



# Towards a net zero emissions CSIRO

We aim to be a leader and exemplar of sustainable practices in line with our research focus. As part of that, we have mapped a path to achieve net zero emissions in our operations by 2030.

## Opportunity

As the national science agency, we solve the nation's greatest challenges through innovative science and technology. Sustainability is at the core of many of these challenges and our overall purpose.

We are a vast and complex organisation, with more than 5,500 employees spread over a large property portfolio of 56 sites and more than 1,000 buildings.

Implementation of the CSIRO's Sustainability, Net Zero Emissions (NZE) and Property Strategies will enable us to significantly reduce our environmental and carbon footprint, while supporting our capacity to provide trusted advice and science and technology solutions for sustainability challenges, to government, industry and the community.



We have installed more than 5 megawatts of solar panels across 11 key sites which generate more than 6000 MWh of energy each year.



We have introduced electric vehicles to our national fleet along with charging infrastructure at major city locations.

## NZE Strategy focus areas

We have made significant steps to reduce our carbon emissions, particularly those related to electricity consumption. Our aim is to reduce carbon emissions to net zero over the next 10 to 30 years, consistent with our low emissions science mission.

- NZE by 2030 (Scopes 1<sup>1</sup> and 2)
- Beyond net zero by 2050 (Scopes 1, 2 and 3)
- Newcastle site – NZE by 2025 (Scopes 1 and 2)

Our plan is to establish exemplar sites like Newcastle where new technologies and emission reduction strategies will be tested before being implemented across the organisation.

Demonstrating technology for net zero at scale is critical for supporting the net zero goals increasingly being set by Australian industry and ensuring our competitiveness in a global shift to a low emissions economy.

Our pathway to NZE will be a combination of a broad range of initiatives and measures, including:

- more than halving CSIRO's electricity-related emissions through purchase of grid-fed renewable energy
- expanding on-site solar generation capacity
- establishing other exemplar NZE sites
- using CSIRO facilities as a testbed for emerging technologies such as hydrogen-based solutions
- transition to a low emission CSIRO vehicle fleet
- reducing the overall property footprint and applying building energy efficiency measures
- electrification of plant and equipment
- on-site tree plantings
- carbon offsets (if needed).

<sup>1</sup> Scope 1 emissions – direct emissions that occur on-site resulting from consumption of gas, standby generation fuels and vehicle fuels.  
Scope 2 emissions – indirect emissions from the generation of purchased electricity;  
Scope 3 – indirect emissions, excluding Scope 2, which occur upstream and downstream in the value chain of an entity.

## Strategy alignment

CSIRO's new Net Zero Emissions and Sustainability Strategies align with key national and international approaches including:

- Australian Technology Investment Roadmap
- UN Sustainable Development Goals
- CSIRO is developing a Towards Net Zero Mission<sup>2</sup> to provide Australian businesses with the science, technology and know-how to achieve net zero emissions and realise the opportunities of a low carbon economy.



New tree planting on CSIRO sites will increase carbon storage in vegetation and soils providing a carbon offset



CSIRO's Newcastle Energy Centre is to be an NZE exemplar site by 2025.



We are working on new and emerging hydrogen technologies including a partnership in the Victorian Hydrogen Hub with Swinburne University of Technology.

## Proposed Impact

- CSIRO's environmental footprint is reduced and its capacity to provide trusted advice, and science and technology solutions for government, industry and the community, is enhanced through application and implementation.
- Pathways to NZE and sustainability will be demonstrated at our sites and facilities for proof-of-concept and replication among industry and other stakeholders.

<sup>2</sup> [csiro.au/en/about/challenges-missions/towards-net-zero](https://csiro.au/en/about/challenges-missions/towards-net-zero)

As Australia's national science agency and innovation catalyst, CSIRO is solving the greatest challenges through innovative science and technology. CSIRO. Unlocking a better future for everyone.

Contact us  
1300 363 400  
[csiro.au/contact](https://csiro.au/contact)  
csiro.au

For further information  
Business and Infrastructure Services  
Dr Tony Hudson  
1300 363 400  
[sustainability@csiro.au](mailto:sustainability@csiro.au)  
csiro.au