

Case studies: A quick glance



**“Partnering with the ‘best in class’ is important to us.
Our research always had VPO® as unmatched...”**

Craig Yardley, Caledonian Brewery

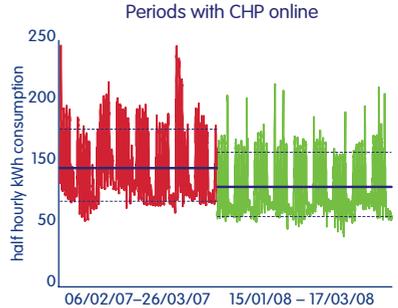
Government Body

In 2005, a major refurbishment of Nobel House – Defra’s London headquarters – led to its recognition as one of the most sustainable office buildings in Europe. To build on this impressive record they turned to a technology that affords them fixed, guaranteed savings from the moment of installation – **powerPerfactor**.

Nobel house is the winner of the Sustainable Building of the Year, from the RICS (Royal Institute of Chartered Surveyors), and has achieved the highest ever BREEAM (Building Research Establishment’s Environmental Assessment Method) for a building of its type. Since 2007, all 32 buildings in Defra’s estate have been **powerPerfected**.

“...delivering tangible results which will help Defra meet its SOGE targets.”

Anita Collier, Head of Built Environment



Client Savings

Unit	2 x 560kVA
Optimisation	8%
kWh Savings	13.3%
kWh Savings p.a.	228,000kWh
CO ₂ Savings p.a.	28,300kg

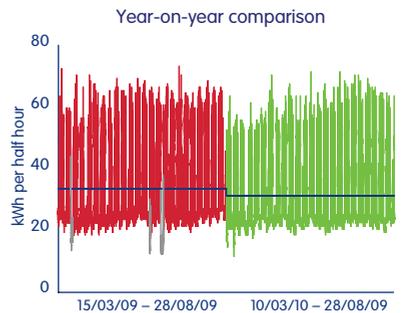
Office

The Environment Agency is synonymous with environmental protection and as managers of the CRC Energy Efficiency Scheme, the spotlight is on them to implement energy efficiency best practice.

Trials of electricity ‘supply’ management solutions have led the government agency to roll out **powerPerfactor** technology across its portfolio of 35 sites. Two 210kVA **powerPerfactor** units were installed at the Agency’s Phoenix House in February 2010, leading to 12 per cent savings.

“We are delighted with the increased energy security as well as the financial and carbon savings we are seeing from the roll out of Voltage Power Optimisation across our estate. The technology has proved robust and reliable.”

Julian Feasby, Head of Internal Environmental Management



Client Savings

Unit	2 x 210kVA
Optimisation	10%
kWh Savings	12.2%
£ Savings p.a.	£5,100
CO ₂ Savings p.a.	40,000kg

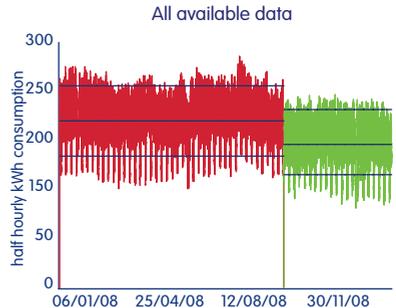
Retail

As part of its commitment to tackling climate change, Tesco has invested in an ongoing **powerPerfector** rollout to help reduce its carbon emissions and make low-carbon products accessible and affordable for consumers.

By 2009, Tesco had installed 480 units, which on average saved 9.9 per cent of those stores' electricity consumption, equal to over £8.2 million of savings every year. Now over 1,400 Tesco stores, offices and distribution centres have installed our unique technology.

“We continue to roll out **powerPerfector** as a principal technology in our energy efficiency strategy... Procurement for this critical point of supply to our stores and distribution centres has to have 100% reliability.”

Daniel Travers, Corporate Purchasing



Client Savings

Unit	150kVA - 1.5MVA
Optimisation	4% - 12%
kWh Savings	9.9%
£ Savings p.a.	£8,200,000
CO ₂ Savings p.a.	44,035,000kg

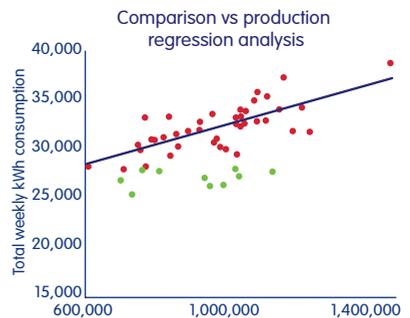
Manufacturing

One of 75 **powerPerfected** manufacturers, Swallowfield is a full service provider for global brands and retailers operating in the cosmetics, personal care and household goods market.

