Australian Government
Department of Climate Change, Energy, the Environment and Water

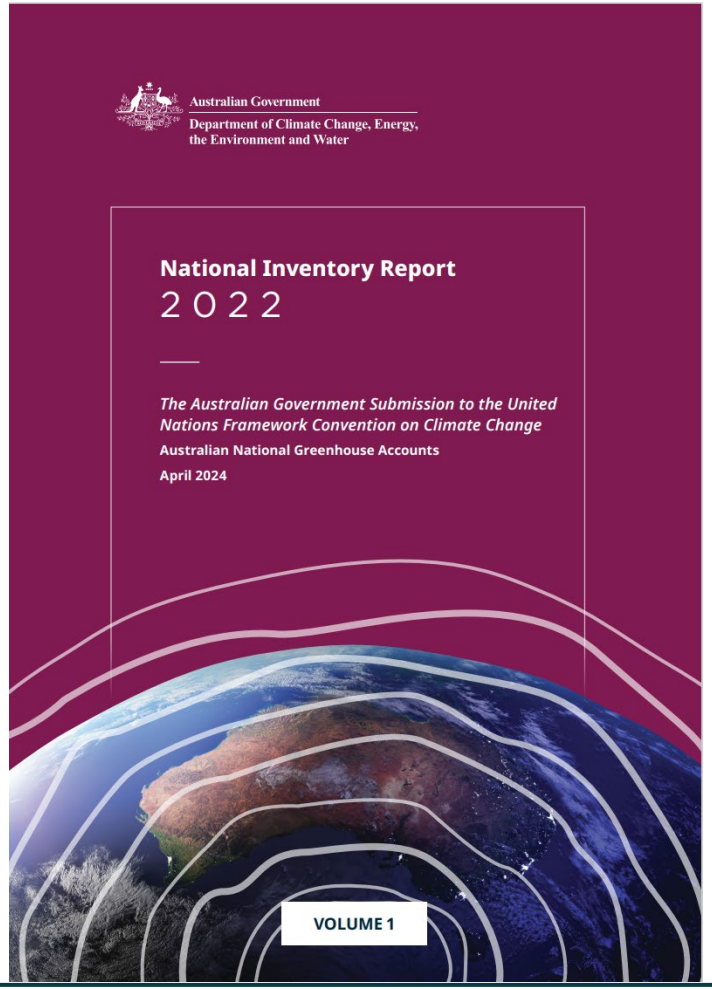
The NGER scheme: continuous improvement

Methane Guiding Principles Masterclass

Brooke Perkins

20 May 2024

Australia’s national greenhouse gas inventory

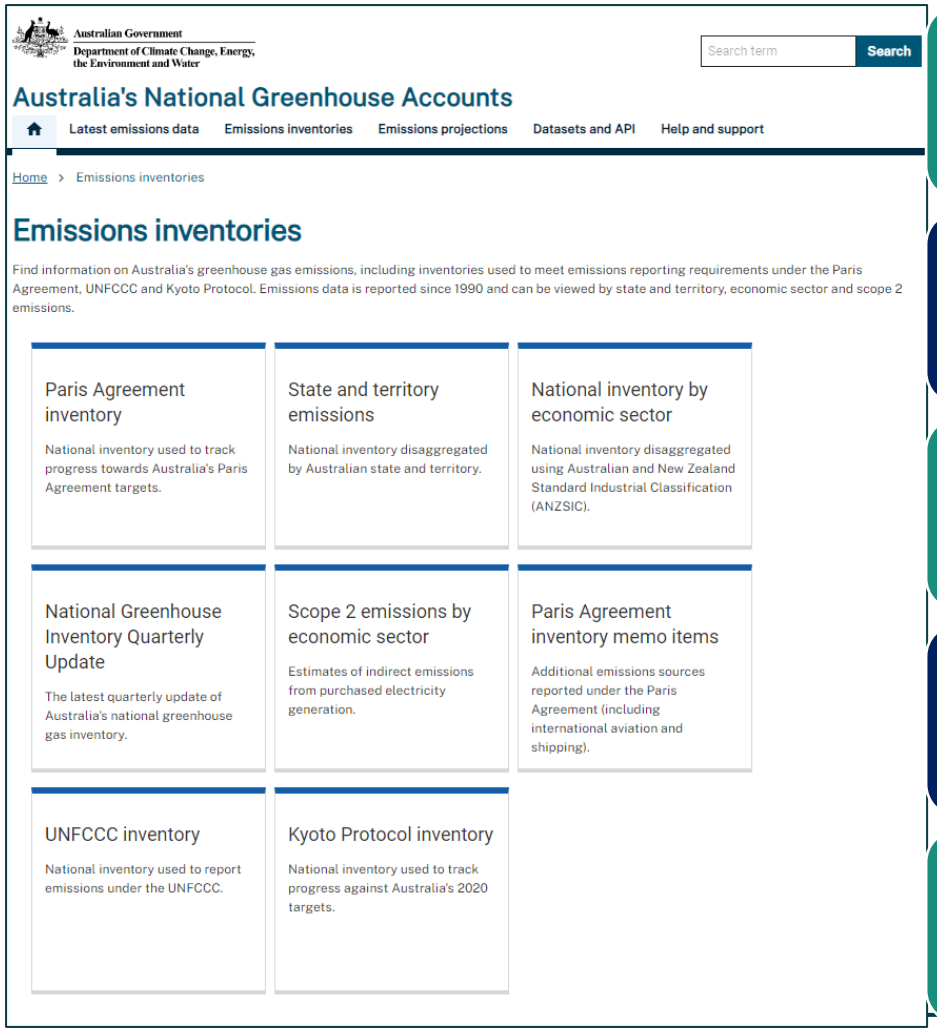


UNITED NATIONS PARIS CLIMATE AGREEMENT SIGNING CEREMONY — 22 APRIL 2016 —

