



Sustainability, Energy & Carbon Management

A low-angle, black and white photograph of a modern building's glass and steel facade, showing strong geometric lines and reflections. The image is partially obscured by a dark horizontal band where the title text is located.

Greenhouse Gas Assessment

for **The University of Melbourne**
CY 2019

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This assessment report has been prepared for The University of Melbourne.

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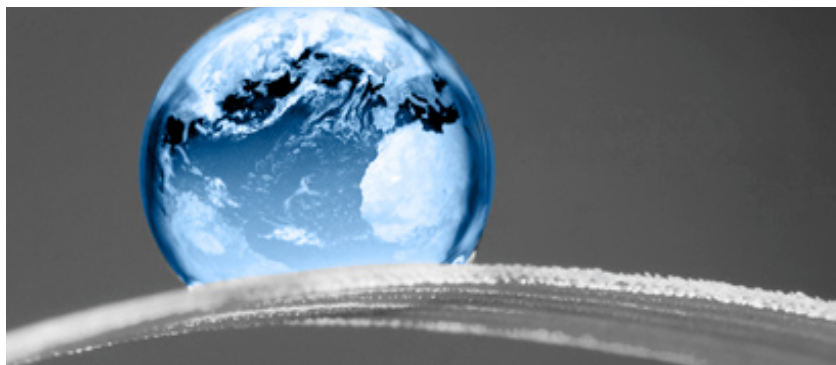
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Pangolin Associates Pty Ltd (Pangolin Associates) were commissioned to conduct a comprehensive assessment of the greenhouse gas (GHG) emissions accountable to the Australian operations of The University of Melbourne ('UoM') for the financial year CY 2019.

Based on best available data, the estimated net total carbon emissions for UoM was 195,795.8 tonnes of carbon dioxide equivalents (tCO₂-e). This total includes indirect contributions along the supply chain (scope 3 emissions) and any voluntary carbon credit and renewable GreenPower purchases.

A comparison of the individual sector contributions to gross GHG emissions revealed that 'Utilities' was the largest contributor, at 143,949.8 tCO₂-e (68.0% of gross full scope emissions). The principal activity contributing to GHG emissions in this sector was 'Electricity', from a total of 112,731,965 kWh per annum (59.6% of gross full scope emissions).

Changes to full scope GHG emissions, scope 1 & 2 (S1&2) emissions and energy consumption profiles for UoM over time are presented below and benchmarked against FTE .

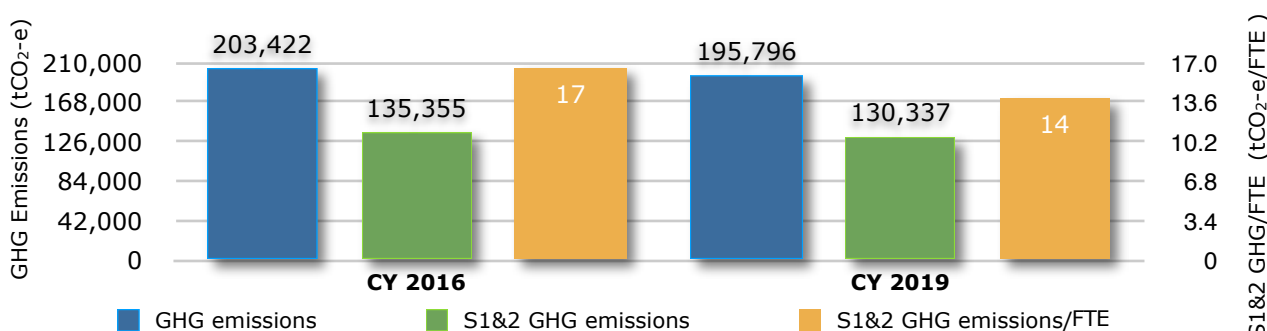


Figure I: A summary of GHG protocol, S1&2 GHG Emissions with reporting period and FTE intensity¹

