

# BRE Sustainability Performance Statement 2010

S Plan



# Executive Summary

## S Plan

This Sustainability Performance Statement details the BRE Group's performance during 2009/10 in the areas of energy consumption, water consumption and waste management. This report also details progress made in the eight S Plan areas: CO<sub>2</sub>, Resource Efficiency, Supply Chain, Transport, Community Engagement, Ecology, Water, and Information Systems.

17 overarching S Plan targets were established in 2008 further underpinned by 129 milestones across the eight areas. As of December 2010, 48 milestones have been met, 3 are ahead of plan, 19 on plan, 25 behind plan, 24 not achieved, and 10 are on hold or not started.

The highlights in 2010 are BRE's strong and steady progress towards our zero non-hazardous waste to landfill target achieving 86% diversion from landfill. We are also on target to meet our 2012 S Plan targets for energy associated CO<sub>2</sub> reductions having already surpassed our electricity reduction target this year, and 2% away from meeting our gas reduction target. Cost savings realised in 2009/10 as a result of gas and electricity savings totalled over £79,000.

Another area performing strongly is the Sustainability Schools Programme which delivers sustainability awareness courses to school pupils from 7yrs plus. Over 50 schools visited BRE during 2009/10, with a further 66 schools visiting in 2010/11 totalling over 2,500 pupils.

2011 could be a pivotal year that offers some exciting opportunities for the S Plan especially in the area of transport which we need to grasp with both hands if we are to deliver on our promise of having better sustainable transport solutions in place for staff and visitors.

In summary and a testament to what the company has achieved in 2010 the BRE Group achieved 26<sup>th</sup> place in the 2010 Sunday Times Best Green Company Awards<sup>1</sup>. This was a rise of 9 places on the previous year. The Group also placed 3<sup>rd</sup> overall in its category (big/mid-sized company with low environmental impact). And what's more we have just submitted our entry in to the 2011 Awards where we will be aiming to break in to the Top 20 Best Green Companies for the first time.

# Vision

# S Plan

*Our mission is 'to build a better world' but our planet cannot support the continued growth of living standards and consumption without a transformation in our use of natural resources and the adoption of sustainable processes and practices which ensure the continuing health of all aspects of our biosphere.*

*By our very nature BRE has a dual responsibility, not just to use its knowledge and influence to help others attain sustainability in all they do, but also to mirror that by ensuring that we lead the way in what we do. In that context our vision comes in two parts;*

***Our unmistakable imprint on sustainability thinking and practice - worldwide***

*and*

***To always be able to say, 'yes, this is how we achieved ...'***

*To be true to ourselves and our heritage we need to base the changes we need to make on good evidence and good science and to not be swayed by the merely fashionable. Whatever we do and recommend has to make business sense, or we will not be heard. To fail at either would undermine our very existence.*

*Such a transformation requires both radical and incremental thinking and actions. It requires continuity of commitment at both corporate and individual level. It requires joined-up thinking and the investment of time, energy and passion. It will not be easy, nothing rewarding ever was.*

Martin Wyatt  
BRE Group Chairman

# Environmental Key Performance Indicators

## 5 Plan

Table 1 presents the BRE Group performance against our Environmental Key Performance Indicators on utility usage and waste generation and recycling for the BRE Garston site for the period April 2009 – March 2010.

Figures relating to our business transport impacts have been omitted from this report, as this data is not being consistently captured within the business at present. This is an area of particular focus going forward into 2011 and beyond where we will strive to better monitor and target our transport emissions.

Table 1: eKPIs BRE Garston site April 2009 – March 2010

eKPI	Total	Tonnes CO <sub>2</sub> emissions	Impact per person <sup>ii</sup>	FY 2008/09	% change	Cost savings/increase
1 Electricity use	6,071,218 kWh	1,791 <sup>iii</sup>	2 t/CO <sub>2</sub>	6,504,254 kWh	7% reduction	£33,344 <sup>iv</sup>
2 Natural Gas use	8,653,341 kWh	1,601 <sup>v</sup>	1.8 t/CO <sub>2</sub>	10,497,279 kWh	21% reduction	£46,098 <sup>vi</sup>
3 Water use	38,087 m <sup>3</sup>	-	42,800 ltr	28,825 m <sup>3</sup>	24% increase	£12,951 <sup>vii</sup>
4 Waste generated	869.8 t		1,054 kg <sup>viii</sup>	903.6 t	4% reduction in waste generated	
Waste recycled / recovered	679.5 t (78%)			405 t (45%)	33% increase in waste diverted from landfill	
Waste land filled	190.3 t (22%)			498.6 t (55%)		

eKPI	Total	Tonnes CO <sub>2</sub> emissions	Impact per person <sup>ii</sup>	FY 2008/09	% change	Cost savings/increase
<b>By waste type:</b>						
Cans (recycle)	0.97			1.37	-41%	
Card (recycle)	40.07			31.44	+22%	
Contaminated Load	2.62			11.90	-354%	
Food Waste (recycle)	4.96			-		
General Commercial Waste (recovery)	178.56 <sup>ix</sup>			181.64 <sup>x</sup>	-2%	
General Construction Waste (recovery)	313.51 <sup>xi</sup>			523.23 <sup>xii</sup>	-67%	
Glass (recycle)	3.68			6.75	-83%	
Green Waste (recycle)	52.52			14.50	+72%	
Inert (recycle)	164.88			54.88	+67%	
Mixed electrical equipment (recycle)				1.74		
Newspapers/magazines (recycle)	8.06			11.17	-39%	
Paper (recycle)	15.27			24.24	-59%	
Plasterboard (recycle)	21.52			-		
Plastic Bottles (recycle)	1.28			2.15	-68%	
Plastic Cups (recycle)	0.56			-		
Scrap (recycle)	6.12			16.30	-166%	
Wood Grade A (recycle)	22.64			22.28	+2%	
Wood Grade B (recycle)	32.58			-		

# Carbon Footprint

Our total carbon footprint (tonnes/CO<sub>2</sub>) for the BRE Garston site and per person on site is presented below for 2009/10. This is based on data from Table 1 and includes total electricity and gas consumption for the Garston site. Our carbon impact associated with business travel is not currently measured, and can not therefore be included.

