



Education
Services
Australia
Limited

ENVIRONMENTAL REPORT

2013-14

Education Services Australia Limited
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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 third 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 25 companies to have achieved NCOS accreditation in Australia.



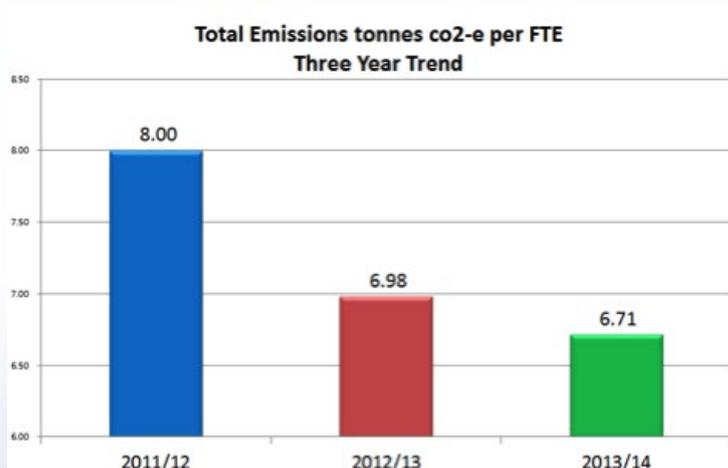
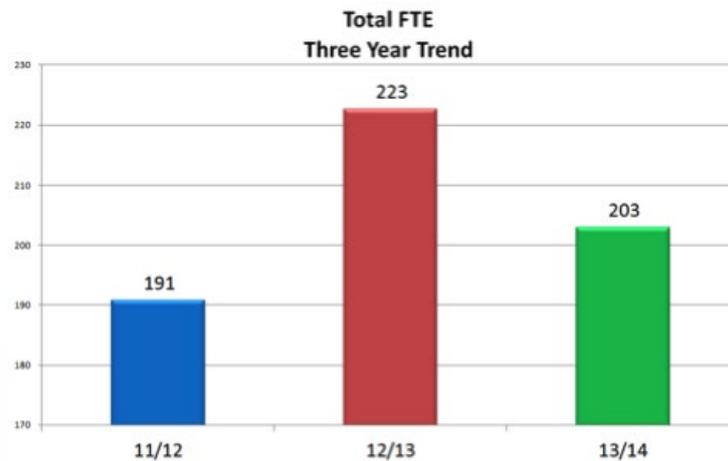
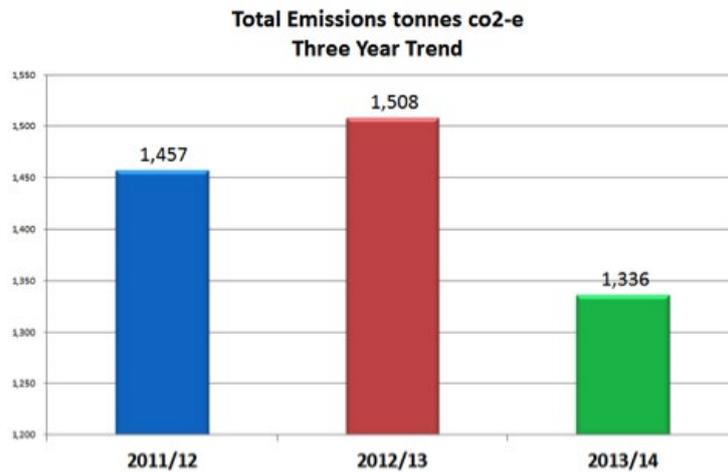
Environment Targets 2013–14

Education Services Australia's environment targets for the 2013–14 year were to maintain emissions per FTE at 2012–13 levels.

The company exceeded its 2013–14 target. The result was a reduction in emissions per FTE of .27 CO₂-e (tonnes) in 2013–14. Total emissions decreased due to a decrease in FTE and associated business activity.

