Scottish Parliamentary Corporate Body

Environmental & Sustainability Annual Report 10/11
waste targets achieved
CEMARS achieved
RACE programme launched
carbon management plan
“We will become a low carbon organisation”
carbon footprint down 12%
air cooled chiller installed
ISO 14001:2004 retained
electricity and gas targets achieved
I am pleased to be able to introduce the Scottish Parliamentary Corporate Body’s (SPCB) fourth environmental annual report. 2010/11 has been a successful year for environmental management in the Parliament. We have continued to reduce our environmental impact and I am particularly glad to report that the scale of our carbon footprint continues to decrease.

In the last year, the SPCB became the first public sector organisation to meet the requirements of the Certified Emissions Measurement and Reduction Scheme (CEMARS). To achieve certification to this scheme, an organisation must demonstrate that it has a robust commitment and plan to reduce its greenhouse gas emissions and that they have been carefully and rigorously calculated.

Our carbon footprint has reduced by 12%, or 521 tonnes compared to 2005/06. The majority of this reduction has been achieved by reducing the electricity consumed in the Parliament building. We are continuing to look to new, more efficient technologies to help reduce our energy use. This year the SPCB installed an air cooled chiller which will reduce our electricity costs by a predicted £50,000 per year and our carbon footprint by 6%.

I am also pleased to be able to say that all of our Committee Room lighting has been replaced with high efficiency LEDs.

Our Real Action on Carbon Emissions programme has also been launched. My hope for the programme is that it will give all building users the opportunity to come together to develop increasingly sustainable ways of working and living. It provides an opportunity for all building users to get involved in our journey towards becoming a low carbon Parliament.

If you have any comments on this report or our approach to environmental or carbon management, I would be very pleased to hear them.

I hope you find this report interesting and informative.

Paul Grice
Chief Executive
In 2009/10 the Parliament developed its carbon management plan. The plan comprises the road map for reducing the Parliament’s carbon emissions. Projects to reduce the Parliament’s carbon emissions by at least 20% from the 2005/2006 total by March 2015 have been identified.

The plan has been developed around four strategic themes, and projects have been identified under each of these themes:

- **Building Emissions**
- **Sustainable Travel**
- **Decision Making**
- **The RACE: Real Action on Carbon Emissions**

Delivering the plan is predicted to lead to savings of approximately £245,000 per year by 2015 and a reduction of 1,000 tonnes of carbon dioxide per year.

Implementation of the plan by March 2011 reduced expenditure on gas and electricity by £70,000 and CO₂e (carbon dioxide equivalent) by 521 tonnes.
The RACE programme was launched in April 2010 to engage all building users in our desire to ensure we become a low carbon organisation. The RACE has already held events on carbon footprinting, zero waste and discussions on the potential impact of climate change on our lives.

The RACE is currently being run by a team of volunteers who are passionate about improving the environment and helping others to live more sustainable lives at work and at home.

Aim

Help the Parliament become a low carbon organisation by engaging building users with its Carbon Management Plan.

Vision

An environmentally aware workforce actively working to reduce the Parliament’s environmental impact.
CEMARS

The SPCB became the first public sector organisation to meet the requirements of CEMARS.

To achieve certification to this scheme an organisation must demonstrate that it has a robust commitment and plan to reduce greenhouse gas emissions and that emissions (carbon footprint) have been calculated in accordance with the requirements of ISO 14064-1:2006. Certification is confirmed annually by an external audit.¹

¹ More information on this standard and related documents are available on the Scottish Parliament’s website.
The Parliament’s carbon footprint has been reduced by 12% from 2005/06 to 2010/11. The calculation of this reduction has been confirmed following external audit and covers emissions from a wide range of activities including the use of gas for heating, electricity, waste, water and travel on Parliamentary business.

We are currently almost halfway towards our 2015 target with some 521 tonnes removed from the footprint.²

<table>
<thead>
<tr>
<th>Scope</th>
<th>Emission Source</th>
<th>2005-06</th>
<th>2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>Natural Gas</td>
<td>558</td>
<td>595</td>
</tr>
<tr>
<td>One</td>
<td>Other³</td>
<td>2</td>
<td>44</td>
</tr>
<tr>
<td>Two</td>
<td>Electricity</td>
<td>3564</td>
<td>3063</td>
</tr>
<tr>
<td>Three</td>
<td>Travel</td>
<td>185</td>
<td>112</td>
</tr>
<tr>
<td>Three</td>
<td>Waste</td>
<td>61</td>
<td>20</td>
</tr>
<tr>
<td>Three</td>
<td>Water</td>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>4377</td>
<td>3855</td>
</tr>
</tbody>
</table>

² Figures are measured in tonnes of CO₂e. CO₂e includes the emissions of the gases included in the 2011 Guidelines to Defra / DECC’s GHG Conversion Factors for Company Reporting. The emission factor for electricity is the factor taken from Table 3c - electricity consumed, grid rolling average, total direct GHG. The emissions for electricity for 2005-2006 have been calculated from the Defra emission factor for 2008 which is the earliest factor included in E-manage. E-manage is the tool used by the Parliament’s carbon footprint auditor.

