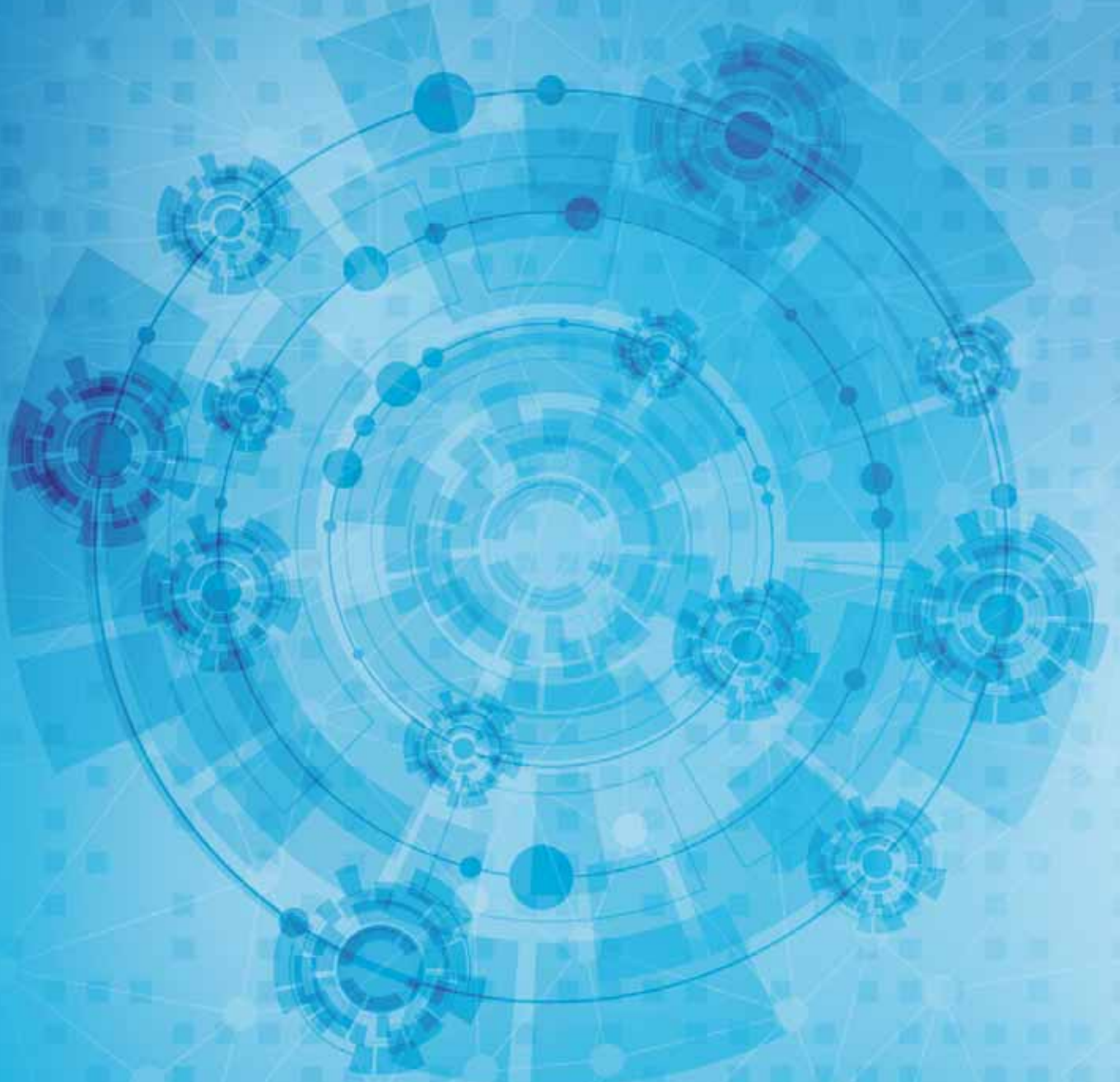




Education
Services
Australia
Limited

ENVIRONMENTAL REPORT 2012 – 13



Education Services Australia Limited
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Level 5, 440 Collins Street
Melbourne Victoria 3000 Australia

www.esa.edu.au

As used in this Environment Report, 'Education Services Australia' means Education Services Australia Limited.



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BACKGROUND

Education Services Australia is committed to implementing policies and practices to support environmental sustainability. This is a responsible and ethical course for a modern organisation.