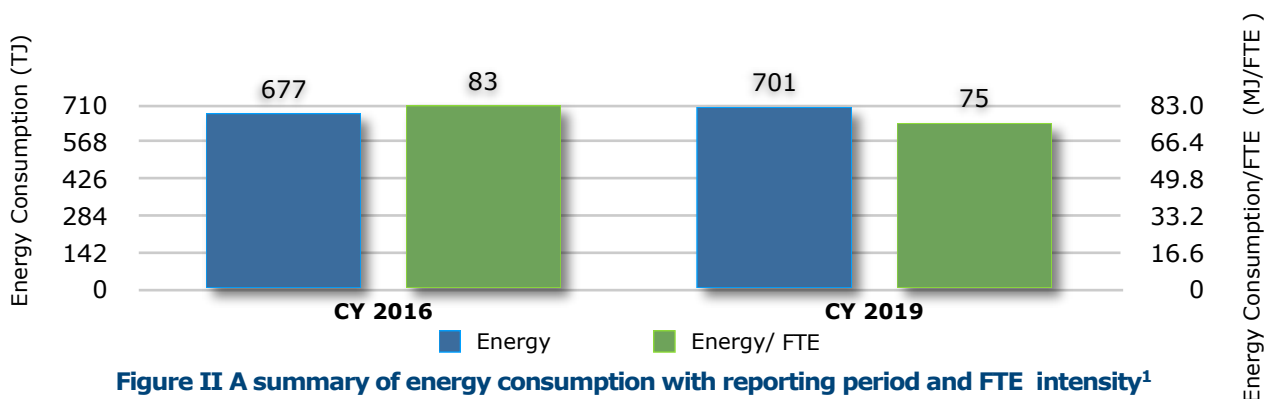


Figure II A summary of energy consumption with reporting period and FTE intensity¹

¹ Includes numerical rounding to one decimal point. Table columns and figure percentages may not sum due to rounding.

Further comparisons of UoM's GHG performance to the base year (BY) are summarised below.

Compared to the base year emissions of CY 2016, the current assessment emissions resulted a net decrease of -6,230.0 tonnes of CO₂-e or -3.3% in a LfL net comparison. Note that the YoY and YoBY net comparisons shown below may not be directly comparable due to differences in the operational boundary over successive reporting periods.

Primary statement of GHG emissions for UoM					
CO ₂ -e emissions (tonnes)		Reporting Year		Percentage Change	
Associated Inventory/Service:		CY 2016 ^a	CY 2019	YoBY ^b	
Scope 1	Natural Gas, Transport Fuels, Stationary Fuels, Refrigerants, Waste-Incineration	15,871.9	17,532.4	▲	10.5%
Scope 2	Purchased Electricity	119,483.0	114,986.6	▼	-3.8%
Scope 3	Equipment, Employee Commute, Flights, Third Party Services, Off-site Waste Disposal, spare, Transmission & Distribution losses, Fuel Extraction, Production & Distribution losses, Other Utilities	68,066.9	79,276.8	▲	16.5%
Gross Total (scope 1 & 2) ^{1,2,a}		135,354.9	130,337.4	▼	-3.7%
Gross Total (scope 1, 2 & 3) ^{1,2,a}		203,421.8	211,795.8	▲	4.1%
Credits	Flight Offsets	0.0	-16,000.0		
Full Scope (1, 2 & 3)	Net Total ^{1,2,a}	203,421.8	195,795.8	▼	-8.0%
	Like for Like YoBY ^{1,c}	189,798.3	183,568.4	▼	-3.3%
Energy Consumption (TJ)	Net Total ^{1,2,a}	677.2	701.2	▲	3.5%
Credits	Greenfleet Offsets (Excluded)	765.0	709.5	▼	-7.3%
<small>(a) Unless otherwise stated, these values are unrevised and based on the original reported findings (b) Year on Base Year (YoBY) (c) Like for like totals reflect operational boundary changes, emission factor and estimation updates, acquisitions and divestments. Only includes activities that were mutually assessed in both accounting periods (Note: BY like for like total may not be displayed due to lack of data).</small>					

² Scope 1 & 2 emissions are tabulated according to the Carbon Neutral Standard for the relevant reporting period.



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