



Australian  
National  
University

# Below Zero

Progress report - ANU Council

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# Contents

Background .....	4
Progress report since June 2021 and forward plan for 2022.....	5
1. Structure, resource and integrate Below Zero.....	5
2. Improve data, systems and processes for reporting and accountability .....	5
3. Practical emissions reductions.....	6
4. Emissions removal .....	6
5. Community and external engagement.....	6

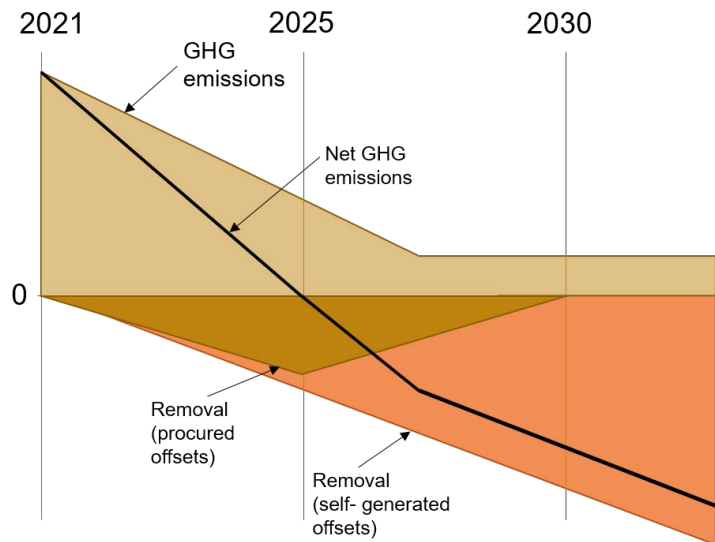
# Background

Climate actions continue to occupy an important place in global public and leadership debates, in line with the increasing desire and pressures from the broader public for institutions to act to curb climate change. The ANU has capacity and a responsibility to provide leadership and solutions for driving climate change mitigation through reducing green house gas (GHG) emissions and drawing down and sequestering existing CO<sub>2</sub> from the atmosphere.

The ANU Council endorsed the Below Zero strategy and targets in February 2021. For direct emissions (scope 1<sup>1</sup>), energy related emissions (scope 2<sup>2</sup>), business travel and waste (partial scope 3<sup>3</sup>), ANU to achieve:

- Net zero emissions by 2025
- Below zero emissions by 2030
- A leadership position in GHG reduction

For all other indirect emissions arising from the procurement of goods and services and commuter travel: ANU to reduce emissions as rapidly as possible, following global best practice.



**Figure 1:** Below Zero Targets for Scope 1, scope 2 and partial scope 3

The Below Zero priorities remain to:

1. Structure and resource the Below Zero, and integrate it with ANU activities for success.
2. Improve our data, systems and processes, enabling transparent reporting and accountability.
3. Reduce emissions via an integrated program of ANU-driven projects, changes in management processes and behaviour change.
4. Remove emissions, using high-quality Australian-purchased carbon offsets as a short-term backup (to 2030) while developing in-house solutions and partnerships to draw down GHG on ANU land or only using carbon offsets that have the option of including an ANU research or teaching.
5. Engage, in everything we do, with ANU research and teaching, our community, and stakeholders.

The exogenous trends of interest in the space of Below Zero are:

1. The growing number of net or below zero pledges (with varying scopes and degrees of transparency) made by Australian universities and organisations, and indeed worldwide.
2. The growing demand for transparency, reporting and accountability around GHG plans, quality of emission figures and benefit realisation expressed by the community.
3. The growing institutional and community scrutiny on the quality of commercial offset offerings

<sup>1</sup> Scope 1: direct GHG emissions that occur from sources that are controlled or owned by ANU

<sup>2</sup> Scope 2: Indirect GHG emissions associated with the purchase of electricity, steam, heat or cooling

<sup>3</sup> Scope 3: GHG emissions resulting from activities from assets not owned or controlled by ANU, but that the University indirectly impacts in its value chain

4. The resulting ongoing rise in the trading price reliable carbon credits, for example the tripling spot prices of Australian Carbon Credit Units (ACCUs) since January 2020.
5. The demand-driven maturation of technologies and financial models for deployment of solutions for reducing and removing GHG emissions.

## Progress report since June 2021 and forward plan for 2022

### 1. Structure, resource and integrate Below Zero

In August 2021, Below Zero officially became a centrepiece of the ANU 2025 Strategic Plan under Pillar One with the launch of the new ANU strategy.

Below Zero completed an update of its governance structure in October, to further establish a programmatic approach, structured around the three core areas of work - emissions reduction, emission removal and engagement - underpinned by ANU research and teaching.

To do so, a dedicated Steering Committee is supported by an Advisory Committee, and a Program Management Group integrating the activities and inputs of Work Streams tackling the identified broad areas of intervention of Below Zero.

The recruitment of the Below Zero Team as outlined in the June update (see Figure 2) was completed in October, and additional resources secured in the ANU Battery Storage and Grid Integration Program (BSGIP) to further support the program.

Furthermore, Below Zero has received commitments from ANU for \$10M Capital Expenditure per year over 2022-2026, as well as \$2.4M in Operational Expenditure in 2022 from the Vice-Chancellor's Strategic Fund.