³ Other includes F-gas emissions and diesel used for the on-site generator and site van.
**Medium term target:**
Reduce incoming electricity consumption by **24%** from the 2005/2006 total by March 2015.

**Interim target:**
Reduce incoming electricity use by **15%** from the 2005/2006 total by March 2011.

**Total reduction achieved – 15%**

Initiatives that have contributed towards reducing electricity use include:

- Replacing less efficient lighting in the MSP Building and Committee Rooms with very efficient long life LED lighting. Over 900 LED lamps are now used in the Parliament.
- Replacing the chiller used to keep the IT server rooms and other areas of the building cool with a state of the art air cooled chiller. This project will reduce the Parliament’s electricity use by approximately 7%, the carbon emissions by around 6% and lead to savings of around £50,000 per year.

<table>
<thead>
<tr>
<th>Year</th>
<th>Electricity (kWh)</th>
<th>% reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline year 2005/06</td>
<td>6,606,490</td>
<td></td>
</tr>
<tr>
<td>2009/10</td>
<td>5,738,410</td>
<td>13%</td>
</tr>
<tr>
<td>2010/11</td>
<td>5,620,498</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Electricity use**

![Electricity consumption graph](image)
The Parliament used less gas in 2010/11 than in 2009/10 even though 2010/11 was a colder year. To take account of changing temperatures in different years a measure of weather conditions called degree days is used. This allows energy use in different years to be compared accurately. Against this measure and in absolute terms gas use decreased in the Parliament. This is primarily due to careful management of the building.

<table>
<thead>
<tr>
<th>Year</th>
<th>Gas (kWh) absolute</th>
<th>Degree days⁴</th>
<th>kWh per degree day</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008/09</td>
<td>3,772,127</td>
<td>2544</td>
<td>1482</td>
</tr>
<tr>
<td>2009/10</td>
<td>3,255,087</td>
<td>2615</td>
<td>1245</td>
</tr>
<tr>
<td>2010/11</td>
<td>3,219,048</td>
<td>2740</td>
<td>1175</td>
</tr>
</tbody>
</table>

⁴ Degree days are a measure of the severity and duration of cold weather: the colder the weather in a given month, the higher the degree day value. If you take these into account it is possible to compare one year with another and to determine whether any initiatives have resulted in energy savings.
Medium term target:
Reduce landfill waste by 75% from the 2005/2006 total by March 2015.

Interim target:
Reduce landfill waste by 65% from the 2005/2006 total by March 2011.

Total reduction achieved – 65%
In 2010-11, 54 tonnes of waste were sent to landfill – 100 tonnes less than in 2005-06.

Landfill waste has been reduced by:

- Collecting food waste for offsite composting
- Replacing paper towels with hand-driers in toilets.

Recycling rates for our total measured waste have increased to 79% from the previous year. Total measured waste arising has remained fairly stable since 2005/06. In future years the waste management plan will move to try and reduce total waste arising as well as focussing on increasing recycling rates.

Paper, newspapers, magazines, plastic bottles, plastic bags, envelopes, cans, wood, glass, printer cartridges, batteries, light bulbs and food are all recycled.

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5 Waste includes all waste from offices and from catering. It does not include waste generated by contractors during their work.

6 The target is based on the results of waste audits undertaken by Parliament staff. The tonnage of waste sent to landfill is calculated from information supplied by the Parliament’s waste disposal contractor.
## Disposal rates 2010/11

<table>
<thead>
<tr>
<th>Year</th>
<th>Total waste arising (tonnes)</th>
<th>Actual landfill waste (tonnes)</th>
<th>% reduction</th>
<th>Recycled / composted waste (tonnes)</th>
<th>% recycled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline year 2005/06</td>
<td>263</td>
<td>154</td>
<td>n/a</td>
<td>109</td>
<td>41%</td>
</tr>
<tr>
<td>2009/10</td>
<td>245</td>
<td>56</td>
<td>64%</td>
<td>189</td>
<td>77%</td>
</tr>
<tr>
<td>2010/11</td>
<td>264</td>
<td>54</td>
<td>65%</td>
<td>210</td>
<td>79%</td>
</tr>
</tbody>
</table>

### Waste - Landfill

- landfill tonnes
- target

![Graph showing landfill tonnes and target over time](image)
Medium term target:
Reduce office paper consumption by 40% from the Session 2⁷ total during Session 4 (2011–2016).