## BRE Garston








## Per person







# S Plan progress report


The following details the progress made towards delivery of our S Plan 2012 targets. The symbols used indicate the progress made:

- Achieved 
- Ahead of Plan 
- On Plan 
- Behind Plan 
- Not Achieved 

## CO<sub>2</sub> targets

Achieve a direct reduction in electricity use of 11%		14% reduction achieved against 2007/08 baseline
Achieve a direct reduction in gas use of 19%		17% reduction achieved against 2007/08 baseline
Attain carbon neutrality for electricity use and all business travel		No progress
Average CO <sub>2</sub> emissions from staff travel to work to less than 1000kg/employee/ year		Greener transport initiatives ongoing. See travel milestones for further details. Staff travel survey to be undertaken in 2011 to measure CO <sub>2</sub> emissions

## Resource Efficiency targets

Send zero non-hazardous waste to landfill		To date (December 2010) 86% of non-hazardous waste has been diverted from landfill
Reduce office paper consumed by 8% per employee		14.2% reduction achieved

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BRE Innovation Park to act as an exemplar performer in waste management practices



All construction waste arisings are segregated in line with Garston waste protocols

## Supply Chain targets

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BRE Group to implement a Balanced Scorecard Methodology for all contracts over £50k



On plan

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BRE Group to give preference to suppliers and contractors that have active carbon and waste reduction programmes in place



Behind plan

## Transport targets

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To have a range of sustainable transport solutions for staff and visitors that are effective, well communicated and of which we can be proud



Good progress made. Staff bike pool implemented. New public bus route was trialled through BRE site – to be implemented in 2011

## Community Engagement targets

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To be recognised nationally as a leader in providing educational support to schools on sustainability and the built environment



See Community Engagement milestones for further details.

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To be recognised within the local communities around our sites as a beneficial asset and a positive contributor to community life



Awareness amongst the local community of BRE's activities continues to increase. Our second annual 'Friends and Family' event saw a number of our immediate local residents visit our site. In addition word of mouth has increased take up of visits by community groups such as Cubs, Guides and University of the Third Age groups from our neighbouring towns; St Albans and Watford.

## Water targets

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BRE Garston to deliver year on year reductions in water leakages on site



Aging water infrastructure onsite continues to be problematic with leaks an ongoing issue that is constantly being addressed. See milestones for further details.



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BRE Group will be fully monitoring and targeting water usage across key buildings on the Garston site



One building (B16) is currently being monitored. Resources focusing on leak prevention. No targeting currently in place.

## Ecology targets

To be exemplar in the management of the woodlands and conservation of the wetland habitats on the Garston site



Site Biodiversity Action Plan is currently being prepared. See milestones for further details.

## Information Systems targets

For sustainable Information Systems practice to become the norm across all areas of BRE



See milestones for further details

Development and delivery of an exemplar Sustainable IT model that can be applied within any organisation



See milestones for further details

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# Case Studies

## S Plan

# Waste management in action

BRE, on its Garston site started a new waste contract with Veolia Environmental in April 2010. As a result of this we have separated out a number of waste streams in our offices for recycling, including dry mixed recyclables (including plastic bottles, paper, aluminium cans, cardboard, and glass), food waste and batteries. Individual desk bins have been removed. By having most of our recyclables collected in one bin, this makes it far easier for staff to recycle, saving time and space.

Guidance has also been developed to assist staff in making sure the right type of waste goes into the correct bin and the scheme has been communicated widely.



Since April 2010, we have recycled nearly 60% of our waste from our offices and the Restaurant compared to 45% in 2009/10 (showing a 15% improvement). The aim is to get this up to 80% shortly, with the help of an audit of the black bag waste (i.e. the 'non-recyclable part') to understand what other actions need to be taken. The recycling of skip waste is making really good progress with over 90% of waste from being diverted from landfill each month.

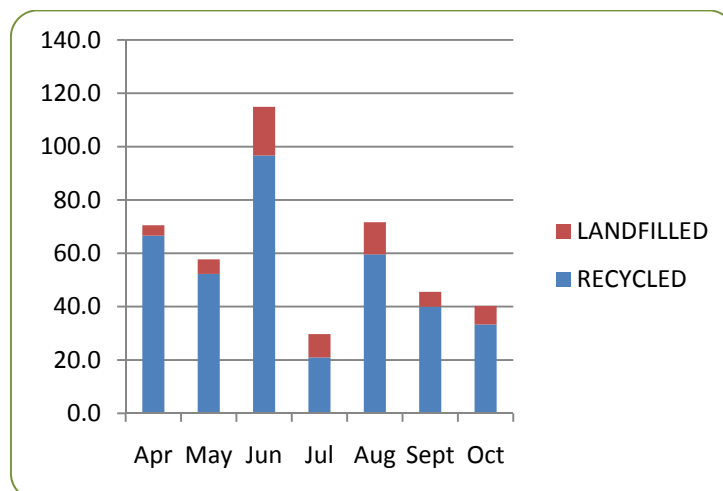
So what is happening to the waste generated?

Well, the food waste goes for anaerobic digestion (where micro-organisms break down the organic matter in the absence of oxygen) to create renewable energy. The dry mixed recyclables go to a Materials Recovery Facility in Rainham, Essex where it is sorted into waste streams and then sent to various reprocessors. Our batteries end up in Belgium, where the metals (steel, zinc and brass) and the plastics are recycled.

**BRE Food Waste Bin:**

Fruit and Veg	Tea Bags	All Meat and Fish Products
Bread, Biscuits etc.	Coffee Grounds/ Filters	Dairy Products

S Plan



1: Waste generated Apr-Oct 2010

# Community Engagement in action

Mount Pleasant Lane JMI School annually visit the BRE Innovation Park to participate in our Education for Sustainable Development programme. Located just around the corner from us in Bricket Wood the pupils are able to demonstrate their eco-credentials by being the only school to walk to our site.

The Year 6 pupils start their visits to BRE with an interactive presentation about climate change; its causes, consequences and how we can mitigate it. The presentation concludes with a brief introduction to renewable energy and technologies the pupils see on the park.



Lead by three BRE STEM Ambassadors and armed with worksheets the pupils then tour the Innovation Park, visiting our small community of houses of the future. Each house demonstrates modern and innovative construction methods, materials and technologies in a real-life setting.



Mount Pleasant Lane JMI School is just one of over 140 Primary and Secondary schools who have visited the BRE Innovation Park since we started the programme at the end of 2007. Of those that visited approximately half were from schools in Hertfordshire, whilst the remaining half travelled from places as far away as Norwich, Gwent, Sandwell and Canterbury.

## BRE Bike Pool

The S Plan Green Travel team have been working hard to develop new initiatives that will help to reduce CO<sub>2</sub> emissions from work related travel.