In taking action on environment issues, Education Services Australia:

- contributes to Australia's efforts to reduce environmental impact
- meets expectations of stakeholders, clients and staff
- maximises efficiency and reduces costs
- improves its ability to attract and retain the best talent
- adds credibility to its activities within sustainability education
- strengthens its reputation as a socially responsible supplier of education services.

Education Services Australia's policy is to publish an annual Environment Report that provides a summary of activities undertaken in the previous financial year and of commitments for the current financial year. This is the second Environment Report.

Environment policy

Education Services Australia's Environment Policy provides direction for the company's environment program and public reporting, which should include:

- an emissions inventory
- achievements to date
- details on purchased offsets
- information on external assurance
- identification of future opportunities
- targets for the next financial year. The policy is provided at Appendix 1.

National Carbon Offset Standard (NCOS) Accreditation

In March 2012, Education Services Australia was accredited as a carbon-neutral company under the Australian Government's National Carbon Offset Standard (NCOS) scheme. This accreditation is being maintained on an ongoing basis. Details of the company's accreditation can be found in the National Carbon Offset Standard section of the Department of Climate Change website.

Education Services Australia is one of 30 companies to have achieved NCOS accreditation in Australia.



Environment Targets 2012–13

Education Services Australia's environment targets for the 2012–13 year were a 5 per cent reduction in emissions per FTE.

The company exceeded its 2012–13 targets. The results were a 9 per cent reduction in emissions per FTE. Total emissions increased, however this is thought to be due to a significant increase in FTE and associated business activity.

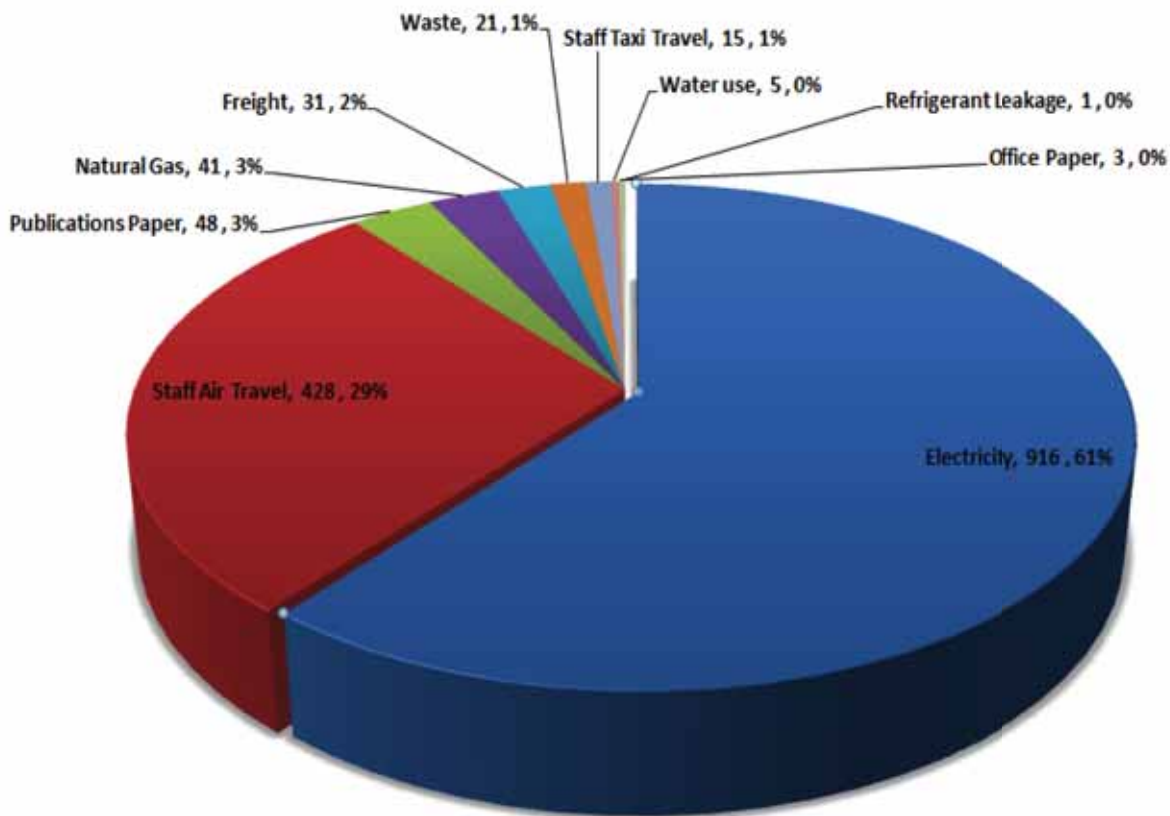
EMISSIONS INVENTORY

The Education Services Australia emissions inventory has been based on the Greenhouse Gas Protocol, 'A Corporate Accounting and Reporting Standard' revised edition March 2004 (GHG Protocol).

