



Energy efficiency

Powering businesses forward, responsibly...

Our approach to data centre energy efficiency is unrivalled. We're striving to reduce our carbon footprint in line with Manchester's carbon neutrality goals.

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Investing in energy management

As a responsible data centre provider, we work hard to keep our energy consumption as low as we possibly can.

That's why we've taken a number of steps to monitor and reduce the amount of energy we use across our Delta House facility in Manchester, in line with Manchester's pledge to become a carbon neutral city by 2038.

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DCS Awards winner, 2020

In 2020 we won the **Data Centre Energy Efficiency Project of the Year Award** at the prestigious DCS (Data Centre Solutions) Awards.

The award recognised the work that we have undertaken to improve our efficiencies and reduce our carbon output, **including a £1.5 Million investment into a smart energy battery storage system** with integrated variable voltage optimisation.





Leading the way with battery storage

Our energy enhancing 2MW battery storage system solution with voltage optimisation enables us to store electricity from the national grid at times of low demand and discharge it during the most beneficial periods, acting as a reserve during peak tariff times.

The system also offers integrated variable voltage optimisation to deliver a stabilised voltage, thus boosting the resilience of the facility by improving the shelf life of equipment, while reducing unnecessary energy waste and optimising the incoming power supply.

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Unique in the UK...

We are the only colocation provider in the UK to have implemented these battery storage technologies.

Our battery system allows us to save a huge amount of energy and carbon emissions, whilst also avoiding consuming energy at peak times (drawing power from the 2MW battery bank rather than the mains) and triad periods (the three half-hour settlement periods of the highest demand on the GB electricity transmission system between November and February).



Win-win green technology

Our investments in green technology are beneficial for the environment — and your bottom line.

▶ Advantages of battery storage technology

- > The low loss transformer, with voltage optimisation is proven to **save between 8-10%** of annually consumed kwhs and therefore carbon emissions.
- > Customers are **insulated against increases in power pricing** at the most expensive times of day/year as we can intelligently switch our power source to battery storage during these periods. This saves a huge amount of cost on the annual electricity bill of an intensive user.
- > Voltage optimisation allows us to regulate voltage at 225v at the transformer level, **reducing energy wastage and extending the lifespan of equipment by up to 40%**. Eliminating spikes in power delivery also reduces the likelihood of under or over voltage 'tripping', meaning more reliability and less outages.
- > As a power generator, Teledata can participate in Firm Frequency Response (FFR) and as a service provider to the National Grid, can use our approved storage assets to quickly reduce demand or increase generation to help balance the grid and avoid power outages. The current UK power network is becoming increasingly challenging to balance and so this is a huge benefit to the grid.

Our approach to energy efficiency is unrivalled, with power metered at every board and office in the building to intelligently reduce carbon emissions in all areas, including:

- > Cooling consumption; where we have implemented highly intelligent control systems
- > Cold aisle containment
- > Under-floor cold air channeling to minimise wastage
- > Variable fans within condenser units
- > Free air cooling systems
- > Office space air conditioning controls to minimise wastage out of hours
- > Highly efficient cooling pumps
- > Cold aisle blanking throughout the facility

...and a number of other measures including the controlled raising of temperatures in the cold and warm aisles, as per ASHRAE guidelines and environmental best practice.

Environmentally minded then, now — in the future

We have, and will continue to, invest in the most efficient solutions at all times, regardless of increased upfront costs meaning that our customers can state that they host with one of the most energy efficiency conscious providers in the UK.

Find out more

To find out more about energy efficiency at Teledata, get in touch with our experts on **0161 498 1200** or email [**enquiries@teledata.co.uk**](mailto:enquiries@teledata.co.uk).



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