EMISSIONS INVENTORY

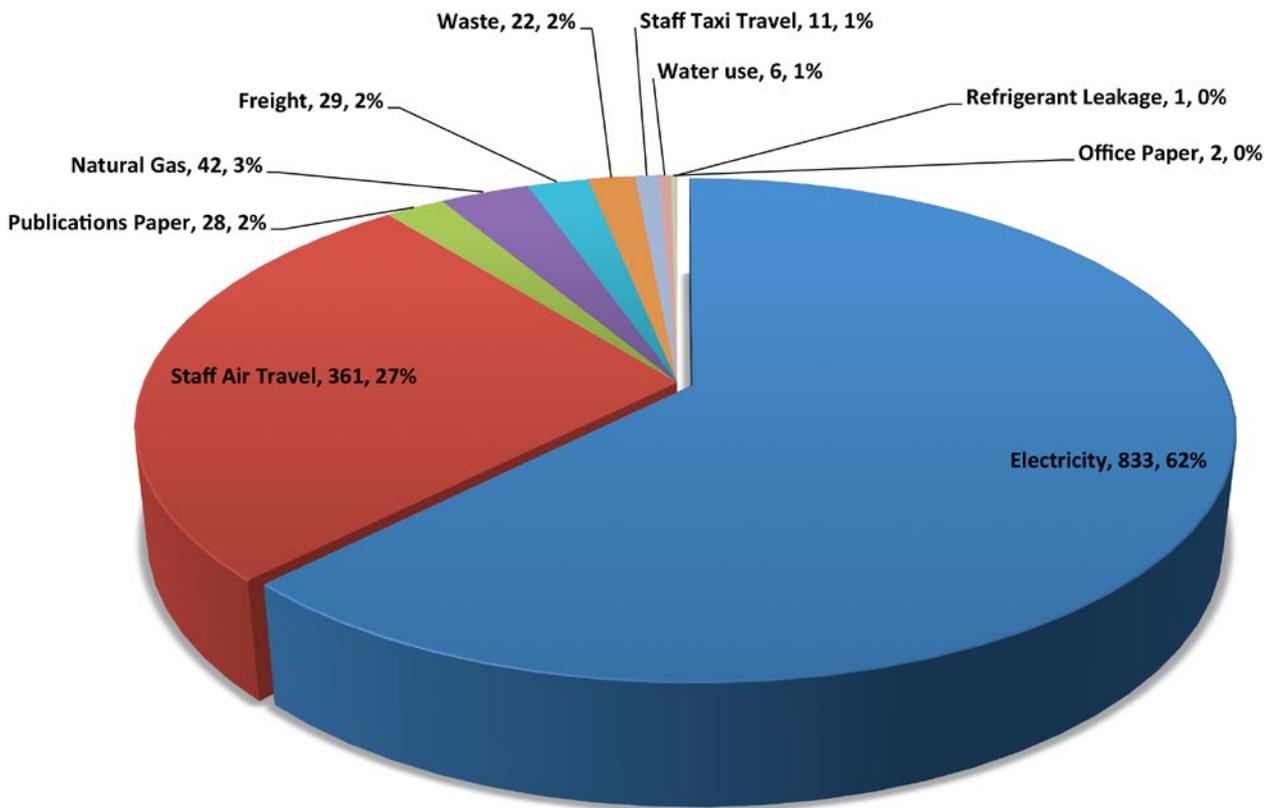
The Education Services Australia emissions inventory has been based on the Greenhouse Gas Protocol, 'A Corporate Accounting and Reporting Standard' revised edition May 2013 (GHG Protocol).



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 percentage proportion of the overall inventory for 2013–14. The emission inventory results for 2011–14 are summarised in Tables 1 and 3. Detailed results for 2013–14 are provided at Appendix 4.

Figure 1: CO₂ -e emissions by source 2013–14 (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 2011–14 based on absolute measures is provided in Table 1.
Summary of emissions inventory