This protocol is the most accepted international standard for the preparation of carbon inventories and is an initiative of the World Resources Institute and the World Business Council for Sustainable Development.

Figure 1 provides an overview of the company's emissions by source measured in tonnes of carbon dioxide equivalents (t CO₂-e) and proportion of the overall inventory for 2012–13. The emission inventory results for 2010–13 are summarised in Tables 1 and 2. Detailed results for 2012–13 are provided at Appendix 4.

Figure 1: CO₂-e emissions by source 2012–13 (tonnes and percentage)



Education Services Australia is demand driven, responding to the needs of the Australian ministers with responsibility for education. As such, its business activities may fluctuate significantly from year to year. To enable longitudinal comparisons, emission inventory results are reported as both absolute and intensity measures. Methodologies are outlined at Appendixes 2 and 3.

The summary of the inventory results for 2010–13 based on absolute measures is provided in Table 1.

Table 1: Emissions inventory summary 2010–2013

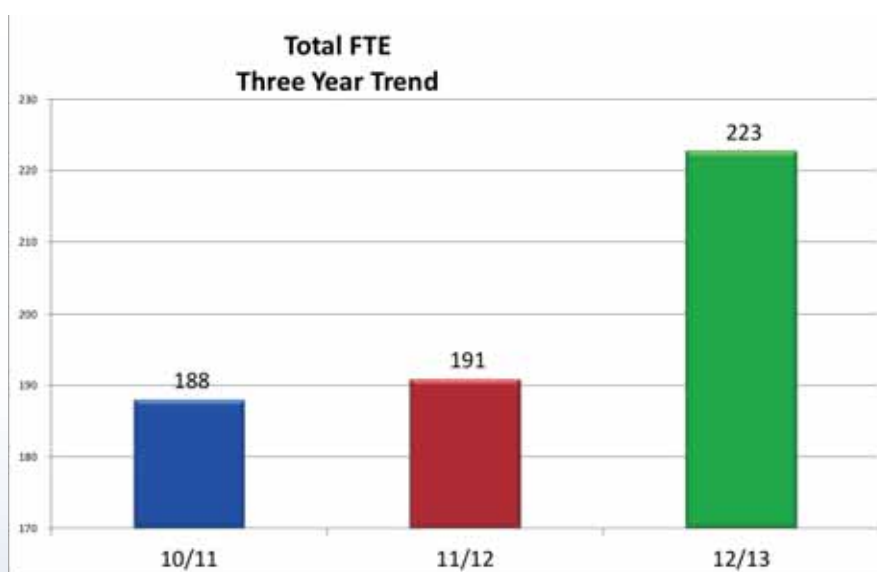
| | 2010–2011 | 2011–2012 | 2012–2013 |
|------------------------|-----------------------------|-----------------------------|-----------------------------|
| Emmissions Source | CO ₂ -e (tonnes) | CO ₂ -e (tonnes) | CO ₂ -e (tonnes) |
| Electricity | 1,076 | 799 | 916 |
| Staff Air Travel | 497 | 493 | 428 |
| Publications Paper | 53 | 44 | 48 |
| Natural Gas | 37 | 24 | 41 |
| Freight | 13 | 11 | 31 |
| Waste | 63 | 63 | 21 |
| Staff Taxi Travel | 30 | 16 | 15 |
| Water Use | 9 | 3 | 5 |
| Office Paper | 4 | 3 | 3 |
| Refrigerant Leakage | 1 | 1 | 1 |
| Total Emissions | 1,783 | 1,457 | 1,508 |

A single intensity measure – full-time equivalent (FTE) staffing – based on the staffing levels in Figure 2 has been used in this report.

Care needs to be exercised when reviewing an intensity measure using FTE. Electricity consumption and emissions do not increase or decrease in a direct linear fashion to changes in FTE, and changes in results can occur through movements in FTE alone. Emissions per FTE can decrease independently of any real reductions.

