



Answers for the Environment Event

Jaguar Exhibition Hall, Ricoh Arena, Coventry
June 29th & 30th, 2010

Seminar Programme

SIEMENS

The **Answers for the Environment** seminar programme is designed to address key issues affecting industry and infrastructure customers today. Create your own individual agenda by selecting the seminars that best fit your needs. Be sure to leave plenty of time to visit our themed exhibitions and take advantage of all the networking opportunities. Register now at www.siemens.co.uk/afe.

Tuesday June 29th

Tuesday June 29th	09.00	Exhibition opens		
	09.30 - 10.30	T11 Sustainable Cities	T21 Support mechanisms for energy efficiency and low carbon solutions	T31 Delivering improved efficiencies through the use of innovative modelling and asset management tools
	11.00 - 12.00	T12 A post-Copenhagen review of energy and environmental policy	T22 Sustainable Water Technologies: Waste not, want not	T32 Energy efficiency in buildings
	13.00 - 14.00	T13 Implications of low carbon strategies for UK manufacturing	T23 Best Practice in energy, cost & carbon reduction	T33 Answers for Sustainable Construction
	14.30 - 15.30	T14 Carbon Reduction Commitment (CRC) as an income generator	T24 Sustainable Transport - Complete Mobility	T34 Power management solutions - exploring hidden cost reduction opportunities
	16.45	Exhibition closes		

[T11] Sustainable Cities

With increasing trends towards urbanisation, cities face a daunting challenge to develop sustainable infrastructure, transportation and policies. This unique research, presented at the recent UNFCCC summit in Copenhagen, outlines the sustainability credentials of 30 major cities across Europe, including London. The scope of the European Green City Index is unique. The eight categories are based on 30 individual indicators, 16 of which are quantitative (e.g. consumption of water and energy per capita, recycling rate, and use of public transportation) and 14 qualitative (e.g. CO₂e reduction targets, efficiency standards for buildings, and support for environmental protection measures).

Speakers:

James Watson – The Economist Intelligence Unit

Andreas Goss, Chief Executive – Siemens plc

[T12] A post-Copenhagen review of energy and environmental policy

The dust has settled on the Copenhagen review and commentators are largely describing the results as disappointing with no legally binding global agreements reached. There is also a growing climate change skeptic lobby - not helped by recent bad publicity around climate change research.

The keynote address by Professor Ian Fells, followed by a high level panel debate, will seek to answer questions such as:

- What were the Kyoto protocol aims and how did we progress against these?
- Where does Copenhagen leave climate change policy and how should the UK react?
- What are the UK government policies and how will these develop?
- How does climate change policy affect UK organisations?

Speaker:
Professor Ian Fells

The Panel:
Harry Morrison, General Manager
- The Carbon Trust Standard

Mark White, Technical Director - Jaguar

Chris Crookall-Fallon, Director - Camco

Alan Aldridge, Chief Executive
- ESTA Energy Services & Technology Association

Steve Barker, Head of Energy Efficiency & Environmental Care – Siemens Industry Sector

Moderated by Tom Idle, Editor of Sustainable Business.

[T13] Implications of low carbon strategies for UK manufacturing

UK manufacturing has faced up to many challenges in recent years and is now enjoying resurgence in importance for the UK economy. UK and EU policies will dictate an increasing priority on a move to 'Green Manufacturing'. Unstable and increasing energy prices will provide additional challenges.

This session will therefore explore:

- What does this mean for UK manufacturing?
- What are the key policies that affect manufacturing?
- How will companies take advantage of 'low carbon manufacturing'?
- Do we have the skills necessary to exploit these opportunities?

Speakers
Mark White, Technical Director - Jaguar

Juergen Maier, Managing Director
- Siemens Industry Sector

Finbarr Dowling, Managing Director
- Siemens Standard Drives

[T14] Carbon Reduction Commitment (CRC) as an income generator

The CRC Energy Efficiency Scheme (CRC EES) – which affects around 5000 organisations – is now in the registration phase. This mandatory scheme, which has put a starting price of £12 / tonne of CO₂e emissions, will potentially create cost and reputational issues for organisations that do not actively manage the scheme.

