



Techbuyer and Interact: Server consolidation leading to energy and associated carbon savings plus supply chain carbon reduction by using refurbished hardware.



Techbuyer UK is a medium sized Harrogate business employing over 200 people worldwide.

Astrid Wynne, Sustainability Lead at Techbuyer, is one of our HDCCC board members.

Here is a short summary of some of the work they are doing to reduce carbon emissions.

Please can you tell us how you made energy and carbon savings?

Techbuyer has a commitment to sustainable business practice, circular economy and reducing group carbon emissions. Server rooms are particularly high energy users and the company wanted to increase efficiency on the hardware. To do this, we needed to calculate which machines were the most energy efficient and reduce the number of machines if possible.

Techbuyer conducted a two year Knowledge Transfer Partnership with the University of East London. Thousands of hours of research later they developed the Interact tool that is able to calculate the best make, model and configuration of server to run a particular workload. We used this to consolidate the 6 newer servers we were currently using into 3 remanufactured machines from a different brand. In doing so, Techbuyer achieved massive energy and carbon savings over time. In using remanufactured machines, the company also saved supply chain emissions associated with new equipment.

What savings did you make in energy, carbon and financial expense?

17,429 kWh in energy draw
4,460 kg CO₂e reduction on the energy spend
2,735 kg CO₂e in supply chain carbon
£9081 p.a. in cost savings

Why did you do this work?

The Interact tool enabled us to accurately measure the energy draw of our infrastructure and compare this with thousands of other possibilities. The machine learning matched how much data processing and storage we needed against the lowest energy using servers. This enabled us to scale down the number of servers without losing on performance.

What additional benefits did you see from this work?

In our case, the optimum solution was a refurbished model. Having this evidence enabled us to choose a lower quantity but higher specification of refurbished server, save on supply chain carbon, and have confidence we were providing the optimum solution for cost and performance.

Where should we look if we need to know more about the carbon cost of digital?

If you need more detailed information, below, please look at these links. The carbon cost of digital: [Roadmapping carbon reductions for the data center sector - DCD \(datacenterdynamics.com\)](#); [Sustainability in Action - Wednesday 27th January - YouTube](#)"

Who can the public contact for more information?

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