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1 VISION AND STRATEGY

1.1 CHIEF EXECUTIVE STATEMENT

Living a sustainable lifestyle is not just a challenge for individuals to embrace, but also for corporations. Sustainability is at the heart of good business governance and is good for business itself. In that context BRE has set itself a challenging agenda and targets which we will work tirelessly to achieve. It is early days and there is much to do. Our early progress will be built upon, and performance continually improved year on year as attested to in this report. We aspire to be not just amongst the best, but also an exemplar, and with, what I know is the enthusiastic support of our employees, we will achieve these aspirations.

1.2 MISSION AND VALUES

BRE’s mission is to build a better world and our vision is our unmistakable imprint on a highly regarded and sustainable built environment.

Our core values are:

- The authority which derives from knowledge, independence, objectivity and ethics
- Maximising client benefit through a deep understanding of their needs and aspirations
- Making a difference
- Enjoying what we do as a team
  - Pride, passion and service
  - Personal responsibility and self-reliance
  - Creativity and entrepreneurship.

We aim to monitor progress towards our vision through the following milestones:

- By 2008 to be able to gift aid 6% of our net turnover to the BRE Trust
- By 2010 to be a best practice exemplar in our own business
- By 2010 to have used our core competencies to achieve a strong business outside of the built environment
- By 2012 to have doubled our turnover in real terms
- By 2015 to be recognised worldwide as providing leadership in sustainability, innovation and safety in the built environment.

Progress towards more specific environmental and social targets are also measured and these are highlighted later in this report.

As much of BRE’s core business is directly connected with helping others to improve their environmental performance and the environment around them, it is essential for BRE to practice what we preach and thus ensure our operations and activities are being managed in a way which is both energy and resource-efficient.

To meet this commitment, BRE has in place a formal Environmental Policy with part of our business certified against the ISO 14001 Environmental Management System standard. We aim to continue rolling out this approach to other parts of the business in this and future years.
2 PROFILE

2.1 OPERATIONS

Every working day, over 500 research scientists, engineers, architects, surveyors, psychologists, administrators, managers and many others on BRE sites in Watford, East Kilbride, Inverness, Port Talbot and Middlesbrough bring together their expertise, skills and knowledge to advise clients on issues as wide ranging as:

- Construction quality, process and productivity
- Innovation and product development
- Sustainable development
- Environmental impact of construction
- Whole-life performance
- Energy efficiency of buildings
- Renewable energy in buildings
- Certification of products, systems and people
- Building performance; structures, materials and systems
- Prevention and control of fire
- Security
- Risk management.

Why do we do it?

Because we share a passionate commitment to help the UK’s built environment industries to be the best. BRE is committed to making its comprehensive expertise and experience available to benefit those involved in construction and associated industries, from multinational companies and government departments to individual architects and builders. It does this through:

- Commissioned research, development and testing programmes for individual clients and consortia
- Consultancy and advice
- Product testing for certification purposes
- Best Practice programmes (e.g. Energy Efficiency; Construction Best Practice)
- Publication of BRE Digests, Good Building Guides, Good Repair Guides, research reports, books, etc.
- Conferences, seminars, workshops and other events
- Training and assessment
- E-commerce activities.

A complete review of BRE’s services can be found on BRE’s website at www.bre.co.uk
2.2 STAKEHOLDERS

BRE is owned by the BRE Trust, a registered charity with a mission to champion excellence and innovation in the built environment. This ownership structure enables BRE to be held as a national asset on behalf of the construction industry and its clients, independent of specific commercial interests. It also maintains BRE’s impartiality and objectivity in research and advice.

Through its research programmes, the BRE Trust aims to achieve:

- A higher quality built environment
- Built facilities that offer improved functionality and value for money
- A more efficient and sustainable construction sector
- A higher level of innovative practice.

Further information on the BRE Trust, including details of the trustees and its programme of activities, can be found at www.bretrust.org.uk

2.3 ENVIRONMENTAL POLICY

BRE is the pre-eminent centre for research in the built environment within the United Kingdom, with much of our core business concerned with helping others to improve their environmental performance. We aim to ensure that our operations and activities are managed in an energy and resource-efficient manner, in order to minimise detrimental impacts on the environment.

Our environmental policy is to:

- Comply with all relevant legislation
- Seek continual improvement in our environmental performance
- Contribute to economic, environmental and social sustainability in the short and long term.

The Chief Operating Officer is responsible for implementing the policy.

This will be achieved by:

- Maintaining an environmental management system (EMS), certified against ISO 14001
- Setting objectives and targets to minimise the environmental impact of our operations
- Training our employees to achieve and maintain high standards of environmental performance
- Using products and processes that assist in reducing the environmental life cycle impacts of our activities and those of our clients and suppliers
- Communicating openly and consulting with stakeholders on environmental issues.

