Education Services Australia

Environment Report 2018-19

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Contents

1 Introduction

Established in March 2010, Education Services Australia (ESA) is a national not-for-profit company owned by the state, territory and Australian Government education ministers.

Its role as a leading education service provider is to work collaboratively in the interests of all Australian education jurisdictions to provide technology-based services for education. ESA develops cost-efficient products and services that can be adapted in response to emerging technologies and changing needs of the education and training sector.

ESA provides:

- development, sharing and deployment of nationally owned technical data and assessment systems
- digital teaching and learning resources, tools and services
- information and communications technology services.

1.1 Environment Policy

Education Services Australia (ESA) maintains a strong ethos of environmental responsibility. The company has an Environment Policy (Appendix 1), and the Board receives an annual environment report on the previous financial year, that is published on the ESA website.

The ESA 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.

1.2 Climate Active Carbon Neutral Standard Certification

Education Services Australia is one of 67 companies in Australia to have achieved certification as a carbon-neutral company under the Australian Government's Climate Active Carbon Neutral Standard (formerly known as the National Carbon Offset Standard (NCOS) scheme).

ESA was first certified in 2012, and has maintained certification every year since then. To be certified as Climate Active, ESA is required to measure its emissions against the standard on an annual basis; reduce them where possible; offset remaining emissions; and publicly report on its achievements. An emissions inventory audit is also required every three years.

Details of the ESA's certification can be found on the Australian Government's Climate Active webpage

1.3 Emissions Targets 2018–19

As opportunities for further reduction of emissions in an office-based environment can be difficult to find. ESA's target for 2018-19 was to maintain emissions per FTE at 2017-18 levels.

ESA also planned to refresh staff awareness of its Environment Policy and to seek ideas from staff for further reducing emissions.

The company failed to meet its target, recording instead a 5.3% increase in emissions per FTE–up from 6.92 CO2-e (tonnes) per FTE in 2017-18 to 7.29 CO2-e (tonnes) per FTE in 2018-19. A 17.23% increase in total emissions from the previous year, was also recorded, taking total emissions back to pre-2016–17 levels.

This increase is entirely due to staff commuting emissions, which have risen from 51.67 CO2-e (tonnes) to 175.29 CO2-e (tonnes), in part because of an 11.68% rise in FTE, but mostly due to a change in the calculation of emissions from this source. In the previous reporting period—which was the first year staff commute was included in ESA's inventory—an estimate was calculated based on payroll information, whereas this year data was obtained from a survey of staff.

If the staff commute element is excluded, total emissions for all other factors combined have decreased overall by 0.3%.

2 Emissions Inventory

The Education Services Australia emissions inventory has been prepared in accordance with:

- National Greenhouse and Energy Reporting Scheme
- The Greenhouse Gas (GHG) Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- Climate Active Carbon Neutral Standard for Organisations

ESA 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 in Appendices 2 and 3.

Table 1 provides a detailed emissions inventory that provides emission sources, consumption amounts CO2-e (tonnes) and proportion of total inventory.

Table 1: Education Services Australia Limited Greenhouse Gas Emissions Inventory 1 July 2018 - 30 June 2019

Based on Greenhouse Gas Protocol "A Corporate Accounting and Reporting Standard"

Emission Source	Consumption Units	Consumption	CO2-e (tonnes)	Proportion of total inventory
Direct Emissions - Scope 1				
Refrigerant Leakage	NA	NA	1	0.18%
Natural Gas used on site by landlord as part of base building services	GJ	5,195	25	3.07%
Subtotal - Direct emissions Scope1:			**27**	**3.26%**
Indirect Emissions - Scope 2				
Purchased Electricity - excluding base building	kWh	180,654	193	23.47%
Purchased Electricity - tenant's share of base building use	kWh	154,601	165	20.08%
Subtotal - Indirect emissions Scope 2:			**359**	**43.55%**
Indirect Emissions - Scope 3				
Emissions from fuel extraction & T&D line losses for purchased electricity	kWh	180,654	18	2.19%
Emissions from fuel extraction & T&D line losses - tenant's share of base building electricity	kWh	154,601	15	1.88%
Emissions from fuel extraction of natural gas	GJ	5,195	2	0.23%
Reticulated Water Supplied by Landlord as part of base building services	kL	1,582	2	0.26%
Staff Travel - Taxi	kL of LPG	2	3	0.37%
Staff Travel - Accomodation	No of nights	391	21	2.53%
Staff Air Travel - Domestic <1000 km	km	265,556	49	5.94%
Staff Air Travel - Short haul 1000 - 3,700 km	km	284,417	52	6.34%
Staff Air Travel - Long haul > 3,700 km	km	116,391	43	5.27%
Staff Commute	km	3,678	175	21.28%
General municipal solid waste	tonne	24	34	4.09%
Recyled paper waste	tonne	6	9	1.10%
Commingled Recylable Waste	tonne	9	13	1.58%
Office Paper	kg	876	1	0.14%
Subtotal - Indirect emissions Scope 3:			**438**	**53.20%**
Total Emissions			**824**	**100.00%**
Reduction Measures				
Prior years Offsets surplus			(103)	
Offsets Purchases			(750)	
Total Net Emissions			(30)	

