

# Grosvenor Environment Review 2010








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## Our environmental objectives

Our six priority areas are in dark green.

 <p><b>Energy &amp; carbon</b> Reduce energy consumption in our portfolio, and help reduce climate change by understanding and reducing our carbon footprint.</p>	 <p><b>Waste</b> Reduce waste to landfill and maximise reuse and recycling.</p>	 <p><b>Water</b> Minimise water consumption in our portfolio, protect water sources and prevent pollution.</p>
 <p><b>Building rating standards</b> Gain building rating standards accreditation measuring the environmental performance of our buildings during design, construction and operation.</p>	 <p><b>Ecology</b> Minimise the ecological impact of our developments. Protect and enhance ecological features and resources (habitats and species).</p>	 <p><b>Supply chain &amp; materials</b> Consider environmental objectives in the selection of suppliers and materials.</p>
 <p><b>Design</b> Create and manage well-designed, environmentally-sustainable buildings and places.</p>	 <p><b>Development</b> Minimise our environmental impact through responsible site acquisition and during the construction process (specifically energy &amp; carbon, waste and water).</p>	 <p><b>Employee engagement</b> Encourage our staff to play an active part in improving our environmental performance.</p>
 <p><b>Environmental management system</b> Develop a consistent EMS for use across the Group.</p>	 <p><b>Governance</b> Maintain a Group-wide environment action plan and report performance against our objectives and strategy.</p>	 <p><b>Indoor environmental quality</b> Improve the indoor environment quality within our portfolio.</p>
 <p><b>Investment</b> Implement a sustainable investment policy for Grosvenor's investments and funds under management. Understand the impact of global energy prices on our portfolio and environmental sustainability on rents and values.</p>	 <p><b>Property management</b> Ensure all our properties are managed in line with our environmental objectives.</p>	 <p><b>Retrofit</b> Modify existing buildings to reduce energy and water consumption and improve climate resilience.</p>
 <p><b>Stakeholder engagement</b> Engage with key industry bodies and regulators on environmental issues and policy-making.</p>	 <p><b>Tenant engagement</b> Work with our tenants to help reduce their environmental impacts.</p>	 <p><b>Travel</b> Promote sustainable travel by staff and to and from the assets we own and manage.</p>

Grosvenor is a privately-owned property group, active in some of the world's most dynamic cities. Our future success is tied to the sustainable growth of the cities in which we have a presence. We have a vested interest in the future shape of the urban landscape and aim to help create and manage attractive and vibrant cities in which people choose to live and work.

Grosvenor is committed to achieving environmental sustainability. We aim to reduce our environmental impact by creating and managing well-designed, environmentally-sustainable buildings and places.

[www.grosvenor.com](http://www.grosvenor.com)

# Managing property responsibly

## Chief Executive's foreword

We have a long history of stewardship of the built environment, having looked after our London estate in Mayfair and Belgravia for over 300 years. Our long-term outlook means we naturally think of our impact on future generations; we consider that we have a responsibility to them to reduce our environmental impact.

Given that buildings account for just under half of all the world's total primary energy consumption, it is important that we mitigate the impact this causes.

By improving the environmental performance of our existing and future assets, we can also enhance the long-term value of our property portfolio, reduce the risk of obsolescence and enable compliance with incoming legislation. Furthermore, as awareness in this field rises, making environmental responsibility integral to our business will help keep us a partner and employer of choice.

### Our carbon footprint

Carbon emissions targets now affect all Grosvenor's markets. Carbon emissions are also the most internationally-recognised measure of our environmental impact: reducing them is a key objective.

In 2010, we completed our third Group-wide carbon footprint. This allows us to understand our environmental impact in its broadest sense, benchmark carbon emissions, identify improvements and now, for the first time, to report our performance.

### Reporting our environmental performance

We have been improving our environmental performance at Operating Company level for many years. With the appointment of a Group Director of Environment & Design in 2008, we started bringing this experience together to plan from a Group-wide perspective. Since then, we have agreed a strategy for reducing our environmental impact, put in place a governance structure to ensure accountability, and established a framework for data collection and reporting.

Reporting our environmental performance establishes an important level of accountability. This extends the principle we follow by publishing our financial results, which we have been doing for more than a decade despite our private status.

We are an international Group with a diverse portfolio. Establishing a consistent approach to environmental management and reporting is not a simple task. Our progress in environmental management is demonstrated by the performance highlights and case studies from across the Group published in this Review. Our first Environment Review is a work in progress: we expect to improve the quantity and quality of our environmental performance data and to add to the metrics on which we report year by year. Much has been achieved already and I applaud the hard work and enthusiasm of all involved.

