An Intelligent Pathways product

edenSUITE

Emissions Factors July 2015

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, August 2015
- 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), 2015 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 kg (per unit)	Reference
Direct emissions (Scope 1)			
Petrol for vehicles	GJ	67.62	National Greenhouse Account Factors, August 2015, Table 4
LPG for vehicles	GJ	60.9	National Greenhouse Account Factors, August 2015, Table 4
Automotive diesel oil for vehicles (ADO)	GJ	70.51	National Greenhouse Account Factors, August 2015, Table 4
Ethanol	GJ	0.40	National Greenhouse Account Factors, August 2015, Table 4
E10 (calculated as 90% gasoline and 10% ethanol)	GJ	60.898	National Greenhouse Account Factors, August 2015, Table 4
Natural gas	GJ	51.53	National Greenhouse Account Factors, August 2015, Table 2
LPG (stationery energy)	GJ	60.6	National Greenhouse Account Factors, August 2015, Table 3
Diesel oil (stationery energy)	GJ	70.2	National Greenhouse Account Factors, August 2015, Table 3
Indirect emissions (Scope 2)			
Purchased electricity (Victoria)	kWh	1.12	National Greenhouse Account Factors, August 2015, Table 41
Purchased electricity (NSW)	kWh	0.84	National Greenhouse Account Factors, August 2015, Table 41

Emissions source	Unit	Emissions conversion factor into tonnes (per unit)	Reference
Purchased electricity (QLD)	kWh	0.79	National Greenhouse Account Factors, August 2015, Table 41
Purchased electricity (SA)	kWh	0.56	National Greenhouse Account Factors, August 2015, Table 41
Purchased electricity (WA) - SWIMS	kWh	0. 76	National Greenhouse Account Factors, August 2015, Table 41
Purchased electricity (TAS)	kWh	0.12	National Greenhouse Account Factors, August 2015, Table 41
Purchased electricity (NT)	kWh	0.57	National Greenhouse Account Factors, August 2015, Table 41
Indirect emissions (Scope 3)			
Purchased electricity (Victoria)	kWh	0.13	National Greenhouse Account Factors, August 2015, Table 41
Purchased electricity (NSW)	kWh	0.12	National Greenhouse Account Factors, August 2015, Table 41
Purchased electricity (QLD)	kWh	0.13	National Greenhouse Account Factors, August 2015, Table 41
Purchased electricity (SA)	kWh	0.11	National Greenhouse Account Factors, August 2015, Table 41
Purchased electricity (WA)	kWh	0.07	National Greenhouse Account Factors, August 2015, Table 41
Purchased electricity (TAS)	kWh	0.02	National Greenhouse Account Factors, August 2015, Table 41
Purchased electricity (NT)	kWh	0.1	National Greenhouse Account Factors, August 2015, Table 41
Emissions from fuel extraction for natural gas (VIC)	GJ	3.9	National Greenhouse Account Factors, August 2015, table 37
Emissions from fuel extraction for natural gas (NSW)	GJ	12.8	National Greenhouse Account Factors, August 2015, table 37
Emissions from fuel extraction for natural gas (QLD)	GJ	8.7	National Greenhouse Account Factors, August 2015, table 37
Emissions from fuel extraction for natural gas (SA)	GJ	10.4	National Greenhouse Account Factors, August 2015, table 37
Emissions from fuel extraction for natural gas (WA)	GJ	4.0	National Greenhouse Account Factors, August 2015, table 37
Emissions from fuel extraction for petrol	GJ	3.6	National Greenhouse Account Factors, August 2015, table 39
Emissions from fuel extraction for LPG	GJ	3.6	National Greenhouse Account Factors, August 2015, table 39
Emissions from fuel extraction for ADO	GJ	3.6	National Greenhouse Account Factors, August 2015, table 39
Emissions from fuel extraction for E10	GJ	3.6	National Greenhouse Account Factors, August 2015, table 39

Emissions source	Unit	Emissions conversion factor into tonnes (per unit)		Reference
Municipal solid waste (generic)	tonnes	1.4		National Greenhouse Account Factors, August 2015 table 43
Flights*	Passenger km	<500km	0.00029795	DEFRA/DECC, UK Government conversion factors for Company Reporting – Business travel - air Note: these factors include radiative forcing and uplift factors
		500-3700km	0.00016972	
		>3700km	0.00019813	
Emissions from fuel extraction for aircraft gasoline	Passenger km	<500km	0.00003248	DEFRA/DECC, UK Government conversion factors for Company Reporting – WTT - Business travel - air Note: these factors include radiative forcing and uplift factors
		500-3700km	0.0000185	
		>3700km	0.0000216	
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= $1m^3$

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