2.1 Trend Data

Table 2 provides a summary of the inventory results from 2015-16 to current year 2017-18 based on absolute measures

It should be noted that following submission of the 2015-16 inventory, ESA was required by NCOS to re-calculate its baseline for that year. This was due to it being the first year after the publications unit of the company was closed down, resulting in a large reduction in freight costs as well as publications paper and their associated emissions. All figures in this report use the 2015-16 re-calculated baseline.

Table 2: Emissions Inventory Three-Year Summary 1 July 2015 – 30 June 2019

	2015/16	2016/17	2017/18	2018/19
Emission Source	CO2-e (tonnes)	CO2-e (tonnes)	CO2-e (tonnes)	CO2-e (tonnes)
Electricity	555	480	403	392
Staff Air Travel	196	152	145	145
Waste	57	56	53	56
Publications/Paper[1]	-	-	-	-
Natural Gas	33	30	23	27
Staff Taxi Travel	5	6	4	3
Freight	-	-	-	-
Water use	2	3	2	2
Office Paper	2	1	1	1
Refrigerant Leakage	1	1	1	1
Accommodation[2]	-	-	19	21
Staff Commute[2]	-	-	52	175
Total Emissions	**851**	**729**	**703**	**824**
Offsets Measures				
Offsets Purchased	(1,000)	(600)	(700)	(750)
Total NET Emissions	(235)	(106)	(103)	(30)

1. The 2015-16 reporting year was the first full year following the closure of ESA's publications unit.
2. Business travel related accommodation and staff commute to work were included in the inventory for the first time in 2017-18 Staff commute for 2017-18 was estimated using staff home addresses, whereas the 2018-19 figure was based on a staff survey.

The trend data shows that in 2018-19 there were continued decreases in emissions from Electricity and Taxi Travel sources. Most other emissions were either held at 2017-18 levels, or increased slightly. The 17.23% increase in total emissions is entirely attributable to the increase in staff commute emissions over the past year. If staff commute figures are omitted from the 2017-2018 and 2018-19 comparison, total emissions from all other factors have decreased by 0.3% overall.

The increase in the staff commute is in part due to an 11.68% rise in FTE, but mostly due to a change in calculation of emissions from this source. In the previous reporting period—which was the first year staff commute was included—an estimate was made, based on payroll information, whereas this year information was collected via a survey of staff. While an increase in emissions from this source was expected, ESA is of the view that the figure may be overstated due to a fault in the survey construction that may have introduced some double counting.