United Nations Framework Convention on Climate Change

ipcc INTERGOVERNMENTAL PANEL ON climate change WMO UNEP

Australia’s National Greenhouse Accounts



Fulfil international and domestic emissions reporting obligations

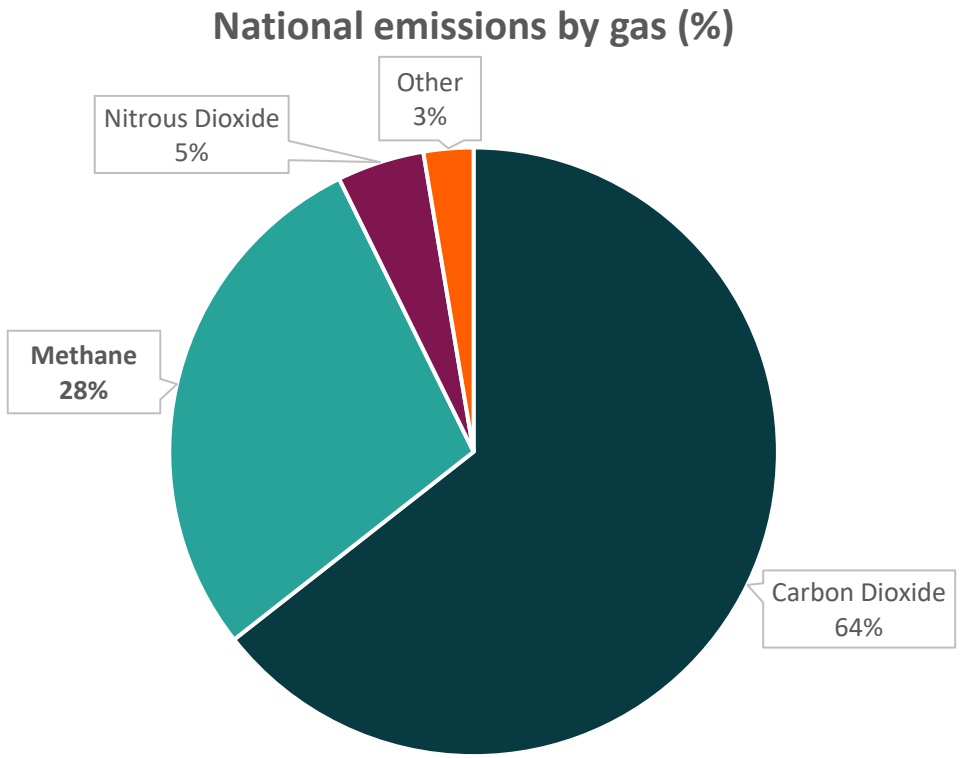
Official basis for tracking progress towards Australia’s targets