This session will therefore explore:

- What is the scheme and how does it work?
- How much will it cost?
- Requirements to maximise any recycling payments?
- Measures to elevate positioning in the league tables?
- How do organisations manage the reputational issues of the league tables?
- How will the scheme develop in the next phase?
- Is it possible to make money from the CRC EES?

Speakers:
Alan Aldridge, Chief Executive
- ESTA Energy Services & Technology Association

Rupert Butt, Managing Director
- carbonreductionmanagement

[T21] Support mechanisms for energy efficiency and low carbon solutions

Whilst high energy costs and increasing legislative requirements combine to make energy and carbon reduction essential, there are also numerous support mechanisms which simplify the transition towards low carbon solutions. However, many users are still not aware of what support is available and how users can potentially implement solutions at 'zero-cost'.

This session will therefore explore:

- What support schemes are available?
- How does The Carbon Trust help UK industry and commerce?
- What schemes apply to public and private sector clients?
- How can organisations implement projects with 'zero-cost' - or even with a positive cash flow contribution?
- What are the obstacles and enablers for investment decisions such as government tax incentives?

Speakers:

Harry Morrison, General Manager
- The Carbon Trust Standard

Simon Corbett, Head of Sales (Commercial Finance)
- Siemens Financial Services

[T22] Sustainable Water Technologies: Waste not, want not

Although not widely practiced in the UK today, water reuse and rainwater harvesting is becoming more economically viable and accepted as a sustainable strategy for water management. Technological challenges can be met with the simple application of advanced separation and disinfection solutions from Siemens. Current voluntary schemes for water sustainability are driving this market to develop, implement and disclose their policies and practices. This session will examine the economic and social drivers, and present best practice case studies for the reuse of municipal and industrial wastewater.

Speakers:

Paul Williams, Head of Sales and Projects - Aquaco

Darren Dale, Technical Sales Director
- Siemens Water Technologies

[T23] Best Practice in energy, cost & carbon reduction

It is reported that adopting a systematic approach to energy efficiency provides four times more savings than an 'ad hoc' approach. Additionally, there are now harmonized standards specific to energy management systems.

This session will therefore:

- Explain how standards can assist in the transition to low carbon strategies
- Outline the requirements of the energy management standard EN 16001
- Demonstrate the benefits of a systematic approach
- Identify tools and methodologies to implement such a systematic approach
- Highlight opportunities for the validation of energy management systems

Speakers:

Victoria Barron, Product Marketing Manager - BSI

Chris Crookall-Fallon, Director - Camco

[T24] Sustainable Transport - Complete Mobility

Left unchecked, the inexorable demand for increased mobility will generate an unsustainable level of environmental impact. However, the deployment of a more intelligent transportation strategy coupled with developments in mobility technologies can prevent undesirable outcomes.

This session explores how the Siemens 'Complete Mobility' concept answers these issues and will cover:

- The impact of technology developments such as high efficiency trains, hybrid drives for public transport applications and opportunities for electric vehicles
- Efficient mobility solutions that allow intelligent co-ordination of different transport systems
- Benefits of low energy traffic light systems
- Intelligent traffic control systems that reduce congestion and improve journey times whilst simultaneously reducing carbon emissions

Speakers:

Gordon Wakeford, Managing Director
- Siemens Mobility

Martin Wylie, Traffic Signals Engineer
- Southampton City

[T31] Improved business and energy efficiencies through the use of innovative modelling and Asset Knowledge Management Solutions

This session will cover a presentation on the use of Asset Knowledge Management solutions including; 3D/4D modelling, Asset Capture/Creation and Network Modelling/optimisation tools - in order to deliver business and energy efficiencies within Utilities, Transport and Infrastructure companies.

Discover how to capture Asset Knowledge at source and reuse this to improve the operational efficiency and costs of Assets whilst optimising the energy costs throughout the lifecycle.

Case study: Delivering Capital Expenditure efficiencies and reduced environmental impact through the use of 3D & Asset Knowledge Management.