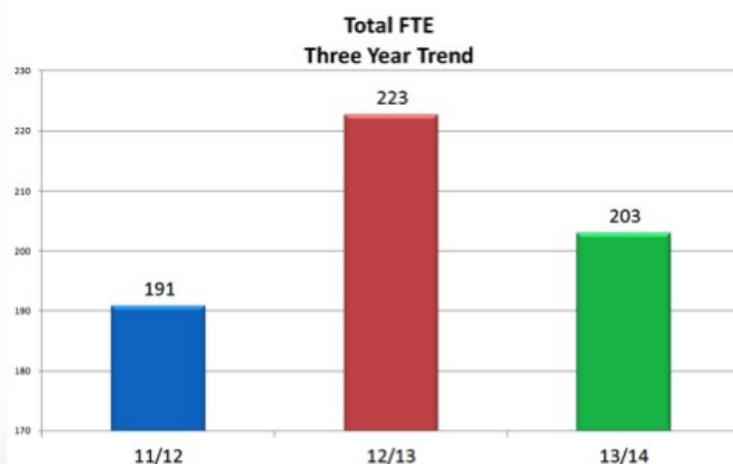
Table 1: Emissions inventory summary 2011–2014

	2010–2011	2012–2013	2013–2014
Emissions Source	CO ₂ -e (tonnes)	CO ₂ -e (tonnes)	CO ₂ -e (tonnes)
Electricity	799	916	833
Staff Air Travel	493	428	361
Publications Paper	44	48	28
Natural Gas	24	41	42
Freight	11	31	29
Waste	63	21	22
Staff Taxi Travel	16	15	11
Water Use	3	5	6
Office Paper	3	3	2
Refrigerant Leakage	1	1	1
Total Emissions	1,457	1,508	1,336

Emissions Source	2010–2011	2012–2013	2013–2014
Eligible VCU's purchased	(1,457)	(1,508)	(1,336)
Total NET Emissions	–	–	–

A single intensity measure – full-time equivalent (FTE) staffing – based on the staffing levels below.

Table 2: FTE staffing 2011–14



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 decreased by 9% during 2013–14.

Table 3 details the 2011–14 trend in emissions per FTE.

The 2013–14 year shows an overall reduction of Emissions per FTE of .27 CO₂-e (tonnes) per FTE. Natural Gas has increased by .03 CO₂-e (tonnes) per FTE: this is due to the reduction in staff while gas usage remained relatively constant.

Figure 2: CO₂-e emissions per FTE 2011–14 (tonnes)