### Mark Preston

Group Chief Executive,  
Grosvenor

**"This is our first Environment Review. We hope it will be of interest to all our stakeholders, including staff – who have been among the strongest champions of change."**



## Environmental performance highlights

A summary of our environmental performance for 2010.

### Group-wide performance

Directly-managed properties and our own offices

4.0%

reduction in absolute carbon emissions; 2009: 52,911 tCO<sub>2</sub>e, 2010: 50,811 tCO<sub>2</sub>e

3.4%

reduction in carbon emissions by intensity; 2009: 126kg CO<sub>2</sub>e/m<sup>2</sup>, 2010: 122kg CO<sub>2</sub>e/m<sup>2</sup>

9,135 metric tonnes

total waste footprint (by mass)

51.0%

of waste footprint diverted from going direct to landfill

7.3%

reduction in water consumption; 2009: 883,316m<sup>3</sup>, 2010: 819,264m<sup>3</sup>

### Operating Company highlights

10%

lower energy consumption at our largest office,  
70 Grosvenor Street in London, UK

4.5 Star

NABERS (National Australian Built Environment Rating System) Energy Rating  
at Bank of Queensland Centre in Brisbane, Australia

100%

UK office and retail assets managed by Grosvenor Fund Management  
now ISO14001 accredited

75%

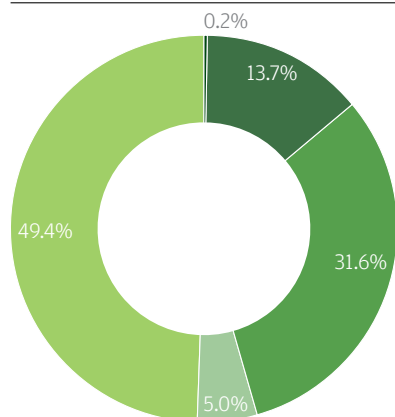
of electricity to Grosvenor Britain & Ireland's directly-managed  
London estate properties now supplied by 'green' energy supplier Ecotricity

'Excellent'

Ecohomes rating at 1, Lochmore House in Belgravia, London, UK

There is a methodology and glossary at the end of this Review.

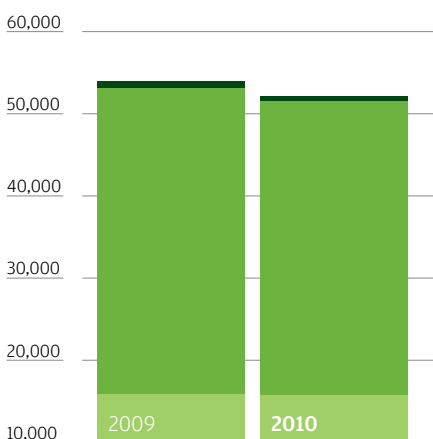
#### Waste footprint by mass (%) 2010



- Sent to an off-site hazardous waste treatment facility
- Incinerated (with or without energy recovery)
- Recycled (following on-site segregation)
- Sent to an off-site materials recovery recycling facility
- Sent direct to landfill

Waste (measured by mass) produced by 35 buildings we directly manage and our own offices. In addition, 29 further properties were able to record an estimated total of 38,000m<sup>3</sup> of waste measured by volume. The waste footprints do not include properties where tenants are responsible for managing their waste. While waste data (either by mass or volume) was received from only 44% of the 149 properties where Grosvenor is responsible for waste management, these tended to be the larger assets – by m<sup>2</sup> data coverage was 67%.

#### Carbon emissions (tCO<sub>2</sub>e) Absolute

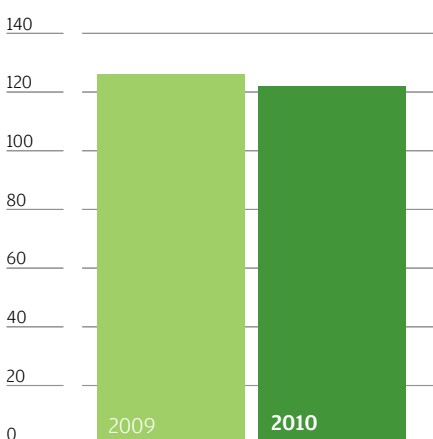


The total emissions from our activities in the common parts of the buildings which we directly manage and our own offices, irrespective of when they entered the portfolio, plus business-related travel. In 2010, electricity consumption data was recorded from 413 properties, 99.5% of the directly-managed assets where Grosvenor is responsible for energy provision.

