

Linux in schools can save the planet

In the past few weeks I have written several articles for this blog deprecating at length the wasteful power consumption of ICT facilities in schools and suggesting alternative strategies to tackle the problem. I do not intend to do go over the ground again because you can only hector folk for so long on one topic. In any case I don't need to, since wonderfully, the Cardinal Wiseman CTC in Birmingham has recently deployed the UK's first zero carbon ICT facility.

The facility went live in January 2008 according to this month's Education Executive ICT supplement. The details of the project reported in the magazine shows how innovation and open source make natural bedfellows. The school, sponsored by North Birmingham City Learning Centre, has combined a novel thin-client installation designed by yours truly here at Sirius with a 6kw Wind Turbine and 1 KW solar panel supplied by SRE technologies.

The fanless thin-clients use an embedded Linux and draw approximately 4 watts when combined with 7" LCD panels and optional laser keyboards. They are grouped in clusters of five inside a central cylinder and cooled by a natural thermal updraft. The 12v power is supplied to all five from a single DC source thus avoiding the huge power losses contingent on individual transformers. A cluster of five computers uses 25 watts of power, not bad when compared to a single standard 400watt desktop PC.

Up to 20 clients are supported by one 400 watt LTSP server clients bringing the deployment to under 1 kilo watt. Many congratulations to Cardinal Wiseman Technology College for their bold moves into sustainable computing and hopefully other CTCs will be inspired to do the same.

In addition to thin-client computing low powered devices (6W) such as the new generation of sub-notebooks such as Asus's EeePC and Elonex's One are ideal partners for electricity generated by wind turbines and their like. Maybe now that the island of Eigg has its own wind generated electricity they will soon get computers too.