Figure 2: Average FTE of Staff 2015-16 to 2018-19

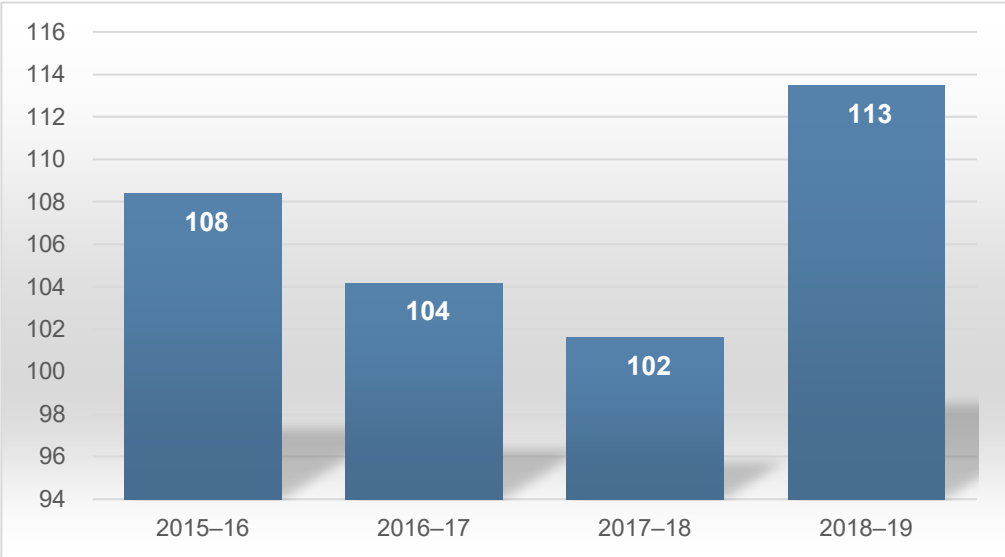

Table 3: Emissions Inventory Three-Year Summary per FTE 1 July 2015 – 30 June 2018

	2015/16	2016/17	2017/18	2018/19
Emission Source	CO2-e (tonnes) Per FTE	CO2-e (tonnes) Per FTE	CO2-e (tonnes) Per FTE	CO2-e (tonnes) Per FTE
Electricity	5.12	4.60	3.96	3.46
Staff Air Travel	1.81	1.46	1.42	1.27
Waste	0.53	0.54	0.53	0.49
Publications/Paper[1]	-	-	-	-
Natural Gas	0.30	0.29	0.23	0.24
Staff Taxi Travel	0.04	0.06	0.04	0.03
Freight	-	-	-	-
Water use	0.02	0.03	0.02	0.02
Office Paper	0.02	0.01	0.01	0.01
Refrigerant Leakage	0.01	0.01	0.01	0.01
Accommodation[2]	-	-	0.18	0.18
Staff Commute[2]	-	-	0.51	1.54
Total Emissions	**7.85**	**7.00**	**6.92**	**7.26**

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3 Offsets

An arrears approach to purchasing and retiring offsets is taken, whereby ESA calculates its carbon emissions at the end of the reporting period and then purchases and retires offsets equivalent to a net of zero at a minimum as shown in Table 4.

Education Services Australia purchases carbon offsets that are recognized under the National Carbon Offset Standard. From 2016-17 a preference has been given to purchasing Australian based offsets.

Table 4: ESA Offsets purchased 2013-14 to 2018-19

	Emission consumption	Offsets purchased	Project Name	Serial number
Opening balance		-535	Mongolia Chifeng Gaofeng Wind Power Project	2188-89507614-89511113-VCU-008-APX- CN-1-813-01012009-31122009-0.
Year 2013-14	1336	-801	Guohua Wulate Zhongqi Chuanjing Phase II Wind Farm Project	3310-148791211-148792011-VCU-003-APX-CN-1-1200-01012010-31122010-0
Year 2014-15	913	-1000	Hebei Chongli Qingsanying 49.3MW Wind Farm Project	738-32915440-32916439-VCU-008-APX-CN-1-394-14082008-22022009-0
Year 2015-16	851	-1000	Wind Power project at Jaibhim by SIIL, India	4549-189376272-189377271-VCU-048-MER-IN-1-1525-11032011-31122011-0
Year 2016-17	729	-600	Protection of a Tasmanian Native Forest project (Project 3: Peter Downie)	2657-116686188-116686787-VCU-016-MER-AU-14-587-01032011-29022012-0
Year 2017-18	703	-700	The Longdowns Regeneration Project in Australia	3,773,703,346 – 3,773,704,045
Prior Year Closing balance		-103		
Year 2018-19	824	-218	Fish River Fire Project (Carbon Farming Initiative—Emissions Abatement through Savanna Fire Management)	3,782,912,053 – 3,782,912,270
		-532	Delta Regeneration Project (Human-Induced Regeneration of a Permanent Even-Aged Native Forest)	3,789,227,613 – 3,789,228,144
Closing balance		**-30**		

4 External Assurance

To maintain its certification, ESA is required to obtain third-party verification of the emissions inventory on a triennial basis. The last such audit was conducted in 2016-17

5 Achievements

5.1 2018-19 Achievements

During the year, further reductions have involved the swap out of aging equipment and appliances, particularly the replacement of printers throughout the office. In addition, approximately 87 standard sized desktops which have a power rating of 240W were replaced with 43 laptops and 44 desktop mini's which have a power rating of 65W each. This new hardware is almost 4 times more power efficient than the old equipment. The laptop/desktop swap out will continue into financial year 2019-20.

