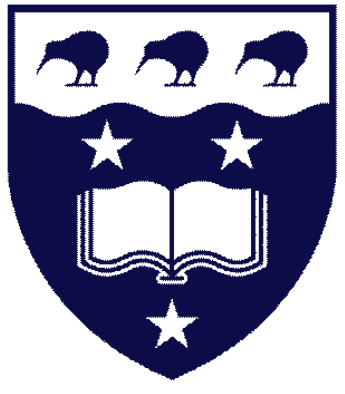




University of Auckland Greenhouse Gas Emissions Summary

Performance against baseline (2019-2025)

Activity	Boundary	2019 Baseline			2024			2025			Progress (%)				2025
		Quantity	Unit	Carbon Emissions Location-based (tCO2e)	Quantity	Unit	Carbon Emissions Location-based (tCO2e)	Quantity	Unit	Carbon Emissions Location-based (tCO2e)	Progress against prev. year Quantity (%)	Progress against prev. year Emissions (%)	Progress against baseline Quantity(%)	Progress against baseline Emissions (%)	Portion of total gross tCO2e (%)
Work related travel (air)															
Air travel domestic total (staff and students)	nzTB	8,281,640.00	pkm	2,007.80	7,442,327.00	pkm	1,512.90	6,637,757.00	pkm	1,341.26	-10.8	-11.3	-19.8	-33.2	
Air travel short haul total < 3700km (staff and students)	nzTB	19,752,947.00	pkm	3,207.09	16,077,887.00	pkm	2,451.88	15,903,382.65	pkm	2,025.26	-1.1	-17.4	-19.5	-36.9	
Air travel long haul total > 3700km (staff and students)	nzTB	112,981,420.00	pkm	24,015.33	86,927,417.00	pkm	14,735.80	81,054,626.69	pkm	10,926.80	-6.8	-25.8	-28.3	-54.5	
Air travel (NZ & international) reimbursements	nzTB				190,221.87	\$	149.85	90,603.32	\$	71.38	-52.4	-52.4			
Work related travel (air) SUBTOTAL	nzTB	141,016,007.00	pkm	29,230.22	110,447,631.00	pkm	18,850.43	103,595,766.34	pkm	14,364.70	-6.2	-23.8	-26.5	-50.9	22.6
Energy including fuel															
Electricity Toitū carbonzero certified factor*	nzTB	808,493.00	kWh	7.96	49,948,763.49	kWh	4,518.64	77,202,415.67	kWh	6,129.96	54.6	35.7	9448.9	76875.8	
Electricity (Purchased)*	nzTB	70,179,484.00	kWh	7,717.09	25,567,479.46	kWh	3,051.84	-	kWh	-	-100.0	-100.0	-100.0	-100.0	
NZ energy certificates (NZEC) purchased*	nzTB				25,567,410.00	kWh	-	-	kWh	-					
Electricity generated onsite (Cat 1/Scope 1)	nzRB				82,709.59	kWh	-	121,043.30	kWh	-	46.3				
Electricity used (Cat 4/Scope 3)	nzRB							44,346.00	kWh	3.04					
Subtotal electricity purchased (Cat 2)	nzTB	70,987,977.00	kWh	7,725.06	75,516,242.95	kWh	7,570.48	77,202,415.67	kWh	6,129.96	2.2	-19.0	8.8	-20.6	
Subtotal electricity generated onsite (Cat 1)	nzTB	-	kWh	-	82,709.59	kWh	-	121,043.30	kWh	-	46.3				
Total electricity consumed (Cat 1, 2, 4)	nzRB	70,987,977.00	kWh	7,725.06	75,598,952.54	kWh	7,570.48	77,367,804.97	kWh	6,133.00	2.3	-19.0	9.0	-20.6	
Natural gas distributed commercial	nzTB	26,427,303.00	kWh	5,146.61	21,362,585.63	kWh	4,168.86	21,130,462.20	kWh	4,129.54	-1.1	-0.9	-20.0	-19.8	
Steam generation Pre-calculated (tCO2e)	nzTB	341.00	t	341.00	-	t	-	-	t				-100.0	-100.0	
Diesel stationary combustion (generators)	nzTB	11,340.00	L	30.73	10,089.10	L	27.04	9,876.40	L	26.43	-2.1	-2.3	-12.9	-14.0	
Diesel stationary combustion (fire pumps)	nzTB	1,480.40	L	4.01	1,530.00	L	4.10	2,356.00	L	6.30	54.0	53.8	59.1	57.2	
Diesel mobile combustion (fuel cards)	nzTB	27,430.81	L	73.90	51,980.03	L	139.34	57,075.37	L	152.49	9.8	9.4	108.1	106.4	
Petrol (fuel cards)	nzTB	20,074.21	L	49.22	36,094.33	L	86.07	35,099.77	L	82.95	-2.8	-3.6	74.9	68.5	
LPG stationary > updated to mobile combustion from 2024 (forklifts)	nzTB	938.40	kg	2.84	270.00	kg	0.82	225.00	kg	0.68	-16.7	-16.7	-76.0	-76.0	
Diesel (inter-campus staff shuttle) DISCONTINUED	nzTB	10,915.00	L	29.40	-	L	-	-	L				-100.0	-100.0	
Bus travel (city) Tamaki - City loop student bus DISCONTINUED	nzTB	350,020.00	pkm	29.98	-	pkm	-	-	pkm				-100.0	-100.0	
Energy including fuel SUBTOTAL	nzTB	n/a		13,432.75	n/a		11,996.72	n/a		10,531.39	n/a	-12.2	-21.6	-30.6	16.6
Waste															
Composting	nzTB	108,126.00	kg	18.55	177,443.00	kg	31.16	165,320.00	kg	29.03	-6.8	-6.8	52.9	56.5	
Waste disposal mixed recycling transport (cans, glass, paper, plastic)	nzTB	393,512.00	kg	583.85	400,542	kg	2.57	609,762	kg	2.86	52.2	11.4	55.0	-99.5	
Recycling process (cans, glass, paper, plastic)	nzTB				390,985	kg	316.96	598,573	kg	468.72	53.1	47.9			
Waste landfilled total	nzTB	1,604,824.00	kg	388.75	1,583,642.42	kg	183.44	1,533,557.50	kg	186.92	-3.2	1.9	-4.4	-51.9	
Waste SUBTOTAL	nzTB	2,106,462.00	kg	991.15	2,161,627.42	kg	534.12	2,907,212.85	kg	687.53	34.5	28.7	38.0	-30.6	1.1