Further development of our strategic roadmap to deliver on our shortest-term, Net Zero commitment by end of 2025 is ongoing, and will be presented for Council's approval in our July 2022 update.

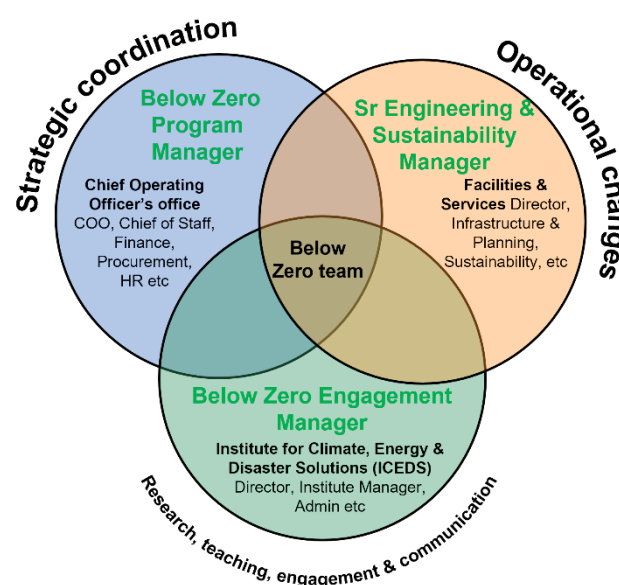


Figure 2: Core Below Zero areas and resourcing

### 2. Improve data, systems and processes for reporting and accountability

The development of an Energy Dashboard, for improved data tracking and visualisation, is ongoing, and due to be delivered by end of 2022. In the meantime, Facilities and Services has completed a fine-grained review of all gas assets on ANU campuses, which forms the basis of emissions reductions planning and opportunistic initiatives outlined in the next section.

Ongoing work is taking place to improve the completeness and quality of our data collection and processes towards "financial grade" emissions accounting. The targeted level of

completeness, accuracy, transparency and consistency will increase the University's ability to take a leadership position in reporting our emissions and progress towards Net/Below Zero, as well as create options, by 2025, to seek certification of our carbon neutrality from a range of reputable sources.

### 3. Practical emissions reductions

The pilot transition of seven end-of-life gas boilers to electrical heat pumps is underway, and will be delivered by end of 2022, as will opportunistic decarbonisation of infrastructure in University House and the School of Arts and Design in parallel of hail remediation work planned for 2022. Jointly, these will deliver an estimate reduction of GHG emissions of 588 tonnes of CO<sub>2</sub>-equivalent. A second tranche of opportunities for phasing out end-of-life boilers is currently being scoped, and will further reduce the University's energy-related emissions.

Concurrently, Facilities & Services and the Battery Storage and Grid Integration Program are working collaboratively to deliver a masterplan for the systematic decarbonisation of the Acton campus, as well as techno-socio-economic analysis of (emergent) technological solutions and financial pathways that will enable ANU to implement this energy transition at scale. The masterplan is on track for delivery by the end of 2022.

The Below Zero Travel working group, launched in 2021, has delivered a draft set of guidelines for low carbon travel, and contributed to similar guidelines for low carbon event organisation. SMG approved a Green Paper in November 2021 and the launch of a voluntary pilot program in 2022, to improve ANU staff and students' ability to make informed decisions around their travel, and improve the collection of travel-related GHG emissions data.

### 4. Emissions removal

Reducing our emissions to net zero is no longer sufficient to limit global warming to Paris Climate goals. The ongoing, rapid increase in the price of offsets outlined above creates an increasingly steep financial liability for ANU to meet and sustain its Net/Below Zero commitments through commercially procured offsets alone. Concurrently, quality issues remain with many commercial offset schemes.

In 2022, the Below Zero Emissions Removal Work stream, driven by the Institute of Climate, Energy and Disaster Solutions, will launch offset principles and a strategic plan to establish research, partnership and educational pilot initiatives in this space. These will increase the University's ability to secure and generate carbon credits and offsets through projects that connect directly with our research and teaching. This blended approach aims to future-proof the University's ability to sustainably meet our Net/Zero commitments, while making leading contributions to the development and scaling up of quality Australian offset schemes.

### 5. Community and external engagement

Engagement with the ANU community will continue at pace in 2022, as the first tranche of projects (listed above), launched in 2021, reach milestones for consultation and implementation. Our approach to community engagement follows a problem-driven iterative adaption approach. This allows ANU to support our community in their context-specific actions and empower them to contribute to the overall vision for Below Zero. 2022 will see the launch of a suite of further community engagement initiatives, including Green Impact, Friends of ANU Below Zero, a new

Below Zero Survey of the ANU community and the launch of tailored induction materials for new staff and students.

Connecting Below Zero to the existing research, teaching and career development continues at pace, through ramping up support for individuals and groups to undertake research projects related to emission reduction or removal; and providing students with opportunities to undertake projects or internships in areas of interest to Below Zero.

Externally, engagement with partners and media will be driven by project-driven collaborations, joint funding applications in priority areas for Below Zero, and ongoing engagement with sustainability and climate action focus groups and alliances (ACT Government, Go8, IARU, Global Alliance of Universities on Climate, Race to Zero).

**Attachments:**

None