Guy Hammersley
BRE Chief Operating Officer
November 2005
2.4 HEALTH AND SAFETY POLICY

BRE is the pre-eminent centre for research in the built environment within the UK, with much of our core business concerned with helping others to improve their safety performance. Our vision is a working life without accidents. Our operations and activities are managed in a manner which aims to eliminate or reduce to a minimum, any risks to the health and safety of our employees, visitors and contractors.

Our health and safety policy is to:

- Comply with all relevant legislation
- Seek continual improvement in our safety performance
- Make health and safety an integral part of our business success.

The Chief Operating Officer is responsible for implementing the policy. This will be achieved by:

- Working to a system aligned with ISO 9001
- Setting goals and action plans to ensure continuous improvement in our safety performance
- Training our employees to achieve and maintain high standards of health and safety performance
- Encouraging the use of new technologies and processes to facilitate the effective management of health and safety
- Communicating openly with staff, customers, suppliers and contractors on health and safety issues.

The foundation for our success is our core values:

- Nothing that we do is worth getting hurt
- Health and safety is everyone’s responsibility
- Health and safety is integral to everything we do and to the success of our business.

Guy Hammersley
BRE Chief Operating Officer
November 2005
3 SOCIAL RESPONSIBILITY

Last year’s sustainability report contained information relating to the profile of our staff for the first time. This made for interesting reading and it also provided a fascinating insight for those outside BRE. We are truly committed to providing transparency in all areas of our business and in improving our reporting both in breadth and consistency.

In this section, we provide figures on the staff profile across our business in 2005/06. We shall look at the progress BRE has made in health and safety over the past year and conclude the section by looking at BRE’s involvement in the local community, highlighting a few key initiatives.

3.1 STAFF PROFILES AND DIVERSITY

Table 1 provides a clear picture of the staff profile across the different bands within BRE. A band is the broadest measure of an employee’s position within the organisation. For each band category there is a generic role profile which sets out specific accountabilities, performance measures, knowledge, experience and behaviours expected of staff. However, staff within the same band can and do have very different jobs.

The band range goes from A up to F and above for senior management. These categories and their particular attributes are used as a part of the performance and development review process and they are an essential component of BRE’s staff development procedures.

Table 1: Band profiles across the organisation broken down by gender (source: HR department as of 17 May 2006)

<table>
<thead>
<tr>
<th>Band</th>
<th>Example of role types</th>
<th>Number of females</th>
<th>Number of males</th>
<th>Total</th>
<th>% of staff in band (as of 17/05/06)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Junior Admin/Student Placements</td>
<td>10 (18)</td>
<td>2 (5)</td>
<td>12 (23)</td>
<td>2.1% (4.0%)</td>
</tr>
<tr>
<td>B</td>
<td>Admin/Consultants &amp; Technicians</td>
<td>53 (67)</td>
<td>30 (30)</td>
<td>83 (97)</td>
<td>14.6% (16.7%)</td>
</tr>
<tr>
<td>C</td>
<td>Senior Consultants &amp; Technicians</td>
<td>77 (76)</td>
<td>85 (96)</td>
<td>162 (172)</td>
<td>28.5% (29.8%)</td>
</tr>
<tr>
<td>D</td>
<td>Senior Consultants</td>
<td>46 (44)</td>
<td>124 (118)</td>
<td>170 (162)</td>
<td>29.9% (28.0%)</td>
</tr>
<tr>
<td>E</td>
<td>Principal Consultants</td>
<td>14 (16)</td>
<td>81 (75)</td>
<td>95 (101)</td>
<td>16.7% (15.7%)</td>
</tr>
<tr>
<td>F</td>
<td>Centre Directors</td>
<td>3 (3)</td>
<td>21 (22)</td>
<td>24 (25)</td>
<td>4.2% (4.3%)</td>
</tr>
<tr>
<td>G</td>
<td>Divisional Managing Directors</td>
<td>1 (1)</td>
<td>4 (5)</td>
<td>5 (6)</td>
<td>0.9% (1.0%)</td>
</tr>
<tr>
<td>I</td>
<td>Chief Executive</td>
<td>0 (0)</td>
<td>1 (1)</td>
<td>1 (1)</td>
<td>0.2% (0.2%)</td>
</tr>
<tr>
<td>Other (inc Executive Directors)</td>
<td>12 (0)</td>
<td>5 (0)</td>
<td>17 (0)</td>
<td>3% (0%)</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>216 (225)</td>
<td>353 (354)</td>
<td>569 (579)</td>
<td>100%</td>
</tr>
</tbody>
</table>

N.B. Numbers in brackets represent comparative data from 2004/05.
Figure 1: Graphical presentation of gender information across bands (source: HR department as at 17 May 2006)

Figure 2: A profile of staff gender across the organisation (source: HR department as at 17 May 2006)

Figure 3: A profile of staff age across the organisation (source: HR department as at 17 May 2006)
BRE Human Resources records and monitors ethnicity of BRE staff. This data is sought from all employees but the decision to provide information is entirely at the discretion of the individual staff member. In 2004/05, we reported that 76% of staff had provided information on ethnicity of which 91.2% defined themselves as ‘white’ and 8.8% as from other ethnic groups. In 2005/06, we can report that we have ethnicity data for 79% of staff of which 92% have defined themselves as ‘white’ and 8% as from other ethnic groups.

