Net Zero Land

Office of Energy and Climate Change September 2023

Mark Caddey



Acknowledgement of Country



We acknowledge that Aboriginal and Torres Strait Islander peoples are the First Peoples and Traditional Custodians of Australia, and the oldest continuing culture in human history.

We pay respect to Elders past and present and commit to respecting the lands we walk on, and the communities we walk with. We celebrate the deep and enduring connection of Aboriginal and Torres Strait Islander peoples to Country and acknowledge their continuing custodianship of the land, seas and sky.

We acknowledge the ongoing stewardship of Aboriginal and Torres Strait Islander peoples, and the important contribution they make to our communities and economies.

We reflect on the continuing impact of government policies and practices, and recognise our responsibility to work together with and for Aboriginal and Torres Strait Islander peoples, families and communities, towards improved economic, social and cultural outcomes social and cultural outcomes.

Artwork: Regeneration by Josie Rose







YARRAGA

- wattle flowering

Office of Energy and Climate Change

2





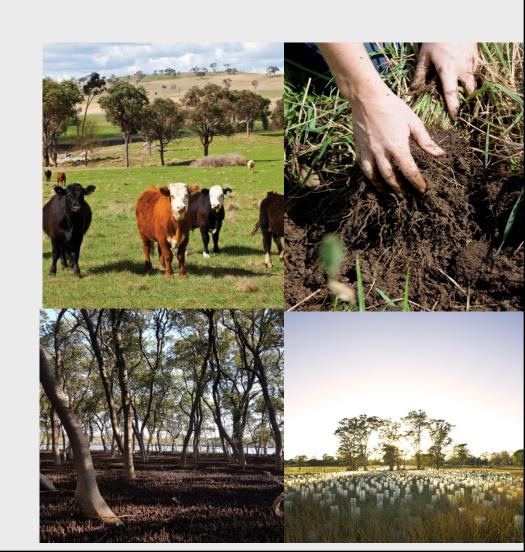
Purpose and overview

Program Purpose



The Net Zero Land program:

- Supports the NSW Net Zero 2030 and 2050 Targets
- Aims to scale up carbon abatement in the primary industries and land management sectors (agricultural, Aboriginal, public lands, blue carbon)
- With a vision to transform the primary industries and land sector to unlock carbon abatement and nature-positive action into the future.







Supporting Land Mangers

Agriculture, Aboriginal Lands, Public Lands

Direct investment in abatement projects



Outcome:

The commercial viability of carbon abatement projects is improved and demonstrated.

Objectives:

- Pilot new practices or approaches with potential to scale
- Increase the number and diversity of projects, including at regional level
- Develop a stronger evidence base.



HIGH IMPACT PARTNERSHIPS

EOI process targeting leading organisations with ability to scale impact. Co-designed with government.



Competitive grants removing barriers to action.

Focus on on-ground abatement.

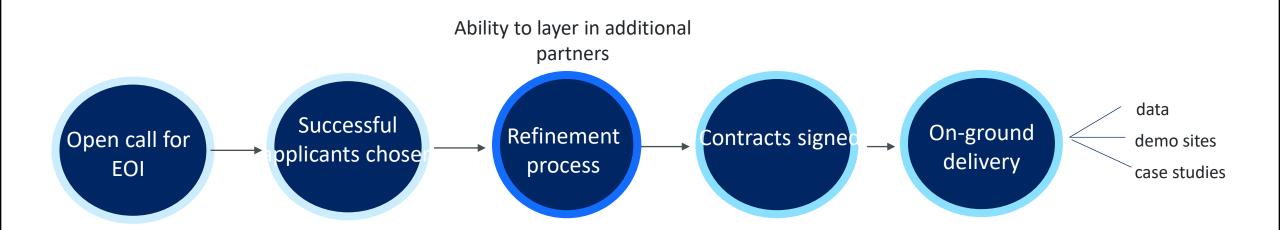


Potential to design subsidies where an abatement opportunity has a clear cost barrier suited to standardised offering.