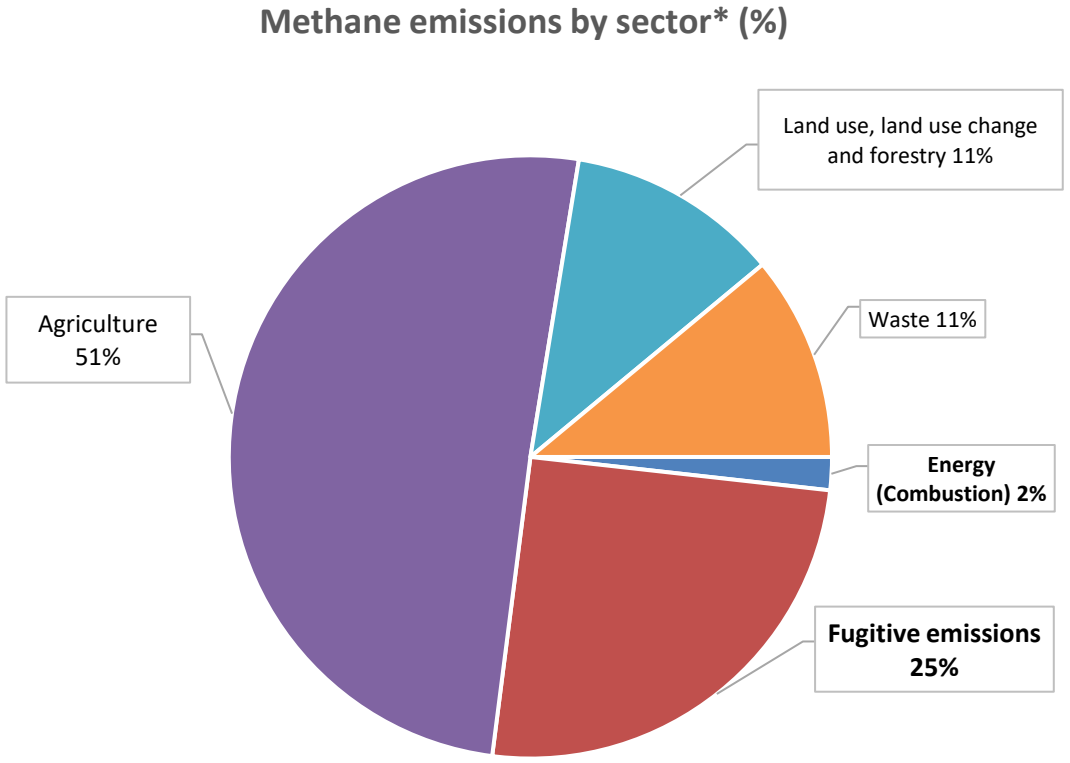
Support the design and implementation of domestic mitigation measures