Transmission of energy (T&D losses)															
Electricity Toitū carbonzero certified factor (T & D losses)*	nzRB				49,948,763.49	kWh	384.12	77,202,415.67	kWh	459.83	54.6	19.7			
Electricity distributed T&D losses (Electricity Cat 2 & Cat 4)	nzRB	70,987,977.00	kWh	842.39	25,567,479.46	kWh	196.62	44,346.00	kWh	0.26	-99.8	-99.9	-99.9	-100.0	
Natural gas distributed T&D losses	nzRB	26,427,303.00	kWh	603.34	21,362,585.63	kWh	132.71	21,130,462.20	kWh	123.06	-1.1	-7.3	-20.0	-79.6	
Transmission of energy (T&D losses) SUBTOTAL	nzRB	97,415,280.00	kWh	1,445.73	96,878,828.58	kWh	713.45	98,377,223.87	kWh	583.15	1.5	-18.3	1.0	-59.7	0.9
Work related travel (other)															
Accommodation (NZ & international)	nzRB	19,447.00	v.ngt	591.48	28,572.00	v.ngt	512.86	12,007.00	v.ngt	139.22	-58.0	-72.9	-38.3	-76.5	
Accommodation (NZ & international) reimbursements	nzRB				1,712,638.48	\$	256.39	1,455,372.86	\$	217.88	-15.0	-15.0			
Rental car average (diesel)	nzRB	49,544.00	km	9.96	72,151.00	km	13.13	61,695.00	km	11.13	-14.5	-15.2	24.5	11.8	
Rental car average (hybrid)	nzRB	799.00	km	0.13	77,334.00	km	11.23	82,395.00	km	11.78	6.5		10212.3	9017.9	
Rental car average (petrol)	nzRB	315,964.00	km	65.35	170,174.00	km	31.29	156,359.00	km	28.31	-8.1	-9.5	-50.5	-56.7	
Rental car EV - average	nzRB				6,357.00	km	0.14	16,847.00	km	0.30	165.0	105.2			
Petrol reimbursements	nzRB				89,988.63	\$	80.66	85,407.97	\$	76.55	-5.1	-5.1			
Taxi (regular)	nzRB	1,160,109.40	\$	86.67	1,347,451.84	\$	60.40	1,171,411.30	\$	47.64	-13.1	-21.1	1.0	-45.0	
Work related travel (other) SUBTOTAL	nzRB	n/a		753.58	n/a		966.11	n/a		532.80	n/a	-44.9	n/a	-29.3	0.8
Inbound/Outbound student air travel															
Air travel short haul < 3700km (international students inbound)	nzRB	300,525.00	pkm	48.79	338,744.00	pkm	51.98	373,098.00	pkm	47.70	10.1	-8.2	24.1	-2.2	
Air travel long haul > 3700km (international students inbound)	nzRB	168,764,308.00	pkm	35,872.54	174,102,766.00	pkm	33,599.20	199,915,446.00	pkm	30,551.08	14.8	-9.1	18.5	-14.8	
Air travel short haul < 3700km (exchange students outbound)	nzRB							857,263.00	pkm	109.61					
Air travel long haul > 3700km (exchange students outbound)	nzRB							10,535,279.00	pkm	1,610.00					
Inbound/Outbound student air travel SUBTOTAL	nzRB	169,064,833.00	pkm	35,921.33	174,441,510.00	pkm	33,651.18	211,681,086.00	pkm	32,318.39	21.3	-4.0	25.2	-10.0	50.9
Other measures															
Paper use - default	nzRB	170,520.00	kg	162.45	69,011.35	kg	92.43	59,944.74	kg	80.63	-13.1	-12.8	-64.8	-50.4	
Wastewater for treatment plants (average)	nzRB	407,761.00	m3	186.13	396,831.62	m3	204.60	426,875.09	m3	211.30	7.6	3.3	4.7	13.5	
Water supply	nzRB	436,912.00	m3	13.67	462,116.90	m3	22.44	450,467.71	m3	17.01	-2.5	-24.2	3.1	24.4	
Refrigerant totals	nzRB	22,813.29	kg	185.96	12,084.20	kg	346.96	13,855.62	kg	249.57	14.7	-28.1	-39.3	34.2	
Enteric fermentation dairy - cattle	nzRB	12.00	head	24.72	-	head	-	-	head				-100.0	-100.0	
Enteric fermentation - sheep	nzRB	400.00	head	120.00	555.00	head	193.52	351.00	head	122.33	-36.8	-36.8	-12.3	1.9	
Other Measures SUBTOTAL	nzRB	n/a		692.93	n/a		859.95	n/a		680.83	n/a	-20.8	n/a	-1.7	1.1
Extended baseline**															
Freight (extended baseline)	nzEB				48,882.43	tkm	56.90	156,193.08	tkm	213.38	219.5	275.0			
Working from home (extended baseline)	nzEB				352,970.00	epd	169.30	359,952.00	epd	134.08	2.0	-20.8			
Staff commute (all transport combined)	nzEB				22,030,753.50	km	3,445.86	22,382,370.00	km	3,404.08	1.6	-1.2			
Agricultural soil - sheep	nzEB				555.00	head	16.10	351.00	head	10.35	-36.8	-35.7			
Manure management - sheep	nzEB				555.00	head	2.09	351.00	head	1.32	-36.8	-36.8			
Extended baseline SUBTOTAL	nzEB	n/a		-	n/a		3,690.25	n/a		3,763.21	n/a	2.0	n/a	n/a	5.9
TOTAL				82,467.70			71,262.21			63,462.00	-	10.9		-23.0	
Total reporting boundary (excl. extended boundary)				82,467.70			67,571.96			59,698.79					
Total target boundary only (incl. Improvements)				43,654.12			31,381.28			25,583.61					