High impact partnerships

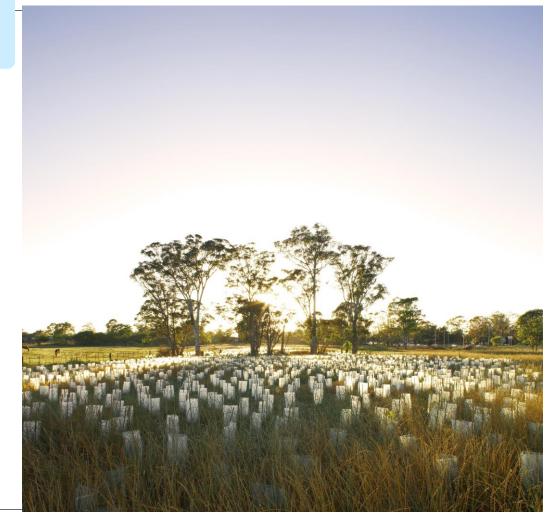
Expected investment \$0.5M-\$2M per partnership





Competitive grants

- Competitive grants will target barriers to the uptake of abatement projects or alignment with other government priorities
- Single project or small aggregation.
- Review of investment focus to be undertaken following each round.

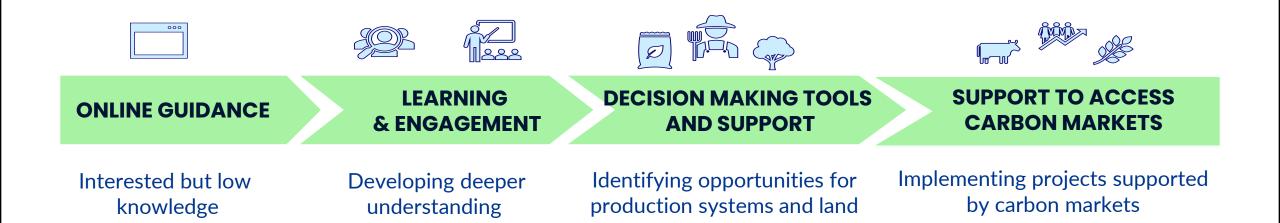






Land managers are able to make informed decisions about carbon management, and have access to trusted advice.

Objective is to build awareness, capacity and expertise around carbon management, grow abatement opportunities and improve decision support systems.



Carbon on Country

NSW GOVERNMENT

An initiative of the Primary Industries Productivity & Abatement Program

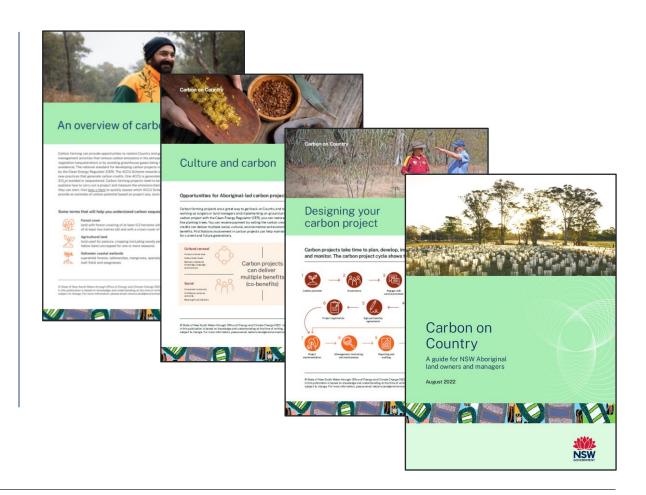
Facilitates knowledge sharing and access to carbon markets for Aboriginal landholders and organisations.

Seeks to ensure that carbon projects align with aspirations for Country and are carried out with Free, Prior and Informed Consent (FPIC) of all parties and Indigenous Cultural and Intellectual Property (ICIP) rights are recognised and upheld.

Resources are available to support Aboriginal landholders considering carbon projects and the potential cultural, environmental, social and economic benefits they can bring.