In addition to the TerraCycle program and the 7-Eleven disposable cup rescue programs already in place, ESA has provided all staff with a keep-cup in a bid to encourage employees to take their own coffee cups to coffee shops. Other measures were introduced such as a 'Sharing Shelf" which is dedicated to reusable shopping bags to help reduce the need for buying plastic bags. A recycling bin for soft plastics has also been added to existing recycling collections.

A staff-initiated ESA Friends of the Environment Group was introduced to educate and share tips on being environmentally responsible both at work and at home. The new re-cycling efforts were suggested and are run by members of the group.

5.2 Continuing initiatives

Education Services Australia continues to maintain the initiatives introduced since 2011:

Retrofit of Office Lighting

All office lighting was upgraded to modern T5 fittings during 2011-12. Twelve percent of office light fittings have been removed in over-lit areas and all halogen down lights replaced with more efficient lamps.

Automated Timer Switches

Automated timer switches are used in the main office areas, based on previous physical audits of how often lighting is left on overnight and at weekends.

Energy efficient equipment

Wherever possible, ESA purchases replacement office equipment and kitchen appliances that are energy-efficient.

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

Follow-me printing facilities

Desktop printers are kept to an absolute minimum. The majority of staff use multifunction printers, with energy saver and 'follow-me' user functions, 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. 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.

Terracycle Recycling Programs

In 2016-17 at the initiation of staff, ESA commenced participation in the following waste recycling programs run by Terracycle:

- **Office Supplies Zero Waste Box**—Recycles non-electric supplies, including tape, desk organisers, binders, pens staplers, staples, paper clips, document filers and label sheets.
- **EXPRESSI** Coffee capsules recycling.
- Oral care Recycling—Recycles toothpaste tubes, toothbrushes, floss containers and outer packaging.
- **Personal Care and beauty packaging**—Includes cosmetics, haircare and skin care packaging.
- **Bausch + Lomb**—recycling of contact lenses and blister packs.

5.3 Environment Target 2019-20

Opportunities for further reduction of emissions in an office-based environment can be difficult to find. In the coming year, ESA will seek to maintain the initiatives introduced to date and promote environmentally responsible behaviours.

The target for 2019-20 will therefore be to maintain emissions per FTE at 2018-19 levels.

6 Appendices

6.1 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 reduce 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, e.g. 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.

6.2 Appendix 2: Emissions Inventory Scope

ESA uses the Operational Control method to determine its boundaries as per the principles of the GHG Protocol.