Independently monitor policies and programs

Inform Australia’s future targets

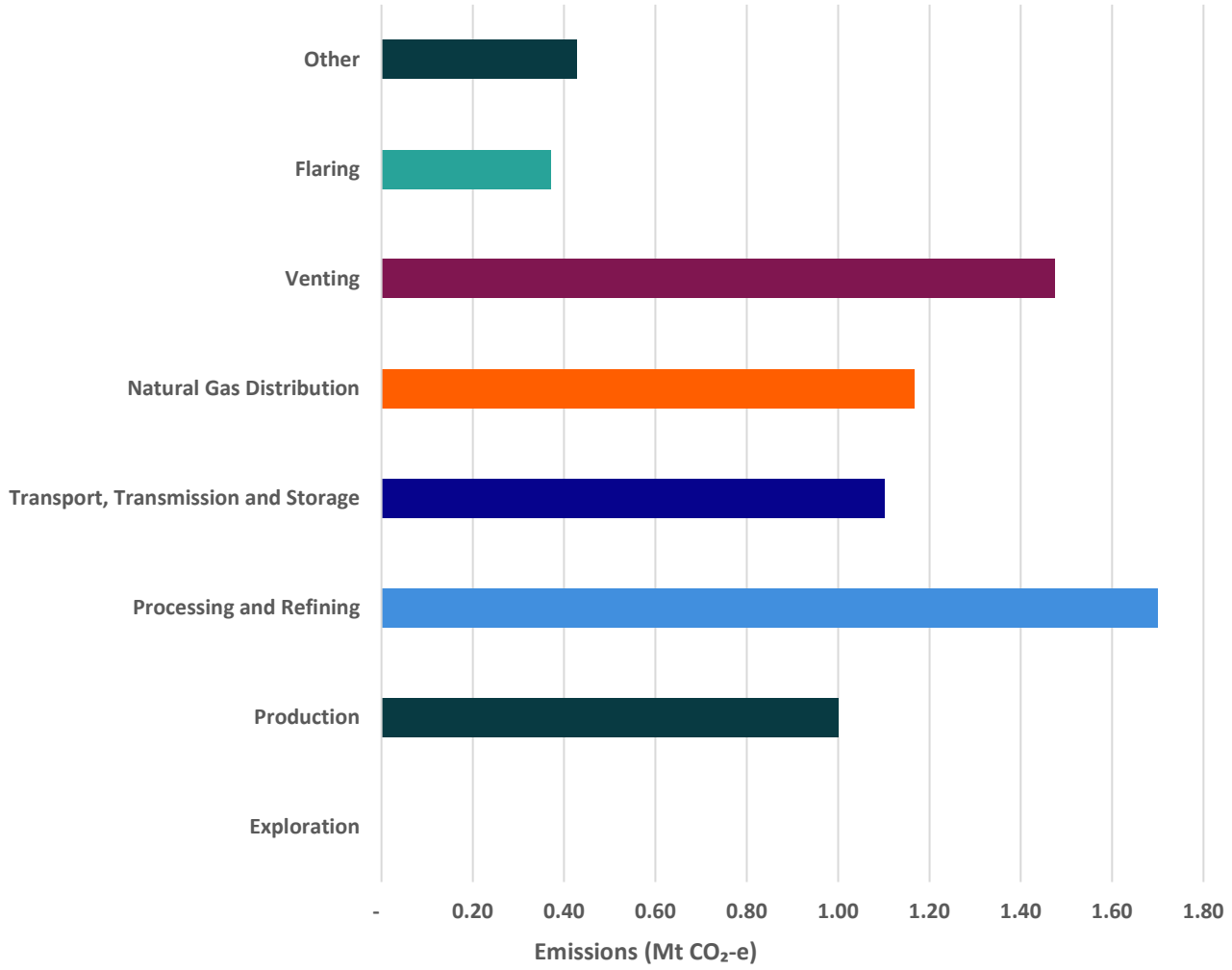
Snapshot: Australia's emissions: 2022



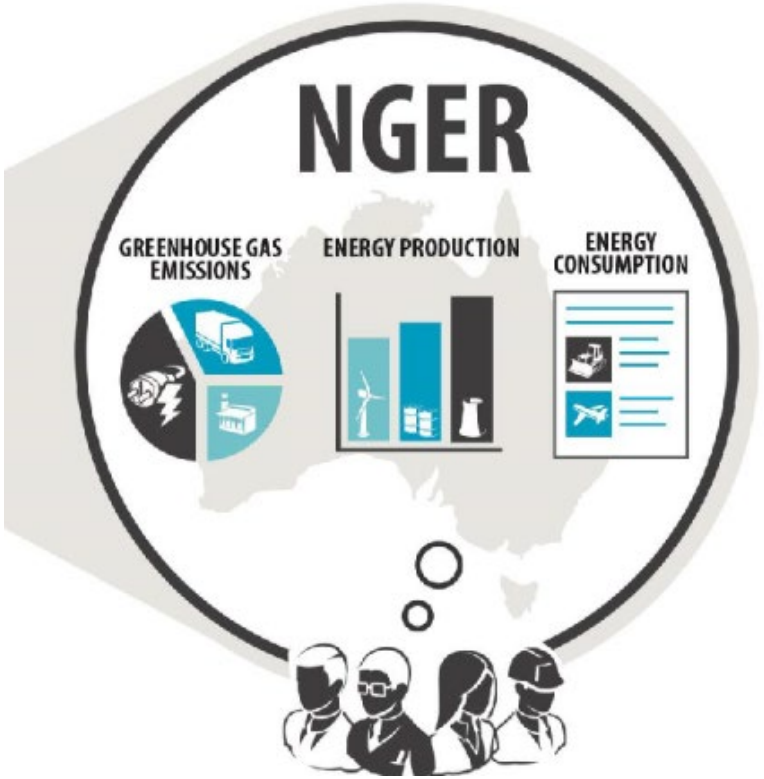


* Industrial Processes & Product Use: <1%

Oil and gas sector: Methane emissions by source 2022



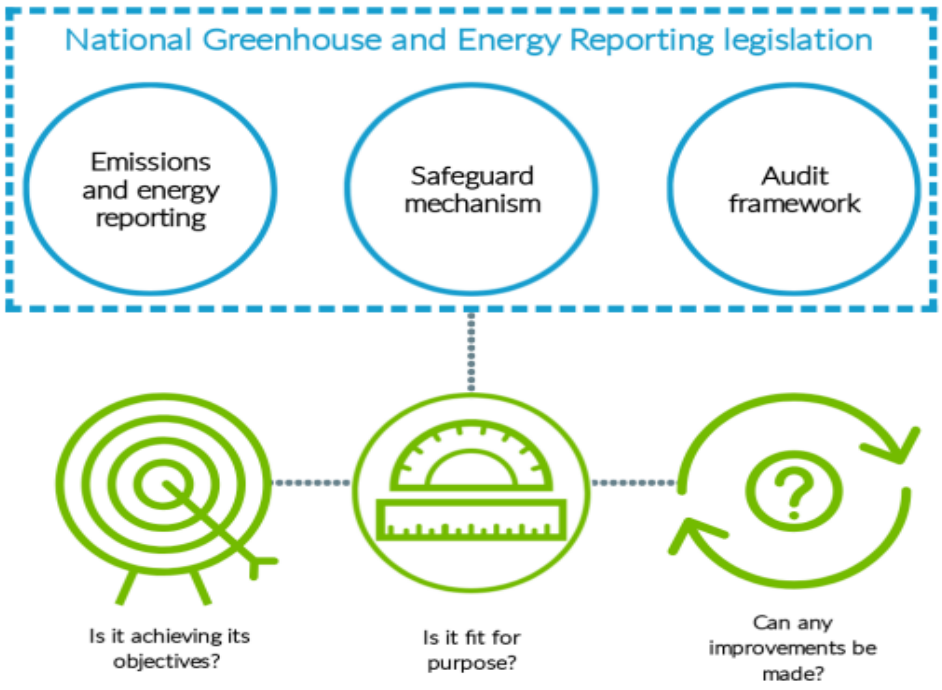
National Greenhouse and Energy Reporting scheme



- Key data source for the National Inventory
- Australia was amongst the first countries in the world to legislate such a program
- Remains one of the world's most comprehensive company emissions reporting systems
- Subject to continuous improvement
  - ✓ Annual reviews by DCCEEW
  - ✓ 5-yearly reviews by the Climate Change Authority

NGER scheme: 2023 Climate Change Authority review

CLIMATE CHANGE AUTHORITY



- Performing well and compliance is high.
- 25 recommendations. 9 methane-related:
  - ➢ Phase out Method 1 options and establish higher order methods for all sources.
  - ➢ Review Integrated Gas Facility requirement to apply same methods across activities.
  - ➢ Develop a framework for facility-level use of top-down verification and reconciliation approaches, supported by further research.
  - ➢ Increase investment in methane detection/estimation infrastructure and capability.
  - ➢ Increase transparency of reported data.