On the **1<sup>st</sup> November 2010** the BRE Group and S Plan officially launched the BRE Bike pool. The workplace bike pool has the potential to act as an excellent incentive for staff to reduce their car usage in one way or another.

Use of the Bike Pool will help reduce greenhouse gas emissions from work related travel, contribute to improvements in air quality, reduce traffic on local roads and improve the local environment on site by reducing the amount of car parking spaces needed.



Dahon Vitesse – BRE Pool Bike



The Pool Bikes in the 'Green Bike Shed'

BRE Facilities have set aside a specific storage room for the Bike Pool too containing cycle helmets, high visibility vests, lights and maintenance equipment. The room also contains clear and precise instructions in how to fold and unfold the bicycles, and mapped routes of local cycle routes.

Monitoring of the pool usage will help identify potential improvements to the scheme, whilst also demonstrate the level of usage and the purpose of trips made.

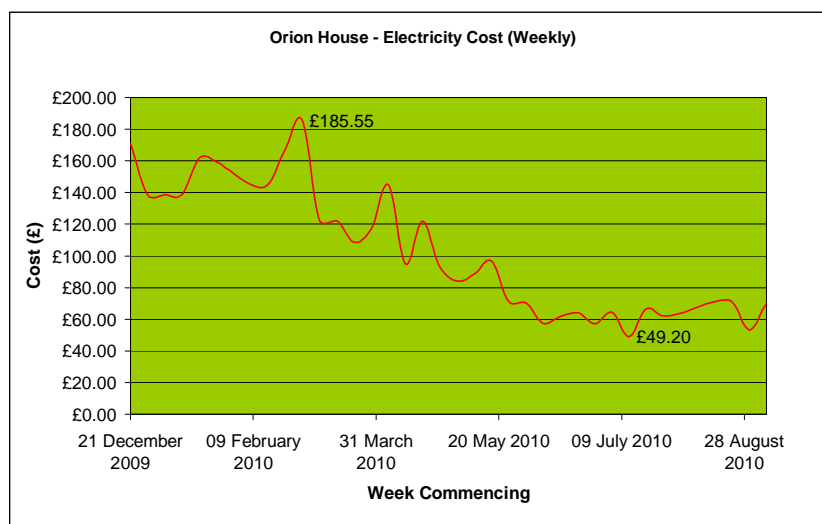
The S Plan Green Travel team surveyed employees to discover 60% of staff thought a bike pool was a good idea. BRE purchased four folding bikes for the Bike Pool, which were selected for their convenience of storage and transportation. Commuting on business with a pool bike also has the potential to reduce expenditure on BRE project costs. This includes avoidance of train station parking fees, taxi fees, and tube tickets for travelling within London. This equates to a project cost saving of anywhere between £15 and £30 per trip.



S Plan Pool Storage Room

## Energy Consumption in the BRE Scotland Office

As part of the S Plan the BRE Scotland office committed to reducing energy consumption wherever possible. Whilst assessing the electricity bills it became evident that the BRE Scotland office was paying an extremely large monthly sum for electricity use. There appeared to be an imbalance between hot air and cold air coming through the system at various points of the office. This constant battle between cooling and heating the office caused a continual change in temperature and unnecessarily high electricity bills.



### Key Problems

- The control system allows 5 different settings for a single space so simultaneous heating and cooling can occur at different locations in the office meaning there was a constant battle between hot and cold air
- Different peoples perception of internal conditions meant that the 5 controllers were all set at different temperatures

### Actions Taken

- All 5 programmers have been set to 20 °c with the option to increase the temperature only under certain circumstances
- Ongoing employee discussion/training on efficient use of the office heating/cooling system and when it's acceptable to open the windows
- BRE Scotland and The Carbon Trust have held meetings with Mitsubishi regarding the air source heat pumps with the aim to develop an office temperature programme
- We are now on the road to achieving a comfortable and stable office temperature whilst achieving a significantly reduced electricity bill compared to this time last year as can be seen in the graph above.



# Supply Chain in action

## Approved Contractors & Suppliers Database

The Purchasing department has led many of BRE's contemporaries in ensuring that the BRE Group supplier information is readily available to employees, giving them the facility to choose suppliers with the sustainable credentials desired.

The database is available via BRE's staff intranet – infoPortal and it is easy to search for any supplier, either by company name or supplier function.



The database was originally designed to record Health and Safety information of contractors. Purchasing quickly recognised that, in preparation for BRE's aspiration to achieve ISO 9001 and ISO 14001, the records should be extended to include quality and sustainability credentials were a necessity.

The process includes sending a questionnaire to the supplier that asks them to inform BRE of any Environmental standards they have along with copies of their Environmental and Corporate Social Responsibility policies.

<b>Health and Safety Information</b>		<b>Environmental Information</b>	
Health and Safety Standard	<input type="text" value="Yes"/>	Environmental Standard	<input type="text" value="Yes"/>
H and S Contact	<input type="text" value="Justin Martin"/>	Environmental Contact	<input type="text" value="Ken Simpson"/>
H and S Standard Achieved	<input type="text" value="OHSAS 18001:1999"/>	Environmental Standard Achieved	<input type="text" value="BS EN ISO 14001:2004"/>
Date Registered (dd/mm/yyyy)	<input type="text" value="30/04/2003"/>	Date Registered (dd/mm/yyyy)	<input type="text" value="30/04/2003"/>
Certification Number	<input type="text" value="OHS68067"/>	Certification Number	<input type="text" value="EMS 74989"/>
Company H & S Policy	<input type="text" value="Yes"/>	Expiry Date (dd/mm/yyyy)	<input type="text" value="01/11/2010"/>
		Environmental Policy which meets BRE's minimum requirements	<input type="text" value="Yes"/>
		CSR Policy meeting BRE's minimum requirements	<input type="text" value="Yes"/>
<b>Quality information</b>		<b>Other Certification Information</b>	
Quality Standard	<input type="text" value="Yes"/>	1st Trade Standard	<input type="text" value="Electrostatic Discharge Control"/>
Quality Contact	<input type="text" value="Martyn Green"/>	Certificate Number	<input type="text" value="ESD 78094"/>
1st Quality Standard Achieved	<input type="text" value="BS EN ISO 9001:2000"/>	Date Registered (dd/mm/yy)	<input type="text" value="07/10/2003"/>
Date Registered (dd/mm/yyyy)	<input type="text" value="01/07/1987"/>	2nd Trade Standard	<input type="text" value="UKAS Calibration Laboratory"/>
Certification Number	<input type="text" value="RS00362"/>	Certificate Number	<input type="text" value="0310"/>
Expiry Date (dd/mm/yyyy)	<input type="text" value="31/05/2012"/>	Date Registered (dd/mm/yy)	<input type="text" value="01/11/2002"/>
2nd Quality Standard Achieved	<input type="text"/>	3rd Trade Standard	<input type="text" value="Investor In People"/>
Date Registered (dd/mm/yyyy)	<input type="text"/>	Certificate Number	<input type="text" value="0"/>
Certification Number	<input type="text"/>	Date Registered (dd/mm/yy)	<input type="text" value="25/10/2001"/>
Expiry Date (dd/mm/yyyy)	<input type="text"/>	<b>Technical Information</b>	
3rd Quality Standard Achieved	<input type="text"/>		
Date Registered (dd/mm/yyyy)	<input type="text"/>		