Education Services Australia’s average FTE increased considerably during 2012–13, by 17%, and yet absolute emissions only increased by 3.5%. Figure 2 details the 2012–13 reduction in emissions per FTE.

Figure 2: FTE staffing 2010–13



The absolute increase in emissions has been caused by additional electricity consumption due to a 38% increase in the occupied floor space.

Table 2: Emissions inventory summary 2010–13 by staffing (FTE)

| | 2010–2011 | 2011–2012 | 2012–2013 |
|----------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Emmissions Source | CO ₂ -e (tonnes) per FTE | CO ₂ -e (tonnes) per FTE | CO ₂ -e (tonnes) per FTE |
| Electricity | 5.76 | 4.19 | 4.11 |
| Staff Air Travel | 3.27 | 2.93 | 2.09 |
| Publications Paper | 0.41 | 0.26 | 0.24 |
| Natural Gas | 0.16 | 0.13 | 0.18 |
| Freight | 0.20 | 0.07 | 0.15 |
| Waste | 0.29 | 0.30 | 0.09 |
| Staff Taxi Travel | 0.09 | 0.09 | 0.07 |
| Water Use | 0.05 | 0.02 | 0.02 |
| Office Paper | 0.02 | 0.02 | 0.01 |
| Refrigerant Leakage | 0.01 | 0.00 | 0.00 |
| Total Emissions | 10.26 | 8.00 | 6.98 |
| Offset Measures | | | |
| None | (10.26) | (8.00) | (6.98) |
| Total Net Emissions | - | - | - |

Contractors and sub-tenants have been excluded from Table 2 calculations of staff air travel, staff taxi travel, freight and publications paper as they have no influence on these activities.

Offsets

Electricity and air flights are responsible for 90 per cent of Education Services Australia's emissions. These cannot be eliminated through increased efficiencies alone.

Education Services Australia therefore purchased and cancelled 3,500 tonnes of carbon offsets through Climate Positive. One thousand four hundred and fifty-seven tonnes of that purchase were used in the 2011–12 reporting year to offset emissions disclosed for the 2011–12 plan year and a further 1,596 tonnes were used in this current 2012–13 year. The remaining balance of 447 tonnes will be used for subsequent reporting periods.

The carbon offsets were sourced from the Inner Mongolia Chifeng Gaofeng Wind Power Project, which replaces carbon-intensive fossil fuel electricity generation in Mongolia and provides economic opportunities to the local community.

The project is accredited under the Verified Carbon Standard. Proof of the offsets' retirement can be found at the Markit Registry website under serial number 2188-89507614-89511113-VCU-008-APX-CN-1-813-01012009-31122009-0.

Details relating to the project and its verification are also published in the Verified Carbon Standard database www.vcsprojectdatabase.org.

External assurance

NCOS accreditation requires third-party verification of the emissions inventory on a biennial basis. The 2010–11 emissions inventory and this 2012–13 inventory, were externally audited as part of the NCOS process.

The 2011–12 submission did not require verification under the NCOS standard.

ACHIEVEMENTS 2012-13

Two opportunities identified to be implemented in the 2012–13 year were the installation of light sensors in meeting rooms and the introduction of automated timer switches to the lighting on main office floors.

Meeting room sensors were not installed because reliable technology could not be sourced. Automated timer switches were installed on the two main floors of the building. Based on previous physical audits of how often lighting is left on overnight and at weekends, it is estimated that this implementation will save seven tonnes CO₂-e per annum.

Ongoing Initiatives

The following initiatives are being maintained and continue to contribute to reducing both resource and usage emissions:

- Retrofit of office lighting
- Follow-me printing facilities
- Paper recycling
- Printer cartridge recycling
- Video-conferencing facilities
- Office-based co-mingle recycling
- Replacement of ageing IT equipment.

Opportunities 2013–14

No new opportunities have been identified for 2013–14.

Further information

Requests for further information can be directed by email to Samantha Muir at samantha.muir@esa.edu.au.

Environment targets 2013–14

Maintain emissions per FTE at 2012–13 levels.

A glass ceiling of future opportunities can very easily be reached in an office-based environment. Education Services Australia is now facing this issue and will endeavor to maintain emissions at 2012–13 levels and identify new emissions reduction strategies if possible.