The carbon footprint covers the following areas defined by the Greenhouse Gas protocol:

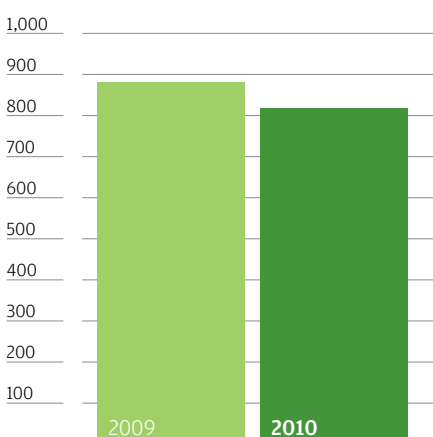
- Scope 1: Direct emissions from sources owned or controlled by Grosvenor, for example company vehicles
- Scope 2: Indirect emissions from purchased electricity. These emissions are considered indirect because the emissions physically occur at the point of electricity production
- Scope 3: Indirect emissions from other Company activities within the organisational boundary, such as business travel, waste disposal or tenant activity.

#### Carbon emissions (kgCO<sub>2</sub>e/m<sup>2</sup>) Intensity/like-for-like portfolio



Emissions per m<sup>2</sup> from our activities in the common parts of 373 buildings which we directly manage and our own offices. This uses a static portfolio approach to give a like-for-like comparison, excluding any properties that exited or entered our portfolio during 2009-2010. Properties where the data has changed significantly from 2009, without reasonable explanation have also been excluded. These represent only 1.5% of the total emissions and are therefore considered to be immaterial.

#### Water consumption (000m<sup>3</sup> of water) Like-for-like portfolio



Water consumption from 124 buildings we directly manage and occupy. This uses a static portfolio approach to give a like-for-like comparison excluding any properties that, during 2009-2010, exited or entered our portfolio, changed the service provision, or were unable to report accurate data. There was a 7.3% reduction in water use in our like-for-like portfolio in 2010. The water footprint does not include properties where our tenants are responsible for water provision. In 2010, our absolute water footprint covering all 163 properties was 1,189,308m<sup>3</sup>, compared to 1,047,117m<sup>3</sup> in 2009. The increase was due primarily to a rise in the number of properties reporting. In 2010, water consumption data was recorded from 92% of those properties where Grosvenor is identified as being responsible for water provision.

# Measuring our performance



## Environment & Design Director's overview

While this is the first time we have reported our environmental performance externally, the progress our staff have already made is significant. We have focused on six impact areas: energy & carbon, waste, water, building rating standards, ecology and supply chain & materials.

Energy & carbon is our priority. Reducing our carbon emissions is key to improving our environmental performance. All the businesses in the Group are working together to achieve this.

In 2010, we undertook our third Group-wide carbon footprint. This informs a carbon management plan, with strategies for reducing emissions for each Operating Company. We reduced our carbon emissions both in absolute terms and on an intensity basis. The size of the portfolio included in the absolute figure increased slightly between 2009 and 2010. A significantly colder winter in many regions increased energy consumption during the final quarter, so a reduction overall represents a strong improvement.

The footprinting exercise also highlighted the long-term environmental impact of the new buildings we create. We tackle this by setting minimum environmental criteria in each region for all our developments. We improve the performance of our existing buildings through retrofit and refurbishment.

We established a baseline for our waste data, against which we will plot our performance in 2011. Just over half of our waste was diverted from going direct to landfill. Water consumption across our directly-managed properties and our own offices was 7% lower than in 2009.

Our data collection process for carbon & energy is now well established and we have almost 100% data coverage. We are working hard to improve reporting of waste and water data. This is more challenging due to the differing levels of service provision and infrastructure across the regions in which we operate.

The metrics for quantifying progress in building rating standards, ecology and supply chain & materials are less standardised. Progress in these areas is demonstrated by the case studies which follow.

**“Reducing our carbon emissions is key to improving our environmental performance. All the businesses in the Group are working together to achieve this.”**



### Our strategy

In 2010, we continued to deliver against our Group-wide environment action plan. This guides the policies of our Operating Companies and is implemented through a clear governance structure led by Mark Preston, Group Chief Executive. Our Group-wide priorities are to use the carbon footprint as the basis for a long-term abatement plan, further improve the quality and coverage of our performance data, align our reporting with external standards and agree updated environmental performance targets.

To inform our long-term strategy, we are continuing our collaboration with the University of Cambridge's Centre for Energy Studies to research energy management in buildings. In 2011, we will jointly publish a series of reports on future scenarios of energy management, interventions and barriers to increasing energy efficiency, and possible policy solutions.

