

During quarter two, Brexit-related anxiety increased markedly among operators, especially smaller players, as the period of uncertainty has been extended yet again and looks set to impose more planning and contract blight across the UK sector at least in the short term. We got bogged down in detail again on EU ETS and other generator compliance issues: it is truly astonishing how disproportionately our resources are consumed by equipment that hardly ever runs. We also reviewed issues relating to IED and ended up with a long catalogue of shortcomings in the permitting process. Now we have to decide how and where to broach these in Government. We ran a useful workshop with government and media companies on how to go about attributing carbon to cloud services and we held a sector meeting with BEIS to discuss the future of carbon pricing in the UK.

Outputs this quarter included two pieces on 5G and data centres, an opinion on data centre energy consumption and our own version of Ten Myths About Data Centres. We also produced guidance for operators on how to position themselves correctly for exemption from the next phase of EU ETS, along with a number of policy positions on the same topic. We submitted an informal response to BEIS on their proposals for an Industrial Energy Transformation Fund, where we told them that they were barking up the wrong tree. We also commented on some surprising results from a member survey of sector attitudes to standards. We were again invited to judge the Datacloud Awards and so we posted a piece on how to impress the judges, just in time for the prizegiving. It was good to see so many techUK members on the shortlist: our operators are clearly doing the right things!

In terms of platforms, we spoke at a Commonwealth Leaders Summit about leadership, at a standards event to explain data centre standards, and headed up to Lulea as the international speaker at a jubilee event to mark the 100-year anniversary of the Royal Swedish Academy of Engineering and Science, where we gave a potted history of the sector. We also took the opportunity to visit the RI.SE facility while we were in town, and took away some very interesting learning points for the UK.

Looking ahead, we hope to finalise our briefing paper on Attributing Carbon to Data Centre and Cloud Services, persuade enough members to fill in the skills shortage survey to allow us to publish some meaningful insights on the subject and develop our an energy roadmap for the sector.

### ***Topics covered this quarter include:***

#### **Tissues and Issues**

1. [Brexit](#)
2. [CCA Evaluation by BEIS](#)
3. [Standards](#)
4. [Attributing Carbon to Cloud](#)
5. [Data Centre skills and professionalism](#)

#### **Energy Efficiency**

6. [Industrial Energy Transformation Fund](#)

#### **Compliance**

7. [Compliance Healthcheck](#)
8. [Generator Woes #1: EU ETS Phase IV \(or equivalent\)](#)
9. [Generator Woes #2: IED](#)

#### **Tussles with Brussels**

10. [Death by Lot 9](#)

#### **Platforms, Governance**

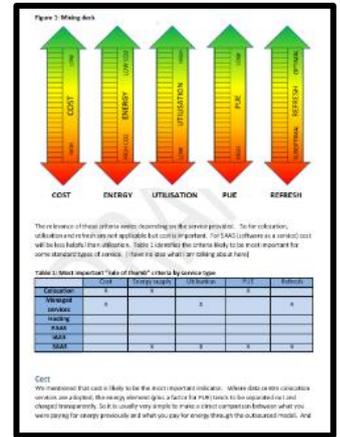
11. [Platforms and Events](#)
12. [Governance](#)
13. [Further information/Contacts](#)



## Attributing carbon to cloud and data centre services

When organisations outsource activity to third party data centres or to the cloud, there is a general assumption that efficiency improves, and that energy and carbon benefits are realised. But how do we know that this is true? We have been in discussion with government and media companies for some time on the need for greater transparency on the associated carbon impacts of cloud outsourcing.

We held a very useful [round table](#) with government, media and service providers on 19<sup>th</sup> June. Media companies are seeking the same clarity they had in the past, when they outsourced physical production. Government departments are seeking to ensure that they are making sustainable procurement choices. Following the discussion, we are now ready to revise the draft paper, which had languished in limbo for some time.