BRE Human Resources also records and monitors disability in the workforce. In 2004/05, six employees described themselves as disabled. In 2005/06, this figure is four.

**Flexible Working**

Providing flexible working arrangements for staff to suit personal circumstances is a must in today’s business environment. In 2004/05, BRE employed 72 staff on a range of part time contracts and this figure remains the same in 2005/06 with 14 male and 58 female part time staff.

Flexible working is also encouraged informally through general working patterns of staff and home working is quite common. Figure 4 illustrates the frequency of home working at BRE. The wording of the questionnaire means that the ‘no response’ category can almost certainly be taken to mean employees that do not work from home. Almost ten percent of staff indicated that they work from home one day a week with a further 13% working from home one or two days a month. This provides not only social flexibility for the individual but also cuts down on CO₂ emissions resulting from travelling into work.

Figure 4: Number of days BRE staff work from home (source: BRE staff transport survey 2005)
3.2 EMPLOYEE WELL-BEING /HEALTH AND SAFETY

Achievements
Significant progress was made during 2005/2006 in developing our policy of continuous improvement in health and safety. Some key achievements are listed below:

- **Occupational health.** The new occupational health service was fully implemented. A key initiative was industrial hygiene assessment of risks from man-made mineral fibres and reassurance that our control measures were effective.

- **Working safely committee.** The new working safely committee successfully delivered a number of critical projects leading to new procedures and improvements in management of contractors, technical risk assessment, laboratory management, first aid, emergency response and site working.

- **Fire safety.** Fire risk assessments were completed on all BRE buildings and new management roles and procedures implemented in anticipation of the Regulatory Reform (Fire Safety) Order.

- **Carol Hughes awards.** Three awards were made for significant contributions to improving health and safety in the concrete laboratory, high pressure pneumatic testing laboratory and in the management of first aid.

- **Training.** More health and safety training was delivered than ever before. A new approach to site-wide regular mini training sessions was successfully introduced.

- **Communication.** Health and safety alphabet posters were rolled out across BRE. Their success has led to these being marketed commercially to other organisations.

- **HSE case study.** BRE was featured in an HSE case study on good practice in health and safety. This is available on the HSE website.
Accidents
During 2005/2006, we received 49 entries in the Accident Book. 41 were BRE employee accidents and 8 were contractor/visitor accidents. Six accidents resulted in lost work time. There was one RIDDOR reportable accident resulting from a first aider who fainted and injured their back whilst attending to a contractor’s minor injury. HSE did not require any action following this incident.

The accident rate for 2005/06 was an LTAR* of 5.7

\[ \text{Lost Time Accident Rate} = \frac{\text{Number of Lost Time Accidents} \times 1,000,000}{\text{Number of Hours Worked in Period}} \]

To provide greater clarity and improved monitoring of accidents and incidents, new graphs were introduced during the year as illustrated in Figure 5. These were populated with historical data to enable trends to be identified.

Figure 5: LTAR’s graphs (source: Health and Safety team)
With the introduction of BRE’s campaign of continuous improvement in health and safety, there has been better reporting of accidents and incidents. This has resulted in an increase in the total number of reported accidents and incidents during the last three years. The majority of these were very minor, but they enabled potential hazard areas to be identified and improvements made to our management procedures and working practices.

**Staff health**

The percentage of days lost due to sickness across BRE during 2005/2006 was 3.02%, which represents a rise of 0.76% on the previous year. In total, there were 4552 days of absence between 1/4/05 and 31/3/06 which represents an average of 8 days per employee. This is higher than the national average of 2 per cent*. The new occupational health service has now been established to improve staff support which perhaps will help decrease absence levels.

**New initiatives for 2006/2007**

Key features of the drive for continual improvement in health and safety will include ongoing, frequent and highly visible walk-abouts by senior staff, a high priority on training and communication and a focus on high risk activities. Specific new initiatives will include:

- **Management of contractors.** Implementation of new procedures for managing contractors and clients working on BRE sites.
- **A new training approach.** Full roll out of the new mini training sessions.
- **A new document system.** Implementation of a new, easy to access system for health and safety documents.
- **Working at height.** Supporting the HSE drive on working at height and undertaking a campaign within our own business.
- **Behavioural safety.** Initiating a new approach of behavioural safety management.