APPENDICES

Appendix 1: Education Services Australia Environment Policy

Background

Education Services Australia is committed to implementing policies and practices to minimise its environmental impact and to support environmental sustainability. The company believes this is a responsible and ethical course for a modern organisation. In taking action on environment issues the company will:

- contribute to Australia's efforts to reduce environmental impact
- meet expectations of stakeholders, clients and staff
- maximise efficiency and reduces costs
- improve its ability to attract and retain the best talent
- strengthen its reputation as a socially responsible supplier of education services
- add credibility to its activities within sustainability education.

Scope

This policy applies to all Education Services Australia operations with the exception of the Standing Council on School Education and Early Childhood (SCSEEC), which is outside its operational control.

Commitment

This policy commits Education Services Australia to:

minimise its impact on the environment through reduced greenhouse gas emissions and reduced resource usage

- be carbon neutral
- implement best-practice carbon-management principles
- report a summary of progress in the company's Annual Report
- report in detail in the annual Environment Report
- include environmental education material where possible in its services, recognising that the capacity to do so is dictated by clients' requirements.

Implementation

Implementation to be reported through the Environment Report will include:

- annual greenhouse gas reduction targets
- annual waste, energy and water reduction targets
- an emissions inventory
- progress reports against targets, which should show trends as well as details of methodologies used in measurement
- details of purchased offsets
- details of future opportunities that will give rise to reductions
- progress reports against identified opportunities
- independent external assurance confirmation.

All targets will be time bound and quantified in absolute terms (total emissions and usage) and in intensity terms (reported by a unit of volume, eg per full-time equivalent employee) and will be reported against a baseline-year emissions measurement.

Responsibility

This policy is the responsibility of the Chief Executive Officer. It will be reviewed annually to ensure ongoing relevance.

Appendix 2: Emissions inventory scope

Education Services Australia is a not-for-profit company limited by guarantee. The company has no share capital in issuance and no subsidiaries. It has elected to use the Control method to set Organisational Boundaries. All scope 1 and scope 2 emissions, and the scope 3 emissions required by the National Carbon Offset Standard (NCOS) have been included for company operations. Additional Scope 3 emissions not included in the NCOS that are both material and measureable, such as publications paper and water usage, have been reported.

All Education Services Australia operations are included with the exception of the Standing Council on School Education and Early Childhood (SCSEEC). SCSEEC is part of Education Services Australia's legal structure but is outside the company's operational control.

Appendix 3: Calculation methodologies and emissions factors

| Emission source | Methodology | Factor | | Factor source |
|---|--|---------|--|--|
| Refrigerant leakage | <p>Kitchen fridges: Kg charge and refrigerant type identified for each unit. Global warming potential of each refrigerant obtained and standard leakage rates from DEFRA UK 2011 Guidelines Annex 8b.</p> <p>GWP × charge × leakage rate.</p> <p>Air conditioning (A/C)units: Same as kitchen fridges.</p> | 0.3% | Leakage rate | DEFRA UK 2012 Guidelines Annex 8b |
| Purchased electricity excluding base building use – Victoria | <p>Usage in kWh obtained from supplier invoice data.</p> <p>Usage data × emissions factor.</p> | 1.19 | kg CO ₂ -e/ kWh | EF for purchased electricity per Table 40, 2013 NGA factors |
| Purchased electricity excluding base building use – South Australia | <p>Usage in kWh obtained from supplier invoice data.</p> <p>Usage data × emissions factor.</p> | 0.65 | kg CO ₂ -e/ kWh | EF for purchased electricity per Table 40, 2013 NGA factors |
| Purchased electricity – tenant’s share of base building use – Victoria | <p>Usage in kWh obtained from landlord’s from landlord’s invoices and percentage share of net lettable area applied to calculate user’s share.</p> <p>Usage data × emissions factor.</p> | 1.19 | kg CO ₂ -e/ kWh | EF for purchased electricity per Table 40, 2013 NGA factors |
| Purchased electricity – tenant’s share of base building use – South Australia | <p>Usage in kWh obtained from landlord’s from landlord’s invoices and percentage share of net lettable area applied to calculate user’s share.</p> <p>Usage data × emissions factor.</p> | 0.65 | kg CO ₂ -e/ kWh | EF for purchased electricity per Table 40, 2013 NGA factors |
| Staff air travel: | | | | |
| Staff air travel – domestic <1,000 km | <p>Flight distance data obtained from company travel agents and multiplied by emissions factor. However, a 9 per cent uplift factor was applied to allow for inaccuracies of scheduled distances vs actual distances flown and a further uplift factor of 1.9 was applied to allow for radiative forcing.</p> | 0.20124 | kg CO ₂ -e/ passenger km | 2012 Guidelines to DEFRA/ DECC’s GHG conversion factors for Company reporting Annex 6l |
| Staff air travel – short-haul international 1,000–3,700 km economy | | 0.10946 | kg CO ₂ -e/ passenger km | 2012 Guidelines to DEFRA/ DECC’s GHG conversion factors for Company reporting Annex 6l |
| Staff air travel – short-haul international 1,000–3,700 km business class | | 0.16419 | kg CO ₂ -e/ passenger km | 2012 Guidelines to DEFRA/ DECC’s GHG conversion factors for Company reporting Annex 6l |