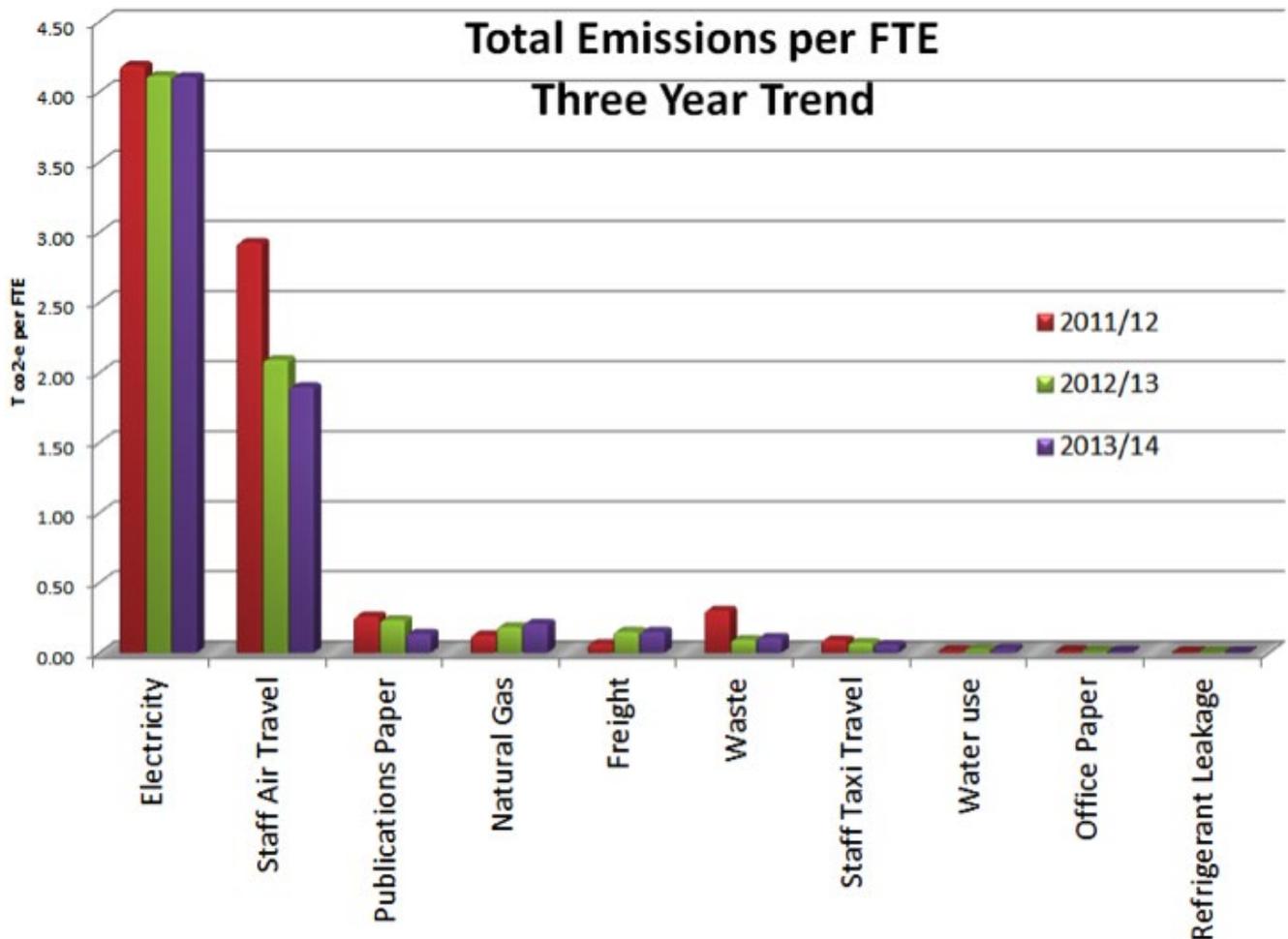


Table 3: Emissions inventory summary 2011–14 by staffing (FTE)

	2011–2012	2012–2013	2013–2014
Emmissions Source	CO ₂ -e (tonnes) per FTE	CO ₂ -e (tonnes) per FTE	CO ₂ -e (tonnes) per FTE
Electricity	4.19	4.11	4.11
Staff Air Travel	2.93	2.09	1.90
Publications Paper	0.26	0.24	0.14
Natural Gas	0.13	0.18	0.21
Freight	0.07	0.15	0.15
Waste	0.30	0.09	0.11
Staff Taxi Travel	0.09	0.07	0.06
Water Use	0.02	0.02	0.03
Office Paper	0.02	0.01	0.01
Refrigerant Leakage	0.00	0.00	0.00
Total Emissions	8.00	6.98	6.71
Offset Measures			
None	(8.00)	(6.98)	(6.71)
Total Net Emissions	-	-	-

Contractors and sub-tenants have been excluded from Table 3 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 89 per cent of Education Services Australia's emissions. These cannot be eliminated through increased efficiencies alone.

Education Services Australia has purchased and cancelled 3,500 tonnes of carbon offsets through Climate Positive and has purchased an additional 801 tonnes through Carbon Trade Exchange. 1,457 tonnes of those purchases were used in the 2011/12 reporting year to offset emissions disclosed for the 2011/12 plan year and a further 1,508 tonnes were used in 2012/13 year. 1,336 tonnes were used to offset emissions disclosed in this report.

3,500 carbon offsets were sourced from the 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.

The remaining 801 carbon offsets were sourced from the Guohua Tongliao Kezuo Zhongqi Mongolia. The project generates renewable power electricity by using the wind power resource, and supplies electricity to Northeast China Power Grid (NECPG) replacing fossil fuel consumption and thus reducing GHG (CO₂) emissions.

The project is accredited under the Verified Carbon Standard. Proof of purchase of the carbon offsets will be available to view on the APX register upon their retirement.

External assurance

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

The 2011–12 and 2013–14 submissions did not require verification under the NCOS standard.

ACHIEVEMENTS 2013-14

The 2013-14 year was identified as one of sustained consolidation and activity was focused upon ensuring Education Services Australia continued to meet published targets.

Previous Achievements

Carbon neutrality and national carbon offset standard accreditation

Education Services Australia was accredited as a carbon neutral company under the Australian Government National Carbon Offset Standard (NCOS) scheme in March 2012.

