

# Emissions Factors July 2014

## Australia

### Background

Eden Suite uses emission factors published by the Federal Department of Climate Change and Energy Efficiency (DCEE) in their National Greenhouse Account (NGA) factors. These factors are used for Scope 1 and 2 emissions and some Scope 3 (e.g. Waste). Advice from DCEE is that the NGA factors from the year before should be applied to the following year's emissions. For example, the NGA Factors released in July 2011 should be applied to 2011-12 reporting. Where no factors are provided by DCEE other sources are used, primarily DEFRA (UK) for air travel and Victorian EPA for paper and water.

### Links

- Department of Climate Change and Energy Efficiency, [National Greenhouse Account Factors, July 2014](#)
- Environment Protection Authority Victoria (EPA Victoria), [Greenhouse Gas Inventory Management Plan 2012-13](#)
- The UK Government Departments for Environment, Food & Rural Affairs (DEFRA) and Energy & Climate Change (DECC), [2014 Guidelines to GHG Conversion Factors for Company Reporting](#)

### Emissions factors

The table below provides the emission factors used by Eden Suite

Emissions source	Unit	Emissions conversion factor into tonnes (per unit)	Reference
<b>Direct emissions (Scope 1)</b>			
Petrol for vehicles	kL	2.288664	National Greenhouse Account Factors, July 2014, Table 4
LPG for vehicles	kL	1.57724	National Greenhouse Account Factors, July 2014, Table 4
Automotive diesel oil for vehicles (ADO)	kL	2.694666	National Greenhouse Account Factors, July 2014, Table 4
Ethanol	kL	0.00936	National Greenhouse Account Factors, July 2014, Table 4
E10 (calculated as 90% gasoline and 10% ethanol)	kL	2.0607336	National Greenhouse Account Factors, July 2014, Table 4
Natural gas	GJ	0.05133	National Greenhouse Account Factors, July 2014, Table 2
LPG (stationery energy)	kL	1.53943	National Greenhouse Account Factors, July 2014, Table 3
Diesel oil (stationery energy)	kL	2.6827	National Greenhouse Account Factors, July 2014, Table 3
<b>Indirect emissions (Scope 2)</b>			
Purchased electricity (Victoria)	kWh	0.00118	National Greenhouse Account Factors, July 2014, Table 41
Purchased electricity (NSW)	kWh	0.00086	National Greenhouse Account Factors, July 2014, Table 41
Purchased electricity (QLD)	kWh	0.00081	National Greenhouse Account Factors,

Emissions source	Unit	Emissions conversion factor into tonnes (per unit)	Reference
			July 2014, Table 41
Purchased electricity (SA)	kWh	0.00061	National Greenhouse Account Factors, July 2014, Table 41
Purchased electricity (WA)	kWh	0.00076	National Greenhouse Account Factors, July 2014, Table 41
Purchased electricity (TAS)	kWh	0.0002	National Greenhouse Account Factors, July 2014, Table 41
Purchased electricity (NT)	kWh	0.00068	National Greenhouse Account Factors, July 2014, Table 41
<b>Indirect emissions (Scope 3)</b>			
Purchased electricity (Victoria)	kWh	0.00015	National Greenhouse Account Factors, July 2014, Table 41
Purchased electricity (NSW)	kWh	0.00013	National Greenhouse Account Factors, July 2014, Table 41
Purchased electricity (QLD)	kWh	0.00013	National Greenhouse Account Factors, July 2014, Table 41
Purchased electricity (SA)	kWh	0.00011	National Greenhouse Account Factors, July 2014, Table 41
Purchased electricity (WA)	kWh	0.00007	National Greenhouse Account Factors, July 2014, Table 41
Purchased electricity (TAS)	kWh	0.00003	National Greenhouse Account Factors, July 2014, Table 41
Purchased electricity (NT)	kWh	0.00010	National Greenhouse Account Factors, July 2014, Table 41
Emissions from fuel extraction for natural gas (VIC)	GJ	0.0039	National Greenhouse Account Factors, July 2014, table 37
Emissions from fuel extraction for natural gas (NSW)	GJ	0.0128	National Greenhouse Account Factors, July 2014, table 37
Emissions from fuel extraction for natural gas (QLD)	GJ	0.0087	National Greenhouse Account Factors, July 2014, table 37
Emissions from fuel extraction for natural gas (SA)	GJ	0.0104	National Greenhouse Account Factors, July 2014, table 37
Emissions from fuel extraction for natural gas (WA)	GJ	0.0040	National Greenhouse Account Factors, July 2014, table 37
Emissions from fuel extraction for petrol	kL	0.181260	National Greenhouse Account Factors, July 2014, table 40
Emissions from fuel extraction for LPG	kL	0.131000	National Greenhouse Account Factors, July 2014, table 40
Emissions from fuel extraction for ADO	kL	0.181260	National Greenhouse Account Factors, July 2014, table 40
Emissions from fuel extraction for E10	kL	0.163134	National Greenhouse Account Factors, July 2014, table 40
Food waste (Organics)	tonnes	1.6	National Greenhouse Account Factors, July 2014, table 42

Emissions source	Unit	Emissions conversion factor into tonnes (per unit)		Reference
Municipal solid waste (generic)	tonnes	1.2		National Greenhouse Account Factors, July 2014 table 44
Paper & cardboard waste	tonnes	2.5		National Greenhouse Account Factors, July 2014 table 42
Inert recyclable waste (comingled)	tonnes	0		National Greenhouse Account Factors, July 2014 table 42
Flights*	Passenger km	<500km	0.00029316	DEFRA/DECC, UK Government conversion factors for Company Reporting – Business travel - air Note: these factors include radiative forcing and uplift factors
		500-3700km	0.00016625	
		>3700km	0.00021022	
Emissions from fuel extraction for aircraft gasoline	Passenger km	<500km	0.00003194	DEFRA/DECC, UK Government conversion factors for Company Reporting – WTT - Business travel - air Note: these factors include radiative forcing and uplift factors
		500-3700km	0.00001811	
		>3700km	0.00002291	
Office copy paper**	kg	100% Recycled	0.00152	EPA Victoria, Greenhouse Gas Inventory Management Plan 2012-13
		Virgin	0.0013	
Reticulated water supply***	kL	0.00136		EPA Victoria, Greenhouse Gas Inventory Management Plan 2012-13
Optional indirect emissions (Scope 3)				
Staff commuting	km	See reference		EPA Victoria, Greenhouse Gas Inventory Management Plan 2012-13, page 28
Catering	\$ expenditure	See reference		EPA Victoria, Greenhouse Gas Inventory Management Plan 2012-13 page 27
Public transport	\$ expenditure	See reference		EPA Victoria, Greenhouse Gas Inventory Management Plan 2012-13, page 22
Taxi	\$ expenditure	See reference		EPA Victoria, Greenhouse Gas Inventory Management Plan 2012-13, page 22
Couriers	\$ expenditure	See reference		EPA Victoria, Greenhouse Gas Inventory Management Plan 2012-13, page 30
Colour publications	sheets	See reference		EPA Victoria, Greenhouse Gas Inventory Management Plan 2012-13, page 31

**\*Flights**

Note: these factors include radiative forcing and uplift factors

**\*\*Office Paper**

It is assumed that 1 ream= 2.5kgs

For more detail, see EPA Victoria Greenhouse Gas Inventory Management Plan 2012-13 for how to apply these emissions factors.

**\*\*\*Reticulated water**

Where 1 kL= 1m<sup>3</sup>

For more detail, see EPA Victoria Greenhouse Gas Inventory Management Plan 2012-13.