A look at Anglian Water's @one Alliance deployment of 3D CAD modelling and Teamcenter to manage the complete process of delivering new CapEx projects for the AMP5 Water regulatory 5 year period. The solution provides a collaborative environment for Anglian Water Services and its Alliance partners to capture and share correct and valid asset data and visualise the complete design/build/maintenance sequence within a 3D environment.

The benefits of this solution are improved efficiency in the Design department, clear visibility of the project and design for all partners and stakeholders, reduced environmental impact, a reduction in rework and waste, reuse of standard products/plant assemblies, improved maintainability and effective knowledge transfer to operations to reduce lifecycle costs.

Speakers:

Rachel Dobson - Anglian Water Services Limited

Nigel Harper, Director - Navitas

Adam Summers, Utilities & Infrastructure Manager - Siemens PLM Software

[T32] Energy efficiency in buildings

Buildings create over 40% of emissions therefore maximising energy efficiency in buildings is critical for UK carbon reduction targets. It is also a relatively easy way for organisations to reduce costs. The adoption of best practice techniques together with the implementation of innovative technology can substantially reduce the carbon emissions and operating costs from buildings.

This session covers topics including:

- What are the developments in 'best practice' low carbon buildings?
- How can techniques be applied to the existing building stock?
- What legislation and regulation applies?
- How can technology and control solutions maximise energy and carbon reductions?
- Can buildings simultaneously reduce energy and also improve the operational performance of the building?

Speakers:

Ulrich Wirth, Head of Market Support - Siemens Building Technologies

Brin Sheridan, Managing Director - Building Automation Solutions Limited

[T33] Answers for sustainable construction

The traditional construction approach is resource intensive, expensive and time consuming. This session looks at innovative strategies such as 'build offsite' to reduce costs, expedite project delivery and enhance sustainability and gives examples of major improvements on construction cost and programme as well as post construction operating costs.

Furthermore, as we move towards buildings that are built and refurbished within increasingly sustainable cities, the requirements and expectations for those buildings will inevitably change. The second presentation therefore looks at how the design, specification and construction of these buildings will differ from current business as usual.

Speaker:

Cal Bailey, Sustainability Director - NG Bailey

Chris Trott, Director - Ove Arup & Partners

[T34] Power management solutions – exploring hidden cost reduction opportunities

Electrical power management is largely ignored as a potential cost reduction opportunity. However, the application of innovative power management techniques can reduce cost, improve reliability and minimise carbon emissions.

This session covers:

- An introduction to electrical power management
- The financial and technical implications of power quality
- Voltage optimisation – fact or fiction?
- Solutions for effective power management

Speakers:

Steve Barker, Head of Energy Efficiency & Environmental Care
– Siemens Industry Sector

Dave Holcroft, Product Manager
- Siemens Building Technologies

Mark Smyth, Business Manager
- Siemens Industry Automation

Wednesday June 30th

Wednesday June 30th	09.00	Exhibition opens		
	09.30 - 10.30	W11 Carbon Reduction Commitment as an income generator	W21 Sustainable Communities - Protecting our local environment	W31 Driving Smart: energy and cost reduction using drive technologies
	11.00 - 12.00	W12 Best Practice in energy, cost & carbon reduction	W22 Metering - a 'smart' idea?	W32 Green Airports
	13.00 - 14.00	W13 Energy-efficient lighting	W23 Examples of energy reduction in action	W33 Sustainable Transport - Complete Mobility
	14.30 - 15.30	W14 Energy efficiency in buildings	W24 Support mechanisms for energy and low carbon solutions	W34 Sensors and environmental compliance
	16.45	Exhibition closes		

[W11] Carbon Reduction Commitment (CRC) as an income generator

The CRC Energy Efficiency Scheme (CRC EES) – which affects around 5000 organisations – is now in the registration phase. This mandatory scheme, which has put a starting price of £12 / tonne of CO₂e emissions, will potentially create cost and reputational issues for organisations that do not actively manage the scheme.

This session will therefore explore:

- What is the scheme and how does it work?
- How much will it cost?
- Requirements to maximise any recycling payments?
- Measures to elevate positioning in the league tables?
- How do organisations manage the reputational issues of the league tables?
- How will the scheme develop in the next phase?
- Is it possible to make money from the CRC EES?