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3.3 BRE in the Community

BRE recognises its important role within the local and wider community. The BRE Trust plays a particularly important role in the Group’s community activity with its support for the education of future generations through the sponsorship of research degrees with universities. Some of the key initiatives are described below:

- **BRE Universities Partnership.** This major new strategic initiative to strengthen the UK’s capacity to carry out built environment research was formally launched in January 2006 by the Environment Minister, Elliot Morley MP. The Partnership was launched with four centres of excellence:
  - Fire Safety Engineering at the University of Edinburgh
  - Innovative Construction Materials at the University of Bath
  - Sustainable Building Design in the Welsh School of Architecture at Cardiff University
  - Energy Utilisation Research at the University of Strathclyde.

- **Support for schools.** BRE staff continue to support a number of schools by conducting technical presentations and providing work experience for students at BRE. We have also run “Industry Days” for local schools.

- **Engineering Education Scheme.** BRE undertook its first project in the RAE sponsored Engineering Education Scheme with Parmiter’s School. This involved helping students to develop a device for testing finger print machines. The project was carried out in support of BRE Certification’s business in testing and certifying biometric security devices.

- **Communication.** The successful Offsite2005 event at BRE provided an opportunity to invite local residents on a private tour of the exhibition and meet with the CEO and COO for a discussion about BRE and our plans for the future. Local residents were also invited to other events, including Resource05; the demonstration and exhibition of renewable energy technologies for buildings.

- **Working with local businesses and organisations.** BRE works extensively with local businesses specialising in construction and housing, providing consultancy, testing and research services. We also provide support to local authorities and regional development agencies to help develop strategies for improved infrastructure and communities, particularly in the areas of sustainability and regeneration.
Section 4.1 explores our environmental Key Performance Indicators (eKPIs) for the period April 2005 – March 2006. Section 4.2 follows on with commentary on each eKPI and includes graphs illustrating trends in our performance.

4.1 ENVIRONMENTAL KEY PERFORMANCE INDICATORS (EKPI)

The figures presented in Table 2 are for the BRE Garston site and include 22 other tenant organisations also located at Garston. These tenants lease office and laboratory space from BRE and contribute to water, gas and electricity usage on site, which we can not separate out from the figures presented below.

NOTES TO TABLE 2

1. Based on total treated floor area of 43,083 m²
2. BRE FT equivalent employees = 542 (569 employees of which 72 PT) plus 267 tenants at Garston site = 809 persons.
3. 12 month estimate based on electricity usage between 01/08/05 to 31/03/06 of 5,376,220 kWh.
4. This figure relates to the period Oct 01-Oct 02.
5. Site wide consumption for period Apr 05 - Mar 06, less furnace usage for period 06/05/05 – 12/05/06.
6. M³ of water contributes 0.4Kg of CO₂ to the atmosphere (source: Advanced Demand Side Management - http://www.adsm.com/watermark.htm).
7. Annual water usage figure relates to the period 17/03/05 to 15/03/06 for the Farm Gate Meter and the period 13/01/05 to 05/01/06 for North Gate Meter.
8. Office waste figure is an estimate based upon the number and size of bins located on the Garston site and the number of lifts carried out over the year.
9. Figures are based on an estimated 25% recovery rate via F&R Cawley MRF facility.
10. This is the mean distance travelled by BRE staff to work per year based upon upper and lower limits.
Table 2: BRE environmental Key Performance Indicators (source: Facilities Group, BRE Purchasing and staff transport survey)