Retrofit of Office Lighting

All office lighting was upgraded to modern T5 fittings during 2011-12. 12% of our light fittings were removed in overlit areas. In addition, all halogen down lights were replaced with more efficient lamps.

Automated Timer Switches

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 was estimated that this implementation would save seven tonnes co₂-e per annum.

Staff keep cups

To mark NCOS accreditation, staff were provided with Education Services Australia branded keep cups, the most popular re-useable plastic coffee cup in Australia. This initiative saves on wasted paper cups and promotes the company's environmental successes in the community and among staff.

Replacement of ageing equipment

Ninety desktop computers, 20 laptops, 50 monitors and four multifunction printers/photocopiers were replaced with energy-efficient models that consume less electricity. Actual measurements of performance for the new equipment show the following average reductions in energy consumption: desktop computers 55 per cent, laptops 28 per cent, monitors 73 per cent and multifunction printers/photocopiers 32 per cent.

Redundant computer equipment was passed to a company that reconditions it and either passes the equipment to community groups or recycles it.

Follow-me printing facilities

The new multifunction printers include a 'follow-me' user function, which only releases print jobs when the user swipes their office security pass across the printer recognition pad.

Paper recycling

All waste office paper is recycled.

Printer cartridge recycling

All print cartridges are recycled.

Video-conferencing facilities

Video-conferencing equipment was introduced into meeting rooms in the Melbourne office.

This provides staff with the opportunity to reduce the number of flights they undertake to meet with stakeholders both nationally and internationally.

Office-based co-mingled recycling

The offices in Collins St Melbourne were first occupied in May 2008. At that time there was no mechanism to recycle co-mingled waste in the building. The company created a tenant's cooperative and negotiated with the landlord to introduce co-mingled recycling, which has been in operation since July 2009.

Table 4: Ongoing Emission-reduction initiatives

Emission-reduction initiative	Estimated reduction in emission quantity (tonnes CO ₂ -e)
Install automatic office lighting timers	7
Replace monitors with less energy-intensive models	3
Replace photocopiers and printers with less energy-intensive models	2
Total	20

Opportunities 2014–15

No new opportunities have been identified for 2014–15.

An environmental sustainability working group of volunteer staff has been established to drive and maintain activity and support for environmental initiatives across the company.

Environment targets 2014–15

Maintain emissions per FTE at 2013-14 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 2013-14 levels and identify new emissions reduction strategies if possible.

Further information

Requests for further information can be directed by email to Kelly Willis at kelly.willis@esa.edu.au

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 Education Council, 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 Education Council. The Education Council 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 and standard leakage rates obtained from NGA Factors 2014, pg 58, table 26.</p> <p>GWP × charge × leakage rate.</p> <p>Air conditioning (A/C)units: Same as kitchen fridges.</p>	0.3%	Leakage rate	<p>DEFRA Environmental Reporting Guidelines Option2 GHG reporting update Feb 2014 – pg 87</p> <p>GWP from NGA Factors 2014 pg 58 table 26</p>
Purchased electricity excluding base building use – Victoria	<p>Usage in kWh obtained from supplier invoice data.</p> <p>Usage data × emissions factor.</p>	1.18	kg CO ₂ -e/ kWh	EF for purchased electricity per Table 41, pg 68 2014 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>	1.18	kg CO ₂ -e/ kWh	EF for purchased electricity per Table 41, pg 68 2014 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.</p> <p>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>	0.2932	kg CO ₂ -e/ passenger km	2014 Guidelines to DEFRA/2014GHG Conversion Factors
Staff air travel – short-haul international 1,000–3,700 km economy		0.1584	kg CO ₂ -e/ passenger km	2014 Guidelines to DEFRA/2014GHG Conversion Factors
Staff air travel – short-haul international 1,000–3,700 km business class		0.2375	kg CO ₂ -e/ passenger km	2014 Guidelines to DEFRA/2014GHG Conversion Factors
Staff air travel – long-haul international economy >3,700km		0.1505	kg CO ₂ -e/ passenger km	2014 Guidelines to DEFRA/2014GHG Conversion Factors