NGER scheme: 2024 proposed amendments

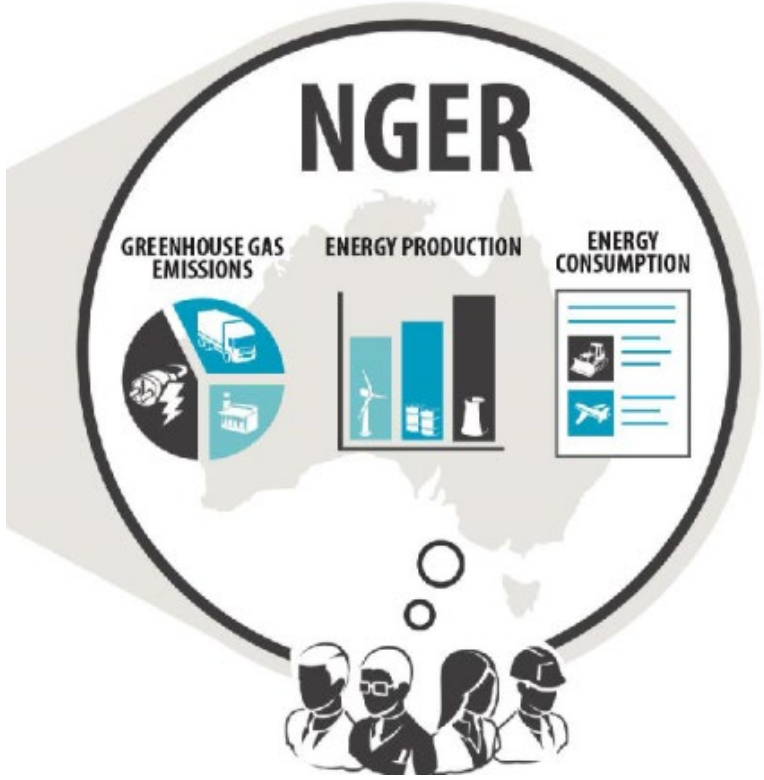
Australian Government
Department of Climate Change, Energy, the Environment and Water

National Greenhouse and Energy Reporting (NGER) scheme

2024 Proposed Amendments

- Public consultation 29 April – 24 May 2024
- Includes proposals relating to methane emissions from the oil and gas sector:
  - Venting
  - Flaring
  - Mud-degassing
  - Produced formation water
  - Method transparency

NGER scheme: What's next? Improved/new methods



Guiding principles

- Sound science and credible information
- Regulatory best practice – clearly defined, implementable
- Accurate emissions estimates – repeatable, verifiable, can inform the National Greenhouse Accounts
- Estimates for a particular source are comparable between facilities
- Minimises uncertainty

NGER scheme: What's next? Improved/new methods

Method 1	Methods 2 & 3	Method 4
• Measure activity data (eg. tonnes of coal) • Use default factors (eg. state-based emission factors)	• Requires greater level of sampling (e.g. methane content) • Facility specific emission factor	• Directly measure emissions (eg. in stacks)

What are your views?

- Existing barriers to moving to higher order methods?
- How can methods better reflect onsite abatement?
- What can we learn from international/domestic experience with new approaches?
- How can we incorporate new tech in a way that's repeatable, comparable, verifiable and tech-neutral?
- What Australia-specific research & analysis could support future improvements?

Thank you

Contact us: nationalgreenhouseaccounts@dcceew.gov.au

dcceew
gov.au