<table>
<thead>
<tr>
<th>eKPI</th>
<th>Total</th>
<th>kWh/m² (Note 1)</th>
<th>Tonnes CO₂ emissions</th>
<th>Impact per person (Note 2)</th>
<th>Data period</th>
<th>FY04/05</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Annual electricity use</td>
<td>8,064,330 kWh (Note 3)</td>
<td>187</td>
<td>3,468</td>
<td>4.3 t/CO₂</td>
<td>Apr 05 - Mar 06</td>
<td>5,931,072 kWh (Note 4)</td>
</tr>
<tr>
<td>2</td>
<td>Annual natural gas use (including Furnace Building)</td>
<td>13,008,424 kWh</td>
<td>–</td>
<td>2,472</td>
<td>3.1 t/CO₂</td>
<td>Apr 05 - Mar 06</td>
<td>12,731,088 kWh</td>
</tr>
<tr>
<td>2a</td>
<td>Annual natural gas use of Furnace Building</td>
<td>697,000 kWh</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>06/05/05 – 12/05/06</td>
<td>737,325 kWh</td>
</tr>
<tr>
<td>2b</td>
<td>Annual natural gas use (excluding Furnace building)</td>
<td>12,311,424 kWh</td>
<td>286</td>
<td>–</td>
<td>–</td>
<td>(Note 5)</td>
<td>11,993,763 kWh</td>
</tr>
<tr>
<td>3</td>
<td>Annual water use</td>
<td>43,912 m³</td>
<td>–</td>
<td>17.6 (Note 6)</td>
<td>54,279 litres (Note 7)</td>
<td>75,267 m³</td>
<td>↓ 41.7%</td>
</tr>
<tr>
<td>4</td>
<td>Waste &amp; recycling (All figures in tonnes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total waste generated</td>
<td>764.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Land filled:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Office waste (Note 8)</td>
<td>167.3</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Construction waste</td>
<td>396.2</td>
<td></td>
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<tr>
<td></td>
<td>Industrial waste</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>564.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of total waste</td>
<td>73.8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Recycled:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Construction waste (Note 9)</td>
<td>132.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paper</td>
<td>18.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Newspapers/magazines</td>
<td>5.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cans</td>
<td>0.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plastics</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wood</td>
<td>11.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cardboard</td>
<td>11.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scrap metal</td>
<td>10.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inert</td>
<td>8.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>200.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of total waste</td>
<td>26.2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Transport Staff mileage to work by car</td>
<td>2,802,152 (Note 10)</td>
<td>–</td>
<td>948</td>
<td>1.7 t/CO₂ per BRE employee</td>
<td>Transport survey May 2005</td>
<td>No comparative data available</td>
</tr>
</tbody>
</table>
4.2 COMMENTARY ON EKPIs

**eKPI 1** – Electricity use at Garston has increased by 26% since 2002*.
Our impact per square metre of used space has therefore risen from 138 kWh/m² to 187 kWh/m² Benchmark.
With a current lack of sub-metering on site, we are unfortunately unable to separate out high energy facilities such as the Burn Hall and wind tunnels, as well as those buildings occupied by tenants. With tenant numbers growing in recent years, this is certainly one reason for this increase. Investment in sub-metering on key facilities is planned in 2006/07. Targets for reduction are detailed in Section 6.

**eKPI 2** – Natural gas use at Garston has risen by 2.1% as illustrated in Figure 7. Gas use associated with operation of the furnace building has fallen by 5.5% over the same period. Therefore, gas use excluding the furnace building has risen by 2.6%, which equates to 286 kWh/m² in 2005/06 compared with 278 kWh/m² in 2004/05 Benchmark. As with electricity usage, the increase in gas consumption can be partly attributed to the rise in tenants on site, however this increase is still somewhat unexpected as works were carried out in 2005 to improve building heating controls at Garston. These works are continuing with further improvements planned in 2006/07. See Section 6 for reduction targets.

**eKPI 3** – With significant investment and major repair work undertaken in 2005, water use at Garston has reduced by 41.7% to 43,912 m³ as illustrated in Figure 8. This equates to 54,279 litres per person per year Benchmark. This figure is considerably higher than the Environment Agency’s benchmark of 18,250 litres per employee and BRE’s own best practice target of 9,000 litres**. Both benchmarks, however, are meant for offices only and cannot take into account the diverse nature of activities undertaken at Garston.

The Garston site is more akin to a university for which the Executive Agency of the Office of Government Commerce published a recommended benchmark of 0.62 m³/m² floor area/annum***. Adopting this as our benchmark, our current usage

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* The electricity meter on the Garston site was removed by the supplier in October 2002 and a new meter installed in July 2005. For this reason, we are not in a position to compare current electricity usage for the period between 2002-2005 as this data is not available.
** BREEM Good Practice benchmark of < 9 m³ per employee per year
at Garston equates to 1.02 m³/m² floor area/annum. So, whilst we have made significant progress in 2005/06, we do recognise that usage is still high and further investigation will be carried out in 2006/07 as a matter of priority to identify the key causes.

**eKPI 4** – Over the summer of 2005, BRE went out to tender with a new waste contract which has paved the way for a new approach to dealing with waste at source. As a result, BRE is working closely with its waste contractor to develop innovative waste solutions which will deliver far greater waste segregation and recovery on and off site. The launch of the aptly named ‘brecycle’ has, in the first six months of operation, diverted an extra 45 tonnes (11%) of our waste away from landfill by targeting key waste streams.

Figure 9 illustrates these different streams and the tonnages recycled. For the year as a whole, BRE diverted 26.2% of its waste from landfill. Furthermore, at year end, BRE was diverting around 35% of its waste from landfill – a figure which we intend to increase to 50% by year end (see Section 6 for further details).