The company looks to continually adopt best practice in order to minimise its impact on the environment. Swallowfield's Wellington site was chosen for the VPO® project. The site is a combined manufacturing plant with a Research & Development facility and offices. The site's two supplies averaged kWh and CO₂ savings of 11.7 per cent as a result of the project.

“The process was so successful that when a lighting company was subsequently contacted to demonstrate their product, they needed to adjust down their original estimated cost savings.”

Philip Reid, Engineering Manager



Client Savings

Unit	560kVA & 740kVA
Optimisation	8% & 9%
kWh Savings	11.7%
£ Savings p.a.	£26,800
CO ₂ Savings p.a.	252,600kg

Prison

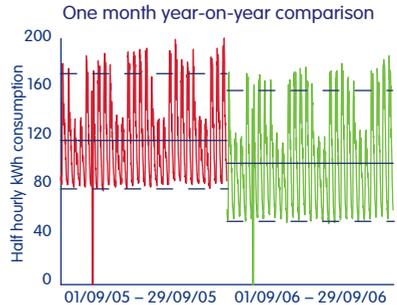


Cardiff prison's electrical load includes lighting circuits, heating and ventilation systems and switch mode power supply devices. Of obvious importance are the electronically controlled security systems installed at the site.

To install the **powerPerfector** unit, one of 10 installed in prisons across the UK, the site was run from a standby generator during the eight hours of downtime with no interruption to daily routine.

“For us, **powerPerfector** has been the single most effective energy efficiency measure we have introduced.”

Christopher Silcox, Estates Management Group



Client Savings

Unit	560kVA
Optimisation	8%
kWh Savings	16.6%
£ Savings p.a.	£17,900
CO ₂ Savings p.a.	158,000kg

Hospital

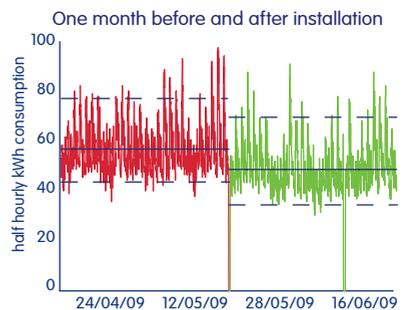


To date, 48 units have been installed within the NHS estate. Carlton Court Hospital is part of the Norfolk and Waveney Mental Health NHS Foundation Trust, serving the Great Yarmouth and Lowestoft areas, with a mix of elderly and adult inpatient and outpatient services, as well as a team base for the community mental health nurses.

A new adult facility completed in 2005, it already contains green measures such as photovoltaic solar panels and rain water harvesting. As part of the Trust's continued commitment to carbon reduction, a **powerPerfector** unit was commissioned in May 09.

“The first assessments show that we have at least met, or even slightly improved on the initial energy saving predictions, leading us to look at further installations in some of the Trust's other properties.”

Robert Forster, Estates Manager for the Trust



Client Savings

Unit	350kVA
Optimisation	9%
kWh Savings	11.6%
£ Savings p.a.	£7,400
CO ₂ Savings p.a.	63,000kg

Printing Company

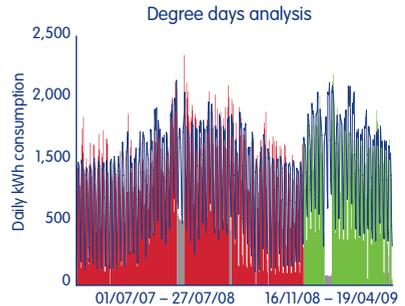
One of 19 **powerPerfected** printing companies, Park Lane Press believes quality does not need to be compromised when choosing eco-friendly print options.

A combination of Waterless print, craftsmanship in both the repro and print processes have allowed Park Lane to continue to produce high quality work with reduced impact on the environment.

A 210kVA **powerPerfector Plus** unit was installed in November 2008.

“The environment and sustainability are very important to us. We installed a **powerPerfector Plus** VPO® unit in November 2008 and since then have seen annual energy, cost and carbon savings of 12.2%. The installation is contributing greatly towards our environmental agenda; to develop and improve environmental performance.”

