

ISO greenhouse gas and climate change management standards

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Climate change challenge



- ▶ Climate change is one of the greatest challenges facing nations, governments, business and citizens over future decades
- ▶ Island states and developing countries are especially vulnerable to the impacts of climate change

Climate change impacts are already impacting our communities



- ▶ Not just implications for human and natural systems but also causing significant changes in resource use, production and economic activity

Measuring and managing is critical for both emissions reduction and adaptation



- ▶ There are many international, regional, national and local initiatives to:
 - ▶ measure and report greenhouse gas (GHG) emissions from all sorts of organisations and activities
 - ▶ identify and report on the risks of climate change impacts on communities and businesses

Role of standards in climate mitigation



- ▶ ISO standards to tackle climate change, from strategic, governmental and organisational levels, through to tactical applications at project and product levels
- ▶ Initiatives to reduce emissions rely on the quantification, monitoring, reporting, verification and validation of greenhouse gas emissions and/or removals

Role of standards in climate adaptation



- ▶ ISO standards that provide a framework for effective adaptation when implementing policies, strategies, plans and activities
- ▶ Assess climate change impacts and put plans in place for effective adaptation
- ▶ Identify and manage risks and seize opportunities

Role of standards in green finance



- ▶ ISO standards to underpin and catalyse green and sustainable finance
- ▶ Provide structure, transparency and credibility for investments in environmental projects and programmes

ISO TC207 SC7 : greenhouse gas and climate change management standards



- ▶ ISO Technical Committee 207 (Environmental Management) and its Sub Committee 7 (Greenhouse gas and climate change management) are
- ▶ Instrumental in the development of standards to help governments and organisations to manage and mitigate GHG emissions, as well as to adapt to the effects of climate change

17

Published ISO standards *

6

ISO standards under development *

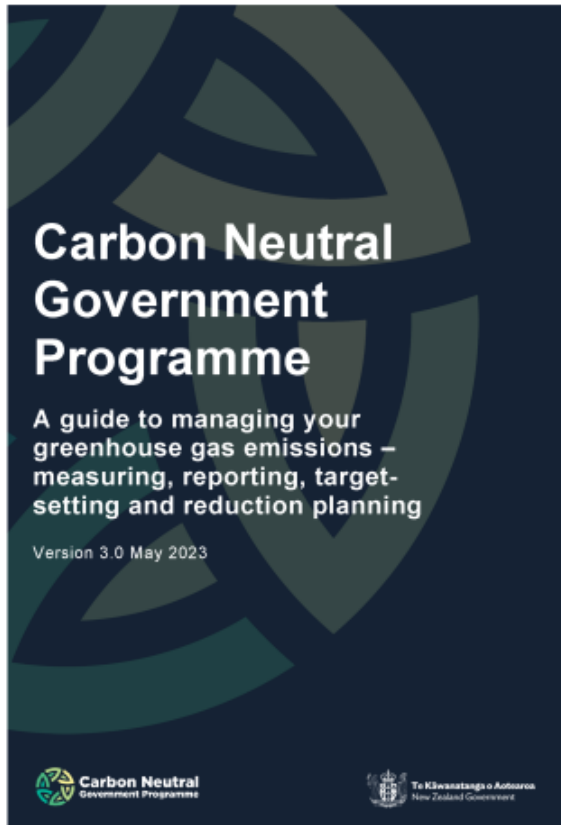
61

Participating members

25

Observing members

The standards are used by the New Zealand government



- ▶ Launched in 2020
- ▶ 130 government departments and agencies including all of health and education
- ▶ Measure, verify and report emissions annually
- ▶ Set gross emission reduction targets and longer-term reduction plans
- ▶ Implement the plan to reduce emissions
- ▶ Offset remaining gross emissions from 2025