It is also encouraging that total waste generated on site has reduced by 14.6% compared with 2004/05 as illustrated in Figure 10.
**eKPI 5** – A staff transport survey was not conducted this year, hence the figures presented in Table 2 are from the staff transport survey undertaken in May 2005. This highlighted that 86% of BRE staff travel to work by car (including car sharing) Benchmark. This is considerably higher than the national average of 71%.

Figure 11 illustrates the split in modes of transport by staff. Use of public transport is noticeably low with just 0.3% and 0.6% of staff travelling by bus and train respectively. The national average is 8% (bus) and 4% (train). Cycling is a popular alternative with 5.5% of staff choosing to cycle to work, which is considerably higher than the national average of 3%. Only 3.9% of staff walk to work compared to the national average of 11%.

Figure 12 illustrates the time taken by staff to travel to work. Compared with national statistics, the correlation is remarkably similar. For example, 63% of staff take less than 30 minutes to travel to work – nationally this is 61.5%, whilst 87% of staff take less than one hour to travel to work, which nationally is 89%.

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**Figure 11**: Staff modes of travel to the Garston Site (source: BRE staff transport survey 2005)

**Figure 12**: Time spent travelling to work by BRE staff (source: Staff Transport Survey – May 2005)

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It is clear from the statistics that we compare unfavourably with national figures for use of public transport and we are using the car instead to make these journeys. The challenge for BRE is to reverse the trend and increase use of public transport to get to work which seems to have the backing of BRE staff.

A poll undertaken in February 2006 asked staff if they would be willing to swap the car for an improved local bus service providing better links to the site from surrounding towns. Ten percent of staff indicated that they would use such a service if it was available. As a result, discussions with a local bus company have been initiated to look into improving links to the Garston site. These discussions are expected to continue in 2006/07 until a long term solution is achieved.

**Average impact per person at Garston**

- Impacts per person (including tenants)
  - 4.3 t/CO$_2$, resulting from electricity use
  - 3.1 t/CO$_2$, resulting from gas use
  - 54,279 litres of water

- Impacts per BRE employee (excluding tenants)
  - 1 tonne of waste to landfill
  - 0.4 tonnes of waste recycled
  - 1.7 t/CO$_2$, resulting from 5,170 car miles to and from work

Figure 14: Impact per person (based on normalised number of full time equivalent employees plus tenants on site)
5 COMMENTARY ON LAST YEAR’S ACHIEVEMENTS

Table 3 below provides a commentary on the progress made in meeting our sustainability targets in 2004/05.