| | | | | |
|--|---|---------|--|---|
| Staff air travel – long-haul international economy >3,700km | | 0.09594 | kg CO ₂ -e/ passenger km | 2012 Guidelines to DEFRA/ DECC's GHG conversion factors for Company reporting Annex 6l |
| Staff air travel – long-haul international business class >3,700 km | | 0.27823 | kg CO ₂ -e/ passenger km | 2012 Guidelines to DEFRA/ DECC's GHG conversion factors for Company reporting Annex 6l |
| General municipal waste | All building bins measured to calculate bin volume, multiplied by the number of annual empties and an estimate of percentage bin capacity used. Outcome x emissions factor. | 1.20 | t CO ₂ -e/ tonne waste | Municipal solid waste from NGA factors 2013, p 76, Table 43 |
| Emissions from fuel extraction and T&D line losses for purchased electricity – Victoria | Usage in kWh obtained from supplier invoice data. Usage data x emissions factor. | 0.15 | kg CO ₂ -e/ kWh | Emissions factor for purchased electricity per Table 40, 2013 NGA factors |
| Emissions from fuel extraction and T&D line losses for purchased electricity – South Australia | Usage in kWh obtained from supplier invoice data. Usage data x emissions factor. | 0.14 | kg CO ₂ -e/ kWh | Emissions factor for purchased electricity per Table 40, 2013 NGA factors |
| Emissions from fuel extraction and T&D line losses for tenant's share of base building electricity – Victoria | Usage in kWh obtained from landlord's energy-management system or from landlord's invoices and percentage share of net lettable area applied to calculate user's share. Usage data x emissions factor. | 0.15 | kg CO ₂ -e/ kWh | Emissions factor for purchased electricity per Table 40, 2013 NGA factors |
| Emissions from fuel extraction and T&D line losses for tenant's share of base building electricity – South Australia | Usage in kWh obtained from landlord's energy-management system or from landlord's invoices and percentage share of net lettable area applied to calculate user's share. Usage data x emissions factor. | 0.14 | kg CO ₂ -e/ kWh | Emissions factor for purchased electricity per Table 40, 2013 NGA factors |

| | | | | |
|--|--|-----------|-----------------------------------|---|
| Freight | Data for kg of product imported from US and UK collected from purchasing records, distances travelled obtained from Google maps based on supplier's location. Tonnes of freight x distance in km = tonnes-km freight measure x uplift factor x radiative forcing factor x emissions factor. As with passenger flights, a 9 per cent uplift factor was applied to allow for inaccuracies of scheduled distances vs actual distances flown and a further uplift factor of 1.9 was applied to allow for radiative forcing. | See below | See below | See below |
| Freight – long haul international air freight | See above | 0.7732 | kg CO ₂ -e/tonne-km | 2012 Guidelines to DEFRA/ DECC's GHG conversion factors for company reporting Annex 7f |
| Sea freight – average sea container | See above | 0.0191 | kg CO ₂ -e/tonne-km | 2012 Guidelines to DEFRA/ DECC's GHG conversion factors for company reporting Annex 7g |
| Natural gas used on-site by landlord as part of base building services | Usage in GJ obtained from landlord's energy-management system or from landlord's invoices and percentage share of net lettable area applied to calculate users share. Usage data x emission factor. | 51.33 | kg CO ₂ -e/GJ | NGA factors for natural gas 2013, p 13, Table 2 |
| Staff taxi travel | Dollars spent, obtained from financial records and converted into a km- travelled figure using an average \$/km taxi fare based on information from EPA Victoria's Greenhouse Inventory Management Plan: 2007–08 Update Appendix B. Km travelled converted to litres of LPG consumed, based on a consumption conversion factor extracted from same EPA source. Litres of LPG converted into energy consumed using the LPG energy conversion factor per NGA factors 2013 for post-2004 vehicles Result multiplied by emissions factor for LPG from NGA factors 2013 for post-2004 vehicles p 17, Table 4.p 17, Table 4. | 60.2 | kg CO ₂ -e/GJ | Emissions factor for LPG per NGA factors 2013 for post-2004 vehicles p 17, Table 4 |
| Office paper | Office stationery supplier provided details of reams consumed or obtained from invoices and converted to kg at standard weight of 2.5 kg per ream. Weight x emissions factor. | 1.08 | kg CO ₂ -e/kg of paper | EPA Victoria Greenhouse Gas emissions factors for office copy paper, May 2011 for imported virgin paper |

