



Australian Government
**Department of Industry,
Science and Resources**

Submission to Senate Inquiry on the Climate Change Bill 2022 and Climate Change (Consequential Amendments) Bill 2022

Senate Standing Committees on Environment and
Communications

10 August 2022

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Climate Change Legislation

The Department of Industry, Science and Resources supports economic growth and job creation for all Australians. We do this by investing in science, technology and commercialisation; growing innovative and competitive businesses, industries and regions; and supporting a strong resources sector. We work to:

- Take advantage of, and build on, Australia's strengths
- Help businesses invest and create jobs, and
- Drive long-term productivity, growth and sustainability.

We welcome this opportunity to comment on this legislation increasing Australia's goal to a 43% reduction on emissions (from 2005 levels) by 2030.

Australian industries are a critical part of reaching any target, and it will be important to work in partnership to achieve long-term, sustainable emissions reduction. Many sectors and businesses have already taken significant actions to reduce their carbon footprint. This includes:

- Voluntary efforts, such as through process improvement and carbon offsetting,
- Established mechanisms such as the safeguard mechanism,
- Independently setting ambitious climate targets and net-zero commitments, and
- Partnering with the scientific community to develop and implement novel solutions.

Emissions reduction can help improve the international competitiveness and attractiveness of Australia's exports. And as the world pursues more ambitious targets, this will create new market opportunities for industries like hydrogen and critical minerals. For example, critical minerals are crucial to a range of clean energy technologies, including lithium ion batteries, solar panels, hydrogen fuel-cells, wind turbines and electric vehicles. Demand for critical minerals is expected to continue to grow rapidly and Australia's large reserves of natural commodities, established resources sector expertise, high environmental, social and governance standards and stable investment environment present an opportunity for Australia to contribute to the global transition to clean energy.

The introduction of targets is consistent with recommendations by international organisations such as the OECD¹ and the commitments made through the Paris Agreement.²

The introduction of a legislated target has also been welcomed by many industry groups. We note statements of support for this legislation have been provided by multiple industry groups, including the Australian Chamber of Commerce and Industry³, Ai Group⁴, the Minerals Council of Australia⁵ and the Business Council of Australia.⁶ A common theme across these statements is that this legislation provides certainty to businesses. Policy certainty is important for business and investor confidence in Australia – which will be an important factor driving renewable technologies and in emissions reduction. We welcome the clear direction and certainty this legislation represents.

¹ <https://www.oecd.org/climate-action/ipac/>

² <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

³ <https://www.australianchamber.com.au/news/emissions-legislation-must-pass-to-guarantee-energy-certainty/>

⁴ <https://www.aigroup.com.au/news/media-centre/2022/emissions-target-bills-are-a-significant-improvement/>

⁵ <https://www.minerals.org.au/news/climate-bill-provides-certainty-targets-only-achieved-working-together>

⁶ https://www.bca.com.au/certainty_will_let_businesses_drive_the_transition

As Australia works to achieve a clear and agreed target, it will be important to understand possible impacts on key industries and regions. We welcome the inclusion of an annual climate change statement, its report on progress by sector, and consideration of implications for rural and regional areas. Emissions reduction initiatives will impact many businesses and supply chains – large and small – many of which are important employers and provide key national capabilities. Strategies to support transition of key industries and regions without causing undue negative impact to jobs and communities should be closely considered. The Department and its portfolio agencies are well-placed to assist with bringing together government, industry, science and research, and the community through its existing engagement structures to help reach the 2030 target in the proposed legislation.

The Climate Change (Consequential Amendments) Bill will make changes to a range of Commonwealth Acts, primarily to incorporate references to emissions reduction targets and the Paris Agreement in legislation governing a range of Commonwealth agencies and schemes. Consequential amendments to the *Science and Industry Research Act 1949* will expand the functions of CSIRO to include research related to Australia's obligations under the Paris Agreement.

This legislation also requires the Climate Change Authority to advise the Minister for Climate Change on an annual progress statement. It requires the Authority to advise the Minister on emissions reduction targets arising from new or adjusted nationally determined contributions under the Paris Agreement. The Department will continue to support this work.

Emissions Reduction Activities by the Department and related entities

The Department and its portfolio agencies are supporting industry and their emissions reduction efforts through multiple programs and activities.