Libby Ferguson, Environmental Officer



Client Savings

Unit	210kVA
Optimisation	pP PLUS
kWh Savings	12.2%
£ Savings p.a.	£3,650
CO ₂ Savings p.a.	26,200kg

Data Centre

The Land Registry is responsible for registering all land and property in England and Wales and annually records over £6 trillion worth of transactions.

It had experienced damage from voltage transients on one of its 26 sites and advertised in the European Journal for any company to tender for a technology that would give them protection from transients, suppression of harmonics and energy saving. **powerPerfector** won the tender.

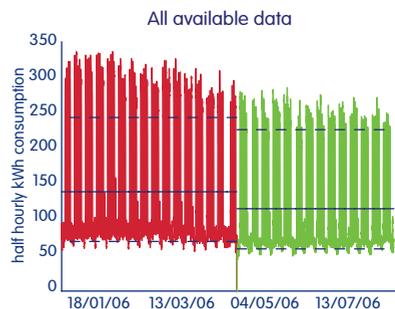
Every site with the potential has now been **powerPerfected** and no further transient or harmonic damage has occurred as a direct result of **powerPerfector's** unique VPO®.

“The most significant benefit comes from protecting our electrical infrastructure and assets”

Martin Illingworth, Environment Manager



Land Registry



Client Savings

Unit	210kVA - 830kVA
Optimisation	6% - 10%
kWh Savings	11.5%
£ Savings p.a.	£118,500
CO ₂ Savings p.a.	976,000kg

Education

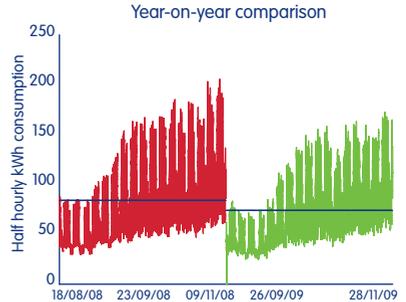
To date, 271 units have been installed within the education sector. Roehampton University is a campus University situated on three major sites across south west London.

Today the University has a broad range of expertise across the arts and humanities, social sciences and the human and life sciences, at the same time as maintaining its historic strength in education. The University utilised Salix funding to install VPO® across its multi-campus site.

“We’re delighted with the performance of our five **powerPerfectors** which have resulted in a 10% reduction in our electricity bills since installation, with a payback period of less than 3.5 years. The whole installation process was efficiently managed resulting in minimal disruption to services.”

Jonathan Horner, Environmental Manager

Roehampton
University
London



Client Savings

Unit	70kVA – 830kVA
Optimisation	7% – 10%
kWh Savings	10%
£ Savings p.a.	£67,800
CO ₂ Savings p.a.	347,200kg

Retail

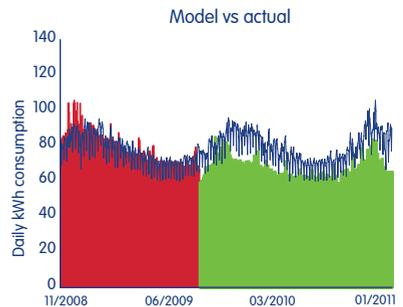
PRUPIM is one of the leading real estate investment managers in the UK, it forms part of the M&G group of companies. Brunswick Shopping Centre in Scarborough is owned by M&G and managed by PRUPIM. It is home to 30 shops and stores on 130,000 sq ft and five floors.

A 210kVA **powerPerfactor** unit, one of over 1,700 within UK retailers, was installed at the shopping centre in October 2009. Electricity consumption has subsequently fallen by 17.7 per cent. This equates to an annual carbon dioxide saving of 65,700kg and annual financial savings of £13,600.

“Once installed, we could tell from our own readings that we were going to make major savings against our budgets.”

Jim Hughes, Centre Manager, Brunswick Shopping Centre

PRUPIM



Client Savings

Unit	210kVA
Optimisation	11%
kWh Savings	17.7%
£ Savings p.a.	£13,600
CO ₂ Savings p.a.	65,700kg

Leisure & Tourism

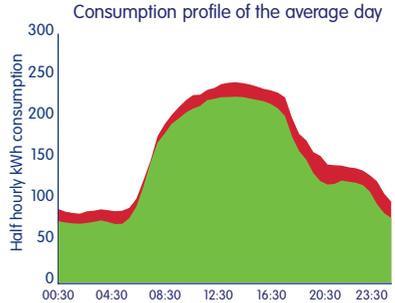
Over 160 units have been installed within the leisure and tourism industry, including some of the UK's most iconic buildings.