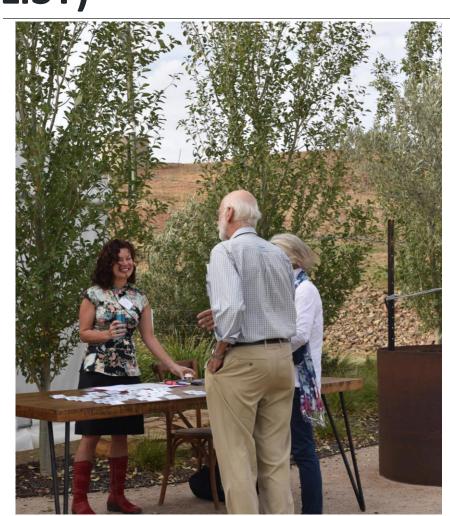
The initiative can support project development and implementation on Country.

Please contact the team: netzero.land@environment.nsw.gov.au



Agricultural Leadership in Sustainable Thinking (A-LiST)





Leaders from the Agricultural production, supply chain and retail sectors

- Provide a channel for government to listen to the sector and adapt delivery to market needs.
- Rachet up ambition by highlighting leadership and fostering partnerships.

Understanding abatement potential





Areas to exclude (Optional)

Does the proposed area include any of the following areas? Select all that apply.

Forest

Wetlands

Roads

Native forest that has been cleared in the past 5 years

Wetlands that have been drained in the past 5 years

Other (e.g. land otherwise unable to support plant cover)

What percentage of the total land area selected do the excluded areas occupy?

Reforestation by environmental or mallee plantings

Vegetation method

Benefit type Rating

Farm co-benefits

25 year estimate over the whole project area (tCO2-e): 10,290

Annual per ha estimate (tCO2-e/ha/y): 8.3

<u>Visit https://looc-c.farm/</u> to estimate abatement

25





Partnerships

On-Farm Carbon Advice Program (DPI)





Regional Carbon Forums

Regionally relevant, foundational information

- options for on-farm carbon management
- expectations for emissions reduction, carbon sequestration and storage
- opportunities to participate in carbon and environmental markets



101 of Carbon Farming

Small groups of farmers

- identifying and measuring carbon sources and sinks
- evaluate and know your on-farm emissions
- management options that avoid emissions and result in efficiency gains (livestock, nitrogen, and energy)
- risks and opportunities for new income streams



Bootcamps and Masterclasses

Bespoke training that matches the needs and interests of farmer groups

- measuring on-farm emissions
- using relevant decision support tools
- participating in carbon and environmental markets
- pathways to carbon neutrality
- understanding co-benefits of carbon farming



Farm Carbon Management Plans

Working with individual farmers to create a Farm Carbon Management Plan

- measure the baseline emissions specific to the business
- understand emerging technologies and practices to reduce emissions and increase carbon
- identify efficiencies, carbon storage opportunities and potential pathways to reduce emissions
- develop an action plan which fits in with business, landscape, and lifestyle goals



Community of practice website

The project will host a web-based community of practice providing a single source of industry relevant information.