Staff air travel – long-haul international business class >3,700 km		0.4365	kg CO ₂ -e/ passenger km	2014 Guidelines to DEFRA/2014GHG Conversion Factors
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.	1.2	t CO ₂ -e/ tonne waste	Municipal solid waste from NGA factors 2014, p 74, Table 44
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 41, pg 69 2014 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 41, pg 69 July 2014 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	2013 DEFRA/DECC's GHG Conversion Factors
Sea freight – average sea container	See above	0.0191	kg CO ₂ -e/ tonne-km	2013 DEFRA/DECC's GHG Conversion Factors
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.	51.2	kg CO ₂ -e/ GJ	NGA factors for natural gas 2014, p 13, Table 2

Staff taxi travel	<p>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: 2012-13 Update Appendix B. Km travelled converted to litres of LPG consumed, based on a consumption conversion factor extracted from same EPA source.</p> <p>Litres of LPG converted into energy consumed using the LPG energy conversion factor per NGA factors 2014 for post-2004 vehicles p 17, Table 4.</p> <p>Result multiplied by emissions factor for LPG from NGA factors 2014 for post-2004 vehicles p 17, Table 4.</p>	59.6	kg CO ₂ -e/ GJ	Emissions factor for LPG per NGA factors 2014 for post-2004 vehicles p 17, Table 4
Office paper	<p>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.</p> <p>Weight x emissions factor.</p>	<p>Domestic Virgin 1.22</p> <p>Domestic Recycled 1.45</p> <p>Imported Virgin 0.991</p> <p>Imported Recycled 1.19</p>	kg CO ₂ -e/kg of paper	EPA Victoria Greenhouse Gas emissions factors for office copy paper, publication No.1374.1 29 October 2013 for domestic and imported virgin paper
Landlord – supplied reticulated water use	<p>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.</p> <p>Usage data x emissions factor.</p>	2.34	kg CO ₂ -e/ m ³	RMIT Centre for Design 2007 as quoted in 'EPA Victoria's Greenhouse Inventory Management Plan: 2008–09 Update', Section V-K
Publications paper	<p>Publication team provided data of books published, quantity, page count and page weight, which provides weight of paper consumed.</p> <p>Weight of paper x emissions factor.</p>	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	<p>Usage in GJ obtained from landlord's landlord's invoices and percentage share of net lettable area applied to calculate users share.</p> <p>Usage data x emissions factor.</p>	3.9	kg CO ₂ -e/ GJ	NGA factors 2014, p 67, Table 37

Appendix 4: Detailed emissions inventory 2013–14

Emission Source	Consumption units	Consumption	CO ₂ -e (tonnes)	Proportion of total inventory
Direct Emissions – Scope 1				
Refrigerant Leakage	n/a	n/a	1	0.0517%
Subtotal – Direct emissions scope 1			1	0.052%
Indirect Emissions – Scope 2				
Purchased Electricity excluding base building	kWh	292,090	345	25.81%
Subtotal – Direct emissions scope 2			345	25.81%
Indirect Emissions – Scope 3				
Staff Air Travel	km	1,737,204	361	27.00%
Purchased Electricity – tenant’s share of base building use	kWh	334,538	395	29.56%
Emissions from fuel extraction & T&D line losses for purchased electricity	kWh	292,090	44	3.28%
Emissions from fuel extraction & T&D line losses for tenant’s share of base building electricity	kWh	334,538	50	3.76%
Publication Paper	kg	10,872	28	2.11%
Natural Gas used on site by landlord as part of base building services	GJ	771	39	2.95%
Freight	tonnes x km	24,617	29	2.17%
General commercial and industrial solid waste	tonnes	10	22	1.66%
Staff Taxi Travel	kL of LPG	7	11	0.84%
Landlord supplied reticulated water use	m ³	2,413	6	0.42%
Emissions from fuel extraction for natural gas used on site by landlord	GJ	771	3	0.23%
Office Paper	reams	742	2	0.17%
Commingled Recyclable Waste	tonnes	10	-	0.00%
Recycled Paper Waste	tonnes	7	-	0.00%
Subtotal – Indirect emissions Scope 3			990	74.14%
Total Emissions			1,336	100%
Reduction Measures				
Offset Purchases			(1,336)	
Total Net Emissions			-	