Today, the Tower of London is a multi-faceted site with museum space, retail, offices, residential and religious facilities. Energy efficiency is a priority at the Tower but they also wanted a solution with a long lifecycle (30+ yrs) with minimal physical impact to their infrastructure.

“Having independently assessed the performance of the technology it was shown to have met the expected savings... bearing in mind the importance of the site and therefore security of supply, we can report the working of the site has been perfect.”

Tony King, Head of Maintenance and Facilities

Historic Royal PALACES



Client Savings

Unit	2 x 830kVA
Optimisation	8%
kWh Savings	11%
£ Savings p.a.	£26,500
CO ₂ Savings p.a.	168,000kg

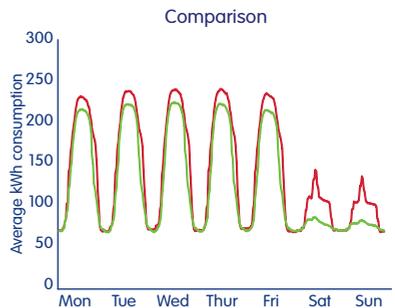
Government Body

One of 16 **powerPerfected** government agencies, the Department of Energy and Climate Change (DECC) is responsible for all aspects of UK energy policy and for tackling global climate change. Its objectives are to bring about the transition to a low carbon Britain and to make energy secure, affordable and efficient.

With energy efficiency at the forefront of DECC's policies for tackling climate change, it was essential for them to find a real solution with quantifiable results - Voltage Power Optimisation from **powerPerfector**.

“The **powerPerfector** at 3 Whitehall Place is a critical part of our energy reduction strategy, and has helped us to maximise our efficiency and reduce our carbon emissions.”

Jenny McInnes, Building Team



Client Savings

Unit	1MVA
Optimisation	8%
kWh Savings	11%
£ Savings p.a.	£19,000
CO ₂ Savings p.a.	136,500kg

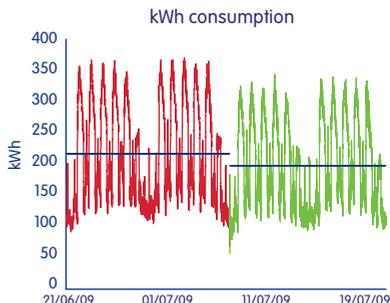
Utility

EDF Energy is Britain's largest producer of low carbon electricity. Over the last two years our unique Voltage Power Optimisation technology has been installed at multiple EDF Energy sites, proving itself to be extremely effective and reliable.

Following evaluation of the savings achieved, EDF Energy has now signed an exclusive agreement with **powerPerfactor** to provide its business customers with VPO® technology.

"VPO® technology has an unblemished reliability in its many thousands of installations over 16 years and we're pleased to offer our customers yet another way of helping them to manage their energy more efficiently – and reduce their bills."

Laurent Mineau, Manager of B2B Energy Services



Client Savings

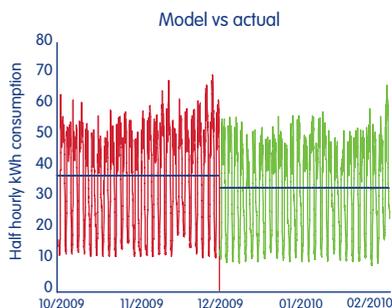
Unit	50kVA – 1MVA
Optimisation	4% – 12%
kWh Savings	7%
£ Savings p.a.	£115,000
CO ₂ Savings p.a.	594,000kg

Leisure & Tourism

The new Twenty Ten Clubhouse at the Celtic Manor Resort was purpose-built for The 2010 Ryder Cup and provided a fitting venue for the world's top golfers. Overlooking the signature 18th green, the Twenty Ten clubhouse features state of the art facilities. In November 2009 a 210kVA unit was installed which has seen a reduction in kWh consumption by 10 per cent.

"As well as reducing our costs significantly, the unit has also contributed to Celtic Manor's ongoing drive to save energy and minimise our impact on the environment. We have enjoyed an efficient and professional service in all our dealings with **powerPerfactor**."

