## **Data Centre Jobs in Sustainability and Compliance**

Data centres are electro-intensive and collectively the UK's commercial operators use around 3.5TWh of power a year – just over 1% of total UK electricity consumption. They also need diesel generators on site to provide power just in case the grid fails, although these are hardly ever used. Data centres are also full of computer servers, which are usually upgraded every few years to more efficient models. Most energy in commercial data centres powers the IT but operators keep a very close eye on the demands of supporting infrastructure like cooling systems. They actually rate facility efficiency by comparing the total energy used by the data centre to that used by the IT. This is called Power Usage



Effectiveness or PUE. Because multiple systems work together in a complex environment, installing lots of super-efficient equipment randomly and hoping for the best is unlikely to be successful: a systems approach is needed. As a result, managing sustainability in data centres needs a lot of specialist expertise.

## Sample roles (see also the Energy and Power Section)

- <u>Data Centre Energy Manager:</u> scrutinises how energy is used within the data centre environment, measures and reports it and identifies scope for efficiency improvements.
- <u>Energy and Environmental Manager/ Environmental Compliance Manager:</u> Data centres have to comply with lots of regulations and even the generators need permits to operate. Meeting all the requirements is a huge task and requires specialist skills and often help from external consultants.
- <u>Sustainability Manager/ Director:</u> Leads the wider sustainability piece often at organisational level, introduces corporate policies and strategies and delivers against commitments.
- <u>Server refurbisher / reseller:</u> many servers coming from data centres can be re-used sustainably and cost effectively if the right customers can be found and refresh decisions are made strategically.
- <u>Circular Economy Designer</u>: Researches and designs circular models for commodity items like servers, reducing raw materials, and making them more standardised and modular for easer redeployment.
- <u>Energy and Sustainability Suppliers and Consultants:</u> There is a huge community of suppliers and consultants servicing the data centre sector with energy saving products, technologies and expertise.
- <u>Academic Researcher:</u> data centre sustainability is a very busy academic area with plenty of research underway all over the world on topics from coolants and heat reuse to analytics.