The database ensures that BRE Group meets the needs of the ISO certifications and gives employees the assurance that the supplier assessment has already been carried out to an acceptable level. It has also been designed to enable the employee to make an informed comparison of Approved Suppliers and select which supplier to use, whether this is a local supplier, an ISO 14001 accredited supplier, or, ideally, a local supplier accredited to ISO 14001.

**bre** Approved Contractors and Suppliers Database [Help](#) [Admin](#)

I am looking for a (eg builder)...   OR a company called...

**Classification** "Miscellaneous Electronic Consumables"

**Description:**

**InfoPoint Link:**

**Company Details:**

RS Components  
 Birchington Road, ,  
 Corby, Northants  
 NN17 9RS  
 Tel No: 01536 201201  
[View Contact Info](#)  
 website: <http://www.rswwww.com>  
 Quality Standard:BS EN ISO 9001:2000  
 EMS Standard:BS EN ISO 14001:2004  
 H and S Standard:OHSAS 18001:1999  
 Environmental Policy which meets BRE's minimum requirements:Y  
 Status:Approved  
[View Details....](#)

**Related Classifications:**

[Electrical wholesale](#)  
[electrical contractors](#)

**Company Details:**

Electrical Contracting Supplies Ltd  
 81 Old Watford Road, Brickket Wood,  
 St Albans, Herts  
 AL2 3UN  
 Tel No: 01923 681545  
[View Contact Info](#)  
 website:  
 Quality Standard:  
 EMS Standard:  
 H and S Standard:  
 Environmental Policy which meets BRE's minimum requirements:N  
 Status:Approved  
[View Details....](#)

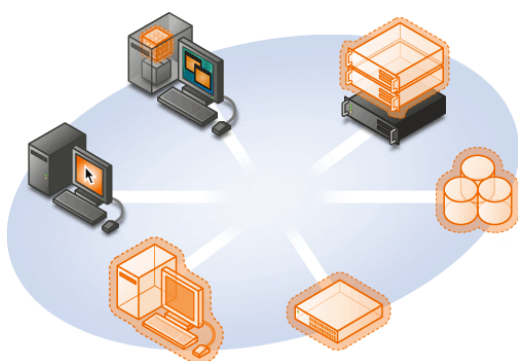
The Purchasing department populates, maintains and updates the database with contact details, website addresses and other relevant information. The database has proved a popular tool that Contractors / Suppliers wish to be included in.

A recent reassessment has shown an increase in Contractors / Suppliers achieving ISO 14001 and having CSR policies in place. This gives more choice to employees wanting to ensure that their Contractor / Supplier meet the BRE Group Sustainability requirements.



## BRE Information Systems going virtual

The BRE Information Systems (IS) centre is a dedicated in-house team servicing the entire BRE Group with all its computing needs. The Group continues to see a growing demand for IT services, and so improvements are therefore continually sought and implemented to support the information technology (IT) infrastructure. The BRE IS centre has - and continues, to increasingly consider sustainability as part of its overall strategic decision making in all cycles of operation; from procurement, usage and optimisation of computing, to the final disposal of redundant equipment.









During the last few years the BRE IS team has managed to successfully implement an aggressive virtualisation policy which has resulted in over 50% of its servers now having being virtualised. Virtualisation effectively allows several physical servers to be combined into just one, thus saving energy and resources. This has had a sizable positive impact on the environment when taking into account that each physical server would normally on average have accounted for several hundred kilograms of CO<sub>2</sub>e. In addition, hardware power management policies and the phasing out of traditional LCD screens have further helped to reduced energy use within the BRE Group.

Virtualisation is just one of the many “green” IT tools being used by BRE Information Systems to help ensure the BRE Groups IT infrastructure has a minimal impact on the environment. Other initiatives include a purchasing policy review, the disposal/recycling of old equipment, standardisation of power hungry legacy hardware, tele/video-conferencing and energy measurement tools.

# S Plan Milestone progress table










The following table details the progress we have made against the 129 S Plan milestones to be delivered between 2008 - 2012.









<b>48</b>	Achieved to date	
<b>3</b>	Ahead of Plan	
<b>19</b>	On Plan	
<b>25</b>	Behind Plan	
<b>24</b>	Not Achieved	
<b>10</b>	On Hold / Not started	

## S Plan Milestones




## Status Commentary












### CO<sub>2</sub> milestones





M1.	By January 2009, where practicable, BRE and tenanted buildings will have remote readable electricity and gas sub-meters fitted		<p>A continuous programme of new meter installations has been implemented since 2009. This programme is ongoing.</p> <p>Meters fitted to buildings: B1, B3, B5, B5.1, B14, B16, B17, B18, B19, B21, B26, B41, B42, B43, B46, B69</p> <p>To be fitted to: B5.2, B9, B15, B22, B26</p>
M2.	2% reduction in CO <sub>2</sub> emissions in 2008/09 from associated electricity use (2007/08 base year)		6.7% reduction achieved over the base year 2007/8
M3.	2% reduction in CO <sub>2</sub> emissions in 2008/09 from associated gas use (2007/08 base year)		1.2% increase over the base year 2007/8
M4.	Investigate changes required to future tenant contracts to charge new sub-leases for actual energy usage where suitable sub-metering is in place		Ongoing
M5.	Any new pull cars to have CO <sub>2</sub> emissions of 120g/km or less (VED band B)		No pull cars in fleet. Any new pull cars will meet VED band B target.
M6.	All rental cars to be diesel with CO <sub>2</sub> emissions of 150g/km or less (VED band C), unless unfit for purpose		New car rental supplier CRB in place. BRE still offers cars over band C however selection of cars has been reduced. Business needs will in some cases dictate the type of car rented.
M7.	Deliver staff energy awareness campaign		Delayed whilst monitoring and targeting of building energy consumption is progressed
M8.	BRE Scotland to move into BREEAM Excellent offices		BRE Scotland relocated into BREEAM Excellent offices in February 2009
M9.	Measure and report our Carbon Footprint in 2008/09		Carbon Footprint was not measured or reported 2008/09.

