

# IN CONTROL OF YOUR ENERGY ENVIRONMENT

ENERGY SOLUTIONS  
FOR YOUR BUSINESS



**SCOTTISHPOWER**  
The Energy People



# COMMITTED TO REDUCING CARBON EMISSIONS FOR OUR CUSTOMERS

## AT THE FOREFRONT OF RENEWABLE ENERGY GLOBALLY

AS PART OF IBERDROLA WE ARE ONE OF THE LARGEST UTILITY PROVIDERS INTERNATIONALLY & THE WORLD LEADER IN WIND POWER. WE ARE EQUIPPED TO SERVICE VIRTUALLY ANY ORGANISATION, REDUCING THEIR ENERGY CONSUMPTION & CARBON EMISSIONS AS WE WORK TOWARDS PRODUCING THE CLEANEST ENERGY ON THE PLANET.

### SECURING A SUSTAINABLE FUTURE

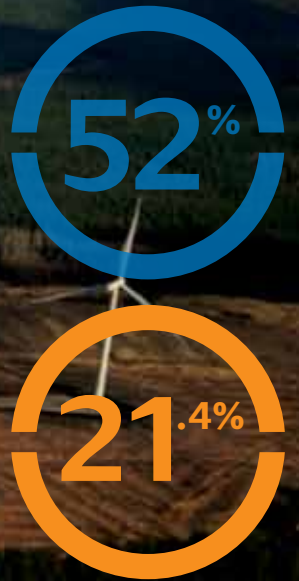
We are ready to play a pivotal role in the future of global energy, as the world faces the challenge of guaranteeing a secure, affordable and sustainable supply. Clean technologies will be crucial to combat climate change and reduce our dependence on fossil fuels – and we've made a major commitment to developing them.

Our environmental strategy and management have been recognised in a number of international environmental indices, including the Dow Jones Sustainability Index, where Iberdrola has been distinguished as a world leader among utilities. In the Climate Leadership Index, we are recognised as the best electricity company in the world, due to our strategy to fight climate change.

At the end of the first quarter of the financial year 2010, 52% of our global output was emission-free. And our atmospheric emissions for the quarter were 231 grams of CO<sub>2</sub> per kWh – an improvement of 21.4% on the same period of the previous financial year.

To encourage this responsible attitude across the energy industry, Iberdrola was the first electricity utility to draw up a Climate Change Policy. Our objective with this is to promote support for international agreements to address environmental problems, and to foster the development of efficient technologies. We also host an annual Environmental Experts Forum, which aims to support good practice in environmental issues, and to endorse the search for solutions to environmental problems.





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AN IMPROVEMENT OF 21.4% ON THE SAME PERIOD OF THE PREVIOUS FINANCIAL YEAR.

SCOTTISHPOWER ENERGY SOLUTIONS TEAM WILL TAILOR A RANGE OF ENERGY EFFICIENCY PRODUCTS & SERVICES TO THE NEEDS & GOALS OF YOUR ORGANISATION. AS PART OF A MAJOR GLOBAL ENERGY PROVIDER, THESE SOLUTIONS HAVE BEEN SPECIFICALLY DESIGNED TO HAVE A POSITIVE IMPACT ON YOUR CARBON REDUCTION. WE WILL WORK WITH YOU TO EFFECTIVELY REDUCE YOUR CARBON EMISSIONS & MAXIMISE YOUR ENERGY SAVINGS – IN LINE WITH YOUR OVERALL BUSINESS STRATEGY.

**THE POWER  
TO KEEP YOUR  
BUSINESS MOVING**

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As part of Iberdrola, one of the world's largest energy companies, and a global leader in renewable energy, we have the resources and expertise to help you adapt to your changing energy demands.

**DEDICATED ENERGY MANAGEMENT**

To meet your organisation's specific needs effectively, we can offer the services of an energy manager who has a thorough knowledge of the complexities of energy use in your sector. We'll work with you to understand your business goals, using our industry expertise to develop tailored solutions to achieve them.

Most importantly, through consultation, we can recommend products and solutions that can offer financial savings whilst reducing your carbon emissions. With ScottishPower energy solutions, acting more responsibly also means operating more profitably.