Speakers:

Steve Barker, Head of Energy Efficiency & Environmental Care - Siemens Industry Sector

Alan Aldridge, Chief Executive
- ESTA Energy Services & Technology Association

[W12] Best Practice in energy, cost & carbon reduction

It is reported that adopting a systematic approach to energy efficiency provides four times more savings than an 'ad hoc' approach. Additionally, there are now harmonized standards specific to energy management systems.

This session will therefore:

- Explain how standards can assist in the transition to low carbon strategies
- Outline the requirements of the energy management standard EN 16001
- Demonstrate the benefits of a systematic approach
- Identify tools and methodologies to implement such a systematic approach
- Highlight opportunities for the validation of energy management systems

Speakers:

Victoria Barron, Product Marketing Manager - BSI

Chris Crookall-Fallon, Director - Camco

[W13] Energy-efficient lighting

This seminar will inform you about the impact of lighting on the environment and the most recent European legislation affecting lighting. Discover what steps your organisation can take to reduce energy and maintenance costs through efficient lighting solutions and see the latest LED technology in action.

Speakers:

David Ellis, National Sales Manager - OSRAM

**Peter Haseler, Product Manager KNX
- Siemens Building Technologies**

[W14] Energy efficiency in buildings

Buildings create over 40% of emissions therefore maximising energy efficiency in buildings is critical for UK carbon reduction targets. It is also a relatively easy way for organisations to reduce costs. The adoption of best practice techniques together with the implementation of innovative technology can substantially reduce the carbon emissions and operating costs from buildings.

This session covers topics including:

- What are the developments in 'best practice' low carbon buildings?
- How can techniques be applied to the existing building stock?
- What legislation and regulation applies?
- How can technology and control solutions maximise energy and carbon reductions?
- Can buildings simultaneously reduce energy and also improve the operational performance of the building?

Speakers:

**Brin Sheridan, Managing Director
- Building Automation Solutions Limited**

**Barry Glew, Managing Director
- Siemens Building Technologies**

**Ian Ellis - Marketing Manager
- Siemens Building Technologies**

[W21] Sustainable Communities - Protecting our local environment

Fire and security should be seen as integral considerations for sustainable communities and low carbon buildings.

The London Borough of Bexley has implemented a pioneering approach to community safety and the case study will cover key issues including:

- Environmental impact of the CCTV security solution
- Opportunities for centralised security hubs
- Reduced maintenance requirements

Additionally, fire protection is a critical area which has substantial and often overlooked impacts on sustainability and cost reduction such as:

- Sustainability considerations of false fire alarms
- Linkage between false alarms and increased energy use and carbon emissions
- Impact of fire on your carbon footprint

Speakers:

Maureen Holkham, Deputy Director Neighbourhoods and Communities - London Borough Bexley

**Don Scott, Senior Fire Engineering Consultant
- Siemens Building Technologies**

[W22] Metering – a 'smart' idea?

There has been significant press coverage regarding UK policy on smart metering. However, there is still a lot of confusion about what this means in practice. Many organisations will also be aware that Automatic Meter Reading (AMR) is an 'early action measure' for the CRC Energy Efficiency Scheme and will contribute to the size of the rebate received. Energy management experts also state that Automatic Monitoring and Targeting (aM&T) – which is often said to be the single best cost reduction measure - is a critical part of a coherent energy and cost reduction strategy.

This session will explore:

- What is a smart meter?
- The UK policy on smart meters
- How do we exploit AMR / aM&T as part of a systematic cost reduction programme?

An expert panel will de-mystify the issues and explain how to maximise the cost reduction opportunities available.

Speakers

Dr. Howard Porter - BEAMA

**Darren Garbett, Energy Consultant Buildings
- Siemens Industry Sector**

**David Lee, Strategic Sales Executive
- Siemens Metering Services**

**Dave Holcroft, Product Manager
- Siemens Building Technologies**

[W23] Workshop: Examples of energy reduction in action

This workshop highlights the extensive cost and carbon reduction opportunities available by the expert application of preferred technology solutions.

