Glasgow City Council

Ideas at work

Essential services for business, delivered with energy.

Glasgow City Council operates over 700 buildings. Around one third of those are schools, running nearly 20,000 ICT devices. It's an area of energy use that's rarely considered. Yet, SSE Enterprise's pilot project showed a 9% saving — worth £4,500 per week across just 29 schools.

How many ICT devices are being powered in your organisation right now? Even if you know, it's often unclear how these devices use energy and what impact they have on your energy bills. Devices which seem similar may have different energy profiles, due to age, software overload or malfunction. The expertise of our SSE Enterprise Energy Solutions team utilising Cisco Energy Management products helps customers understand, monitor and optimise the power consumption of a complete ICT estate. Using existing protocols,* our server-side solution creates simple opportunities to make substantial savings — with no impact on the user base.

* The software is installed on a server. There's no need to roll out to individual machines.

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A new approach to energy optimisation

The software platform which we installed on the Glasgow City Council/Access server has four main functions:

Asset management

The software provides a full asset listing. Under the trial, this fully aligned with the Glasgow City Council asset listing. By taking the current assets and modelling their replacement with newer, more energy efficient products, the solution allows customers to review and refresh planning strategies in line with energy use and savings. This can even support investment planning by funding new eco ranges of ICT equipment through energy savings.

Policy adaptation

Following the trial and roll out, the schools' ICT policy is constantly being reviewed in terms of energy impact.

Our solution lets customers see whether a change in ICT policy uses more or less energy. (For example, if you change the times of access to the system in or out of term.) In this way, policies can be adapted to give students and staff easy access to devices while managing and reducing the energy running costs.

The energy platform also works hand in hand with other software for updates. For example, rather than keeping the whole system live all night for new software downloads or patches, our ICT energy management can 'wake up' machines as needed.

Energy reporting and alarms

Live data on ICT energy performance is available through easy-to-use GUI interfaces provided by Cisco Energy Management. This works from device level up to a total estate view. A weekly summary is produced showing the savings in carbon, energy and pounds which is then reported into the Local Authority Executive level.

The system can also help maintain ICT performance. The 'alert' feature identifies individual devices which have unusual energy consumption. This can often denote technical issues. Is the device about to fail? Or does it have multiple versions of software loaded? The ICT team can investigate and, if need be, take remedial action.

Monitoring energy efficiency

For Glasgow City Council, our solution monitors energy use across the entire schools estate. Live data and robust reporting enable 'benchmarking' of ICT energy use – allowing comparison of different schools' energy performance.

In this way, you have the evidence to develop effective strategies to reduce energy use which cover overall patterns of equipment use, as well as the efficiency of each device.

Technically speaking

Implementation is simple. The software is installed centrally on a standard server. There is no need to roll out to individual machines. We use standard protocols (e.g. WMI and SNMP) to monitor and manage all network devices. For Glasgow City Council, we also integrated System Centre Coordination Manager (SCCM) for the Mac operating system. Condition-based power policies balance the device needs with its function in the estate. Web based access lets people use the same username/password as they use to log on to their PC.

Glasgow's ambition as a 'future city' puts a clear focus on low carbon culture. But the savings we achieved across its schools' ICT is something every organisation can learn from.

We've all heard the phrase 'knowledge is power'. Yet, in managing ICT, lack of knowledge often means power is being burned needlessly.

To inform Glasgow City Council's decision-making, we ran a pilot project across 29 secondary schools with 9,000 devices. The results showed real reductions in total energy – around 9% in savings. This led to the solution being rolled out across every school.

Technology made simple

For Glasgow City Council, we're proud to provide a host of essential services:

• Energy reduction strategies
• Energy monitoring and 'alarms'
• Live data on ICT energy use
• ICT policy adaptation
• ICT asset management

But it isn't just smart strategies and practical solutions which make our

SSE Enterprise Energy Solutions team market leaders in the UK. In any complex project, even one with strong return on investment, it takes teamwork to ensure effective implementation. Our partnership approach extends from initial stakeholder engagement through to evaluation, and makes our customers' work easier.

Essential information

Our energy management solutions give you a global view of energy consumption, as well as monitoring individual ICT machines. This is invaluable in managing your estate for energy efficiency, as well as in troubleshooting. For example, machines which are 'running hot' may be on the point of failure.

Our system gives you the live data and automated control you need to make your ICT as energy efficient as possible.

"The software promised a lot and is delivering on those promises. The energy and associated CO_2 savings speak for themselves. The Cisco software has opened up a number of opportunities for integration with other building systems.

This allows for detailed data analysis and therefore more focused and effective building management. All of which contribute to Glasgow becoming a smart, sustainable future city."

Andrew Mouat,
Principal Officer,
Carbon Management,
Glasgow City Council

For ideas that work, talk to SSE Enterprise Energy Solutions.

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6 simple steps to ICT energy optimisation

Now there's a proven system for controlling your organisation's ICT energy use. From the UK's market leader in energy management.

Most organisations understand how their technology consumes power. But they're often less certain about the cost-benefits of a concerted effort to get their ICT's energy use under control.

Fortunately, SSE Enterprise Energy Solutions have the answer – a proven, highly practical, cost-effective answer.

Step 1: With our expertise in ICT skills and energy, we assess the scale of your challenge. We audit your ICT estate, current use and policies.

Step 2: We project potential savings by modelling and comparing your current use with new opportunities.

Step 3: In a limited trial, we define return on investment opportunities. We identify your current live ICT energy use and set out your energy goals and reporting formats.

Step 4: We make recommendations for policy improvements and ICT asset planning in line with energy goals.

Step 5: From trial to full programme, we develop a simple effective plan for technical and process development.

Step 6: The plan is delivered and fine tuned to meet your organisation's practical needs, with ongoing reviews to ensure the solution is providing the projected savings.

- Energy
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