

Copy of ABS' entry for the CIBSE 2011 Training for Building Performance Award

The training initiatives entered for the **Training for Building Performance Award** are the following:

1. **Sustainable Facilities Management (SFM) Training and Mentoring Programme** – A partnership with London Southbank University (LSBU), June 2009 to June 2010 inc
2. **Carbon and Energy Management (CEM) workshops for all UK franchise centre principals and environmental champions for Toyota GB**, June 2009 to June 2010 inc

These two initiatives, which are based on the same strategies and case studies but are customised for the different target group needs, are summarised in sections 1 and 2 below. Background to the development of the approach is outlined in section 3.

1. Sustainable Facilities Managing (SFM) Training and Mentoring Programme – A partnership with London Southbank University (LSBU), June 2009 to June 2010 inc

ABS consulting (ABS) has partnered with London South Bank University (LSBU) to provide this innovative MSc level training and mentoring programme entitled “Delivering Sustainable Facilities Management (SFM) through project based training, learning and mentoring - *Achieve Energy Efficiency, Cost Savings and Occupant Satisfaction*”.

Through our Continuous Commissioning (ConCom) Knowledge Transfer Project (KTP) with LSBU, we found that we shared a commitment to results oriented training. ABS outlined an approach to mentored training that would deliver measureable benefits to student and sponsor and LSBU agreed that this approach would fill a gap in the training needs of the FM and Building Services Engineering (BSE) sectors. The programme was then developed in partnership.

This interactive course requires delegates to implement a real life project of their choice that will demonstrate the benefits of SFM, ideally to be carried out for their employer (Sponsor). The programme combines classroom learning supported by mentoring whereby delegates have regular access to expert help and advice for their project throughout the 5 month programme.

The first programme commenced on 16 April 2010 and ended with project presentations on 30 June 2010 at the recently launched Centre for Efficient and Renewable Energy in Buildings (CEREB), a unique teaching, research and demonstration facility for low carbon technologies. The presentations were judged by Kevin Cope - Head of Building Operations at Imperial College London and Phil Hudson - Director of Estates at Imperial College Healthcare NHS Trust. ABS invited Kevin and Phil to Judge the presentations as ABS has been delivering motivational training and mentoring as part of the College's and the Trust's carbon and energy management (CEM) implementation programme since 2003 and 2005 respectively. Substantial carbon and energy savings have been realised by both organisation as a result of ABS' training and mentoring work which has been combined with implementation of the strategies covered by the training.

The next SFM programme will commence at LSBU's CEREC facility in February 2011.

Objectives

The attached brochure provides details of the programme and its objectives.

Outcomes

The winner of the first place award at the project presentations was Marc Jacobs of Talk Talk Group. Mark's project identified and developed the business case for a low cost energy saving project that once rolled out throughout his company's data centres it is estimated to save 29% in energy costs which equates to annual savings of £97,550 and 990 tCO₂ giving a payback period of less than 12 months. The project -which has already been tested in a pilot site during the training programme- targeted no and low cost savings in data centres and more specifically focused on maximising the efficiency of data centre Air Conditioning Units (ACUs) by optimising air flow, increasing ACU temperature set points and automating ACU redundancy.

After presenting the project to his supervisors Mark was promoted. In an email to ABS he said *“I’ve been offered and have accepted a new role at the company as ‘Energy & Facilities Engineer’. I wouldn’t have reached this point without the course and my mentor’s input, for which I am very grateful, thank you”* – Marc Jacobs, Talk Talk Group.

2. Carbon and Energy Management (CEM) workshops for all UK franchise centre principals and environmental champions for Toyota GB, June 2009 to June 2010 inc

Toyota GB and ABS have been working together since 2008 in developing and implementing a CEM programme for Toyota GB’s 230 UK franchise retail centres. The programme is based on the findings of a pilot project carried out by ABS on 16 sites during 2008 and 2009. The pilot project demonstrated that energy saving of 20% per annum could be achieved from a programme of survey, training, mentoring and implementation. The programme is currently being rolled out to all 230 sites with the intention of achieving and sustaining energy savings in line with the pilot.