INDUSTRY IS RESPONSIBLE FOR 25% OF THE UK'S CO<sub>2</sub> EMISSIONS.\*

WITH THE RIGHT TECHNOLOGIES & SUPPORT 20% ENERGY SAVINGS CAN BE ACHIEVED.\*



\*SOURCE: WWW.CARBONTRUST.CO.UK 13.09.10

THERE ARE MORE REASONS THAN EVER TO ACT ON ENERGY MANAGEMENT ISSUES. RISING ENERGY COSTS & THE CURRENT ECONOMIC CLIMATE HAVE PUT AN INCREASED FOCUS ON CONTROLLING COSTS AS WELL AS RECENT GOVERNMENT LEGISLATION.

The CRC Energy Efficiency Scheme, the UK's mandatory climate change and energy saving initiative, will have a fundamental effect on industrial and commercial organisations. As you work hard to control your energy use, the need to prioritise different types of energy – and where you use it – will become greater. And this is where ScottishPower energy solutions can help.

Our advice and support is focused on managing the way you use energy for maximum benefit, and as part of this we offer a number of energy management solutions. We will integrate these, as appropriate, into your tailored energy management plan. We'll also assist you in understanding how to make most effective use of them.

**ENERGY  
SOLUTIONS  
FOR YOUR  
BUSINESS**

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## MONITOR & CONTROL YOUR ENERGY CONSUMPTION IN REAL TIME

### aM&T

(AUTOMATIC MONITORING & TARGETING SYSTEM)

Through aM&T, we help you measure and monitor your organisation's use of electricity, gas, water, steam and compressed air. The system collects and presents your data in an easy-to-use format, assisting you to save energy, gain better control of equipment and reduce carbon emissions.

You can also enhance the system to allow remote control of your lighting, heating, air conditioning and other applications. You can even develop your aM&T into a mini building management system, continually reviewing your site's control systems.

#### KEY BENEFITS

- *Live and historic energy data for single or multiple sites, quickly available through a web portal*
- *Identifying energy-saving opportunities easily*
- *Forecasting energy use*
- *The ability to set targets to reduce or control energy consumption*
- *Results compiled in detailed reports, highlighting any variation from targets*
- *Reports you can also use to prepare documentation to contribute towards achieving ISO14001 accreditation*
- *Supplies data you can use to calculate your organisation's carbon footprint*
- *Half hourly, Automated Meter Read and sub-metering data all in one package*
- *Online energy management software, accessible from any location by multiple users*
- *Updates and event logs*
- *Webex training for the online web portal included in our service package*



MANUFACTURING PROCESSES CAN ACCOUNT FOR 50-90% OF AN ORGANISATION'S ENERGY CONSUMPTION.\*

QUICKLY REDUCE LIGHTING  
ENERGY COSTS

# LIGHTING ENERGY CONTROLLER

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Lighting accounts for around 20% of the energy used by commercial organisations. Voltage control optimisation is one of the most effective ways to reduce energy consumption – and it produces immediate results. Our Lighting Energy Controller (LEC) takes the incoming electricity supply to your lighting, and adjusts it to the optimal energy and voltage for that lighting load. Through this simple device, you can reduce your lighting energy consumption by up to 30%.



#### KEY BENEFITS

- *Energy savings of between 15% and 30% of your lighting consumption*
- *Lower carbon emissions*
- *Improvements in power quality, harmonics and power factor through voltage stabilisation*
- *Longer life span for your lighting equipment*
- *Less maintenance and lower replacement costs*
- *Easy installation with no changes to existing lighting infrastructure*

INDUSTRIAL & COMMERCIAL ORGANISATIONS USE 73% OF THE UK'S LIGHTING POWER.\*

LIGHTING ACCOUNTS FOR 20% OF THE ENERGY USED BY COMMERCIAL ORGANISATIONS.\*

\*SOURCE: WWW.CARBONTRUST.CO.UK 13.09.10

IMPROVE LIGHTING  
CONDITIONS, REDUCE  
ENERGY COSTS  
& CONSUMPTION

## EFFICIENT LIGHTING

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Although up to 20% of the energy used in the UK commercial sector is for lighting, it is often overlooked as a way to reduce energy and operating costs. We can advise you on simple ways to make savings in this area – and often improve working conditions at the same time.

Advances in lighting technology mean your organisation can benefit from more energy efficient lamp and lighting fittings. And you can reduce your energy consumption further, through enhanced controls that turn off lights in unused rooms or dim the lighting when natural light levels are high.