Table 3: Commentary on last year’s achievements

<table>
<thead>
<tr>
<th>Objective (2004/05)</th>
<th>Achieved</th>
<th>Commentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve ISO 14001 certification within BRE’s Construction Division by the end of financial year 2005/2006.</td>
<td>No</td>
<td>A business decision was taken in November 2005 to delay implementation and certification of the Construction division to ISO14001 until 2006/07.</td>
</tr>
<tr>
<td>Reduce natural gas consumption at the Garston site (excluding Furnace Building and Burn Hall) by 10% (based on 2004/2005 figures).</td>
<td>No</td>
<td>Despite works carried out in 2005 to improve the heating controls on the Garston site, gas usage (excluding the furnace building) rose by 2.6%. Usage remains high and further works on the heating controls are planned in 2006/07. As highlighted earlier, an increase in the tenant population on site is a contributing factor to the increase in gas use.</td>
</tr>
<tr>
<td>Reduce water consumption at Garston site by 15% (based on 2004/2005 figures).</td>
<td>Yes</td>
<td>Water use at Garston has reduced by 41.7% in 2005/06. Further investigative works are to be undertaken in 2006/07 to identify what can be best described as unusual patterns in use. Ultimately, we want to move towards and beyond the benchmark of 0.62 m³/m² floor area/annum.</td>
</tr>
<tr>
<td>Put in place appropriate electricity monitoring at the Garston site.</td>
<td>Partly achieved</td>
<td>A site-wide electricity meter was installed in July 2005. Further sub-metering of key facilities on site is planned in 2006/07, which will allow BRE to better target consumption on site.</td>
</tr>
<tr>
<td>Reduce electricity consumption by 5% (excluding Furnace Building and Burn Hall) for the second half of the year, in comparison with the data obtained for the period October 01 to September 02.</td>
<td>No</td>
<td>Electricity use has increased by 26% in comparison with the period October 2001 to September 2002.</td>
</tr>
<tr>
<td>Gain an understanding of current trends in staff car usage and prepare a report to the Board with proposed revisions to the Green Travel Plan by January 2006.</td>
<td>Yes</td>
<td>An internal report entitled “Recommendations for investment in 2006/07 to assist BRE in meeting its current and future Corporate Sustainability Targets” was presented to the Board in December 2005. However, rather than focusing on car usage which was felt to be well documented already (as illustrated in Figures 9, 10 and 11), the report focused on air travel. Between November 2004 and October 2005, staff made approximately 500 business flights to destinations including Tokyo, Chicago and Beijing. The total impact of these flights was 591 tonnes/CO₂ working out at 1.18 t/CO₂ per flight*. The report to the Board recommended that BRE should seek to off-set the CO₂ emissions resulting from staff air travel on all future business. This initiative was well received by the Board and from April 2006 onwards, CO₂ emissions from staff business flights will be off-set.</td>
</tr>
<tr>
<td>Objective (2004/05)</td>
<td>Achieved</td>
<td>Commentary</td>
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<tr>
<td>Nominate a waste champion and put in place appropriate monitoring and targeting</td>
<td>Yes</td>
<td>A new partnership with our waste contractor has paved the way for a new approach to dealing with waste on and off site. Our waste champion (who resides in BRE Facilities Group) is integral to the continued development of waste management on site and is working with the waste contractor to improve monitoring and measurement of our waste streams. This work will continue into 2006/07, including the adoption of BRE's own SMART Start waste monitoring tool and roll out of brecycle scheme for tenants.</td>
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<td>for waste across the Garston site to establish a base line for waste to landfill and waste diverted from landfill.</td>
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<td></td>
</tr>
<tr>
<td>Establish and implement a BRE Green Purchasing Policy by March 2006.</td>
<td>Yes</td>
<td>A Sustainable Purchasing Policy has been established – see Annex A. The policy is consistent with BRE’s existing purchasing practices which have been in place for a number of years. These centre around use of the BRE approved contractors and suppliers database. A good example of the new policy in action is a recent on site trial of environmentally friendly Ecover cleaning products. The success of the trial has meant that BRE, in conjunction with its cleaning contractor, is replacing 80% of existing non-environmentally friendly cleaning products with alternatives which contain no chlorine or phosphates and are biodegradable, thus minimising their impact on aquatic life.</td>
</tr>
<tr>
<td>Make Resource 05 a ‘carbon neutral’ event by off-setting the CO₂ associated with</td>
<td>Yes</td>
<td>BRE partnered with Climate Care to off-set the CO₂ associated with attendee travel to Garston for resourceOS – see certificate in Annex B.</td>
</tr>
<tr>
<td>attendee travel to Garston.</td>
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</tr>
<tr>
<td>Establish a Sustainable Development Action Group to develop an inclusive/integrated</td>
<td>Commenced</td>
<td>The Sustainable Development Action Group (SDAG) was established, with two meetings held in 2005. The group is split into sub-groups, each focusing on a particular issue that mirror the eKPIs. See Annex C for details of sub-groups and its members. A good start has been made but the challenge for 2006/2007 is for the groups to now champion and drive new initiatives.</td>
</tr>
<tr>
<td>sustainability strategy for the whole BRE Group by January 2006.</td>
<td>and ongoing</td>
<td></td>
</tr>
<tr>
<td>Establish a process for building relations with the local community at the Garston</td>
<td>Yes</td>
<td>A team was established to take forward community relations and communication as part of the Sustainable Development Action Group. The major Offsite2005 event at BRE was used as an opportunity to invite local residents on a private tour of the exhibition and meet with the CEO and COO for a discussion about BRE and our plans for the future.</td>
</tr>
<tr>
<td>site and hold at least one community consultation event in the year.</td>
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</tr>
<tr>
<td>Objective (2004/05)</td>
<td>Achieved</td>
<td>Commentary</td>
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<tr>
<td>Make significant progress in developing and implementing BRE’s sustainability tools to the benefit of the wider community.</td>
<td>Yes</td>
<td>The growth in the uptake of BREEAM continued, with the total number of assessments increasing by a further 11% during 2005 (data is reported for calendar years). 2005 saw work on updates to existing schemes and the introduction of new schemes for retail and schools. In the domestic sector there was a further dramatic rise in the adoption of EcoHomes, with an 86% increase in assessments during 2005.</td>
</tr>
<tr>
<td>In particular, launch the new BRE Certification ‘Green Book’ of products.</td>
<td>Partial</td>
<td>Although the new ‘Green Book’ was not published during the year, significant progress was made particularly in the context of stakeholder engagement. This has taken longer than planned but it is vitally important and good cross sector support has been achieved.</td>
</tr>
<tr>
<td>See a marked improvement in tidiness across the BRE Garston site, with better practices for storing samples and materials.</td>
<td>Yes</td>
<td>A new sample storage facility was opened in Building 14, Hall D and this has reduced the external storage of test specimens. There have been a number of clean up exercises around the site to remove long term accumulated items. The initiative was also picked up at our BRE Scotland site in East Kilbride where there has been a major clean up of long term storage and hazardous materials.</td>
</tr>
</tbody>
</table>