To support our environmental objectives, we will introduce a staff communication and training programme. We will also offer staff access to an on-line personal carbon tracking system and, in the UK, preferential tariffs for using 'green' electricity.

### Kate Brown

Group Environment & Design Director,  
Grosvenor

## Grosvenor Britain & Ireland

**Meeting the challenges posed by climate change is a priority both for the UK Government and the property industry as we move towards ambitious 2050 carbon reduction targets.**

The UK Government has introduced legislation ranging from the incremental phasing out of tungsten light bulbs to the CRC Energy Efficiency Scheme. The property sector has increasingly stringent controls including Display Energy Certificates and Part L building regulations governing conservation of fuel and power.

### **Case study: Trumpington Meadows, Cambridge**

Trumpington Meadows is a 60-hectare residential development site that we own in joint venture with Universities Superannuation Scheme.

During 2010, a country park, forming an integral part of the development, was seeded with wild grasses and meadow flowers. In addition, hedgerows were replanted to restore field margins.

In November, the project team received a Silver Green Apple award from The Green Organisation in recognition of ecological works completed in 2009 to restore a 1.5km stretch of the River Cam running through the site. The restoration work raised the level of the river bed to improve fish spawning and invertebrate habitat, and increased the level of protection for kingfisher and otters. We have also allowed a wild flower meadow to revert to being a flood meadow, to control floodwater and provide a better habitat for wildlife.

**“The ecological work at Trumpington Meadows is encouraging wildlife back to this former agricultural site.”**

**Edward Skeates**  
Project Director,  
Grosvenor Britain & Ireland



The 60-hectare country park at Trumpington Meadows, Cambridge, will include picnic sites, a community orchard, woodlands, ponds and play areas. It will be managed by The Wildlife Trust. The Trumpington Meadows development will also include 1,200 homes, a primary school and other community facilities.



The impact of existing buildings on the environment is significant and retrofitting environmental improvements is challenging. Our London estate, across Mayfair and Belgravia, was mainly built pre-1900, so this is a particular issue for us.

We are a founding member of the Better Buildings Partnership. This initiative aims to make London's commercial buildings more energy-efficient and achieve substantial carbon dioxide reductions. In 2010, we co-authored the BBP's 'Sustainability Benchmarking Toolkit for Commercial Buildings' which includes principles of best practice for environmental management.

Grosvenor Britain & Ireland is responsible for the improvements in energy efficiency at the Group's largest office, 70 Grosvenor Street, mentioned on page 4. Measures taken to achieve this include changes to plant and timer settings and installing energy-efficient lighting.

In 2010, we completed the installation of smart meters on 75% of our directly-managed London estate properties. The smart meter data allows us to monitor electricity consumption closely and identify energy-inefficient buildings. We also moved the majority of our directly-managed London estate properties to 'green' electricity supplier Ecotricity. Using 'green' electricity reduces the carbon content of energy used within buildings on our London estate.

#### Case study: Mayfair and Belgravia, London

We continue to trial new technologies suitable for historic buildings in refurbishments and retrofits. We achieved an 'Excellent' Ecohomes rating for our refurbishment of a flat in Lochmore House, Belgravia. This adds to the 25 'Very Good' and 'Excellent' Ecohomes ratings achieved to date across our London estate, including 11 Grosvenor Crescent Mews which, in 2008, was the oldest building ever to achieve an Ecohomes 'Excellent' rating.

**"We are committed to improving the environmental performance of our historic property portfolio in London."**

**Katherine Emmerson**  
Sustainability Manager,  
Grosvenor Britain & Ireland



Retrofitting works at Lochmore House, Belgravia, London, included installing a grey-water recycling system, low-energy lighting and low-flow sanitaryware and super-insulating the walls.



## Grosvenor Americas

**While the Canadian and US property markets continue to adopt sustainability measures, the more progressive policies, such as the carbon emissions cap-and-trade scheme, have not been implemented.**

Following a final failed legal challenge in December 2010, the first ever US-wide greenhouse-gas regulations are due to come into force in 2011. The US Environmental Protection Agency will enforce the rules requiring new and upgraded facilities, such as power plants, to hold permits to emit greenhouse gases. To obtain the permits, facilities must show that they are using the best available technology to control emissions.

The US Green Building Council's Leadership in Energy and Environmental Design (LEED®) certification system continues to be a leading measure of 'green' building and sustainable-design compliance and is increasingly being used internationally. The Energy Star® measure of energy performance in existing properties is also increasingly used. All our office properties use Energy Star® ratings to measure energy performance.