## ENERGY EFFICIENCY

### Industrial Energy Transformation Fund



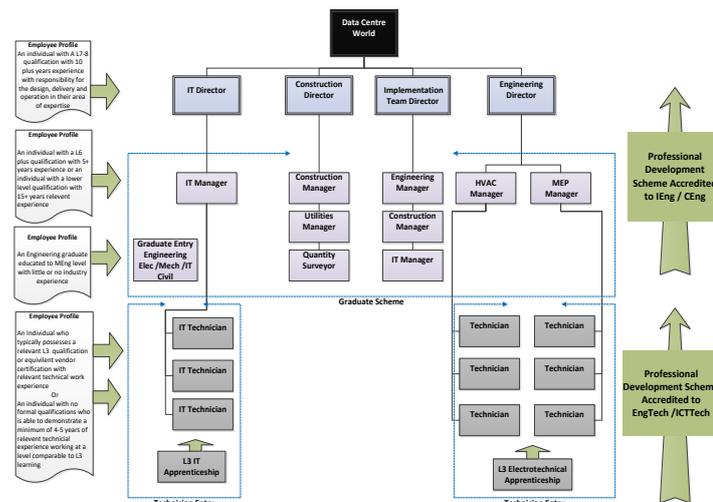
We are still no further forward in getting government to recognise just how dysfunctional its energy efficiency policy landscape is. The latest consultation we despatched related to the IETF – the Industrial Energy Transformation Fund, another complex brainchild of BEIS, presenting a relatively high bar to entry for companies, with low or uncertain returns. Operators are likely to find it highly resistible. There is £315M of funding, replacing the ETL and designed to support businesses with high energy use to cut bills through efficiency and migrate to lower carbon energy and processes, including co-funding major equipment investments. Since data centres only use electricity, our options are limited. We feel that far more energy could be saved if Government simply found a way to encourage the consolidation of distributed IT. So that's what we said. See our response: <https://www.techuk.org/insights/consultation-responses/item/15475-industrial-energy-transformation-fund-our-consultation-response>

The consultation itself is here: <https://www.gov.uk/government/consultations/designing-the-industrial-energy-transformation-fund>

### Skills and Professionalism

We are still in the process of drafting our short report on sector skills shortages, which is not progressing very fast. The problem is that we need data from operators to inform our position, and this is coming in extremely slowly. We are giving operators one last chance to fill in the survey, and then we will take a view. We can use existing industry data but this won't be quite the same as our own. Those operators who haven't already completed the survey should do so now. The link is <https://www.quiz-maker.com/QTYWIOY>

Don't forget that there are plenty of useful resources on our skills and professionalism group pages, including [So You Want To Employ More Women?](#), [Oh my God, I forgot to Study Maths](#) and [Why work in a data centre?](#) and we have updated our [explanation of the Trailblazer scheme](#)



# COMPLIANCE

## Data Centre Compliance Healthcheck

Don't forget that we updated our Data Centre Compliance Healthcheck back in March, so it now includes most of the horrors that keep our compliance managers awake at night.

<https://www.techuk.org/insights/news/item/15038-updated-compliance-healthcheck>

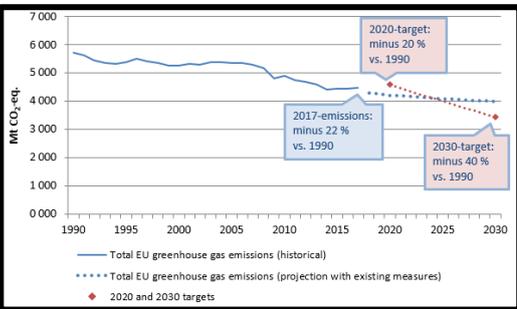
During this quarter we had quite a few queries about the new regulations regarding carbon and energy reporting come into force on 1<sup>st</sup> April this year: [Streamlined Energy and Carbon Reporting \(SECR\)](#). Operators are trying to establish whether and how they are obliged. We are developing some guidance notes for data centres in Q3, so look out for those.



## Generator Woes

We never seem to get through a quarterly report without usual suspects of ETS and IED rearing their ugly heads. Both cause misery and expense for operators without delivering any tangible policy benefits.

### Generator Woes #1: EU ETS: Government has been consulting on the future of carbon pricing (Phase IV of EU ETS, 2021-2030).



We attended a series of meetings with BEIS, HMT and the EA. Four options are on the table, depending on the form that Brexit might take, and on negotiations with the Commission. The preferred option is a linked ETS, mirroring the existing scheme in nearly every respect. Phase IV offers a form of exemption for ultra-low emitters provided they can submit verified data for the last three years demonstrating that annual emissions did not exceed 2,500 tonnes. We lobbied for the inclusion of sites without the full data set on the basis

that they were not large enough to qualify for the scheme and should be allowed to submit zero returns for those years. BEIS has been accommodating, although the decision rests with the Commission. We attended BEIS briefings on the data submission process (NIMS) and produced guidance notes for operators, which you can find here:

<https://www.techuk.org/insights/news/item/15130-eu-ets-heads-up-for-data-centre-operators>

We also held a sector meeting with BEIS on 21<sup>st</sup> June to review Govt's Phase IV proposals and provide informal input. Some important messages were landed. As a result, our formal response, due for submission by 12<sup>th</sup> July, has been revised. We are now seeking a sector specific approach and proposing that under certain circumstances, the 300-hour running limit be applied. More on the consultation is here:

<https://www.techuk.org/insights/news/item/15389-eu-ets-phase-iv-future-of-carbon-pricing-consultation>

### Generator Woes #2: IED: Obtaining an IED permit is costly, complex and time-consuming.

Operators obliged under the scheme have reported multiple shortcomings with the permitting process. We raised these with the EA and with DEFRA but to date neither has responded. On 8<sup>th</sup> May we hosted a round table for operators which produced a long list of issues that are slowing the compliance process and adding significant cost. Key issues relate to evidence and the way it is handled, consistency, communication, proportionality, timeliness, objectivity and relevance. We categorised and organised these into a list, including evidence and proposed solutions. We also drafted a letter to both the Environment Agency and DEFRA summarising the problems and requesting a dialogue. This will be submitted in July.