* Emissions data provided by Climate Care  
http://www.climatecare.org.uk based on flight information captured through bookings using the BRE credit card account.
6 SUSTAINABILITY TARGETS FOR 2006/07

1 Achieve ISO 14001 certification within BRE’s Construction Division.

2 Reduce natural gas consumption at the Garston site (excluding Furnace Building) by 10% (based on 2005/2006 figures).

3 Implement electricity sub-metering at the Garston site.

4 Reduce electricity consumption (excluding Burn Hall) by 5% (based on 2005/2006 figures).

5 Reduce water consumption by 5% (based on 2005/2006 figures).

6 Off-set BRE’s annual CO₂ emissions resulting from staff air travel on business.

7 Make Resource06 a ‘climate neutral’ event by off-setting the CO₂ associated with attendee travel to Garston.

8 Implement BRE waste strategy, diverting 50% of waste generated at BRE’s Garston site away from landfill by March 2007.

9 Implement new procedures for the handling and disposal of hazardous substances and waste on the Garston site.

10 Involve the local community and key stakeholders in future development plans for the Garston site.
ANNEX A – SUSTAINABLE PURCHASING POLICY

BRE is the pre-eminent centre for consultancy, certification, testing and research in the built environment within the United Kingdom; BRE recognises and is committed to carry out its Procurement function to incorporate the values of sustainable purchasing. Purchasing decisions can have a significant local and worldwide socio-economic and environmental impact both in the present and for future generations to come. BRE Purchasing endeavours to ensure that it achieves BRE’s diverse requirements, sympathetically to the environment, economy and society through:-

• The assessment of environmental and corporate risks to the organisation with a continuation of sustainable performance improvement to the supply chain.

• Compliance with all relevant environmental legislation.

• Encouraging suppliers to encompass BRE’s sustainable objectives, including advancing resource efficiency and minimising waste by elimination, reducing, reusing and recycling, preventing pollution and preserving natural resources.

• Working with key suppliers, where the opportunity arises, to influence changes and increase sustainability improvements through the supply chain. This will include:-
  – Avoiding products with particularly harmful substances
  – Supporting products with recycled content or that are biodegradable
  – Purchasing products using recognised labelling schemes
  – Encouraging suppliers to achieve environmental credentials.

• Making staff aware of BRE’s policy and promote best practices for sustainable purchasing. And where appropriate to consider whole life costs of goods and services, this will include:-
  – Manufacture, delivery, installation
  – Operating cost including energy, water consumption and maintenance
  – End of life costs including decommissioning and disposal.

• Tackling barriers to entry so that SME’s and local suppliers are encouraged to bid for appropriate work.

• Examination of other corporate social responsibilities.

• Ensuring that supplier’s environmental credentials are, as far as realistically possible, considered in the supplier appraisal process and awarding of contracts.

• Using products and services which minimise any harmful impact on the environment.

• Searching for chances for reuse and recycling of materials as appropriate.

• Giving appropriate deliberation to the cost and benefits of environmentally preferable products and service replacements.

Guy Hammersley
BRE Chief Operating Officer
August 2006
ANNEX B – CLIMATE CARE OFF-SETTING CERTIFICATE

This certificate is issued to
Building Research Establishment
“Resource 95”

Has offset x amount of carbon dioxide emissions to reduce the rate of global climate change.

Mary Roberts, Climate Care
24 October 2006
ANNEX C – SUSTAINABLE DEVELOPMENT ACTION GROUP MEMBERS

Guy Hammersley (Chief Operating Officer)
Stuart Blofeld (Environment Manager) – SDAG coordinator

ENERGY TEAM
Andrew Thorne (Environment) – team coordinator
(currently on secondment)
Matt Fisher (Facilities) – acting team coordinator
Keith Symonds (Purchasing)

WASTE TEAM
Gary Sabini (Facilities) – team coordinator
Katherine Adams (Construction)
Keith Symonds (Purchasing)
Katie Livesey (Timber technology & Construction)

WATER TEAM
Richard Wheatland (Facilities) – team coordinator
Andrew Thorne (Environment – currently on Secondment)

TRAVEL TEAM
Sam Ramaligame (Certification) – team coordinator
Keith Symonds (Purchasing)
Julian Ridal (Scotland)

COMMUNICATION AND STAKEHOLDERS TEAM
Simon Guy (Marketing and Public Relations) – team coordinator
Elizabeth Shoobert (Human Resources)
Anthony Waterman (Construction)

HEALTH AND SAFETY TEAM
Paul Quartermann (Environment) – team coordinator
John Kempster (Health and Safety)

NB: The Health & Safety team will feed into the group on their current activities coordinated through the Working Safely Committee rather than requiring separate actions.