Matthew Bamby, Golf Operations Manager



Client Savings

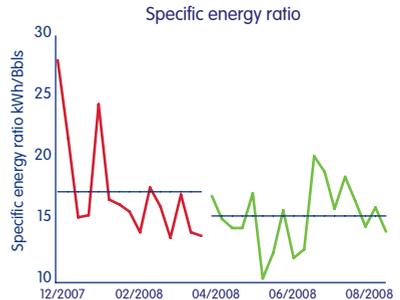
Unit	210kVA
Optimisation	8%
kWh Savings	10%
£ Savings p.a.	£8,900
CO ₂ Savings p.a.	36,400kg

Brewery

When William Robinson bought the Unicorn Inn in Stockport on 29 September 1838 he was establishing a company that was to become one of Britain's largest regional brewers. Now run by the fifth and sixth generation of the family, the company continues to develop whilst still using traditional brewing methods. Robinsons has an estate of over 400 public houses stretching from Northern Cumbria through the Lake District, North Wales, Cheshire, Derbyshire and Staffordshire. A 1MVA unit was installed in April 2008 at the brewery's state of the art bottling facilities.

"In the current climate it is very hard to ignore a technology that can be fitted so easily into a site that gives such immediate savings."

Bill Doodson, Chief Engineer



Client Savings

Unit	1MVA
Optimisation	9%
kWh Savings	10%
£ Savings p.a.	£21,000
CO ₂ Savings p.a.	154,000kg

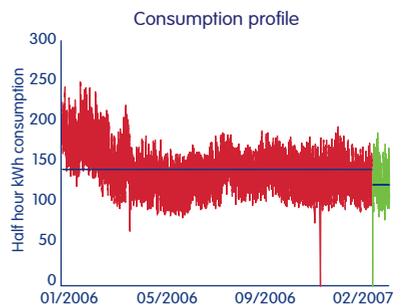
Hotel

Hilton is the most recognised name in the industry, with a presence in more than 80 countries. In the UK, over 20 **powerPerfector** units have been installed at Hilton sites including the new build Hilton Newcastle Gateshead which proudly overlooks the iconic Tyne Bridge.

At Hilton Dartford Bridge, a 740kVA unit was installed in January 2007, that has been delivering outstanding savings ever since.

"Since installation we have had no problems and we continue to benefit from reduced electricity bills. I would recommend the **powerPerfector** system without hesitation."

Stephen Colligan, Facilities Manager



Client Savings

Unit	740 kVA
Optimisation	8%
kWh Savings	13.2%
£ Savings p.a.	£26,200
CO ₂ Savings p.a.	16,000kg

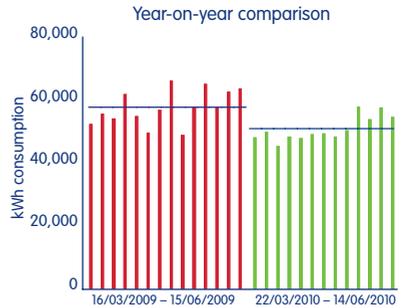
Leisure & Tourism

Since it was founded in 1856 the National Portrait Gallery's collection of portraits has grown to be the most extensive in the world. The site at St Martin's Place near Trafalgar Square houses a significant proportion of these, although many reside in other locations around the UK, including in a number of houses managed by the National Trust. Around two million people visit the National Portrait Gallery every year, the **powerPerfector** unit installed in March 2010 has cut the museum's electricity costs by 12 per cent.

"The savings witnessed post installation, were instant, obvious and matched the predictions made to us. It was pleasantly surprising to see how our energy consumption graph took a sudden drop thanks to the **powerPerfector**."

Tim Knight, Building Services Engineer

National Portrait Gallery



Client Savings

Unit	1MVA
Optimisation	8%
kWh Savings	12%
£ Savings p.a.	£28,645
CO ₂ Savings p.a.	207,700kg

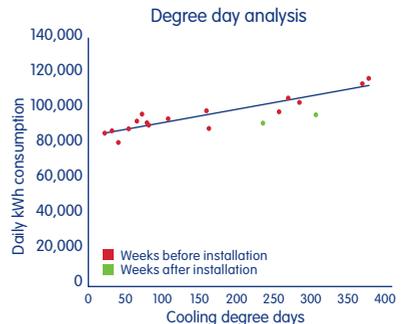
Office

To date, 197 units have been installed within offices buildings in the UK, including Experian, a leading global information services company. At the heart of the company lies a vast store of information, around which unique analytical skills and highly advanced software tools have been developed. Four **powerPerfector** units were installed across three Experian sites leading to average savings of over 12 per cent.

