

Emissions Factors July 2013

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 2013](#)
- Environment Protection Authority Victoria (EPA Victoria), [Greenhouse Gas Inventory Management Plan](#)
- The UK Government Departments for Environment, Food & Rural Affairs (DEFRA) and Energy & Climate Change (DECC), [2013 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
Direct emissions (Scope 1)			
Petrol for vehicles	kL	2.288664	National Greenhouse Account Factors, July 2013, Table 4
LPG for vehicles	kL	1.57724	National Greenhouse Account Factors, July 2013, Table 4
Automotive diesel oil for vehicles (ADO)	kL	2.694666	National Greenhouse Account Factors, July 2013, Table 4
Ethanol	kL	0.00936	National Greenhouse Account Factors, July 2013, Table 4
E10 (calculated as 90% gasoline and 10% ethanol)	kL	2.0607336	National Greenhouse Account Factors, July 2013, Table 4
Natural gas	GJ	0.05133	National Greenhouse Account Factors, July 2013, Table 2
LPG (stationery energy)	kL	1.53943	National Greenhouse Account Factors, July 2013, Table 3
Diesel oil (stationery energy)	kL	2.6827	National Greenhouse Account Factors, July 2013, table 3
Indirect emissions (Scope 2)			
Purchased electricity (Victoria)	kWh	0.00117	National Greenhouse Account Factors, July 2013, Table 5
Purchased electricity (NSW)	kWh	0.00087	National Greenhouse Account Factors, July 2013, Table 5

Emissions source	Unit	Emissions conversion factor into tonnes (per unit)	Reference
Purchased electricity (QLD)	kWh	0.00082	National Greenhouse Account Factors, July 2013, Table 5
Purchased electricity (SA)	kWh	0.00062	National Greenhouse Account Factors, July 2013, Table 5
Purchased electricity (WA)	kWh	0.00078	National Greenhouse Account Factors, July 2013, Table 5
Purchased electricity (TAS)	kWh	0.0002	National Greenhouse Account Factors, July 2013, Table 5
Purchased electricity (NT)	kWh	0.00069	National Greenhouse Account Factors, July 2013, Table 5
Indirect emissions (Scope 3)			
Purchased electricity (Victoria)	kWh	0.00015	National Greenhouse Account Factors, July 2013, Table 41
Purchased electricity (NSW)	kWh	0.00019	National Greenhouse Account Factors, July 2013, Table 41
Purchased electricity (QLD)	kWh	0.00014	National Greenhouse Account Factors, July 2013, Table 41
Purchased electricity (SA)	kWh	0.00011	National Greenhouse Account Factors, July 2013, Table 41
Purchased electricity (WA)	kWh	0.00006	National Greenhouse Account Factors, July 2013, Table 41
Purchased electricity (TAS)	kWh	0.00002	National Greenhouse Account Factors, July 2013, Table 41
Purchased electricity (NT)	kWh	0.00008	National Greenhouse Account Factors, July 2013, Table 41
Emissions from fuel extraction for natural gas (VIC)	GJ	0.0039	National Greenhouse Account Factors, July 2013, table 37
Emissions from fuel extraction for natural gas (NSW)	GJ	0.0128	National Greenhouse Account Factors, July 2013, table 37
Emissions from fuel extraction for natural gas (QLD)	GJ	0.0087	National Greenhouse Account Factors, July 2013, table 37
Emissions from fuel extraction for natural gas (SA)	GJ	0.0104	National Greenhouse Account Factors, July 2013, table 37
Emissions from fuel extraction for natural gas (WA)	GJ	0.0040	National Greenhouse Account Factors, July 2013, table 37
Emissions from fuel extraction for petrol	kL	0.181260	National Greenhouse Account Factors, July 2013, page 66, table 40
Emissions from fuel extraction for LPG	kL	0.131000	National Greenhouse Account Factors, July 2013, page 66, table 40
Emissions from fuel extraction for ADO	kL	0.181260	National Greenhouse Account Factors, July 2013, page 66, table 40
Emissions from fuel extraction for E10	kL	0.163134	National Greenhouse Account Factors, July 2013, page 66, table 40

Emissions source	Unit	Emissions conversion factor into tonnes (per unit)		Reference
Food waste (Organics)	tonnes	1.6		National Greenhouse Account Factors, July 2013, table 42
Municipal solid waste (generic)	tonnes	1.2		National Greenhouse Account Factors, July 2013 table 44
Paper & cardboard waste	tonnes	2.5		National Greenhouse Account Factors, July 2013 table 42
Inert recyclable waste (comingled)	tonnes	0		National Greenhouse Account Factors, July 2013 table 42
Flights*	Passenger km	<500km	0.000326 615	DEFRA/DECC, UK Government conversion factors for Company Reporting – Business travel - air Note: these factors include radiative forcing and uplift factors
500-3700km		0.000192 457		
>3700km		0.000226 528		
Emissions from fuel extraction for aircraft gasoline	Passenger km	<500km	0.000035 6184	DEFRA/DECC, UK Government conversion factors for Company Reporting – WTT - Business travel - air Note: these factors include radiative forcing and uplift factors
500-3700km		0.000020 9952		
>3700km		0.000024 7104		
Office copy paper**	kg	100% Recycled	0.00152	EPA Victoria, Greenhouse Gas Inventory Management Plan 2010-11, page 27
		Virgin	0.0013	
Reticulated water supply***	kL	0.00234		EPA Victoria, Greenhouse Gas Inventory Management Plan 2010-11, page 27
Optional indirect emissions (Scope 3)				
Staff commuting	km	See reference		EPA Victoria, Greenhouse Gas Inventory Management Plan 2010-11, page 32
Catering	\$ expenditure	See reference		EPA Victoria, Greenhouse Gas Inventory Management Plan 2010-11, page 30
Public transport	\$ expenditure	See reference		EPA Victoria, Greenhouse Gas Inventory Management Plan 2010-11, page 25
Taxi	\$ expenditure	See reference		EPA Victoria, Greenhouse Gas Inventory Management Plan 2010-11, page 24
Couriers	\$ expenditure	See reference		EPA Victoria, Greenhouse Gas Inventory Management Plan 2010-11, page 33
Colour publications	sheets	See reference		EPA Victoria, Greenhouse Gas Inventory Management Plan 2010-11, page 33

***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 2010-11, Appendix J, page 80 for how to apply these emissions factors.

*****Reticulated water**

Where 1 kL= 1m³

For more detail, see EPA Victoria Greenhouse Gas Inventory Management Plan 2010-11, Appendix I.

It is not intended that these guidelines are for those departments and agencies that due to meeting energy use thresholds are required to report under the National Greenhouse and Energy Reporting Scheme (NGERS) because they will have different requirements.