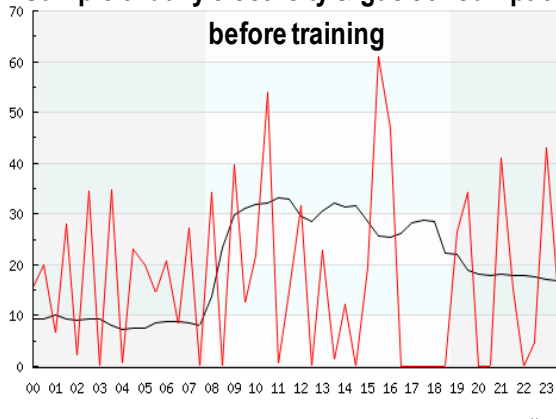
Objectives

- Demonstrate the role of centres in TGB’s 360° approach to sustainability
- Provide an understanding of centre specific energy consumption
- Present Energy Efficiency & Carbon Management basics
- Explain how to perform and use energy Benchmarking, Monitoring & Targeting
- Present the pilot scheme, communicate the savings achieved and demonstrate sample case studies
- Give an overview of simple Energy, Cost & Carbon Saving Opportunities (HVAC, Awareness, Lighting, Maintenance)
- Provide a future action plan
- Collect Feedback and provide implementation support

Outcomes

Toyota GB’s carbon and energy management pilot sites are realising energy savings of 20% per annum as a result of the pilot programme, of which training was major component. A sample impact of the training is demonstrated in the graphs below, taken from the energy monitoring software of one of the pilot sites before and after the training. We see that after the training both gas (in red) and electricity consumption (in black) were adjusted to reflect occupancy hours (0700 to 1800) and are less erratic.

Sample of daily electricity & gas consumption



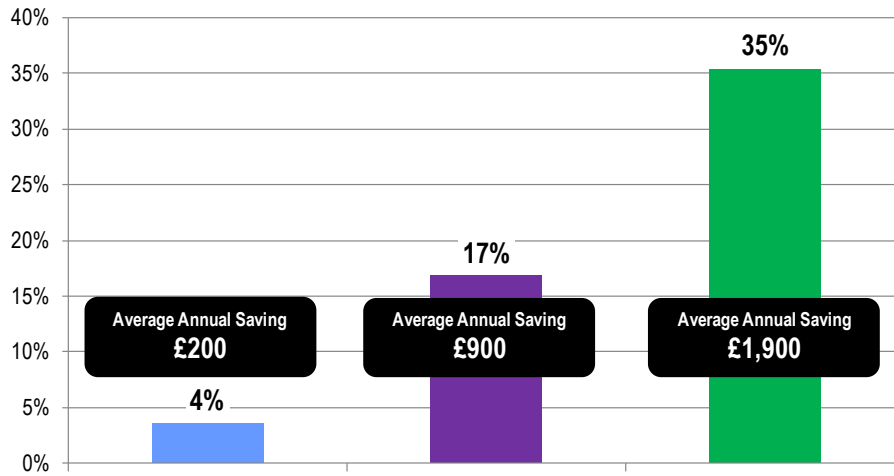
Sample of daily electricity & gas consumption



In the figure below it can be seen by comparison of the blue (Group 1) and purple (Group 2) histograms that centres that received training achieved savings of 13% more than the centres that only received metering and an action report .

Toyota Pilot results: Gas Savings

% Reduction in total consumption since 2008 (Gas)



Initiative Received:

	Group 1	Group 2	Group 3
Site Survey	X	X	X
Metering & Reporting	X	X	X
Action report	X	X	X
Training		X	X
Energy Saving Equipment			X

3. Background to the SFM programme development

ABS consulting has been providing motivational and technical training for the FM and building services sectors for over 20 years and particularly in CEM over the last 10 years. Our experience has shown that investment in technology will often fail to deliver the expected benefits unless those charged with operating the technology have appropriate technical skills, management ability and motivational desire to ensure that it provides the optimum of cost and value for the occupier. This experience lead us to develop a series of in-house training and mentoring programmes for clients that have retained us to prepare and implement CEM strategies as a fundamental component of SFM. Such clients include:

- Imperial College Healthcare NHS Trust
- Imperial College London
- Toyota GB
- Climate Change Capital
- BAA
- Kingston Hospital NHS Trust

The result of our work in partnership with the above clients has delivered quantifiable energy, operating cost and carbon savings as well as improvement in occupant comfort and satisfaction. The SFM training programme and the CEM workshops include strategies that have delivered and sustained significant financial and environmental benefits for ABS' clients over the past years as summarised in the examples below:

- Imperial College Healthcare Trust NHS is achieving annual savings of £570,000 and 6,000tCO₂. (ABS won the 2008 CIBSE Low Carbon Consultant: Innovation of the Year Award for its Continuous Commissioning project at the Trust).
- Imperial College London is achieving annual savings of £175,000 and 900 tCO₂. (The College was the 2010 runner up of the CIBSE award Client of the Year – Energy Performance, nominated by ABS).
- From the results of the pilot project for Toyota GB, the current roll-out project is expected to realise annual carbon savings of some 6,000t.