Office of Energy and Climate Change

Investing in partnerships



Carbon projects with National Parks and Dept of Primary Industries



Office of Energy and Climate Change



Carbon 101

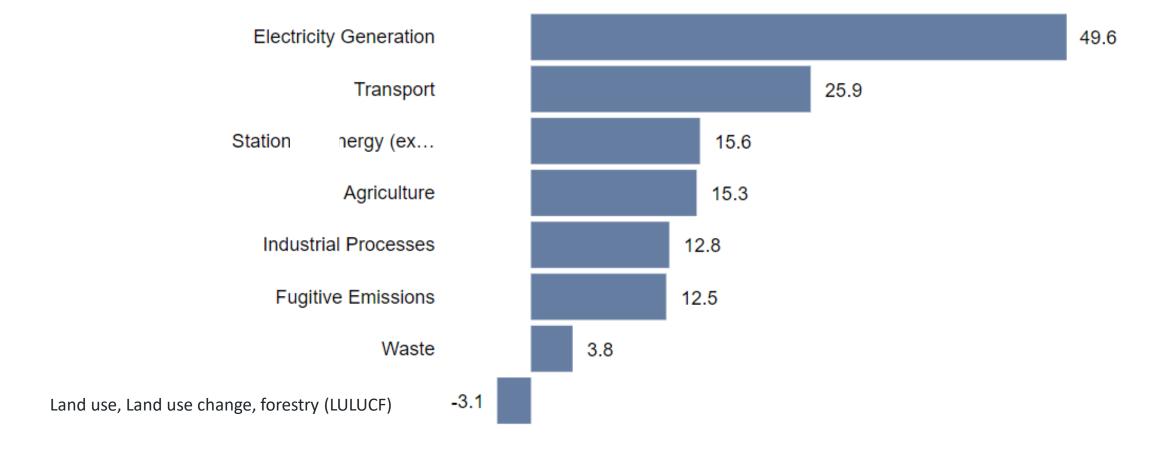


NSW's emissions source by sector



Emissions by sector or subsector in 2020 (Mt CO₂-e)

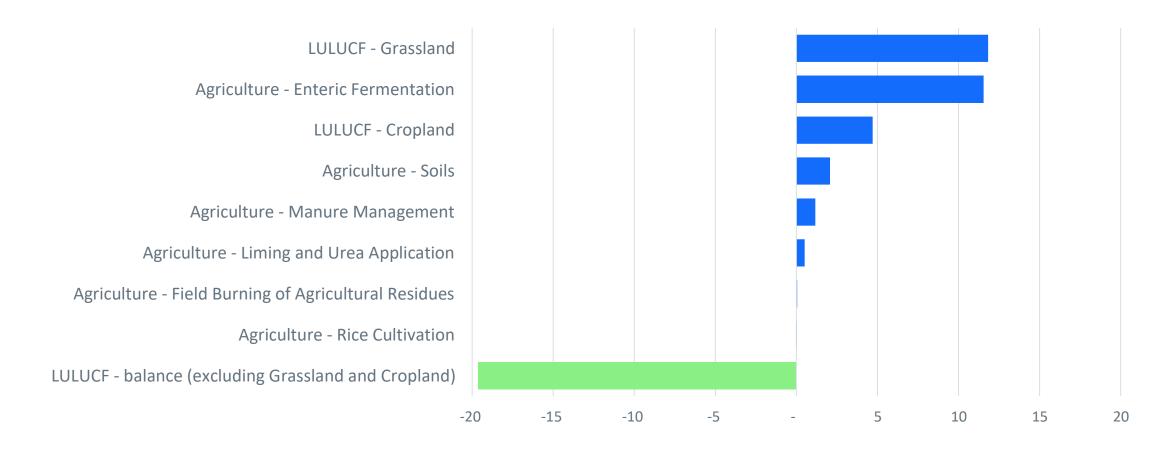


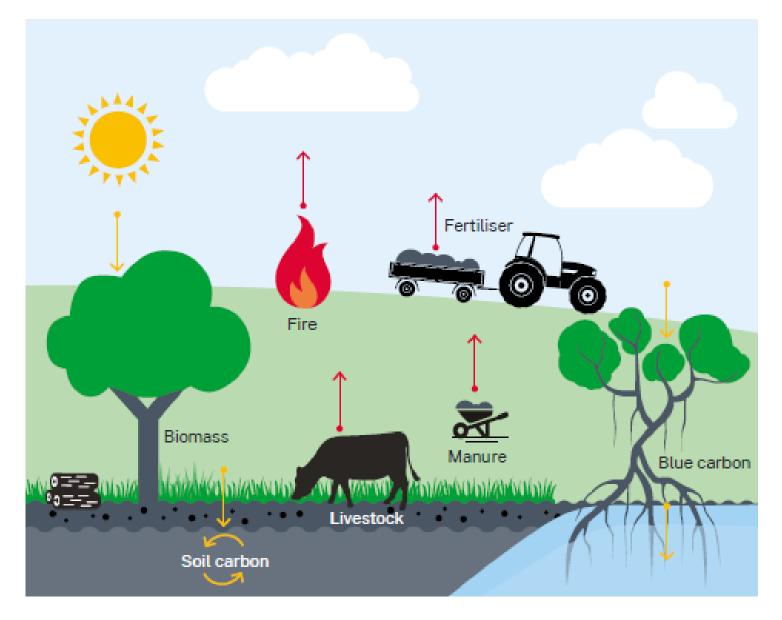


NSW - Emissions and sequestration in the land sector



2020 - Agriculture and LULUCF emissions and sequestration (Mt CO2-e)









Carbon absorbed or released to atmosphere.