"Our **powerPerfector** installations are helping us to minimise the environmental impacts of current activities and therefore fulfill our Environmental Policy. Furthermore, the units are paying for themselves quickly through the savings achieved and the guaranteed Return on Investment ensures that there was very little risk involved on our part."

Tom Farr, Group Building Services Manager

Experian™



Client Savings

Unit	280 – 560kVA
Optimisation	9 – 11%
kWh Savings	12.1%
£ Savings p.a.	£39,000
CO ₂ Savings p.a.	301,000kg

Financial

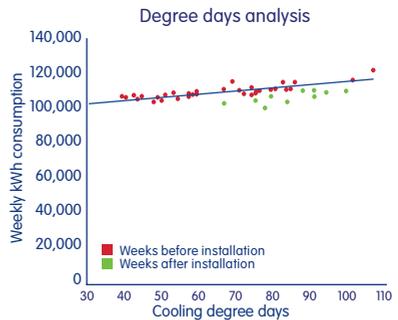


Many financial institutions choose **powerPerfector** because of its unblemished reliability record and ability to reduce risk within an organisation. 96 million clients worldwide trust AXA to insure their property, provide health and personal protection and manage their personal or corporate assets.

As part of AXA's continued commitment to carbon reduction two **powerPerfector** units were installed at Suffolk House in July 09. AXA had already implemented a number of energy efficiency measures across the site and were surprised and delighted to learn that the installation led to a 6 per cent saving in kWh and CO₂.

"...they are now delivering tangible results on electrical energy savings; these units form a key part of AXA's Carbon Management Programme."

David Hearn, Technical Manager



Client Savings

Unit	2 x 1MVA
Optimisation	7%
kWh Savings	6%
£ Savings p.a.	£25,800
CO ₂ Savings p.a.	184,000kg

Hospital

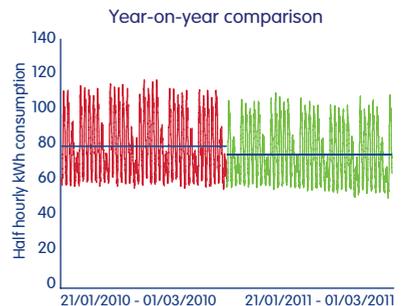


The Royal London Hospital was founded in September 1740 and was originally named The London Infirmary.

Six **powerPerfector Plus** units were installed at the Royal London Hospital from April 2010, including the hospital's West Wing which supplies MRI, CT and heart monitoring equipment as well as an A&E department. The six units are predicted to save the Trust between 10 – 11 per cent in kWh and CO₂ every year.

"We have had a phased installation and I'm happy to report that all of our equipment is working perfectly well and we're making some good savings. We have been so impressed with the equipment and the savings we have achieved that the Trust is now evaluating the potential to roll out further units across our estate."

Fiona Daly, Environment Manager,
Barts and the London NHS Trust



Client Savings

Unit	280kVA – 1MVA
Optimisation	pP PLUS
kWh Savings	10 – 11%
£ Savings p.a.	£86,500
CO ₂ Savings p.a.	619,000kg



"As someone who is evangelical about this product I want to urge you to get one."

Mike Barclay, WWF UK

"...**powerPerfector** 'does what it says on the tin'..."

Mark Lowers, London Borough of Havering

"...has contributed to a more efficient, robust and reliable electrical supply..."

Kim Pivett, Ofgem

"...a key part of AXA's Carbon Management Programme..."

David Hearn, AXA UK

"We have been so impressed with the equipment we are now evaluating the potential to roll out."

Fiona Daly, Barts and The London NHS Trust

"...the **powerPerfector** unit has been an undoubted success..."

Richard Kenyon, Trelleborg

"You don't need to know how it works. All you need to know is it worked for us."

Simon Bourne, Government Office for the East Midlands

See who else has been **powerPerfected**

There are numerous case studies on our website powerperfector.com, covering businesses and organisations big and small, global and local. Our savings analysis is conducted in line with the International Performance Measurement and Verification Protocol (IPMVP) which means savings are real and measurable. Full reports on all of these installations are available from **powerPerfector**.

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Visit: **www.powerperfector.com**