

## VNUNet – Green India – Is this Really an Oxymoron?

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I have recently returned from a trip to India, where I listened to a presentation by Dr. Ajay Mathur, Director General of the Bureau of Energy Efficiency in the Indian government. There had been a lot of coverage in the Indian press about how the US had been pointing fingers at India, stating that until India sorted itself out on energy usage, it was pointless the US doing anything.

When set against per capita primary energy usage, this seems a little wrong – the average primary energy usage in the US has gone from 343.0 million BTUs per person in 1980 to 340.5 million BTUs per person in 2005 (latest figures available). Meanwhile, in India, it has gone from 5.9 to 14.8 million BTUs per person in the same period – still less than one twentieth of the US.

I found Dr. Mathur's presentation interesting, in that it showed how seriously India is taking its role as its population is becoming more dependent on energy. India has looked at the rest of the world, and has learnt from many of the mistakes that have been made in the US and across Europe.

As an example, let's look at what the EU has done on domestic white goods. The EU Energy Labelling system gives a rating from G (least efficient) to A (most efficient) on white goods, with refrigeration now having two higher possible ratings of A+ and A++. And herein lies the rub – as goods do get more efficient, the EU labelling system cannot adequately reflect this, and new ratings above the A level have to be brought in to ensure differentiation between the raft of A rated goods.

India decided to take a different route – it uses a 5\* system, where 1\* is the least efficient and 5\* the most efficient. However, the rules as to what makes a device 5\* or 4\* change every year. Therefore, a manufacturer wishing to bring to market a 5\* device that will be on the market for 3 years will have to build the device to the 5\* requirements for 2011 – not 2008. Otherwise, the device could become a 4\* in 2009 and a 3\* in 2010 as the rules change.

This is reflected in the way that India is looking at its data centres as well. Work is ongoing in rating backup power systems, large air conditioning systems as well as servers, networking equipment and so on. Within a couple of years, it is hoped that Indian organisations will be able to rate their data centres to demonstrate their green credentials – and they will have to work hard to keep these current, as the requirements for a 5\* data centre will be as dynamic as those for domestic goods.

Further, if you are a big organisation using large amounts of energy, you will become a "designated consumer" and will have to employ an energy auditor. This approach is based on an act of government passed in 2001 on the subject of energy conservation. The organisation will have to declare its usage, and it is then compared against a baseline of similar organisations in the same market. This leads to a rating of the organisation, from which the government will then set targets for the company to manage its power usage more efficiently. The organisation has to create a three-year plan to meet these targets and has to report on an annual basis against this plan. There is capability to fine or who fail to manage their energy usage efficiently, but this is only small amounts at the moment. However, the approach seems to have been embraced by the majority of large Indian organisations.

The impact of this approach on data centres in India is massive. The growth of the data centre market in Mumbai, Bangalore, Pune, Chennai and elsewhere underpins India's claim to being an emerging world technology force. Many early data centres were not particularly energy efficient, but newer facilities are state of the art, driven not only by the rise in power costs in India, but by the approach taken by the government.

Could this work in the West? In theory, Quocirca believes that it could, but in practice, the mentality of the private sector in the west does not position itself well for what would be seen as government interference. It would also take a



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strong political will to face down the interested parties – and this has not been apparent in the majority of western governments lately.

Further, many data centres in the West are not well suited for retrofitting more energy efficient approaches, and the cost of building new data centres purely for energy efficient purposes is not cost effective.

However, it will be difficult not to pay attention to what a country the size of India is doing.

While its population moves into greater utilisation of domestic white goods and becomes more dependent on electricity and oil in other areas, there will be massive growth in the headline usage of energy in the subcontinent.

However, this will hide the underlying move to being an efficient user of energy, and the impact that this could have on Western economies as this leads to energy cost savings backed up by highly efficient IT services from modern data centres and continuing relative low labour costs may lead to much greater movement of IT capabilities from the West to the East.

## About Quocirca

Quocirca is a primary research and analysis company specialising in the business impact of information technology and communications (ITC). With world-wide, native language reach, Quocirca provides in-depth insights into the views of buyers and influencers in large, mid-sized and small organisations. Its analyst team is made up of real-world practitioners with first hand experience of ITC delivery who continuously research and track the industry and its real usage in the markets.

Through researching perceptions, Quocirca uncovers the real hurdles to technology adoption – the personal and political aspects of an organisation's environment and the pressures of the need for demonstrable business value in any implementation. This capability to uncover and report back on the end-user perceptions in the market enables Quocirca to advise on the realities of technology adoption, not the promises.

Quocirca research is always pragmatic, business orientated and conducted in the context of the bigger picture. ITC has the ability to transform businesses and the processes that drive them, but often fails to do so. Quocirca's mission is to help organisations improve their success rate in process enablement through better levels of understanding and the adoption of the correct technologies at the correct time.

Quocirca has a pro-active primary research programme, regularly surveying users, purchasers and resellers of ITC products and services on emerging, evolving and maturing technologies. Over time, Quocirca has built a picture of long term investment trends, providing invaluable information for the whole of the ITC community.

Quocirca works with global and local providers of ITC products and services to help them deliver on the promise that ITC holds for business. Quocirca's clients include Oracle, Microsoft, IBM, Dell, T-Mobile, Vodafone, EMC, Symantec and Cisco, along with other large and medium sized vendors, service providers and more specialist firms.

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