### Case study: Environmental performance review

We commissioned a sustainability consultancy to conduct an environmental performance review of Grosvenor Americas' investment portfolio. We evaluated ways to improve energy and water use, waste management and procurement. We have already implemented the first round of recommendations. Works planned for 2011 range from Heating Ventilating and Air Conditioning (HVAC) recommissioning to installing more energy-efficient lighting.

**“As a result of our portfolio review, we were able to find ways to improve the environmental performance of our assets.”**

**Sharon Sterling**  
Senior Vice – President  
Portfolio Management,  
Grosvenor Americas



The Courtyard by Marriott Chevy Chase hotel in Washington DC was one of the assets included in the environmental performance review. Energy consumption in 2010 was approximately 30% lower than budgeted. During construction, we reused 90% of the building's original structure. Solar-reflecting roofing and pavers reflect light and heat energy, reducing the need for building cooling.





## Grosvenor Continental Europe

A number of building rating systems (LEED, BREEAM and HQE certificates) are established within the Continental European market with growing tenant demand for environmental-sustainability features.

We are seeing more volatile occupancy in buildings with weaker environmental performance and expect this to impact values in time.

In Continental Europe, with the exception of our co-investment in Grosvenor Fund Management funds, the majority of our activity is undertaken through our indirect investment in the shopping centre specialist Sonae Sierra, in which we have joint control.

Sonae Sierra's commitment to the environment is widely recognised. In 2010, it won the Best Environmental Risk Control category at the European Risk Management Awards and came first, for the fifth time running, in the ACGE Corporate Climate Responsibility Index published by Euronatura in Portugal. In 2010, Sonae Sierra also achieved ISO 14001 certifications at the Munster Arkaden shopping centre and at its Düsseldorf office, both in Germany. Sonae Sierra's Corporate Responsibility Report is available at [www.sonaesierra.com](http://www.sonaesierra.com).

### Case study: Plaza Mayor shopping centre, Spain

An analysis using the World Business Council for Sustainable Development Water Tool allowed Sonae Sierra to identify water-shortage risk at Plaza Mayor shopping centre in Malaga.

A new landscaping plan was put in place to reduce the amount of water used to irrigate the shopping centre gardens. Changes included the replacement of grass areas with native plants that require minimal watering.

**“The new landscaping plan at Plaza Mayor saved 13,040m<sup>3</sup> of water, enough to fill five Olympic size swimming pools.”**

**Alexandre Fernandes**  
Head of Asset Management,  
Portugal & Spain, Sonae Sierra



As a result of the landscaping improvements, water use at Plaza Mayor shopping centre in Malaga reduced by 28% in 2010. Water efficiency was 3.5 litres per customer visit in November 2010 compared to 4.8 litres at the same time the previous year.



## Grosvenor Asia Pacific

The drivers for sustainable building stock are less established in Asia than in Grosvenor's other regional markets. However, with carbon emission reduction targets set by both China and Japan, and 60% of China's population expected to live in urban areas by 2030, energy efficiency in the built environment will be increasingly important.

A number of environmental building rating tools compete in Asia, with Green Building Councils now in mainland China, Hong Kong and Japan.

In April 2010, the Hong Kong Government launched measures requiring green building certification for floor area concessions in new developments; mandatory disclosure of these ratings after completion; and inclusion of the provisional rating of uncompleted new private residential developments in all sales brochures.

We have improved the environmental performance of many of our projects including existing properties and new developments such as The Westminster Terrace in Hong Kong. This recently-completed luxury residential development of 59 duplex apartments features a 'green roof' and a 'grey water' harvesting system.

During 2010, we also installed energy-efficient lighting in our Hong Kong office, leading to an approximate 30% saving in electricity consumption.

### Case study: Stakeholder engagement

Grosvenor is a founding member of the Asian Association for Investors in Non-listed Real Estate Vehicles (ANREV) chaired by Nick Loup, Chief Executive, Grosvenor Asia Pacific. Through its broad membership, we hope to raise awareness of sustainability in the region.

**"Sustainability is an important consideration for the real estate industry in Asia. We support ANREV's agenda to bring best practice guidelines to the region."**

**Fung Shiu Hung**  
Project Director,  
Grosvenor Asia Pacific



ANREV's 2010 Investment Intentions Asia Survey was extended to capture the investment intentions of investors and managers from an environmental perspective. More than half of the respondents had seen an increase in importance of environmental and corporate governance considerations.



## Grosvenor Australia

The Australian property market is well advanced in defining and adopting best practice sustainability ratings. Commercial office building rating standards are particularly developed in relation to building design, tenant fit-outs and the management of energy, water and waste.

The Building Energy Efficiency Disclosure Act 2010, recently introduced by the Commonwealth Government, requires owners of all commercial office buildings over 2,000m<sup>2</sup> to disclose a NABERS Energy Rating if they want to sell or let space.