S Plan Milestones		Status	Commentary
M10.	BREEAM Tools to be consistently applied across key office buildings		Staff to lead action required to be identified. BREEAM In Use Tool (Part 3 Management) to be applied.
M11.	4% reduction in CO <sub>2</sub> emissions in 2009/10 from associated electricity use (2007/08 base year)		14% reduction achieved over the base year 2007/8
M12.	7% reduction in CO <sub>2</sub> emissions in 2009/10 from associated gas use (2007/08 base year)		17% reduction achieved over the base year 2007/8
M13.	To fully measure, understand and report our Carbon Footprint, based upon newly gathered data		Carbon Footprint calculations have been completed as part of the CRC however these cover core and residual building energy emissions only. Do not have methodology established to report our full company carbon footprint including transport emissions.
M14.	Offset the car travel of those attending paid BRE courses and events		The business is not currently offsetting any emissions associated with visitors to site.
M15.	BRE Group to be fully monitoring and targeting energy usage across all main BRE Group sites		BRE Group is currently targeting energy usage on its Garston and East Kilbride sites.
M16.	7% reduction in CO <sub>2</sub> emissions in 2010/11 from associated electricity use (2007/08 base year)		On plan to achieve reduction
M17.	13% reduction in CO <sub>2</sub> emissions in 2010/11 from associated gas use (2007/08 base year)		On plan to achieve reduction




## Resource Efficiency milestones

M18.	Develop BRE Group Waste Strategy and Action Plan		BRE Group Waste Strategy and Action Plan adopted in March 2009
M19.	Consume less by reducing office waste & recyclables to less than 0.4 tonnes per employee in 2008/09 (5% reduction on 2006/07 levels)		Total office waste including recyclables generated in 2008/09 was 270 tonnes which equates to 0.48 tonnes per employee
M20.	Divert 50% of all non-hazardous waste away from landfill in 2008/09		45% non-hazardous waste diverted from landfill in 2008/09. Note however that progress since 2009 has been above target – see below for further details.

S Plan Milestones		Status	Commentary
M21.	Segregate 20% of skip waste for recycling in 2008/09		17% onsite segregation of skip waste achieved
M22.	Investigate practicability of on-site composting of all food waste		On-site composting not feasible due to impracticability's. All food waste (canteen & office) segregated and sent to Biogen's Anaerobic Digestion plant in Northampton where the plant produces methane used to generate electricity.
M23.	Reduce office paper consumed per employee by 3% in 2008/09 (2007/08 baseline)		6% increase in paper consumption
M24.	Implement new hazardous waste disposal strategy to recycle or reuse such materials wherever possible		To be progressed in 2011
M25.	To understand the different hazardous waste streams produced onsite as a result of our activity, and identify which streams we can actively reduce.		To be progressed in 2011
M26.	Consume less by reducing office waste & recyclables to less than 0.38 tonnes per employee in 2009/10 (10% reduction on 2006/07 levels)		Total office waste including recyclables generated in 2009/10 was 256 tonnes which equates to 0.45 tonnes per employee
M27.	Divert 70% of all non-hazardous waste away from landfill in 2009/10		78% diversion of non-hazardous waste from landfill achieved
M28.	Segregate 35% of skip waste for recycling in 2009/10		49% onsite segregation of skip waste achieved
M29.	Reduce office paper consumed per employee by 5% in 2009/10 (2007/08 baseline)		14.2% reduction achieved in 2009/10
M30.	Implement a paperless archiving system		Trials are currently underway in three departments
M31.	Develop and promote staff online reuse scheme to sell products online or internally with 50% of the proceeds going to charity		Currently on hold

S Plan Milestones		Status	Commentary
M32.	Consume less by reducing office waste & recyclables to less than 0.36 tonnes per employee in 2010/11 (15% reduction on 2006/07 levels)		As of October 2010 the yearly average for total office waste including recyclables generated equates to 0.22 tonnes per employee
M33.	Divert 85% of all non-hazardous waste away from landfill in 2010/11		Year to date diverted 86% of non-hazardous waste from landfill
M34.	Segregate 50% of skip waste for recycling in 2010/11		Year to date have segregated 55% of total skip waste onsite
M35.	Reduce office paper consumed per employee by 6% in 2010/11 (2007/08 baseline)		Awaiting end of year data
M36.	Extend reuse scheme to local community groups.		Currently on hold



## Supply Chain milestones

M37.	Re-issue BRE Group Sustainable Purchasing Policy to reflect the S Plan targets, and ensure staff compliance with new Policy through suitable monitoring		BRE Group Sustainable Purchasing Policy updated and available on infoPortal.
M38.	Review of supplier ordering and delivery methods will be carried out to assess if the carbon footprint of purchases can be reduced by suitable changes		Action rejected.
M39.	Review of alternative 'greener' products carried out		Work has begun to draw up a number of minimum product and material sustainability specifications expected to launch during 2010 and beyond. The first of these focuses on the purchase of 100% certified sustainable timber across the BRE business.






## S Plan Milestones








## Status

## Commentary









M40.	<p>New procurement system implemented which will give preference to:</p> <ul style="list-style-type: none"> <li>- contractors and suppliers with accreditation to ISO14001 or other appropriate environmental management standards, including BREEAM In Use</li> <li>- suppliers who have taken steps to calculate and actively reduce their carbon and/or waste footprint</li> <li>- supplier products with a Green Book listing- local suppliers, where practicable</li> </ul>		A process of reassessing all suppliers and contractors on the Approved Database has started. All Suppliers will effectively be re-applying for approval. There are 183 Contractors and 293 suppliers. This process is expected to be completed by January 2011.
M41.	<p>Target high energy use equipment and purchase the most energy efficient equipment, where practicable</p>		Work is ongoing in this area, but purchasing of equipment is made on an ad-hoc basis with an intent to buy low – energy equipment but there is currently no defined procedure or set of rules that set out exactly what we assess when making such purchases.