20%



60%

#### KEY BENEFITS

- *Savings of up to 60% of your lighting consumption*
- *Increased lamp life, reducing maintenance and replacement costs*
- *Enhanced working environments*
- *Twelve month warranty on all fittings and control gear*

WITHIN THE COMMERCIAL SECTOR IN THE UK, UP TO 20% OF ENERGY USED IS FOR LIGHTING.\*

SAVINGS OF UP TO 60% LIGHTING CONSUMPTION CAN BE ACHIEVED.\*

OPTIMISE THE PERFORMANCE  
OF HEATING, VENTILATION  
& AIR CONDITIONING

# HVAC OPTIMISATION

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More than 40% of the money spent on energy in most buildings goes towards heating, ventilation and air conditioning (HVAC). In many businesses, this is the largest single consumer of energy – so it's an important area to focus on when looking for energy and carbon savings in commercial buildings.

Our HVAC Optimisation solution focuses on this area to give you greater control over your organisation's energy use, across your entire building estate portfolio. We can use it to reduce your carbon emissions, make financial savings and improve operational efficiency.

### KEY BENEFITS

- *Lower operating costs through reduced energy consumption*
- *More efficient operation and maintenance practices*
- *Lower CO<sub>2</sub> emissions, supporting your CRC strategy*
- *Longer life span and fewer failures for your HVAC equipment, reducing costs further*
- *Lower maintenance costs: remote diagnosis leads to proactive and targeted maintenance*

You may already have a building management system (BMS) to monitor and control your HVAC equipment. But the performance of your HVAC (and the BMS) may deteriorate over time – our HVAC Optimisation is a process of continuous system improvement to ensure your building runs efficiently 24/7.

It uses your existing BMS infrastructure to enhance the performance of the HVAC plant, and gives you visible operational building data from chiller to sensor, allowing you to optimise building comfort, efficiency and operations. This is an ongoing process that maintains building operations as equipment ages, and as seasonal and occupancy patterns evolve.

### HOW IT WORKS – IN THREE STEPS

1

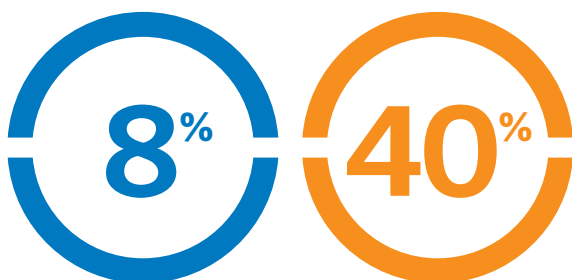
We survey your sites and assess the potential benefits from HVAC Optimisation. This includes the costs, benefits forecast and scope of activities.

2

When appropriate to install our HVAC optimisation solution, we would then deploy and configure, including linking to your existing BMS. From this point, we start monitoring hundreds – or maybe thousands – of data points, which we then assess through our software and turn into actionable recommendations to reduce energy and operating costs.

3

The system's recommendations are then implemented (by your in-house team, existing suppliers/contractors or ScottishPower). This can result in reduced carbon emissions and perhaps impact on operating costs. And from then on, HVAC Optimisation keeps working 24/7, looking for opportunities to fine-tune your facilities and save money.



TURNING YOUR THERMOSTAT DOWN BY 1°C CAN SAVE UP TO 8% OF YOUR HEATING CONSUMPTION.\*

ENERGY USED IN BUILDINGS FOR SPACE HEATING, COOLING, VENTILATION, LIGHTING, HOT WATER & ELECTRICAL APPLIANCES IS RESPONSIBLE FOR AROUND 40% OF ALL UK EMISSIONS.\*

Even if you are already taking steps to manage your energy use, there is always more you can do. By developing your energy management strategy with ScottishPower energy solutions, you'll benefit from our knowledge and experience – and our global commitment to the power of renewable energy. We will help you find the most effective ways to reduce costs and cut carbon emissions. And give your organisation a better chance of meeting its future energy demands.

To find out more, speak to one of our energy managers by calling

**0845 030 4053**

from 8.30am - 4pm, Mon - Fri

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[www.scottishpower.co.uk/energysolutions](http://www.scottishpower.co.uk/energysolutions)



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