Department

The Department is working across Government to develop industry programs that can support new and existing industries to grow, modernise, and tackle emissions reduction. This includes new commitments such as the National Reconstruction Fund, and the National Battery Strategy. We have longstanding policy relationships with heavy industries, manufacturing sectors and Australia's resources industries.

- To support a new and emerging offshore Carbon Capture and Storage industry and emissions reduction policy, the Department also oversees release of offshore greenhouse gas storage sites to facilitate and support new offshore CCS projects in the future.
- Through the Critical Minerals Office, the Department supports the growth of Australia's critical minerals sector and building the national science and technological capabilities needed to seize clean energy and downstream supply-chain opportunities.

ANSTO

The Australian Nuclear Science and Technology Organisation's (ANSTO) unique nuclear and isotopic capabilities are being applied to targeted research to understand past climate variability to put modern trends into context and help improve the accuracy of future predictions. This information can build Australia's capacity to respond to changes in climate and the environment.

Techniques used to reconstruct climate (including concentrations of greenhouse gases) are based on the measurements of naturally occurring radionuclides, isotopic, geochemical and biological indicators. ANSTO has developed a technology that measures the concentration of carbon in the atmosphere and determines its source – the multi-wavelength absorption black carbon instrument – which is now [commercially available](#).⁷

Australian Building Codes Board

The Australian Building Codes Board (ABCB) develops and maintains the National Construction Code (NCC); one of its key objectives is to work with all Australian governments, industry and community stakeholders to ensure an NCC that delivers net societal benefit, is responsive and keeps pace with emerging challenges. This includes supporting an efficient regulatory environment that aims to achieve new modern homes, apartments and commercial buildings that are based on sustainable designs, have improved energy efficiency and can safely accommodate on site renewables and other technologies such as EV charging.

The ABCB's work supports the Australian Government's commitment to reduce greenhouse gases by 43% by 2030 and achieve net zero emissions by 2050, as well as aligns with other key policy areas such as the environment, energy and cost of living.

CSIRO

CSIRO is working to help Australians reduce emissions. CSIRO focusses on science and technology to quantify, reduce and capture emissions from our energy, agriculture and lifestyle industries. CSIRO's Towards Net Zero Mission is finding profitable pathways to reduce emissions and develop transition pathways to embed low-emission technology into Australian industry and agriculture. Examples of CSIRO innovations to reduce carbon include:

- A livestock seaweed supplement (FutureFeed) to reduce greenhouse gas emissions⁸
- A simple and cost-effective solution to capture and recycle carbon dioxide from the air for use in a wide range of applications⁹
- Technology to create electricity from an otherwise explosive waste product (methane released from coal mining).¹⁰

Geoscience Australia

Geoscience Australia is also undertaking significant work to support Australia's transition to net zero. This includes bolstering Australia's developing hydrogen industry, investigating green steel potential and turbocharging the essential hunt for vital critical minerals.

Geoscience Australia's work will help to identify suitable sites for underground carbon injection and storage, and cost-effective large-scale storage of hydrogen in underground salt caverns. The agency is also undertaking new economic modelling that highlights the opportunities Australia has for low-emissions exports – including green-steel made using renewable energy. And the Exploring for the Future program is identifying critical mineral endowments and attracting new investment to Australia – unlocking new potential that supports the manufacture of clean energy through solar, wind and batteries.

⁷ <https://www.ansto.gov.au/mabi-multi-wavelength-absorption-black-carbon-instrument>

⁸ <https://www.future-feed.com/>

⁹ <https://www.csiro.au/en/research/natural-environment/atmosphere/Capture>

¹⁰ <https://www.csiro.au/en/work-with-us/industries/mining-resources/Mining/Fugitive-emissions-abatement>

NOPSEMA

The National Offshore Petroleum Safety and Environmental Management Authority's (NOPSEMA) environmental assessment process has been assessed and endorsed under the Environmental Protection and Biodiversity Conservation Act 1999 and it considers emissions when assessing environmental approvals.

The industries that NOPSEMA regulates are also contributing to action on climate change – almost every offshore oil and gas operator has a net zero ambition, as well as a credible pathway to reach it. NOPSEMA is also responsible for regulating offshore renewable electricity projects, like wind turbines, and greenhouse gas storage activities. Investment in these projects will be important for Australia's clean energy future.