Unit Key: pkm (person kilometres), v.ngt (visitor nights), km (kilometres), \$ (New Zealand dollars), kWh (kiloWatt hours), t (tonnes), tkm (tonnes kilometre), L (litres), m3 (cubic metres), epd (employee per day), head (animal count), tCO2e (metric tonnes of carbon dioxide equivalent)

Note:

- The University of Auckland GHG emissions data are externally verified to international standards ISO14064-1:2018. For more details see 'Carbon reports' on the Sustainability section of the website
- Electricity emissions are dual reported using location-based and market-based methods. Dual reporting illustrates the role of supplier choice, onsite renewable energy generation and contractual instruments in managing indirect emissions from energy alongside any ongoing energy efficiency and reduction efforts.
- Ministry of Environment 'Measuring Emissions Guidance' published in August 2022 recalculated emissions for grid electricity and T&D Losses retrospectively for 2019 - 2021 inventories. The historical emissions have been recalculated within this report, but have not required new verification as changes fall under the materiality threshold. Therefore, minor discrepancies in historical emissions compared to previous reports may be observed.

Boundary definitions:

- nzTB - Net Zero Target Boundary, measures included in the University's Net Zero targets
- nzRB - Net Zero Reporting Boundary, all measures within the GHG inventory
- nzEB - Net Zero Extended Boundary, measures added to the inventory after 2019 baseline