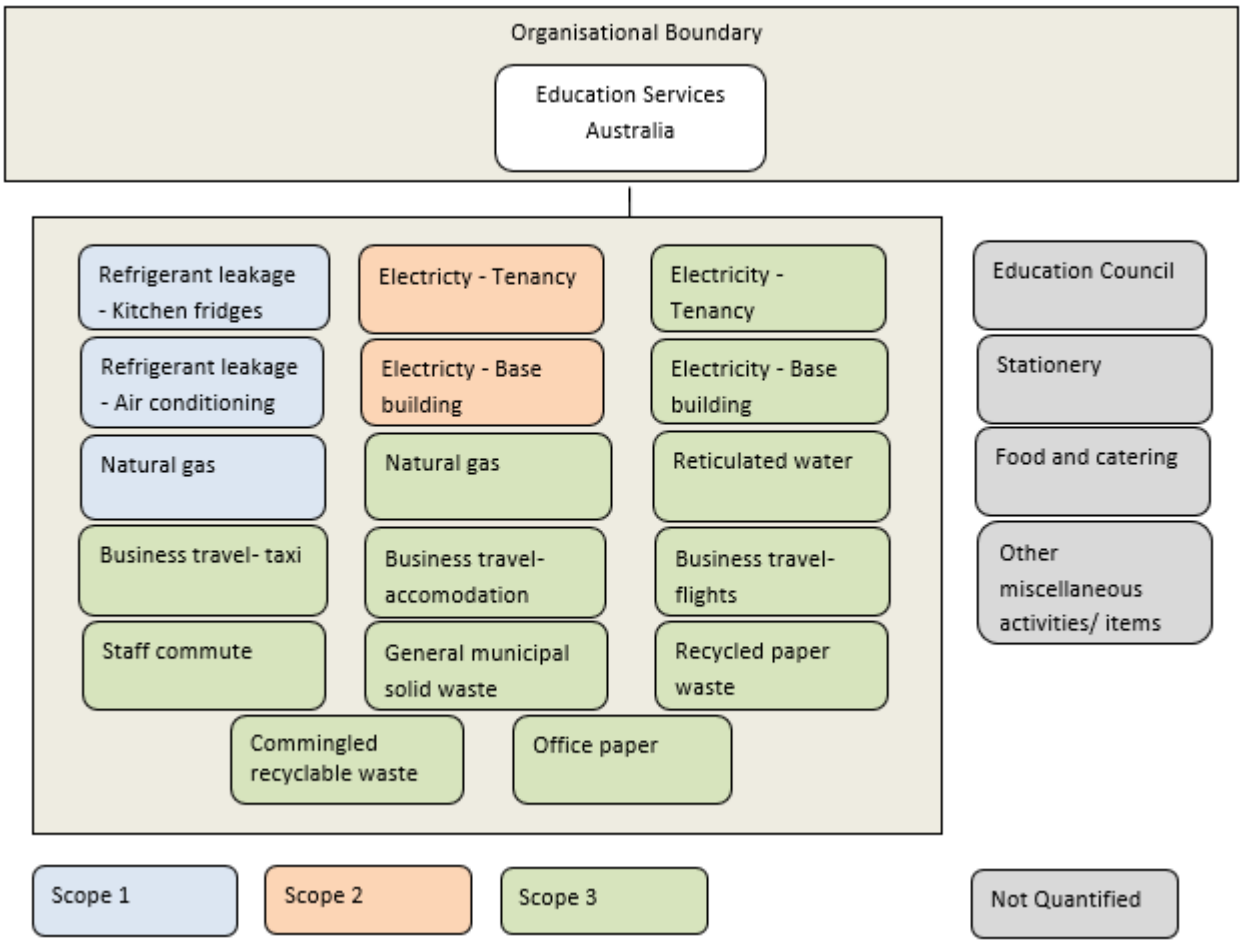
ESA is a single legal entity so has no consolidation of companies to consider. ESA also acts as the legal entity for the Education Council Secretariat, comprising 5 members of staff, who occupy office space in Carlton, however as ESA has no operational or financial control over this Secretariat, it has been excluded from ESA's organisational boundary as per the GHG Protocol.

A small independent operation, the National Schools Interoperability Program (NSIP), was made part of ESA during the 2017-2018 financial year and moved into ESA's office space later in the previous reporting period, it was therefore excluded from the 2017-2018 calculation but has now been included in the current year's results.

All activities relating to ESA are included within its organisational boundary. ESA includes its office in Melbourne in its emissions inventory.

ESA's operational boundaries include all scope 1 and scope 2 emissions, and all material and relevant scope 3 emissions.

The following diagram shows the organizational boundary used for this report and the scope of emissions included.