| | | | | |
|---|---|------|---|---|
| Landlord- supplied reticulated water use | Usage in litres obtained from landlord's energy-management system and converted into cubic metre percentage share of net lettable area applied to calculate users share. Usage data x emissions factor. For Adelaide office, landlord provided a usage figures in litres. Usage data x emissions factor. | 2.34 | kg CO ₂ -e/ m ³ water | RMIT Centre for Design 2007 as quoted in 'EPA Victoria's Greenhouse Inventory Management Plan: 2008-09 Update', Section V-K |
| Publications paper | Publication team provided data of books published, quantity, page count and page weight, which provides weight of paper consumed. Weight of paper x emissions factor. | 2.59 | kg CO ₂ -e/kg of paper | Research conducted by The Gaia Partnership for Sustainability Victoria as part of a 2009-10 EMS publication audit as approved by Low Carbon Australia |
| Emissions from fuel extraction for natural gas Victoria | Usage in GJ obtained from landlord's landlord's invoices and percentage share of net lettable area applied to calculate users share. Usage data x emissions factor. | 4 | kg CO ₂ -e/ GJ | NGA factors 2013, p 69, Table 37 |

Appendix 4: Detailed emissions inventory 2012–13

| Emission Source | Consumption units | Consumption | CO ₂ -e (tonnes) | Proportion of total inventory |
|--|-------------------|-------------|-----------------------------|-------------------------------|
| Direct Emissions – Scope 1 | | | | |
| Refrigerant Leakage | n/a | n/a | 1 | 0.0459% |
| Subtotal – Direct emissions scope 1 | | | 1 | 0.046% |
| Direct Emissions – Scope 2 | | | | |
| Purchased Electricity excluding base building | kWh | 378,712 | 426 | 28.23% |
| Subtotal – Direct emissions scope 2 | | | 426 | 28.23% |
| Direct Emissions – Scope 3 | | | | |
| Staff Air Travel | km | 1,689,505 | 428 | 28.40% |
| Purchased Electricity – tenant’s share of base building use | kWh | 337,863 | 389 | 25.81% |
| Emissions from fuel extraction & T&D line losses for purchased electricity | kWh | 378,712 | 51 | 3.39% |
| Emissions from fuel extraction & T&D line losses for tenant’s share of base building electricity | kWh | 337,863 | 50 | 3.33% |
| Publication Paper | kg | 18,581 | 48 | 3.19% |
| Natural Gas used on site by landlord as part of base building services | GJ | 744 | 38 | 2.53% |
| Freight | tonnes x km | 28,896 | 31 | 2.04% |
| General commercial and industrial solid waste | tonnes | 17 | 21 | 1.36% |
| Staff Taxi Travel | kL of LPG | 9 | 15 | 0.96% |
| Landlord supplied reticulated water use | m ³ | 2,015 | 5 | 0.31% |
| Emissions from fuel extraction for natural gas used on site by landlord | GJ | 744 | 3 | 0.19% |
| Office Paper | reams | 1,048 | 3 | 0.19% |
| Commingled Recyclable Waste | tonnes | 10 | - | 0.00% |
| Recycled Paper Waste | tonnes | 7 | - | 0.00% |
| Subtotal – Indirect emissions Scope 3 | | | 1,081 | 71.72% |
| Total Emissions | | | 1,508 | 100% |
| Reduction Measures | | | | |
| Offset Purchases | | | (1,508) | |
| Total Net Emissions | | | - | |