The workshop will cover a variety of opportunities including:

- What are the 'top 10' energy reduction technologies?
- Where do 'renewables' fit in the pecking order of low carbon solutions?
- How can users minimise energy consumption on refrigeration applications?
- What are the benefits of the next generation of motor management techniques?

Speakers:

Cliff Bradshaw, Technical Director – Cotopaxi

Luke Dale, Consultant Energy Efficiency & Environmental Care - Siemens Industry Sector

[W24] Support mechanisms for energy efficiency and low carbon solutions

Whilst high energy costs and increasing legislative requirements combine to make energy and carbon reduction essential, there are also numerous support mechanisms which simplify the transition towards low carbon solutions. However, many users are still not aware of what support is available and how users can potentially implement solutions at 'zero-cost'.

This session will therefore explore:

- What support schemes are available?
- How does The Carbon Trust help UK industry and commerce?
- What schemes apply to public and private sector clients?
- How can organisations implement projects with 'zero-cost' - or even with a positive cash flow contribution?
- What are the obstacles and enablers for investment decisions such as government tax incentives?

Speakers:

Simon Corbett, Head of Sales (Commercial Finance)
- Siemens Financial Services

Steve Barker, Head of Energy Efficiency & Environmental Care - Siemens Industry Sector

[W31] Driving Smart: energy and cost reduction using drive technologies

Electric motors are the largest single users of electrical energy – almost one quarter of the electrical energy generated is used by motors (over 60% in industry). The EU has targeted motor driven systems and is implementing mandatory efficiency standards. However, even more significant opportunities can be realized by looking at the 'complete drive train'.

This session explores:

- What are the new mandatory motor efficiency standards and when do they apply?
- Is it correct that variable speed drives (VSDs) can save 10 times more energy than high-efficiency motors?
- How critical is gearbox efficiency?
- What incentives apply for energy-efficient drive systems?

The session also includes a case study of a critical power station cooling tower application which demonstrates the wide range of considerations that affect the sustainability of the process – including operational efficiency, noise limitations, mechanical constraints, reducing downtime, water management, maintenance requirements as well as cost and carbon reduction.

Speakers:

Jeremy Wilkinson, Product Manager
- Siemens Drive Technologies

Graham Stevens, Project Manager for Efficiency Improvement - EON Connahs Quay

Mark Bate, Energy Manager - EON Connahs Quay

[W32] Green Airports

Today's airports are facing various challenges due to climate protection requirements and increasing energy costs. Demonstrating the need for a holistic view on strategy, Siemens shows how airports could become forerunners in energy efficiency and environmental protection. The audience is given an insight into our approach and methodology to develop a green airport strategy focused on sustainability and energy efficiency. The seminar also focuses on the key areas and processes which have an impact on CO₂ emissions and on ways to improve the situation.

Speakers:

Franz Josef Herchenbach, Director
- Siemens Airports Centre

Brad Miller, Projects Director
- Manchester Airports Group Plc

[W33] Sustainable Transport - Complete Mobility

Left unchecked, the inexorable demand for increased mobility will generate an unsustainable level of environmental impact. However, the deployment of a more intelligent transportation strategy coupled with developments in mobility technologies can prevent undesirable outcomes.

This session explores how the Siemens 'Complete Mobility' concept answers these issues and will cover:

- The impact of technology developments such as high efficiency trains, hybrid drives for public transport applications and opportunities for electric vehicles
- Efficient mobility solutions that allow intelligent co-ordination of different transport systems
- Benefits of low energy traffic light systems
- Intelligent traffic control systems that reduce congestion and improve journey times whilst simultaneously reducing carbon emissions

Speaker:

Tom Macmorrán, Sales & Marketing Director, Traffic Solutions - Siemens Mobility

[W34] Sensors and environmental compliance

With the ever increasing demands to improve environmental performance, many power stations are looking to add abatement plant to reduce NOx release levels formed as a by-product of combustion. Whilst addressing this issue, operational costs can significantly rise if control of the abatement media is not adequately managed.

Shawn Pullman from the Process Analytics group describes the application of an in-situ laser gas analyser (Siemens LDS 6) to enable better control of the abatement process leading to reduced costs and improved environmental performance.

Speakers:

**Shawn Pullman, Account Manager
- Siemens Industry Automation**