Our recently-completed 43,000m<sup>2</sup> office tower at 400 George Street in Brisbane has achieved a 5 Star Green Star Office Design Version 2 Rating from the Green Building Council of Australia. The building's energy performance is being monitored and we aim to achieve a 5 Star NABERS Energy Rating.

We have recently commenced construction of a 25,000m<sup>2</sup> office tower at 60 Station Street, Parramatta, Sydney, which will also aim to achieve a 5 Star Green Star Design Rating and 5 Star NABERS Energy Rating.

Our longstanding principal sponsorship of Green Cities, Australia's premier sustainability conference, reinforces our commitment to environmental sustainability.

### Case study: Investment Properties – Bank of Queensland Centre, Brisbane

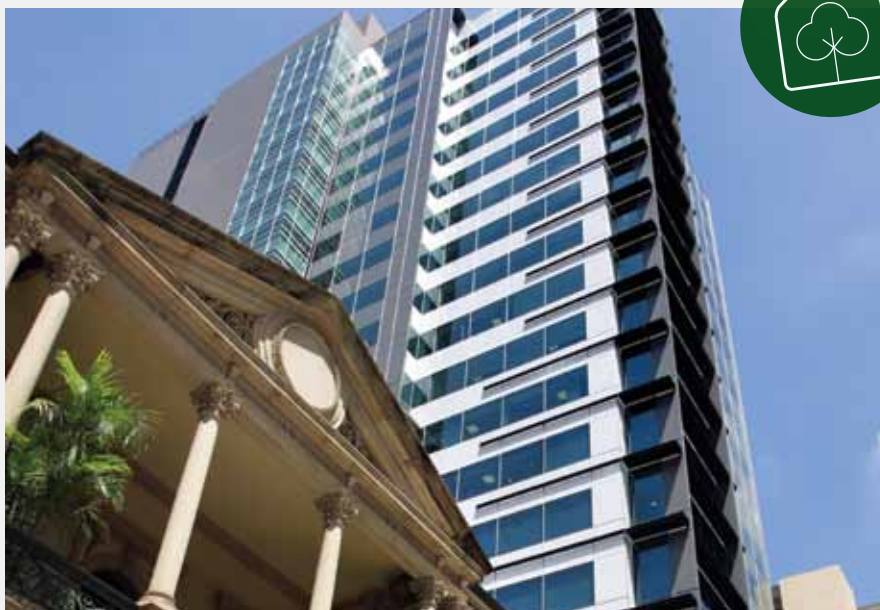
Major energy-efficiency capital works were recently completed at one of our existing properties, the Bank of Queensland Centre. The works were part-funded with a 50% grant from the Commonwealth of Australia Green Building Fund, which aims to improve energy efficiency of office buildings across Australia.

**“At the Bank of Queensland Centre we are aiming for a 5 Star NABERS Energy Rating – the highest possible.”**

**Aaron Gladstone**  
Development Manager,  
Grosvenor Australia



Works at Bank of Queensland Centre, 259 Queen Street, Brisbane, included installation of a sub-metering and monitoring system, duct mounted carbon dioxide sensors and reprogramming of the Building Management System. This enabled us to better manage outside air control to run plant more efficiently, and actively monitor and tune building performance. As a result we forecast a 14% reduction in energy use.





## Grosvenor Fund Management

**Energy efficiency is a crucial step towards the responsible management of the built environment. Working together, managers, investors and occupiers are able to achieve a positive and permanent improvement which adds value for all concerned.**

Establishing a 'value for green' is in its infancy but ultimately more energy-efficient buildings will demand a premium. This will be encouraged by increasing government intervention and occupier demands.

During 2010, a number of assets we manage achieved ISO14001 accreditation. This international standard sets the framework for the environmental management plans of each asset. All our UK office and retail fund assets are now accredited.

Energy audits were completed for assets owned by our UK funds. The results of which were fed into Grosvenor Fund Management's international carbon-abatement strategy for 2011. Other regions in which we operate will complete energy audits in 2011.

### Case study: 'Energy from Waste' projects

We use an 'Energy from Waste' facility to help tenants in three of the assets owned by the Grosvenor London Office Fund dispose of non-recyclable waste. In 2010, 306 tonnes (over half) of previously non-recyclable waste – equivalent to the weight of over 40 double-decker buses – were converted to energy.

In 2010, Liverpool ONE, owned by the Grosvenor Liverpool Fund, was given a National Gold Green Apple Award for another 'Energy from Waste' project which converts used cooking oil from restaurants into fuel to help run the on-site vehicles. In 2010, Liverpool ONE generated 60% of its fuel from cooking oil using this method.

