An overview of ANU greenhouse gas (GHG) emissions

June 2020
ANU GHG emissions by source

2019 vs estimated 2021 emissions under BAU

Total estimated 2021 emissions: 31,329 tonnes CO2e.
Gas projected to be largest source, followed by business air travel.
Acton campus accounted for 96% of emissions in 2019.

Based on scope 1 & 2 emissions & business air travel. Assumes increases in consumption of electricity of 7% and of gas of 11%. Other emissions assumed to be stable.
Without ACT’s 100% renewable electricity, electricity related GHG emissions would dwarf all other ANU emissions

Based on scope 1 & 2 emissions & business air travel. Assumes increases in consumption of electricity of 7% and of gas of 11%. Other emissions assumed to be stable.
ANU is currently heavily dependent on gas as a heating source, with gas comprising 59% of the total campus load in June 2019.
Projected 2021 ANU GHG emissions by scope

- **Scope 1 (direct emissions: gas, fuel, SF6)**: 11199 tonnes CO2e (34%)
- **Scope 2 (electricity)**: 20251 tonnes CO2e (61%)
- **Partial Scope 3 (flights & waste)**: 1621 tonnes CO2e (5%)

Biggest short-term opportunities to reduce emissions: transitioning from natural gas, energy efficiency, onsite solar PV, reducing air travel, electric vehicles

Based on increases in consumption of electricity of 7% and of gas of 11%. Other emissions assumed to be stable.
This pathway is based on implementing the following opportunities by 2030: 25% increase in energy efficiency, 100% campus electrification (i.e., no gas heating or cooling), 50% increase in onsite renewables, 50% reduction in business flights emissions, zero waste to landfill, electrification of transport fleet. In the short-term, carbon offsets could be applied to reach net zero emissions as fast as possible. To reach below zero emissions, carbon sequestration, including the development of negative emissions technologies, will be required.