EUETS and data centres

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The problem

We understand that data centres may be liable under EUETS despite the fact that they have negligible scope 1 emissions. Data centres appear to be captured due to the nature of the generator array that they maintain as standby capacity in the event of power failure. While that array will need to be test fired from time to time, it is hardly ever deployed and for all practical purposes it cannot be used simultaneously with the primary power source (which is grid electricity). The UK interpretation of the Directive states that standby generation is included in EUETS (on the principle that you need a licence for a gun irrespective of whether you fire it) if a) units of 3MW thermal and above add up to 20MW and b) it is technically capable of being operated simultaneously with the main power supply.

Differential interpretation/ enforcement?

Although the legislation appears to be clear, it seems that it may have been interpreted differently – or at least enforced differently – in the UK compared to elsewhere in Europe. For instance under the German implementation of the EU ETS Directive *"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."* The Netherlands take the same view. France takes the same view regarding enforcement but is unclear about its formal interpretation.

Administration costs are 100 times carbon costs

Sites that are captured in this way will be liable for between £200 and £600 in carbon allowances (gas oil use at sites for this purpose varies from 15 tonnes to 60 tonnes pa) but each site will have a paperwork bill from the EA and from the validating service providers that could easily exceed £10,000 – **excluding** any internal resource or additional consultancy costs. We understand that the latter are significant because of the inherent difficulty in evaluating generator efficiency. From initial calculations based on gas oil use and the EA fee structure we estimate that, per tonne of carbon, the cost of paperwork will be around 100 times the cost of allowances.

Dysfunctional policy?

In addition to the obvious problem that the administrative cost of compliance dwarfs the carbon cost, application of EUETS in this way will actually create perverse incentives and reduce efficiency:

- Firstly, EUETS encourages data centres to restructure their generator array replacing few large generators with many small generators, which will inevitably be less efficient would remove them from the scheme.
- Secondly EUETS discourages the consolidation of computing resource into large purpose-built facilities and instead encourages a distributed model which is far less energy efficient and in which energy use is far less transparent or accountable.
- Thirdly EUETS will discourage data centres from participating in STOR

Our questions

What exactly is this policy designed to achieve in terms of scope I emissions reductions? How will applying it to companies with negligible scope 1 emissions help achieve those objectives?

Why we're asking BIS

We are finding it difficult to move things forward with DECC and would like to see the issue escalated.

What is the solution?

Pragmatic, implementation as in Germany or informal undertaking by the regulator that some kind of *de minimus* for scope 1 emissions/generator running time would be applied at enforcement stage.