The standards are used by over a thousand companies in Australia and New Zealand

Product



Service



Event



Organisation



Precinct



Building



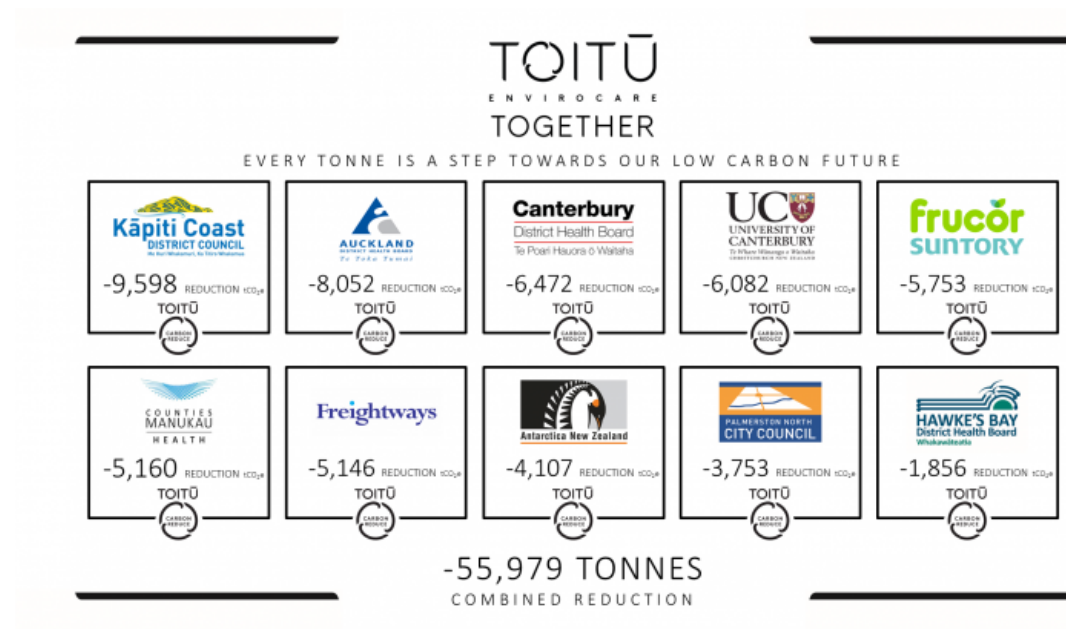
- ▶ Voluntary certification programmes operate in Australia (left) and New Zealand (right)
- ▶ Use of the standards ensures completeness, accuracy, consistency and transparency
- ▶ Certification systems based on the ISO standards ensure credibility, awareness and impact

What's involved in voluntary certification?



- ▶ Prepare greenhouse gas inventory according to
 - ▶ ISO 14064-1 for organisation
 - ▶ ISO 14067 for product/service
- ▶ Prepare emissions management plan with short and long-term reduction targets
- ▶ Verified by a qualified third-party auditor according to ISO 14064-3
- ▶ Independent technical review by certification scheme
- ▶ Use approved certified carbon credits if offsetting emissions remaining after achieving reduction targets
- ▶ Certification scheme accredited by bodies such as JASANZ, ICROA, ICVCM

Consistent emissions reporting is vital to achieving science-based targets



- ▶ Focusing on reduction has benefit of:
 - ▶ realising cost savings such as lower energy and fuel bills
 - ▶ which can then be invested emissions reduction technology and innovation
 - ▶ towards achieving carbon neutrality or net zero status

The standards are used by New Zealand exporters



- ▶ Overseas customers expect
 - ▶ carbon footprints to be independently, third-party verified
 - ▶ science-based reduction targets
 - ▶ carbon claims have been certified by an accredited certification body

Substantiation is expected by export markets, investors and regulators



EU GREEN CLAIMS DIRECTIVE

THE END OF GREENWASHING IN
EUROPE

- ▶ Based on a recognised international standard
- ▶ Verified by a qualified independent third party
- ▶ The verifier and/or certification programme has been accredited by an appropriate authority

Climate change action is an important part of the SDGs



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Stockholm University (CC BY 4.0)

- ▶ The United Nations Sustainable Development Goals, recognise that *“climate change is a global challenge that does not respect national borders”*

Published greenhouse gas and climate change management standards

- IWA 42:2022 Net zero guidelines
- ISO 14064-1:2018 Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
- ISO 14064-2:2019 Greenhouse gases — Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements
- ISO 14064-3:2019 Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements
- ISO 14065:2020 General principles and requirements for bodies validating and verifying environmental information
- ISO 14066:2023 Environmental information Competence requirements for teams validating and verifying environmental information
- ISO 14067:2018 Greenhouse gases — Carbon footprint of products -- Requirements and guidelines for quantification
- ISO 14068-1:2023 Climate change management Transition to net zero Part 1: Carbon neutrality
- ISO/TR 14069:2013 Greenhouse gases — Quantification and reporting of greenhouse gas emissions for organizations — Guidance for the application of ISO 14064-1
- ISO 14080:2018 Greenhouse gas management and related activities— Framework and principles for methodologies on climate actions
- ISO 14083:2023 Greenhouse gases — Quantification and reporting of greenhouse gas emissions arising from transport chain operations
- ISO 14090:2019 Adaptation to climate change — Principles, requirements and guidelines
- ISO 14091:2021 Adaptation to climate change — Guidelines on vulnerability, impacts and risk assessment
- ISO/TS 14092:2020 Adaptation to climate change — Requirements and guidance on adaptation planning for local governments and communities
- ISO 14093:2022 Mechanism for financing local adaptation to climate change — Performance-based climate resilience grants — Requirements and guidelines
- ISO 14097:2021 Greenhouse gas management and related activities — Framework including principles and requirements for assessing and reporting investments and financing activities related to climate change
- ISO 19694-1:2021 Stationary source emissions — Determination of greenhouse gas emissions in energy-intensive industries — Part 1: General aspects

Useful publications

- ▶ Climate Change Mitigation

<https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100271.pdf>

- ▶ Climate Change Adaptation

<https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100449.pdf>

- ▶ Green and Sustainable Finance

<https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100458.pdf>