Interim target:
Reduce office paper consumption by 35% from the Session 2 total during Session 3 (2007–2011).

Total reduction achieved – 25%
The target to reduce paper use in the building was not achieved. Paper use is very dependent on the type and quantity of Parliamentary business. In future the measurement of paper for this target will also include paper used to print Parliamentary publications.

⁷ Paper use for the whole of Session 2 is unavailable; the baseline is based on 2005-2007 information. The measurement of paper consumption is based on paper purchased for use in the building’s printers and photocopiers.
The Responsible Purchasing Strategy which was launched in January 2008 contains 100 time-bound objectives which are divided into 7 areas:

- Professional standards
- Environmental impact
- Ethical & Social issues
- Small and Medium-sized Enterprises and Scottish suppliers
- Tools for purchasers
- Engagement with suppliers
- Communication plan

All environmental objectives from phase one of the Responsible Purchasing Strategy have been met. Several were ongoing and are now fully embedded in our practices. The monitoring of the carbon footprint of our contracts is proving difficult to implement due to the complexity of measuring CO₂ emissions from the lifecycle of products/services we use. However, we will continue to keep in touch with developments in this field.

Procurement Services and the Environmental Performance Manager are working together to embed Responsible Purchasing in all new high value/risk contracts. Contractors are required to develop an environmental action plan for their contract and Responsible Purchasing is an integral part of the on-going contractor performance monitoring.
Responsible procurement ensured that the following clauses were included in the recently let Electrical Equipment contract:

- All Items proposed by the Suppliers for this Framework Agreement must be the most energy efficient within the product range and where available carry an approved environmental label such as the EU Energy Label, the Energy Saving Trust Recommended logo or an appropriate equivalent.

- All Items returned to the Contractor for disposal (reached its end of life or broken beyond repair) must be disposed of in accordance with WEEE (the Waste Electrical and Electronic Equipment Directive).

- All packaging must comply with the Producer Responsibility Obligations (Packaging Waste) (Amendment) Regulations 2010 and be kept to a minimum but remain suitable for the protection of the Items.

- When requested all packaging will be removed and disposed of in accordance with the Duty of Care Regulations and environmental best practice.
The SPCB continues to maintain its grounds to support the bio-diversity of the area.

A large area of the grounds has been planted with indigenous Scottish wildflowers, trees and shrubs including wild grasses and trees found in the local area. The wildflower meadows have been designed to contrast with the cut turf lawns and feature plants such as ‘Sticky Catchfly’, ‘Dropwort’ and ‘Meadow Cranesbill’.

The oak and lime trees in the landscaped area are designed to mirror those in the perimeter of Holyrood Palace. In addition rowan trees have been planted in various locations around the Parliament.
The following targets have been agreed for March 2012 and March 2015:

**Carbon footprint targets**
- Reduce the carbon footprint by **20%** from the 2005/2006 total by March 2015.
- Reduce the carbon footprint by **18%** from the 2005/2006 total by March 2012.

**Electricity**
- Reduce incoming electricity use by **24%** by March 2015 from a baseline of April 05 – March 06.
- Reduce incoming electricity use by **20%** by March 2012 from a baseline of April 05 – March 06.

**Waste**
- Reduce landfill waste by **75%** by March 2015 from a baseline of April 05 – March 06.
- Reduce landfill waste by **70%** by March 2012 from a baseline of April 05 – March 06.

**Gas**
- Gas use not to exceed 313,500 kWh between March 11 – March 12.

**Paper**
- Reduce paper consumption by **35%** from the Session 2 total during Session 4 (2011-2016).\(^8\)

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\(^8\) Paper use for the whole of Session 2 is unavailable; the baseline is based on 2005-2007 information.
If you have an enquiry about information in languages other than English or in alternative formats (for example, Braille, large print or audio), please send it to Public Information. We welcome written correspondence in any language.

**Address**  
Public Information  
The Scottish Parliament  
Edinburgh  
EH99 1SP

**Telephone**  
0800 092 7500  
or 0131 348 5000  
Fòn 0131 348 5395 (Gàidhlig)

Textphone users can contact us on 0800 092 7100. We also welcome calls using the Text Relay service.

**Text** 07786 209888  
@ **Email** sp.info@scottish.parliament.uk  
**Website** www.scottish.parliament.uk  
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