6.3 Appendix 3: Sources of Emission Factors

Item	Scope	Inventory Category	Emissions Factor	Emissions Factor - With inflation	EF Unit	Source of Emissions Factor
Kitchen fridges	1	Refrigerant Leakage	0.3%	0.3%	Leakage rate	Environmental Reporting Guidelines - Including streamlined energy and carbon reporting guidance 2019, pg 101
Air conditioning	1	Air Conditioning Lea	6.0%	6.0%	Leakage rate	Environmental Reporting Guidelines - Including streamlined energy and carbon reporting guidance 2019, pg 101
Purchased Electricity excluding base building use - Victoria	2	Purchased Electricit	1.0700	1.0700	kg CO2-e/KWH	Table 41 pg 68 or Table 5 pg 19, July 2018 NGA factors
Purchased Electricity tenants share of base buildings use- Victoria	2	Purchased Electricit	1.0700	1.0700	kg CO2-e/KWH	Table 41 pg 68 or Table 5 pg 19, July 2018 NGA factors
Emissions from fuel extraction & T&D line losses for purchased electricity - Victoria	3	Purchased Electricit	0.1000	0.1000	kg CO2-e/KWH	Table 41 pg 68, July 2018 NGA factors
base building electricity	3	Purchased Electricit	0.1000	0.1000	kg CO2-e/KWH	Table 41 pg 68, July 2018 NGA factors
Natural Gas used on site by landlord as part of base building services	1	Natural Gas	51.5300	51.5300	kg CO2-e/GJ	Table 2, pg 12, July 2018 NGA factors for natural gas
Emissions from fuel extraction of natural gas - Victoria	3	Natural Gas	3.9000	3.9000	kg CO2-e/GJ	Table 38, pg 66, July 2018 NGA factors for natural gas
Reticulated Water Supplied by Landlord as part of base building services	3	Water	1.3600	1.3600	kg CO2-e/kL	EPA Victoria's Greenhouse Gas Inventory Management Plan: 2012-13 Update, Appendix A pg 60 - 62
Staff Travel - Taxi	3	LPG	1.5770	1.5770	t CO2-e/kL	EPA Victoria's Greenhouse Gas Inventory Management Plan: 2012-13 Update, Appendix C, pg 51 and 56
Staff Travel - Accomodation	3	Travel	1.0700	1.0700	kg CO2-e/KWH	65% of total hotel energy use is electricity and 35% is natural gas. Therefore 65% should be converted with electricity emission factors and 35% should be converted with natural gas emission factors as per The Australian Government's Carbon Neutral Program Guidance for Scope 3 Calculations Oct 2016, Travel accomodation (both Domestic and International), pg 6 - 7
	3	Travel	0.1000	0.1000	kg CO2-e/KWH	65% of total hotel energy use is electricity and 35% is natural gas. Therefore 65% should be converted with electricity emission factors and 35% should be converted with natural gas emission factors as per The Australian Government's Carbon Neutral Program Guidance for Scope 3 Calculations Oct 2016, Travel accomodation (both Domestic and International), pg 6 - 7
	3	Travel	51.5300	51.5300	kg CO2-e/GJ	65% of total hotel energy use is electricity and 35% is natural gas. Therefore 65% should be converted with electricity emission factors and 35% should be converted with natural gas emission factors as per The Australian Government's Carbon Neutral Program Guidance for Scope 3 Calculations Oct 2016, Travel accomodation (both Domestic and International), pg 6 - 7
	3	Travel	3.9000	3.9000	kg CO2-e/GJ	65% of total hotel energy use is electricity and 35% is natural gas. Therefore 65% should be converted with electricity emission factors and 35% should be converted with natural gas emission factors as per The Australian Government's Carbon Neutral Program Guidance for Scope 3 Calculations Oct 2016, Travel accomodation (both Domestic and International), pg 6 - 7
Staff Air Travel	3	Travel	N/A	N/A	t CO2-e/km	Provided by supplier Corporate Traveler
Staff Commute - Drive Medium Car	3	Travel	0.2100	0.2100	kg CO2-e/km	EPA Victoria's Greenhouse Gas Inventory Management Plan: 2012-13 Update, part k for "Staff Commuting", pg 28 - 30
Staff Commute - Train - metropolitan	3	Travel	0.1500	0.1500	kg CO2-e/km	EPA Victoria's Greenhouse Gas Inventory Management Plan: 2012-13 Update, part k for "Staff Commuting", pg 28 - 30
Staff Commute - Train - regional	3	Travel	0.0859	0.0859	kg CO2-e/km	EPA Victoria's Greenhouse Gas Inventory Management Plan: 2012-13 Update, part k for "Staff Commuting", pg 28 - 30
General municpal solid waste	3	Waste	1.4000	1.4000	t CO2-e/tonne waste	Municipal solid waste from NGA factors July 2018, pg 73, Table 44
Recyled paper waste	3	Waste	1.4000	1.4000	t CO2-e/tonne waste	Municipal solid waste from NGA factors July 2018, pg 73, Table 44 (On advise by Department of Environment and Energy)
Recycled waste	3	Waste	1.4000	1.4000	t CO2-e/tonne waste	Municipal solid waste from NGA factors July 2018, pg 73, Table 44
Office Paper	3	Office Paper	1.3000	1.3000	kg CO2-e/kg paper	EPA Victoria's Greenhouse Gas Inventory Management Plan: 2012-13 Update , pg 25 & 64