## Transport milestones









M42.	<p>Launch incentive scheme to encourage BRE Group staff to travel to work by means other than single occupancy car</p>		Currently on hold due to affordability.
M43.	<p>Install new Green Bike shed as part of the Innovation Park Phase 2 development plan</p>		Complete
M44.	<p>Double the use of video conferencing facilities</p>		Not achieved
M45.	<p>Simplify the existing home working policy to increase uptake</p>		Home Working Policy updated and available on company intranet
M46.	<p>Review of current methodology for measuring staff travel to work and associated CO<sub>2</sub> emissions</p>		Complete










S Plan Milestones		Status	Commentary
M47.	Implement a robust system to record all business travel (car, bus, train, and plane), and associated CO <sub>2</sub> emissions		No progress made. To carry forward in 2011
M48.	Develop and promote CO <sub>2</sub> offsetting scheme for the staff to offset their daily commute		Pure Trust website developed by BRE - <a href="http://www.puretrust.org.uk">www.puretrust.org.uk</a> Means to offsetting business and personal CO <sub>2</sub> emissions. Not actively promoted to staff
M49.	Materially increase the number of days worked at home by BRE Group staff		Home working procedure in place, and at the discretion of staff and their line manager. However there is no methodology in place for measuring staff home working patterns, and therefore the milestone can not be said to be met.
M50.	Establish a baseline for total CO <sub>2</sub> emissions from business travel and implement a strategy to reduce business CO <sub>2</sub> emissions across the Group in a way which does not affect our core business		Discussions ongoing with purchasing department about a suitable way to capture staff business travel. No system yet in place to record business travel and its CO <sub>2</sub> emissions. In discussion with a BRE tenant who operate a business travel tracker which captures all CO <sub>2</sub> impacts from business travel.
M51.	Establish a staff bike pool for travel to and from local train stations		Four Dahon folding bikes have been purchased and are available for staff to use for lunchtime trips, commuting from home and travelling to meetings. Over 50 staff have registered to use the Bike Pool.
M52.	Establish feasibility of implementation of web conferencing facilities		See Information Systems milestones below.
Community Engagement milestones			
M53.	BRE Education for Sustainable Development programme – 40 school visits to BRE Garston (08/09)		57 visits by school groups to the BRE Innovation Park took place during 2008/2009 enabling 1380 students from across the country to experience sustainability in action.



S Plan Milestones		Status	Commentary
M54.	Total of 25 staff working as Ambassadors (08/09)		During 2008/2009 we had 45 BRE Group staff members trained as STEM Ambassadors, of which 34 were actively involved in the BRE Education for Sustainable Development programme.
M55.	One Engineering Education Scheme project (08/09)		BRE participated in the Engineering Education Scheme mentoring four Year 12 students from Parmiter's School. The students took part in a BRE Trust project for six months monitoring the moisture content of materials in a Victorian building. The students were awarded a 'Gold Crest'.
M56.	Five new Arkwright Scholars in September - Major sponsor status achieved (08/09)		During 2008/2009 we sponsored five new Arkwright Scholars and continued our support of the five Scholars from 2007/2008 who completed the second year of the scheme.
M57.	Pilot work placement scheme (08/09)		Development of scheme delayed during 2008/2009 due to economic climate.
M58.	Become a corporate partner with the Princes Trust to help young adults achieve full time employment (08/09)		Project not pursued due to focus on other commitments.
M59.	Strategy for staff volunteer work developed (08/09)		Not Met
M60.	BRE Education for Sustainable Development programme – 60 school visits to BRE Garston (09/10)		47 visits by school groups to the BRE Innovation Park took place during 2009/2010 enabling 1084 students from across the country to experience sustainability in action. Unfortunately a number of groups were forced to cancel trips in early 2010 due to poor weather conditions which prevented us from achieving our target.
M61.	Total of 30 staff working as Ambassadors (09/10)		During 2009/2010 we had 39 BRE Group staff members trained as STEM Ambassadors, of which 33 were actively involved in the BRE Education for Sustainable Development programme.

S Plan Milestones		Status	Commentary
M62.	BRE Education for Sustainable Development programme extended to other BRE Group sites (09/10)		The BRE Garston Education for Sustainable Development programme has been a great success due to the availability of the Innovation Park that we have here in Garston. Unfortunately, neither BRE Scotland nor Wales have this type of facility on their site which significantly limits the opportunity to role out the programme as it exists. We are looking to develop opportunities for staff in these two offices to provide outreach services to schools.
M63.	One Engineering Education Scheme project (09/10)		BRE Global participated in the Engineering Education Scheme mentoring four Year 12 students from Parmiter's School. The students took part in a BRE Trust project for six months researching the energy saving properties of phase change materials in a cavity wall. The students were awarded a 'Gold Crest'.
M64.	Pilot of electronic education module on sustainability (09/10)		Project not pursued due to focus on other commitments.
M65.	Five new Arkwright Scholars in September (09/10)		A decision was taken to reduce the number of new students the BRE Group sponsored this year as the scheme did not yield the results or benefits we anticipated. Subsequently, during 2009/2010 we sponsored just one new Arkwright Scholar, and continued our support of the five Scholars from 2008/2009 who completed the second year of the scheme.
M66.	Work placement scheme operational (09/10)		Owing to delays from the previous financial year our target to have an operational work placement scheme was behind plan. However, a great deal of background and preparatory work took place during 2009/2010 which will be used to inform a Management System document which will set out the BRE Group's policies on work placements.









S Plan Milestones		Status	Commentary
M67.	BRE Garston to review community access to site facilities (09/10)		During 2009/2010 BRE Garston reviewed its policies on access to the site by members of the community. Using the Innovation Park we have been able to welcome members of the community onto our site. Local residents were invited to visit during a 'Friends and Family Day' in September and throughout the year several community groups including Cubs, Guides and local branches of the University of the Third Age visited. Health and safety does however remain a constraining factor on public access to many of our facilities due to the hazardous nature of the work that takes place.
M68.	BRE Group team entry into Microsoft Challenge 2009		A team of BRE Group staff successfully completed the Microsoft Challenge achieving a very respectable 16 <sup>th</sup> place out of 100 teams. £5000 was raised for the NSPCC.
M69.	Establish Charity Committee		A Staff Champions Committee was established during 2009/2010 with responsibility for overseeing the BRE Groups charitable endeavours. It is intended the Committee will be allocated a budget and lead in identifying which charities the company supports. In addition to direct donations the Charity Committee will seek to match-fund fund-raising events undertaken by BRE Group staff.
M70.	Staff volunteer scheme launched (09/10)		During 2009/2010 responsibility for establishing a staff volunteer scheme was handed to the Staff Champions Group to take forward, however due to other commitments no further action was undertaken.
M71.	BRE Education for Sustainable Development programme - 60 school visits to BRE Garston (10/11)		66 visits by school groups to the BRE Innovation Park have taken place to date enabling over 1,500 students from across the country to experience sustainability in action.
M72.	Total of 35 staff working as Ambassadors (10/11)		We currently have 44 BRE Group staff members trained as STEM Ambassadors, of which 31 are actively involved in the BRE Education for Sustainable Development programme. We continue to train more staff as STEM Ambassadors to keep up with the high demand for school visits.
M73.	One Engineering Education Scheme project (10/11)		BRE are participating in the Engineering Education Scheme mentoring four Year 12 students from Parmiter's School. The students will take part in a BRE Trust project for six-months starting in October 2010.
M74.	Electronic education module on sustainability implemented (10/11)		Project not pursued due to focus on other commitments.