3 greenhouse gases:

- Carbon Dioxide (CO₂)
- Methane (CH₄)
- Nitrous Oxide (N₂O)

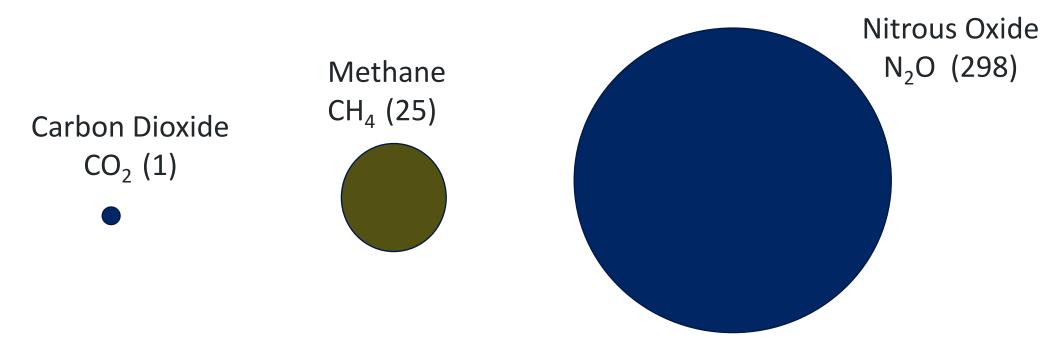
Office of Energy and Climate Change

Agriculture in NSW emits 15.3 Million tCO2-e a year



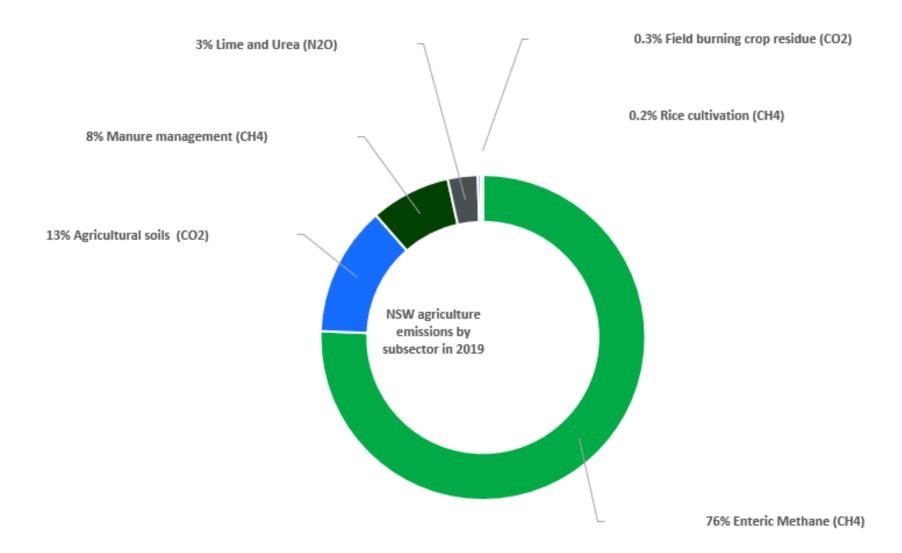
but why tCO2-e? (metric tons of carbon dioxide equivalent)

not all greenhouse gasses have the same thermal properties for comparisons a base unit of carbon dioxide (1) is used.



'....one tonne of methane will cause the same amount of global warming as 25 tonnes of carbon dioxide, one tonne of nitrous oxide is equivalent to 298 tonnes of carbon dioxide....'





Office of Energy and Climate Change



Contact: netzero.land@environment.nsw.gov.au

