever run.*"

While we accept that in a linked ETS the UK must remain in line with the provisions of the Directive, should the UK implement a standalone scheme then we would advocate very strongly for the complete exclusion of ultra-low emitters. In such a scenario we agree with other sectors that the threshold for exclusion from the scheme should be much higher, at 25,000 or 50,000 tonnes. This would remove 57% or 70% of installations but only 2.5% or 5% of emissions respectively. In a standalone scheme we would also like to see new entrants assessed on the basis of their first year of emissions, so they can be exempted if appropriate rather than having to spend years obliged under ETS in its full glory. We accept that generator farms established to provide balancing services may need to be explicitly excluded from this exemption to avoid market distortion.

66: Are you responding on behalf of an installation that emitted less than 2,500t CO2eq annually in the years 2016, 2017 and 2018? (Y / N)

Yes, we are responding on behalf of over 20 installations emitting less than 2,500 tonnes. Most of our sites emit less than 100 tonnes in any given year.

67 a) Do you agree with the process outlined for an installation's entry onto the Article 27a scheme? (Y/N) b) Please expand on your answer and give evidence where possible.

No. The requirement to provide three years of verified data in order to be exempt from having to submit verified data is illogical. However, the critical issue is that our sector is growing rapidly. Installations have reached the threshold for EU ETS within the last three years and will therefore not have three years of verified data, despite being some of the smallest emitters in the scheme. New sites will reach the threshold during Phase IV and will have to participate in the full scheme until its end. We understand and appreciate that BEIS will try to include bona fide ultra-low emitters with incomplete data in the list of candidate sites under Article 27a.

68 a) Do you agree with the UK Government's and the Devolved Administrations proposed approach to penalising operators who exceed the emissions threshold and do not report, including the timelines for notification and other administrative issues? (Y / N) b) Please expand on your answer and give evidence where possible.

Yes, in principle. We support proportionate penalties that discourage non-compliance.

69: a) Do you agree that operators entering the Article 27a Scheme should declare a preference for what should happen should they exceed the emissions threshold, to enable them to enter the Article 27 Scheme if necessary? (Y / N) b) Please expand on your answer and give evidence where possible.

Yes, in principle. However, in practice it is not straightforward. Many of our sites will not qualify for Article 27 because the generating capacity is too high, although emissions are negligible. Secondly, we are particularly concerned that operators might be forced to run generators more frequently than usual as a consequence of grid instability or power shortages resulting from Brexit. This might result in uncharacteristic emission profiles for a limited period. Under normal circumstances it is unlikely that any of our installations will exceed the threshold in any given year, but we believe that provision should be made for exceptional circumstances affecting grid supply, and that exceedances for this reason should be treated differently and not immediately force a facility to be obliged under the full scheme.

70: a) Are there further simplifications that could be made for Phase IV Article 27a Scheme participants, respecting the provisions established by the EU ETS Directive? (Y / N) b) Please expand on your answer and give evidence where possible.

Difficult to say: Operators appear to be struggling to distinguish those requirements imposed by the Directive and those proposed for UK implementation. However, we are happy to discuss further.

71: a) Do you agree with the proposed approach to not implement the Article 27a provision on reserve or backup generators? (Y / N) b) Please expand on your answer and give evidence where possible.

No: In principle we agree that thresholds should be based on carbon emissions since this is a carbon scheme. We agree that it is possible to exceed the 2,500-tonne limit whilst remaining below the 300 hours limit and that such exceedances can in theory be significant. We agree that aggregating generator run hours in a consistent manner is problematic. However, we take issue with the logic of some of the points of reasoning and we believe that up to 300 hours running should be allowed under specific circumstances.

Accounting for generator run hours consistently is not in itself challenging. It has become problematic due to the plethora of different approaches to aggregation currently promulgated in different pieces of government legislation. MCPD and SGC aggregate run hours differently and just to increase the confusion, the Environment Agency has recently started to move the goalposts on the way they aggregate run hours for the purpose of enforcement. This needs to change, and if legislators and enforcers were more consistent in their approach this problem would not persist.

Generator operating time can be reported robustly and verified. The generators themselves log run hours, maintenance regimes record run hours, emergency running episodes are recorded and fuel consumption audits can provide additional supporting evidence. Accounting for run hours of individual plant in a robust and auditable fashion is perfectly feasible.