S Plan Milestones		Status	Commentary
M75.	Work placement scheme operational (10/11)		A Management System document is currently being finalised for implementation later this year which will set out the BRE Group's policies on work placements.
M76.	BRE Group team entry into Microsoft Challenge 2010		A team of BRE Group staff successfully completed the Microsoft Challenge achieving a 53 <sup>rd</sup> place out of 100 teams. £1,784 was raised for the NSPCC.
M77.	Established charity committee to allocate budget (10/11)		The Charity Committee were allocated a budget at the start of the year and with assistance from BRE Group staff, have selected a number of charities to receive our support. To date money has been donated to the Watford Peace Hospice, a local charity that cares for people living with life limiting or terminal illness; Cancer Research UK; PACE; and the Pakistan Flood Appeal.
M78.	Staff volunteer scheme launched (10/11)		A member of the Staff Champions Group has been assigned responsibility for leading the development of a staff volunteer scheme. Current efforts are focussing on developing a series of group volunteering activities that staff will be able to participate in during work time, for example small decorating projects, tree planting and light handiwork. In parallel we are also developing a scheme that will recognise the efforts of staff who volunteer in their own time.
M79.	Five new Arkwright Scholars in September (10/11)		The BRE Group has decided to withdraw its support of the Arkwright scheme completely as we continue to see no benefit or results from our involvement. We continue to support our Arkwright Scholar from 2009/2010 during the second year of the scheme.
M80.	BRE Education for Sustainable Development programme - 60 school visits to BRE Garston (11/12)		2011 Milestone
M81.	Total of 40 staff working as Ambassadors (11/12)		2011 Milestone
M82.	One Engineering Education Scheme project (11/12)		2011 Milestone
M83.	Five new Arkwright Scholars in September (11/12)		The BRE Group has decided to withdraw its support of the Arkwright scheme completely as we continue to see no benefit or results from our involvement.

## S Plan Milestones

## Status Commentary

### Ecology milestones

M84.	A team established to proactively manage the natural environment		Ecology S Plan Champions team formed.
M85.	Ecological study of the Garston site complete		Completed in Sept 2008 – Titled ‘Managing BRE’s woodland for biodiversity and the great crested newt (Triturus cristatus)’. This study has produced a management plan for the un-managed woodland area, including ponds, at the BRE Garston site of BRE. Priority was given to find ways to conserve and enhance the Triturus cristatus population, to conserve and enhance biodiversity, and to make the woodland and ponds accessible for enjoyment by staff, and to consider the practical options available to BRE to conserve and enhance the ecological integrity of the wet woodland area.
M86.	Site Biodiversity Action Plan established, linked to LBAP		Ongoing – informed by the above Ecological Study. To be completed by end of 2010.
M87.	Clear up of the North-West Garston site boundary		Done
M88.	Carry out an ecological base line assessment informed by the ecological study		Take forward in 2011
M89.	To deliver awareness raising events for staff and the local community on the importance of habitat management and species protection		Take forward in 2011
M90.	Group charity established funded by client contributions to deliver UK based carbon offsets focusing on habitat enhancement		Take forward in 2011
M91.	Better understand and maintain the integrity and hydrology of the principal wetland habitats on the Garston site		Take forward in 2011







S Plan Milestones		Status	Commentary
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



M92.	Staff volunteer group established to maintain and enhance the natural environment in our local community		Not started. Take forward in 2011
M93.	Ensure habitat integrity and connectivity (11/12)		2011 Milestone

### Water milestones









M94.	Reduce water consumption in 2008 (2007 base year)		Total gross water consumption for 2008 was 30,773 m <sup>3</sup> . Water consumption in 2007 was 42,748 m <sup>3</sup> . Therefore a reduction of 28% in water consumption was achieved between 2007 and 2008.
M95.	Deliver a targeted water awareness campaign in offices and laboratories		No progress. Take forward in 2011
M96.	One month trial of filtered tap water for meetings		Water now available in jugs for meetings at BRE Garston. This action has reduced the use of bottled water reducing both transport impact of delivery and use of resources.
M97.	Carry out review of options for an onsite bottling plant		Action rejected as impractical and unneeded.
M98.	Pilot project to sub meter one or more key office buildings onsite to enable meaningful benchmarking of water use		Water sub-meter fitted in Building 16. No benchmarking of data yet undertaken. Further readings and monitoring of consumption required.
M99.	As part of the Garston site redevelopment programme of installation of remote readable water meters will be installed across agreed BRE Group buildings and tenanted facilities		On Hold
M100.	Water reduction targets will be established across all metered buildings on the Garston site		On Hold








### Information Systems milestones

S Plan Milestones		Status	Commentary
M101.	Combining several application servers in the back-office onto one (this is known as <i>virtualisation</i> ) has helped us reduce energy usage. We aim to reduce 32 servers down to 24. These servers support our growing needs for e-mail, file storage, virus protection, and dedicated storage and web sites to support customer projects. The replacement of fixed hard drives with a hot-swappable system.		Completed as per milestone by end of 2009
M102.	Implementation of energy efficient controls and instrumentation, re-organising and planning of mounted platforms within the server room to allow efficient natural cooling, thus significantly reducing energy usage.		Completed as per milestone by end of 2009
M103.	Configuring all centralised printers to duplex printing whilst also reducing their print density levels, purchase of re-cycled paper for all printers, and defaulting all printers to a medium resolution of 300 dpi, to improve sustainability of printing resource.		Completed as per milestone by end of 2009
M104.	Ongoing conversion of large printers, scanner and photocopiers to multi-function devices to help limit energy usage and equipment resource.		Completed as per milestone by end of 2009
M105.	Intranet and e-mail services, to improve communication and reduce the use of paper and materials used for communications.		Completed as per milestone by end of 2009
M106.	Implementation of a fixed video conferencing facility, supported by a mobile facility to reduce travel miles required for meetings.		Completed as per milestone by end of 2009, current demand for mobile facility not met