**“‘Energy from Waste’ produces power for the national grid, reducing reliance on fossil fuels and providing energy from a constantly renewable source.”**

**Scott Rowland**  
Fund Manager,  
Grosvenor London Office Fund



Occupiers in Belgrave House, one of the assets owned by the Grosvenor London Office Fund, benefit from access to an 'Energy from Waste' facility. Improvements like this will reduce landfill and save our tenants money – we believe this will improve occupancy rates and therefore investor concerns.





While generating and sourcing energy from renewables or low carbon alternatives is important, it only forms one part of a sustainable approach to investment management. The key to a low carbon economy is to reduce the overall demand for energy. Thus, we are looking at mechanisms to improve energy efficiency.

#### Case study: Reducing carbon emissions in our funds

We have introduced 'green leases' to two of our European retail funds. Green leases are recognised as a powerful mechanism to drive carbon savings in commercial buildings. They provide a contractual obligation for owners and occupiers to minimise environmental impacts in areas such as energy and waste.

Grosvenor Shopping Centre Fund was ranked first in a sustainability benchmark survey, published by the sustainability consultancy Upstream Sustainability Services, for reducing its energy intensity by 24% between 2007 and 2009. Festival Place, Basingstoke, owned by the Fund, made the biggest energy savings with a 79% reduction in gas consumption and 31% reduction in electricity use from 2007 to 2009.

Improvements to assets in the Grosvenor Shopping Centre Fund include putting in more energy-efficient light fittings, running 'switch off campaigns' and using smart meters to monitor energy consumption.

In the US, during 2010, we achieved LEED Core & Shell, Silver certification for Mountain Lakes II, a suburban New Jersey office building redevelopment. Energy efficiency was increased significantly through installation of a new Heating Ventilating and Air Conditioning system and energy-efficient windows.

**“By reducing energy consumption of the assets owned by the Grosvenor Shopping Centre Fund, we are actively contributing to a low carbon economy as well as adding value for our occupiers and our investors.”**

#### Helen Griffin

Senior Asset Manager,  
Grosvenor Fund Management



The Eastgate Shopping Centre, Inverness, owned by the Grosvenor Shopping Centre Fund, achieved a reduction in electricity consumption of 14% in 2010.



## Adviser's statement

**Upstream Sustainability Services** has been advising Grosvenor for over eight years on many aspects of its sustainability strategy and programmes.

We currently support Grosvenor with the measurement and monitoring of sustainability performance across its global portfolio, and work closely with outsourced property managers and third party service providers to co-ordinate the collection of energy, water and waste data from all the Operating Companies across Grosvenor's portfolio. The scale and scope of its operations present significant challenges with standardised data collection – as there are many regional differences in the way utilities are procured and managed.

We assist Grosvenor's global portfolio in the collation of all sustainability data, and employ robust, best practice techniques to validate the waste and water data contained within this review (WSP is responsible for analysing energy and carbon, see below). Whilst it has not been subject to a full and independent audit, we believe that the review is an accurate representation of Grosvenor's environmental impacts (as outlined in the methodology).

Grosvenor has improved both the provision and quality of performance data across its global operations, and whilst there is still some way to go to fully capture the complete impact of all its operations, we applaud the efforts made in 2010 by both Grosvenor and its service providers to improve the quality of data provided for this Review.

We look forward to working with Grosvenor to further improve data provision, and engage in operational improvement programmes to minimise the environmental impacts of its business.

**Alex Edds**

Associate Director, Upstream Sustainability Services, Jones Lang LaSalle

**WSP** have been appointed by Grosvenor to assess the carbon footprint of the Company and to advise on opportunities to identify approaches to reducing the carbon impact of the business. The data provided by Upstream has been independently assessed by WSP and we are pleased to say that the energy data quality has improved significantly since the inception of the process in 2007. We now have coverage of 99% of the directly-managed portfolio for energy-related data. The development of comparable metrics for the diverse nature of Grosvenor's business is challenging, but the data presented provides a robust assessment of the Group's impact in this area and any improvements made.

**Andrew Bright**

Technical Director, WSP

## Glossary

### Absolute carbon emissions

Total tonnes of carbon emissions attributable to Grosvenor's directly-owned and managed properties.

### ANREV

The Asian Association for Investors in Non-listed Real Estate Vehicles is a not-for-profit organisation driven by institutional investors in non-listed property funds.

### Bio fuel

Vegetable oil or animal fat-based diesel fuel consisting of long-chain alkyl (methyl, propyl or ethyl) esters. Created by reacting lipids with an alcohol, and used in standard diesel engines either alone, or blended with petro diesel.