The lack of definition for a reserve or back up unit is indeed problematic as some such units are deployed within the capacity market. However, clear definitions have been developed for other pieces of legislation such as MCPD and SGC that define back-up generators eligible for exemptions as defined as those used to provide business continuity in the event of grid instability, allowing some provision for testing and maintenance. Plant engaged in balancing services or reserve supply would only be eligible for Article 27a if emissions remained below 2,500 tonnes.
In the data centre sector we have documented clearly what constitutes emergency generation: see: https://www.techuk.org/images/techUK_TechCttee_Briefing_Emergency_Generation_1701.pdf

Under normal circumstances, a 2,500-tonne limit would be adequate for data centres. However, the current political situation is nothing like normal. Every aspect of business planning is currently subject to considerable uncertainty and energy supply is no exception. A no deal Brexit will change our electricity trading relationship with the rest of Europe, and it is conceivable that, timed at the

end of October, there could be unforeseen perturbations in supply. Grid failures could be the result of lack of generating capacity or, more likely, delays in repairing or replacing failed equipment within the distribution network, in turn due to delays or constraints on imports. It would be extremely unfortunate if installations are obliged to exceed the 2,500-tonne allowance because they are forced to run their generators for business continuity purposes due to external political developments. Such installations would then be obliged under the full scheme for the remainder of phase IV. Since this situation is more likely to apply to larger sites, they would not be eligible for low emitter opt-out under Article 27 due to the capacity limit – many are above the 35MWth limit.

We propose that, to avoid unintended consequences, an operating limit of 300 hours per unit be applied to specific sectors only and/or under strict conditions.

- To avoid significant exceedances, government takes a sector specific approach. Existing, validated ETS data should identify industry sectors where usual operation emits less than 2,500 tonnes per installation.

- We propose that the 300-hour limit is applied per unit only when those units are providing emergency supply for purposes of business continuity, including an allowance for testing and maintenance.

- The 300-hour limit could be applied as a fall-back measure only, if the 2,500-tonne limit is breached by an installation that has qualified as an ultra-low emitter on the basis of verified emissions data. In other words, the 300-hour limit would not be part of the eligibility criteria for being classified as an ultra-low emitter but once classified, installations can make use of the additional running hours in exceptional circumstances. This prevents large emitters exploiting the scheme but protects genuine low emitters from events beyond their control.

72: a) Assuming you are in scope, would you choose to take advantage of the proposed Article 27a scheme for Phase IV? (Y / N / not in scope) b) Please expand on your answer and give evidence where possible.

Yes. Article 27a removes the most painful and pointless requirements of EU ETS, such as permitting, buying allowances, dealing with ETSWAP.

73: a) Do you agree to the proposed use of penalties for implementing Article 27a? (Y / N) b) Please expand on your answer and give evidence where possible.

Broadly, yes. We support a proportionate approach that encourages compliance.

74: Do you have any general comments on the proposed UK Phase IV Article 27a Scheme, not captured by the previous questions?

Yes. EU ETS is a trading scheme and should be restricted to those installations in a position to trade. Since, for emergency plant, there is no scope to reduce emissions, the marginal cost of carbon abatement exceeds £500,000 per tonne. There is no justification for policy intervention on this basis. Moreover, the scheme creates a perverse incentive for operators to configure their generator array in favour of larger numbers of smaller plant in order to remain below the threshold.

There are also issues of principle: at the moment we have a scheme where the scope is set incorrectly and fails to accommodate current business models. This is at odds with most other regulatory approaches. For example, we don't assume for the purposes of car tax that everyone has a car. We do not require everyone who doesn't have a car to provide detailed, third party accredited, verified proof that they have not had a car for the last three years. We assume that everyone who has a car will pay car tax and then we penalise those who have failed to do so.

Unfortunately, as a costly policy instrument that delivers no benefit when applied to data centres, EU ETS is not alone. Data centres are currently obliged under multiple instruments despite not being the target for any of them: IED is also predicated around generator capacity rather than actual impact. Heat Network (metering and billing) regulation is another example. There are many more. Even legislation that is relevant, such as MCPD and Energy Efficiency Directive Art 8 (ESOS) is implemented in the UK in a more onerous way: MCPD is accompanied by Specified Generator Controls, a piece of unilateral legislation put in place purely to correct an earlier policy failure regarding contracts for difference. This punishes legitimate operators. ESOS implemented in the UK is gold plated compared to other EU nation states.

The result is a plethora of burdensome and costly regulations that deliver no policy outcome but render the UK sector less competitive than its counterparts overseas. The UK data centre sector supports ambitious targets and would also support targets that exceed those of other nation states. What we do not support are multiple, duplicative, complex and contradictory legislative instruments that suck up resource so that effort and finance is consumed by the exercise of demonstrating compliance rather than actually doing the right thing.

See:

- Compliance Healthcheck for Data Centres, demonstrating multiple, duplicative and costly legislative instruments: https://www.techuk.org/insights/news/item/11707-data-centre-compliance-health-check-november-2017
- Cones of Pain: Generator Emissions Compliance Roadmap: complexity of policy instruments, none of which are targeted at data centres but all of which apply to the sector: https://www.techuk.org/images/generator_emissions_roadmap_FINAL.pdf
- MCPD and SGC Guidance: demonstrating the UK's tendency to add bells and whistles to a relatively straightforward piece of legislation: https://www.techuk.org/insights/news/item/14335-mcpd-and-sgc-guidance-for-data-centre-operators

Further reading

- Ten Myths About Data Centres: https://www.techuk.org/insights/news/item/15255-ten-myths-about-data-centres

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