

GATHERING THE DATA TO GREEN THE MACHINE



**The E-Thursday Interview: Daniel Tinkiel
Chief Operations Officer Data Electronics
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Daniel Tinkiel, chief operations officer for Data Electronics, talks about its new state-of-the-art data centre in Ballycoolin which is using a combination of green technologies to reduce its carbon footprint

Green IT is a hot topic at the moment and Data Electronics plans to save approximately half a million euro per annum through green initiatives and energy saving technology – how will this be achieved?

The savings come from different areas but the first and most important is through free air cooling technology. This means when the external air is cold enough to cool the water, we use just that rather than using electrical energy.

Are a lot of businesses using this technology right now?

No, because this is relatively new technology. But we're not using just this technology either. We've also implemented high-efficiency models of air conditioning units rather than the 24/7 AC (alternating current) ones because at the end of the day that energy is lost.

Why are more data centres not implementing energy saving technologies and practices?

The truth is that most savings are factored in at the beginning when you are designing a new data centre. At this point, you have the opportunity to start using the best possible technology from scratch. This sometimes involves an initial capital investment that is slightly higher than the other technologies in the short term. However, in the long term, it pays for itself.

Existing data centres will find the cost to be an issue if they were to implement new energy efficient technologies and it would also have operational implications for a centre that is already servicing customers.

So what is the alternative for these businesses?

There are other things that can reduce both outgoing cost and energy: we are using low-loss transformers that reduce energy lost in the form of heat. On top of that, there are other measures we are taking that can be easily implemented. We are using fluorescent lamps which not only provide a higher level of illumination but use 50pc less energy than the average fluorescent lamp. We've also introduced infrared detectors on each floor of the building so that lights will only be switched on when there is a human presence. This means lights are not left switched on unnecessarily during the day, only in the rows with human activity. This is something everyone can do. Common sense can also help reduce cost. Data Electronics arranges cabinets facing front-to-front and back-to-back so that only the front/front rows have to be cooled down where the cold air is taken in and the hot air is going to expel back. We have been doing this since day one but many data centres are not paying attention to this.

Is alternative power like wind or solar a viable avenue for energy savings in the average data centre?

Absolutely. We are adding solar panels to heat up water for the office space. Another novel way is to use the heat coming from servers and we channel it towards heating the office. Everything we can do to save money and decrease our carbon footprint we will.

Does any of this impact on the Data Electronics customer?

I would say it does have an impact from a savings point of view because once we reduce our costs, the costs transferred onto the customer will be lower as well. On the other hand, it gives us the opportunity to use the same amount of energy to serve more customers.

Whoever is thinking about creating a data centre should consider all of these energy savings as part of their design because they will have the opportunity to reach more customers with lower energy costs and a lower carbon footprint.

Data Electronics has joined the European Code of Conduct on Data Centres – what impact does this have?

There are basically two big initiatives, one in the US and this European one which is derived from the Office of the Environment and Sustainable Energy and has come up with a set of recommendations and best practices.

The aims and objectives include setting energy efficiency targets, investigating the applications of energy efficient technologies and providing an open forum for discussing and developing these aims for those involved.

By Marie Boran