### BREEAM

Building Research Establishment Environmental Assessment Method run by BRE (UK-developed) designed to help construction professionals understand and mitigate the environmental impacts of the developments they design and build. Certified buildings are awarded a pass, good, very good, excellent or outstanding rating.

### Carbon footprint

A measure of the amount of carbon dioxide produced by a person, organisation or state in a given time.

### CRC Energy Efficiency Scheme

The UK's mandatory climate change and energy saving scheme introduced in April 2010.

### Display Energy Certificates

Displayed on public buildings in the UK over 1,000m<sup>2</sup>. They are designed to promote the improvement of the energy performance of buildings.

### Ecohomes

An environmental rating scheme for homes in the UK, part of the BREEAM scheme.

### Energy Star

An international standard for energy efficient consumer products (including buildings), originated in the US.

### Energy from Waste

The process of creating energy in the form of electricity or heat from the incineration of waste.

### 'Green' electricity

'Green' electricity reduces carbon emissions by using renewable energy sources.

### Green Star

A comprehensive, voluntary environmental rating system, developed in Australia, which evaluates the environmental design and construction of buildings against tailored sustainability criteria. Certified buildings are awarded between 4 and 6 Green Stars.

### Greenhouse Gas Protocol

The most widely used international accounting standard for government and business leaders to understand, quantify and manage greenhouse gas emissions.

### Green leases

A lease between a landlord and tenant of a commercial building which provides mutual contractual obligations for tenants and owners to minimise environmental impact in areas such as energy, water and waste.

### Grosvenor Group

Grosvenor Group Limited and its wholly-owned subsidiaries.

### HQE

The 'High Quality Environmental' standard is a building rating commonly used in France to measure environmental performance.

### Intensity measure of carbon emissions

Tonnes of carbon emissions per m<sup>2</sup> attributable to Grosvenor's directly-owned and managed properties.

### ISO 14001

This is the Environmental Management Standard of the International Standards Organisation.

### LEED®

Leadership in Energy and Environmental Design Green Building Rating System™ is a US-developed benchmark for the design, construction and operation of high-performance green buildings. Buildings are awarded Certified, Silver, Gold or Platinum certification.

### London estate

Grosvenor's portfolio of office, retail and residential properties in the Mayfair and Belgravia areas of London's West End.

### NABERS

National Australian Built Environment Rating System, a performance-based environmental rating system for existing buildings.

### Operating Companies

Grosvenor's five regional investment and development businesses and Grosvenor Fund Management.

### Smart meter

An advanced meter (usually electrical) that identifies consumption in detail. The information can often be accessed and monitored at an external site.

### Static portfolio approach

Accounts for the properties that have remained in the portfolio from the beginning of 2009 to the end of 2010, allowing for like-for-like, year-on-year comparison.

### World Business Council for Sustainable Development Water Tool Analysis

Aims to help corporations and organisations map their water use and assess risks across their global operations and supply chains.

## Methodology

All sustainability performance data recorded at buildings we directly manage and at our own offices is done on a quarterly basis, and reported by property managers through our web-based 'sustainability portal'. In 2010, the total portfolio of directly-managed properties considered was 459 (compared to 461 in 2009).

### Carbon footprint

Our footprint is measured by the global design engineering and management consultancy WSP. It is aligned to the Greenhouse Gas Protocol (GHG). The GHG-defined 'organisational boundary' has been determined using the 'operational control' approach and therefore only includes emissions within our direct control. It does not include emissions associated with activities controlled by tenants or other third parties contractors.

The footprint is reported against the baseline year of 2009 in absolute terms and on an intensity basis.

### Waste and water

Our waste and water data is recorded and analysed by Upstream Sustainability Services, Jones Lang LaSalle. Where gaps existed for a quarter, Upstream has used estimates to complete the annual 'footprint' based on the consumption recorded for the remaining periods.

We report on the waste generated from our portfolio in two ways: by mass and by volume. Measuring waste by mass is a difficult task in most areas of the business as it is very much reliant on the level of service provision available in the locality. Many regions of the world still lack the available infrastructure to provide the information we require. Almost 80% of our reported waste footprint (by mass) in 2010 came from UK assets managed by Grosvenor Fund Management.

Our arrangements for water provision vary across the regions in which we operate. At some properties, tenants are responsible for obtaining water for the whole building, and therefore have been omitted from our total water footprint. We have also had to exclude a significant number of Grosvenor Britain & Ireland properties where we are still identifying the metering arrangements; this includes a large number of residential properties.



