Data Centre Energy Efficiency Hints & Tips

A guide to best practice

INSPIRED
PLC

Prioritising energy & water efficiency

With the European Data Centre Association launching the Climate Neutral Data Centre Pact, along with the UK's net zero goals, energy efficiency and sustainability for data centres is coming under intense scrutiny.

We know that for many large energy users, it can be difficult to identify exactly how and where you could reduce your energy consumption and carbon emissions, but doing so can bring some real benefits to your organisation.

We have put together a useful list of hints and tips that can help your data centre to become more efficient.

If you have any questions or would like more information about how energy saving initiatives can affect your Power Usage Effectiveness (PUE), **please get in touch.**

01772 689 250
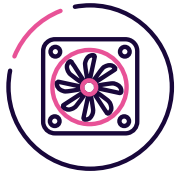**Get in touch with us to find out more.**

Contents:

We work with over 130 data centre sites including enterprise, colocation and hyperscale to help them fulfil their sustainability goals.

Cooling

Review your data centre's operating temperature

This one may seem simple, but every degree lower than required to cool your data centre is costing you money and wasting energy, making you less efficient.

If you have replaced equipment recently, new equipment is likely to be more efficient and have greater resilience levels, meaning you may be able to increase the temperature your data centre is operating at, which can have huge impacts on your energy usage.

Use air cooling effectively

If you are cooling down the whole of the data centre, then there is a massive volume of air that is being cooled for no reason.

Use hot aisle/cold aisle approaches, in-row cooling or other containment strategies to minimise the amount of cool air required and ensure that it is ducted effectively to cool down any hot spots.

Don't dismiss water cooling

Water conducts heat far better than air, so water is much more efficient as a cooling medium.

Newer systems, based on negative pressure water systems, have extremely low failure rates and can dramatically lower cooling and energy costs.

Self generation, battery storage & demand side response

Consider generating your own power

To reduce your reliance on the volatile energy market and to increase your green credentials, you could look to install solar panels or re-use waste heat to heat your offices.

If you have a large premesis for your data centre, solar panels are a cost effective way to generate your own electricity.

If you generate more power than you use, you could also benefit from selling this back to the grid.

Battery Storage

It's time to get rid of your diesel back-up generators and switch them to more eco-friendly battery storage and renewable generation.

You can even benefit from reduced energy costs by switching to your battery storage when energy costs are high and charging them at off-peak times.

Switching to battery storage instead of using diesel generators will also reduce your carbon footprint and reliance on fossil fuels.

Monetise your flexibility

Demand Side Response (DSR) is all about intelligent energy use. You can benefit from financial incentives, simply by turning down non-essential processes when required.

Data centre set-up and day-to-day running

Carefully choose a site for your data centre

If you are looking to build a new data centre, selecting the perfect site is so important. Consider the climate and the cost to cool the building, along with implementing energy efficient practices from the start.

We can research international markets and find the perfect location for your next data centre.

Ask us about our Emerging Markets Intelligence Reports to find out more.

Use renewable energy sources

Where you can, using renewable energy sources is a great way to cut your carbon emissions and should not cost any more to do so.

We work with a whole range of suppliers that can provide renewable energy and have the flexibility to adapt to your businesses changing needs.

Low energy lighting

Did you know, LEDs can use up to 75% less energy than standard lighting coupled with a much longer life. By simply switching to LED lighting, your data centre can reduce energy costs and improve efficiency.

Switching to LED lighting is a really cost-effective way to cut your energy costs and carbon consumption.

GET IN TOUCH

INSPIRED PLC

Find out how we can help your data centre achieve its energy and sustainability aims.

Contact our expert team on:

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