S Plan Milestones		Status	Commentary
M107.	Phasing out of CRT based screens, replaced by TFT screens to limit screen energy usage.		All newly issued PC's now come with PCD flat screens. Existing CRT screens part of on going replacement programme.
M108.	Implement a policy of remote PC switch-off for all PCs if not used after evening automatic back-ups have taken place		Power Management Plan is currently being developed. This will include software that will automatically switch off computers on the network. It has been determined that the implementation of Windows 7 which should commence over the next 18-24 months will offer Power Management capabilities
M109.	A phasing out of add-on items around PCs. Devices such as external speakers, add-on hard drives, local scanners etc. Change towards standardised PC equipment with in-built functions.		Completed as per milestone by end of 2009, external scanners amalgamated with multi-function units
M110.	Introduction of a phasing out process of tape units used to back-up servers with fast alternative media to improve reliability, resource utilisation and faster recovery to support business continuity.		Tape units function okay, additional resources required means there is no business case for this
M111.	Review all supplier agreements and establish a short-list of suppliers committed to sustainability. – Review our strategic relationship with Dell.		Completed as per milestone by end of 2009
M112.	Ensure there are no significant additional costs towards achieving sustainable supplier agreements.		Completed as per milestone by end of 2009, no additional cost
M113.	Ensure our review with the supplier address the use of sustainable packaging		Completed as per milestone by end of 2009
M114.	Establish a partnership with a contractor for end-of-life equipment and compliance with ROHSH and WEEE Directives.		Completed as per milestone by end of 2009



S Plan Milestones		Status	Commentary
M115.	Audit the Garston and East Kilbride sites to determine redundant IT equipment (peripherals) - equipment additional to computer and printer assets.		No specific audit has taken place. Part of an ongoing theme as part of our departments best practice
M116.	Extend the audit data to identify power usage during regular use, as well as stand-by modes.		Audit complete with peak times determined to be specific to certain centres
M117.	Determine strategic measurements within the business planning cycle. Especially the energy saving related to IT equipment usage.		On Hold
M118.	Where practical, migrate all centralised print resource to multifunctional printer/copier/scanners across all BRE sites, including satellite sites.		Completed as per milestone by end of 2009
M119.	Review supplier agreement and re-cycle/reuse policy to ensure all redundant equipment can be re-cycled or reused.		Ongoing theme as part of our departments best practice
M120.	Extend the implementation of Virtual Server Technology to substantially reduce the number of back-office servers.		Ongoing theme as part of our departments best practice
M121.	Extend the usage of Video conferencing to desktops, and communication through the web.		<p>Audio conferencing is a viable alternative to video desk top conferencing.</p> <p>Microsoft Live Meeting is available to all staff which provides an opportunity to share your desktop with an external client.</p> <p>No web conferencing technology has currently been implemented.</p>
M122.	Extension of the WiFi network outside of meeting rooms.		WiFi implemented across BRE Innovation Park, business lounge and restaurant.

S Plan Milestones		Status	Commentary
M123.	Enhance the Intranet and Extranet facilities to allow fully integrated systems through the web. Thus, allowing staff to work remotely or from home. This will support reduction in travel and office materials usage.		We now have two forms of remote connection (VPN) to BRE to facilitate this.
M124.	Remove usage of all 'inscope' PC's over 5 years old, which are less energy efficient to benchmark		Ongoing theme as part of our departments best practice
M125.	Implementation of 'Thin-Client' into specifically targeted areas of Group		On Hold
M126.	Improve on-line software, communication tools such electronic readers and editors to reduce dependency on the use of printers and fax equipment (this will depend on evolving technology)		E-book readers available for hire from IT Helpdesk
M127.	Introduction of voice and data communication to digital VoIP (voice over internet protocol) to help further minimise impact of physical cabling, together with the provision of high bandwidth applications, such as video communication		Ongoing
M128.	Standardise use of equipment that can be 100% recycled or reused at the end-of-life cycle.		PC's at BRE have an average minimum recycle term of five years, after this they still remain in service as Outscope hardware.
M129.	In line with unified group communications: implement extended collaborative on-line tools to reduce impact of travelling for project or company meetings with external participants		Ongoing

# End notes

<sup>i</sup> <http://bestgreencompanies.thesundaytimes.co.uk/5/profile/326/The-Building-Research-Establishment/H>

<sup>ii</sup> BRE Full Time equivalent employees = 565.3 tenants (Full or Part Time status unknown). Total 890 persons. Figures as of 31.03.2010

<sup>iii</sup> Based on Electricity from Good Quality CHP - carbon conversion factor of 0.295 (as taken from Guidelines to Defra's greenhouse gas (GHG) conversion factors for company reporting: June 2007).

<sup>iv</sup> Based on £0.077 average per kWh charge. Average taken of day and night rates charged between the reporting period April 2009 – March 2010. Day rate charged between Apr 09-Sept 09 = £0.121059 per kWh. Day rate charged between Oct 09-Mar 10 = £0.066639 per kWh. Night rate charged between Apr 09-Sept 09 = £0.077508 per kWh. Night rate charged between Oct 09-Mar 10 = £0.043684 per kWh.

<sup>v</sup> Based on natural gas carbon conversion factor of 0.185 (as taken from Guidelines to Defra's greenhouse gas (GHG) conversion factors for company reporting: June 2007).

<sup>vi</sup> Based on £0.025 per kWh charge. This includes Climate Change Levy

<sup>vii</sup> Based on £1.3983 per m<sup>3</sup> charge. Made up of £0.8407 per m<sup>3</sup> usage charge + £0.5576 per m<sup>3</sup> measured Volume Charge Rate.

<sup>viii</sup> Note that waste impact per person is based on BRE Full Time equivalent employee figure only of 565. Tenants excluded as other waste arrangements in place.

<sup>ix</sup> Tonnage figure for General Commercial Waste is based on the number of lifts during the year multiplied by a standard weight factor per bin as provided by the waste contractor. A 30% recovery rate has been applied based on an average waste recovery rate for the facility

<sup>x</sup> Tonnage figure for General Commercial Waste is based on the number of lifts during the year multiplied by a standard weight factor per bin as provided by the waste contractor. A 15% recovery rate has been applied based on an average waste recovery rate for the facility

<sup>xi</sup> An 80% recovery rate has been applied to construction waste sent for recovery based on an average waste recovery rate for the facility

<sup>xii</sup> A 36% recovery rate has been applied to construction waste sent for recovery based on an average waste recovery rate for the facility

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