	Insistence on operator accuracy when the impacts are clearly overstated.	Insufficiently focused... and we know the reason (SAI) best or IED was already very busy.	
	Proposing requirements when evidence already demonstrates that such requirements are unnecessary or redundant.	e.g. Operator required to conduct a RA for raising high height noise through evidence demonstrating that short term impacts were minimal and there were no long term impacts.	
CONSISTENCY	Change in requirements - application submitted based on parameters and resulting agreed only to be done being rejected and to be made a further assessment with a new set of requirements, changes to modelling.	Operator required to repeat all the modelling using an alternative approach for modelling impacts (e.g. requiring worst case potential impacts based on a full selection over other than the best modelling package provided) and a limited number - which has been agreed by the EA.	
		e.g. Operator required to conduct IED modelling as a full stage in the permitting process (even though the EA can provide the modelling) - not necessary at any of the other stages. IED depends on how and the operator already had the modelling done in scope for improvement was limited. Asking for evidence that the operator was directed by the permitting team to an Accredited IED source from the previous application.	
	Consistency with the evidence on IED and RAJ	Consistency with other emission types (e.g. greenhouse gases)	e.g. instead, when emergency plant running for less than 10 hours (less than 1 year) a permit.
DISCUSSION AND TRANSPARENCY	Not an open consultation but the EA is asked to full disclosure of the emergency power characteristics of sites, which is a key support critical evidence. We also the view that the impact the sector, its customers and the systems it supports, is unnecessary threat. There are also...		Does consider the location and generator specifics are not included on any public register.



We also produced a briefing for members on the implications of Oxides of Nitrogen, or NOx, for data centres explaining what NOx are, why they matter and why data centres are in the firing line. We still think it would make sense to a sector statement on what operators can do / are doing to minimise NOx. Meanwhile the briefing is [here](#).

# TUSSLES WITH BRUSSELS

## Death by Lot9

The Lot 9 regulatory conundrum continues to trundle along, like a large, slow-moving car crash. Current anxieties relate to the guidance materials and FAQs and industry is submitting proposals for the Commission's desk officer to consider. DIGITALEUROPE is facilitating this exercise with the help of experts from IBM, Intel, Dell and others. While we are not involved in detailed negotiations, we remain concerned that policy is being developed from an ideological rather than an evidence base. There is a huge dossier on this issue, involving a lot of technical details, so not for the fainthearted. Please get in touch if you need to know more.

## EVENTS, PLATFORMS AND PRESS

During Quarter 2 we spoke at the CSC Leaders' summit in London about the qualities of leadership needed for complex situations. Our perspective was on the kind of leadership needed when representing a sector and providing a collective voice for individuals who might have diverging views. Others provided commercial and academic insights. It was outside our usual sphere of activity but useful nevertheless. We also spoke about standards at a techUK event along with BSI, where we demonstrated that the sector is relatively advanced in the development and applications of standards for self-policing. In June we were invited to give a speech up in Lulea in Sweden to celebrate the 100-year anniversary of the Royal Swedish Academy of Engineering and Science where we gave a potted history of the evolution of data centres, from Babbage's Difference Engine to Edge. We also got to see the RI.SE facility, which gave us a lot of food for thought. Coverage included an [opinion on data centre energy demand](#) for Inside Networks, and Ten Myths About Data Centres, where we also [produced a more detailed UK version](#). We also did a [piece on 5G for Broadgroup](#) and provided informal [advice on how to win an award](#).

## GOVERNANCE

We held the second [Data Centres Council](#) meeting of 2019 on 3<sup>rd</sup> April and the third on 25<sup>th</sup> June to review progress and agree priorities. Council ToR, member bios, application criteria and formal Communications are available from the [Council pages of our website](#). Notes and papers are available for all Council meetings on request.

## Further Information

Previous digests of our activity are online, including: [2019 Q1](#), [2018 Programme Overview](#), [2018 Q3](#), [2018 Q2](#), [2018 Q1](#), [the 2017 programme overview](#) and those for [2016](#), and before. They should all be available from here: <http://www.techuk.org/insights/reports/item/272-data-centre-programme-overview>

## Contacts



Emma Fryer  
Associate Director, techUK  
Tel: 01609 772 137  
Mob: 07595 410 653  
[emma.fryer@techuk.org](mailto:emma.fryer@techuk.org)



Lucas Banach  
Programme Assistant  
Tel: 020 7331 2006  
[Lucas.banach@techuk.org](mailto:Lucas.banach@techuk.org)